

OECD
OUTLOOKS

OECD Economic Outlook

ECONOMICS



OECD 

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OECD ECONOMIC OUTLOOK

67

JUNE 2000



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- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
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FOREWORD

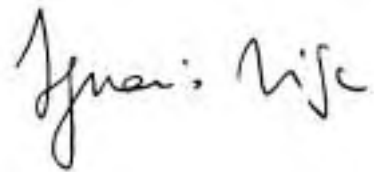
This edition of the *OECD Economic Outlook* analyses prospective economic developments in OECD countries over the next two years and provides recommendations on the economic policies needed to ensure sustained economic growth. In addition, this volume presents alternative scenarios illustrating the potential risks associated with simultaneous high rates of growth in the main OECD regions. It also looks in some detail at uncertainties related to developments in commodity and financial markets as well as to the impact information and communication technologies may have on the productive potential of OECD economies.

The detailed country notes provide an assessment of the economic situation and the outlook for each Member country and certain non-member countries. The projections on which the policy assessments presented in this edition are based were finalised on 19 May 2000 and published in a preliminary edition at the end of May.

Beyond these issues a number of other themes are dealt with in more depth in five special chapters:

- *Regulatory Reform in Network Industries: Past Experience and Current Issues.* This chapter reviews trends and outcomes in the regulatory reform of network industries and discusses related main policy issues. It focuses on the importance of moving from command-and-control to incentive-based regulatory approaches based on the removal of entry barriers in competitive markets, the adoption of price-cap mechanisms and the design of efficient and competitively-neutral charges for accessing the fixed networks of incumbents. The pros and cons of structural measures such as privatisation and vertical and horizontal separation of formerly integrated monopolies are also discussed. Ways to ensure that important non-economic objectives, such as universality of service, continue to be achieved in a more competitive environment at a minimum cost for society are spelled out. The chapter ends with a discussion on the design of regulatory mechanisms and institutions that encourage best practice regulation.
- *Recent Growth Trends in OECD Countries.* This chapter reviews recent growth trends in OECD countries and relates them to traditional growth determinants and new forces stemming from information and communication technology (ICT). The review indicates wide disparities in growth performance across countries, largely related to growing differences in labour utilisation. In some countries, particularly the United States, faster output and productivity growth rates have also been driven by the spread of ICT, both directly *via* productivity increases in the ICT-producing industry, and indirectly *via* higher output growth in industries making greater use of ICT equipment.
- *E-Commerce: Impacts and Policy Challenges.* This chapter assesses the potential outcomes and economic impacts of e-commerce, the forces underlying its expansion and the possible implications for structural and macroeconomic policy management. While the size of e-commerce is still small, its potential to gain a significant share of consumer and business purchases appears to be large, although it is difficult to quantify. The chapter identifies the diffusion of Internet access devices and their usage costs as key forces driving the scope for e-commerce development. Even if gradually, e-commerce is changing the way buyers and sellers come together and is creating new opportunities for the reorganisation of economic processes. These changes will have consequences for structural and macroeconomic policies and the chapter provides a preliminary discussion of some of the possible impacts.
- *Recent Labour-Market Performance and Structural Reforms.* This chapter reviews recent developments in labour markets in OECD countries and surveys structural reforms that have influenced them. Conditions in labour markets of most Member countries have been rather favourable in recent years. The overall unemployment rate has come down and the proportion of the population of working age in employment has increased. Long-term unemployed, young people, and to a lesser extent low-skilled and less educated people have benefited from this general trend. The improving macroeconomic environment has been a major factor behind better labour market performance, but structural reforms that have been implemented over the past decade have also made an important contribution.

- *Monetary Policy in a Changing Financial Environment.* This chapter discusses the various channels through which monetary policy affects activity, and ultimately inflation. The most important of these is generally considered to be the effect of interest rates directly on the demand for goods by households and firms. Other channels include changes in asset values and their implications for wealth and balance sheets. Recent financial market developments may have made these latter channels more important. In particular, the size of financial markets has risen relative to output and readily tradable assets are becoming increasingly important relative to other assets. Prices of such assets tend to be sensitive to shifts in market expectations about the future course of general economic developments and in particular interest rates. Arguments both for and against a gradualist approach to monetary policy – a strategy whereby policy rates are moved in small steps – are then discussed.

A handwritten signature in black ink, reading "Ignazio Visco". The signature is written in a cursive, flowing style.

Ignazio Visco

Head of the Economics Department

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Conventional signs

| | | | |
|-----|--------------------------|----------|-------------------------------------|
| \$ | US dollar | . | Decimal point |
| ¥ | Japanese yen | I, II | Calendar half-years |
| £ | Pound sterling | Q1, Q4 | Calendar quarters |
| mbd | Millions barrels per day | Billion | Thousand million |
| .. | Data not available | Trillion | Thousand billion |
| 0 | Nil or negligible | s.a.a.r. | Seasonally adjusted at annual rates |
| – | Irrelevant | n.s.a. | Not seasonally adjusted |

Summary of projections^a

Seasonally adjusted at annual rates

| | 1999 | 2000 | 2001 | 1999 | | 2000 | | 2001 | |
|--------------------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | I | II | I | II | I | II |
| <i>Percentage changes from previous period</i> | | | | | | | | | |
| Real total domestic demand | | | | | | | | | |
| United States | 5.1 | 5.4 | 3.1 | 5.0 | 5.7 | 6.3 | 3.6 | 3.0 | 2.7 |
| Japan | 0.6 | 1.4 | 2.1 | 4.4 | -2.7 | 2.7 | 3.0 | 2.0 | 1.4 |
| Euro area | 2.8 | 2.7 | 2.9 | 3.0 | 2.2 | 2.9 | 3.0 | 2.9 | 2.8 |
| European Union | 2.9 | 2.9 | 2.9 | 3.2 | 2.3 | 3.0 | 3.0 | 2.9 | 2.9 |
| Total OECD | 3.7 | 4.0 | 3.1 | 4.5 | 3.6 | 4.5 | 3.5 | 3.1 | 2.8 |
| Real GDP | | | | | | | | | |
| United States | 4.2 | 4.9 | 3.0 | 3.8 | 5.1 | 5.6 | 3.5 | 2.9 | 2.7 |
| Japan | 0.3 | 1.7 | 2.2 | 3.4 | -2.5 | 3.1 | 3.0 | 2.2 | 1.6 |
| Euro area | 2.3 | 3.5 | 3.3 | 2.2 | 3.2 | 3.6 | 3.6 | 3.3 | 3.1 |
| European Union | 2.3 | 3.4 | 3.1 | 2.1 | 3.3 | 3.5 | 3.4 | 3.1 | 3.0 |
| Total OECD | 3.0 | 4.0 | 3.1 | 3.3 | 3.5 | 4.4 | 3.5 | 3.1 | 2.9 |
| <i>Per cent</i> | | | | | | | | | |
| Inflation^b | | | | | | | | | |
| United States | 1.5 | 2.1 | 2.3 | 1.6 | 1.4 | 2.4 | 2.2 | 2.3 | 2.3 |
| Japan | -0.9 | -0.8 | -0.1 | -0.4 | -1.8 | -0.5 | -0.1 | 0.1 | -0.4 |
| Euro area | 1.2 | 1.5 | 1.9 | 1.2 | 0.9 | 1.6 | 1.8 | 2.0 | 2.0 |
| European Union | 1.5 | 1.8 | 2.2 | 1.5 | 1.3 | 1.8 | 2.0 | 2.2 | 2.2 |
| Total OECD <i>less</i> high inflation countries ^c | 1.1 | 1.6 | 1.9 | 1.2 | 0.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Total OECD | 2.5 | 2.8 | 2.5 | 2.6 | 2.4 | 3.1 | 2.7 | 2.5 | 2.3 |
| <i>Per cent of labour force</i> | | | | | | | | | |
| Unemployment | | | | | | | | | |
| United States | 4.2 | 4.0 | 4.2 | 4.3 | 4.2 | 4.0 | 3.9 | 4.1 | 4.3 |
| Japan | 4.7 | 4.8 | 4.8 | 4.7 | 4.7 | 4.8 | 4.8 | 4.8 | 4.8 |
| Euro area | 10.1 | 9.2 | 8.5 | 10.2 | 9.9 | 9.4 | 9.0 | 8.7 | 8.3 |
| European Union | 9.2 | 8.5 | 7.9 | 9.3 | 9.1 | 8.7 | 8.3 | 8.0 | 7.7 |
| Total OECD | 6.6 | 6.3 | 6.1 | 6.7 | 6.6 | 6.3 | 6.2 | 6.1 | 6.1 |
| <i>Per cent of GDP</i> | | | | | | | | | |
| Current account balances | | | | | | | | | |
| United States | -3.7 | -4.5 | -4.4 | -3.3 | -4.0 | -4.5 | -4.4 | -4.4 | -4.4 |
| Japan | 2.5 | 2.6 | 2.9 | 2.6 | 2.3 | 2.5 | 2.6 | 2.8 | 3.0 |
| Euro area | 0.6 | 0.7 | 1.2 | 1.0 | 0.3 | 0.7 | 0.8 | 1.1 | 1.3 |
| European Union | 0.3 | 0.3 | 0.6 | 0.5 | 0.1 | 0.3 | 0.4 | 0.5 | 0.6 |
| Total OECD | -0.8 | -1.2 | -1.0 | -0.6 | -1.1 | -1.2 | -1.2 | -1.1 | -1.0 |
| <i>Per cent</i> | | | | | | | | | |
| Short-term interest rates^d | | | | | | | | | |
| United States | 5.4 | 6.8 | 7.3 | 5.0 | 5.8 | 6.3 | 7.3 | 7.4 | 7.3 |
| Japan | 0.2 | 0.3 | 0.7 | 0.3 | 0.2 | 0.2 | 0.4 | 0.5 | 0.9 |
| Euro area | 3.0 | 4.3 | 5.1 | 2.8 | 3.1 | 3.9 | 4.6 | 4.9 | 5.2 |
| <i>Percentage changes from previous period</i> | | | | | | | | | |
| World trade^e | 5.7 | 10.4 | 8.3 | 4.3 | 12.4 | 10.1 | 9.0 | 8.2 | 7.7 |

a) Assumptions underlying the projections include:

- no change in actual and announced fiscal policies;
- unchanged exchange rates from 10 May 2000; in particular \$1 = ¥ 109.35 and 1.10 euro;
- the cut-off date for other information used in the compilation of the projections was 19 May 2000.

b) GDP deflator, percentage changes from previous period.

c) High inflation countries are defined as countries which have had, on average, 10 per cent or more inflation in terms of the GDP deflator during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

d) United States: 3-month eurodollars; Japan: 3-month CDs; euro area: 3-month interbank rates. See box on Policy and other assumptions underlying the projections.

e) Growth rate of the arithmetic average of world import volumes and world export volumes.

Source: OECD.

EDITORIAL

World economic prospects are brighter than they have been for some time. OECD-wide output growth for this year is projected at 4 per cent, the fastest pace in more than a decade, before slowing to 3 per cent in 2001. A tightening of monetary policy is expected to keep inflation low nearly everywhere, although a modest upward drift will be apparent in many countries. Area-wide unemployment should decline by more than 2 million between 1999 and 2001 – mainly in the euro area – falling to 6 per cent of the OECD labour force. With the strong and widespread rebound of economic activity outside the OECD, world output may rise by some 4 per cent this year and next.

World economic prospects are bright...

While a welcome trend, favourable economic prospects in all the major regions of the world, with the one exception of Japan, entail a number of upside risks to the global outlook. International linkages could reinforce already strong expansions beyond what is embodied in the OECD's central projections. In particular, international trade may no longer be playing the role of redistributing demand across countries, but may rather be helping to transmit overall domestic demand growth and rising inflationary pressures in individual countries. Moreover, coincident surges in growth across countries could also underpin a further rise in world oil and some non-oil commodity prices, which have registered steep rises since mid-1999, with the concomitant risk of a spillover into “core” inflation and inflation expectations.

... and there are upside risks...

In this context, developments in financial markets have not until recently been acting as a stabilising force to restrain demand growth in countries where there are risks of overheating, or in supporting activity where output gaps remain significant. In particular:

... notably in financial markets...

- The improvement in the global economic situation may in fact continue to fuel the optimism that has affected equity markets over the past year, despite some recent correction. This optimism has to a large extent reflected confidence in the emergence of a “new economy”, with favourable assessments concerning possible or anticipated positive shifts in the output potential of OECD economies. The short-term risk, however, is that wealth effects as a result of earlier sharp rises in equity prices help to fuel increases in demand that outstrip those in supply and lead to rising inflation.
- The run-up in government bond yields since mid-1999 in most countries has so far probably only had a limited effect in restraining demand growth. In real terms, long-term interest rates are either at, or still below, their averages of the past decade.
- The dollar has remained broadly stable in real effective terms since early 1999, and thus has not contributed to curbing total demand for US output, while the yen appreciation over the same period may start affecting a recovery that has just begun in Japan. The real effective depreciation of the euro has been an important factor behind the pick-up in activity in the euro area but, with the output gap closing, a continuation of this trend would become increasingly unhelpful.

... that monetary authorities should not underestimate

Overall, the emergence of simultaneous rapid growth in many OECD countries and the absence of marked stabilising forces in global financial markets imply that, if monetary authorities underestimate the global strength of demand and are slow to respond to future potential spillover effects on prices, the result could be a stronger subsequent reaction of monetary policy and a substantially more pronounced cycle than envisaged in the OECD projections. This could generate a disorderly correction in equity markets and, given projected large external imbalances, a loss of confidence in the dollar.

In the United States, the strength of domestic demand is unsustainable, calling for a further tightening of monetary policy...

The United States economy has now recorded its longest upswing this century and it continues to be spurred by strong consumer demand, business capital formation and, increasingly, exports as the global recovery gains momentum. However, the recent strength of domestic demand is not sustainable and inflationary pressures are now becoming apparent, while the current account deficit has risen sharply, to above 4 per cent of GDP. The challenge for the authorities is to achieve an orderly reduction in demand growth to prevent overheating and avoid the need for a much sharper subsequent tightening of policy. The task facing the monetary authorities has been made more difficult, however, by the strength of financial markets and is complicated by the uncertainty about the extent to which new technology and structural change have raised the economy's non-inflationary potential. Notwithstanding significant improvements in trend productivity, the monetary tightening that has already taken place is unlikely to restrain demand growth sufficiently. Hence a further tightening of monetary policy is called for and federal funds rates may have to rise to above 7 per cent by next August to ensure a soft landing.

... and fiscal policy should not be relaxed

The required monetary tightening also depends on the future stance of fiscal policy. In this regard and in contrast to the recent past, the fiscal stance is, on announced plans, not projected to significantly restrain demand over the next two years. In an economy facing excess demand, fiscal policy should guard against any further acceleration in the pace of federal discretionary spending trends as well as excessive tax cuts. And over the longer run, preparation for an ageing population will require fiscal outcomes that do not compromise the planned repayment of public debt.

In the euro area, monetary policy should move towards a more neutral stance...

In the euro area, growth and employment prospects in the near term are better than at any time since the late 1980s. The critical issue is how long the expansion can last without running into inflationary bottlenecks. OECD projections suggest that spare capacity may already be exhausted in the course of the current year and that a small positive output gap is likely in 2001. This could herald inflationary tensions beyond the short-term projection horizon. It will be appropriate for the European Central Bank (ECB) to continue shifting monetary policy towards a neutral stance, raising interest rates gradually while taking into account the possibility that favourable and lasting supply-side improvements are occurring. However, should core and expected inflation threaten to be inconsistent with the ECB's medium-term objective of price stability, policy-controlled interest rates will need to be increased earlier than envisaged in the projections.

... and any major easing in fiscal policy would be inappropriate at this stage of the cycle

Improved cyclical conditions have generated unexpectedly strong budgetary revenue growth in a number of countries. Some have already announced plans to use the revenue gains to reduce tax burdens and increase government spending. To the extent that tax reductions are part of long needed tax reforms to boost the economies' supply potential, they are welcome. However, given the conjuncture, with limited spare capacity, any major easing of fiscal policy would not be appropriate. Hence in most countries tax reductions should be accompanied by parallel cuts in spending

and unanticipated higher revenues used to lower debt. Propitious economic conditions also provide a window of opportunity to implement and/or accelerate comprehensive structural reforms in product and labour markets. Further substantial progress on structural reforms would assist economies adjust to, and benefit from, the full potential offered by new technologies.

Despite difficulties in interpreting economic data for the second half of 1999, the recovery now appears to be in place in Japan, led by exports and business fixed investment, and deflationary risks are easing. But trend growth in private consumption remains sluggish and, with the pursuit of corporate restructuring, uncertainty lingers as to how solidly-based the recovery is. In this environment, policy should aim to sustain the recovery in the short run without excessively compromising the longer-term health of the economy. Specifically, it remains necessary for the Bank of Japan to maintain an easy monetary policy stance. As the economic recovery strengthens and deflation risks dissipate, this may entail a gradual and small increase in interest rates.

On the fiscal front, the outlook does not permit significant consolidation to be implemented over the next year or so. However, there would seem to be no need for additional emergency supplementary budgets to support the recovery. While strong deficit reduction may not be appropriate in the short run, it is necessary to start preparing for major consolidation measures in the medium term. In this regard, the establishment of a medium-term fiscal plan could provide the Japanese authorities with an important tool to consolidate the budget in an orderly and credible way. At the same time, it is important to continue to make the economy more dynamic through the speedy implementation of structural reforms in product and labour markets and to pursue the restructuring in the corporate sector and in some areas of the financial sector.

A striking feature of the past decade or so has been the increased role of new technologies, especially in the information and communication industries (ICT). Investment in ICT equipment is becoming a major driver of labour productivity growth, particularly in the United States and some other countries, and new technologies have the capacity to increase countries' potential output significantly, especially if associated with reorganisations of firms, industries and markets. At this stage, however, perhaps also reflecting measurement problems, there still appears to be little empirical evidence of important economy-wide effects linked to the widespread diffusion of these technologies. On the other hand, microeconomic and anecdotal evidence does indicate that businesses are achieving substantial productivity improvements arising from organisational changes.

These developments have implications for macroeconomic and structural policies and their interactions. Reaping the full benefits of ICT in the longer run will thus require a broad approach to policy. It is important, for instance, that education and labour market policies expand investment in human capital and encourage the swift reallocation of labour to the changing needs of the economy, and that financial markets allocate saving to high return activities. Countries also need to promote frameworks that are conducive to entrepreneurship and to open and competitive markets that strengthen the diffusion of innovation. Fostering such policies should ensure that the opportunities offered by new technologies are not missed or unnecessarily delayed and should allow the current period of stronger growth to be sustained.

In Japan, it remains necessary to maintain an easy macroeconomic policy stance in the short term...

... but there is a need to start preparing for fiscal consolidation in the medium term

Information and communication technologies have the potential to promote stronger non-inflationary growth

... but a broad approach to policy is required to harness the opportunities offered by ICT

26 May 2000

I. GENERAL ASSESSMENT OF THE MACROECONOMIC SITUATION

The global economic situation and the outlook for the OECD area

The world economy continues to rebound strongly from the 1997-98 slowdown associated with the crisis in emerging market economies and is developing more favourably than it has for more than a decade. Nearly all OECD countries are enjoying growth above potential rates and falling unemployment, while inflation, abstracting from the effect of rising oil prices, remains low. Even in the major exception to this general picture, Japan, a recovery appears to be under way. Growth in the OECD area now appears likely to rise from 3 per cent last year to 4 per cent in 2000 (Table I.1) – the fastest pace since 1988 – before slowing again to 3 per cent in 2001. By 2001 spare capacity, as measured by OECD estimates of output gaps, may have disappeared in the large majority of countries and will be declining in the main exceptions, Japan and Italy. A modest but widespread upward drift in inflation will be apparent but, reflecting tighter monetary conditions, the rate of price increase should remain low. Outside the OECD area, many emerging market economies should see rapid growth in 2000 and 2001, following strong post-crisis recoveries in 1999, and growth of world output could average some 4 per cent over the two years.

The world economy continues to gather strength...

Rapid growth at rates above potential are emerging in a major part of the global economy, which points to a risk that international linkages could reinforce already strong expansions. Indeed, following a steep acceleration during 1999 (from less than 5 per cent at an annual rate in the first half to more than 12 per cent in the second half), the projection implies world trade growth continuing at a rate of about 10 per cent in 2000 and moderating slightly to around 8 per cent in 2001 (Table I.2).

... as rapid expansions in demand and output become widespread

Table I.1. **Output growth projections**

Percentage increase in real GDP over previous period

| | 1999 | 2000 | 2001 |
|----------------------------|------|------|------|
| United States | 4.2 | 4.9 | 3.0 |
| Japan | 0.3 | 1.7 | 2.2 |
| Euro area | 2.3 | 3.5 | 3.3 |
| European Union | 2.3 | 3.4 | 3.1 |
| OECD | 3.0 | 4.0 | 3.1 |
| <i>Memorandum items:</i> | | | |
| Non-OECD area ^a | 3.5 | 4.8 | 4.8 |
| World ^d | 3.1 | 4.3 | 3.8 |

^a The outlook for regions for which the OECD area does not make projections is based on IMF and World Bank assessments, using weights based on purchasing power parities.

Source: OECD.

Table I.2. World trade summary

Percentage changes from previous period

| | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------------|------|------|------|------|
| Merchandise trade volume | | | | |
| World trade ^a | 5.4 | 5.7 | 10.4 | 8.3 |
| of which: Manufactures | 6.3 | 6.2 | 11.1 | 8.7 |
| OECD exports | 5.7 | 4.7 | 10.4 | 8.4 |
| OECD imports | 7.9 | 8.0 | 10.3 | 8.0 |
| Non-OECD exports | 4.1 | 6.6 | 10.4 | 7.9 |
| Non-OECD imports | -0.7 | 0.8 | 10.8 | 9.2 |
| <i>Memorandum items:</i> | | | | |
| Intra-OECD trade ^b | 8.3 | 6.6 | 10.3 | 8.2 |
| OECD exports to non-OECD ^b | -1.2 | 3.0 | 11.0 | 8.9 |
| OECD imports from non-OECD ^b | 3.8 | 7.3 | 9.9 | 7.5 |
| Trade prices | | | | |
| OECD exports ^c | -0.1 | -1.9 | 3.7 | 1.7 |
| OECD imports ^c | -1.6 | -1.6 | 5.5 | 1.5 |
| OECD terms of trade with rest of the world ^d | 3.8 | -1.0 | -5.2 | 0.6 |

a) Growth rates of the arithmetic average of world import volumes and world export volumes.

b) Arithmetic average of the intra-OECD import and export volumes implied by the total OECD trade volumes and the estimated trade flows between the OECD and the non-OECD areas based on the 1994 structure of trade values.

c) Average unit values in local currency.

d) The OECD terms of trade is calculated as the ratio of OECD export to OECD import prices, excluding intra-OECD trade.

Source: OECD.

This is taking place in an environment in which confidence levels generally appear to be high or rising (Figure I.1). In particular, optimism about the future of new technology and prospects for productivity have led financial markets to accommodate asset valuations that have often been out of line with historical precedents. Such circumstances, when nearly all the economic news is good, invite excess and recall the global boom periods of the early and late 1970s and the late 1980s, each of which ended with rising inflation, financial imbalances and, eventually, widespread recession. This poses a challenge to ensure that optimism is tempered by realism and that the global expansion is held in check on a sustainable, non-inflationary path.

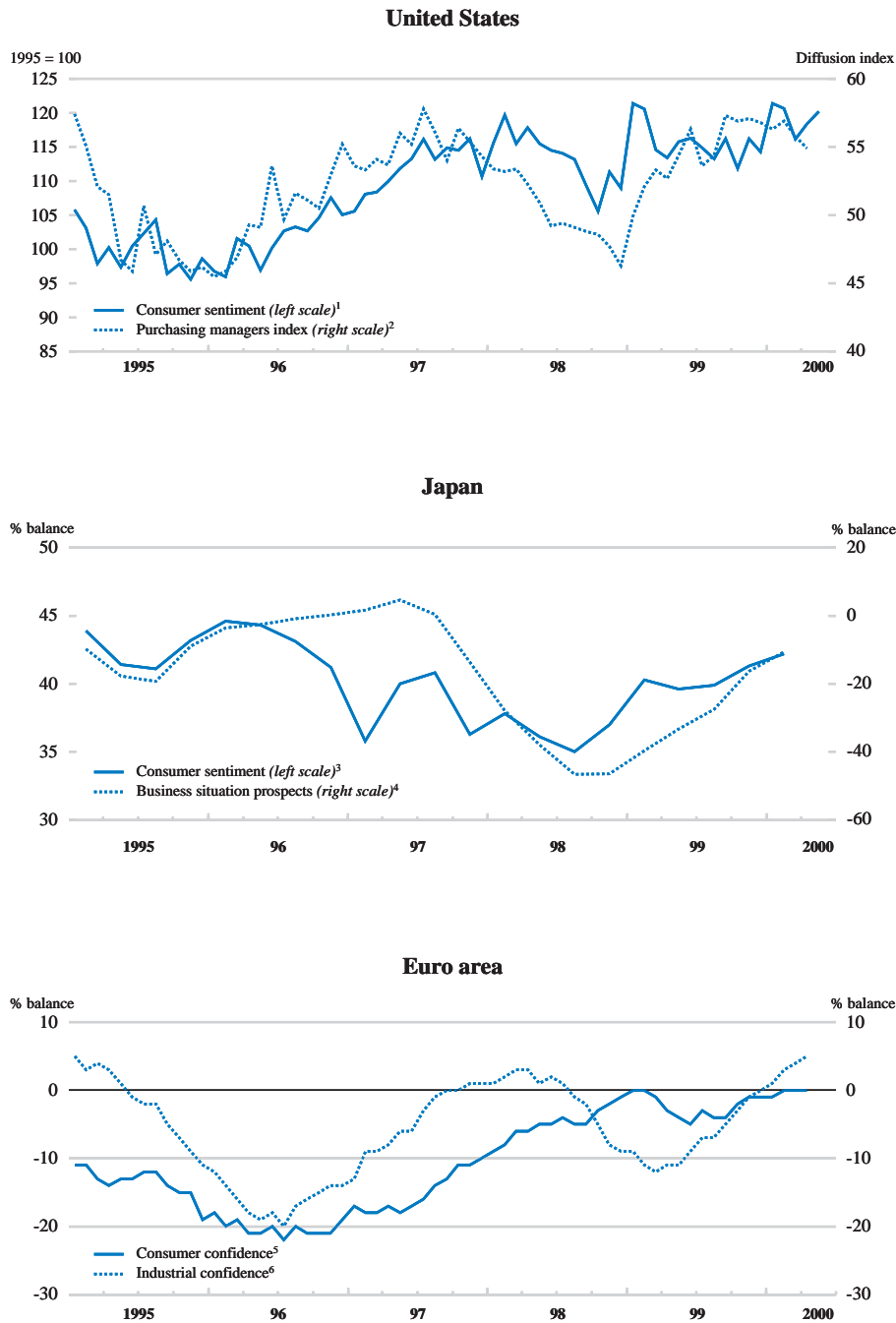
Government budget positions are improving...

A positive feature of the current situation is that strong growth during 1999 in many OECD economies has led to continued improvements in government budget and debt positions. The favourable effects of higher economic activity on public sector spending and revenues are set to continue, and, as a result, the general government financial deficit for the OECD area as a whole is projected to decline somewhat relative to GDP from 1999 to 2001 (Table I.3). The benefits of fiscal consolidation efforts during the 1990s are becoming increasingly visible in the general government accounts, as 14 countries, including the United States, the United Kingdom and Canada, are set to be in balance or surplus throughout the projection period. The European Union (EU) as a whole will be close to balance. As a result, government net debt has now been put on a downward trend in most of the OECD area (Figure I.2). Japan is the most important exception to this general picture.

... but fiscal policies risk becoming pro-cyclical...

Nevertheless, since last year there has been a pause in the fiscal consolidation process. Underlying (cyclically adjusted or “structural”) balances are on average expected to stabilise and abstracting from falling debt interest payments, *i.e.* as measured by movements in the cyclically adjusted primary balance, the stance of fiscal

Figure I.1. Confidence indicators



1. 100 plus the balance of positive minus negative opinions.
 2. A weighted average of five components: new orders (30%), production (25%), employment (20%), suppliers' deliveries (15%) and inventories (10%).
 3. Average of five indicators concerning the household's standard of living, income growth, commodity price increases, employment environment and optimal time for durable goods purchases.
 4. Balance of positive over negative replies expressed as a percentage of total replies to questions concerning the business situation, stocks of finished goods and capacity utilisation.
 5. Average of balance of positive and negative opinions on expected financial situation, expected general economic situation and advantage to make major purchases at present.
 6. Average of balance of opinions on production expectations, order-books and stocks.
- Source: OECD.

Table I.3. General government financial balances^a

Per cent of GDP/Potential GDP

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------|------|------|------|------|------|
| United States | | | | | |
| Actual balance | -0.9 | 0.4 | 1.0 | 1.6 | 1.7 |
| Structural balance | -1.1 | 0.1 | 0.5 | 0.9 | 1.1 |
| Primary structural balance | 2.3 | 3.3 | 3.4 | 3.5 | 3.5 |
| Japan | | | | | |
| Actual balance | -3.3 | -5.0 | -7.0 | -6.7 | -6.3 |
| Structural balance | -3.6 | -4.2 | -6.0 | -5.8 | -5.7 |
| Primary structural balance | -2.6 | -3.1 | -4.7 | -4.4 | -4.3 |
| Euro area^c | | | | | |
| Actual balance | -2.6 | -2.0 | -1.2 | -1.0 | -0.9 |
| Structural balance | -1.8 | -1.5 | -0.7 | -0.9 | -1.3 |
| Primary structural balance | 2.7 | 2.7 | 3.1 | 2.7 | 2.2 |
| European Union^c | | | | | |
| Actual balance | -2.5 | -1.6 | -0.8 | -0.5 | -0.5 |
| Structural balance | -1.9 | -1.3 | -0.4 | -0.6 | -0.9 |
| Primary structural balance | 2.4 | 2.8 | 3.3 | 2.9 | 2.5 |
| OECD^c | | | | | |
| Actual balance | -1.7 | -1.2 | -0.8 | -0.4 | -0.3 |
| Structural balance | -1.7 | -1.0 | -0.7 | -0.7 | -0.7 |
| Primary structural balance | 1.7 | 2.1 | 2.2 | 2.0 | 1.9 |

a) Actual balances are as a per cent of nominal GDP and structural balances are as a per cent of potential GDP.

b) Excludes the budgetary impact of the debt take-over of Japan National Railways Settlement Corporation and National

c) Forest Special Account (5.4 percentage points of GDP).

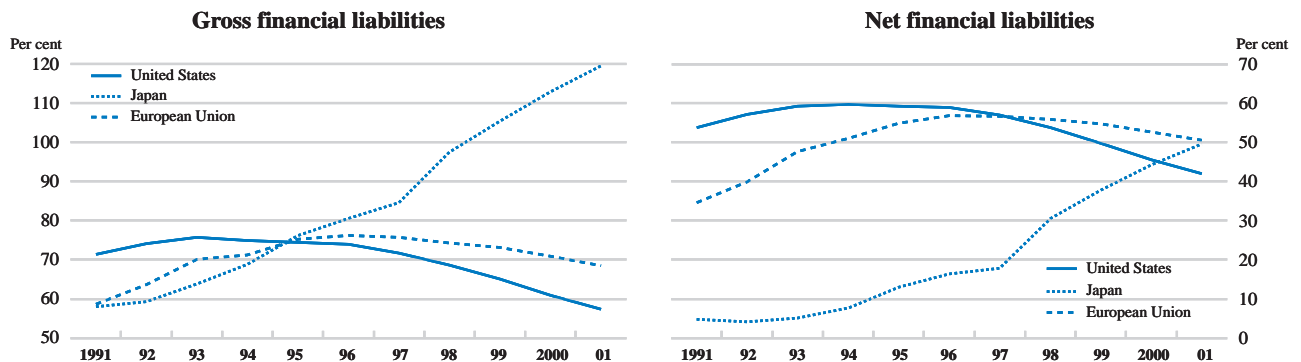
d) Euro area and European Union figures exclude Luxembourg. Total OECD figures for the actual balance exclude, in addition, Mexico, Switzerland and Turkey and those for the structural balance further exclude the Czech Republic, Hungary, Iceland, Korea and Poland.

Source: OECD.

policy is set to become somewhat expansionary in the European Union (Table I.3). Furthermore, in some countries, a number of suggestions and proposals for tax cuts and additional spending have not advanced enough to be reflected in the projections. However, they imply a risk that fiscal policy could become an important pro-cyclical force operating on the global economy.

Figure I.2. Trends in government indebtedness

Per cent of GDP



Source: OECD.

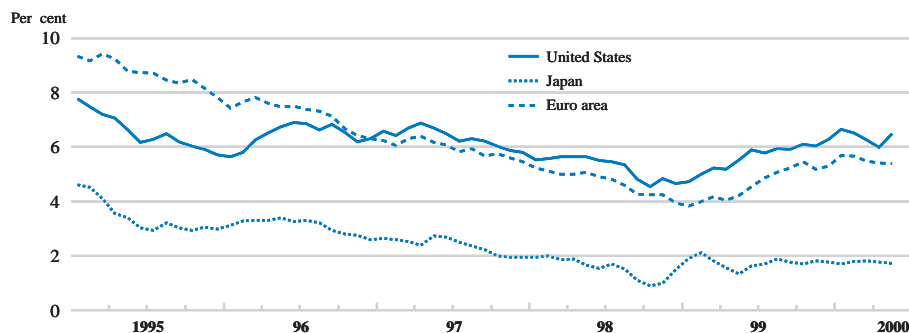
... and some commodity and asset market developments may be signs of excess

Although there is little evidence of rising underlying inflation area-wide, a number of developments that could be taken as danger signals continued into the early part of 2000. Oil prices have risen since last October, when *OECD Economic Outlook 66* projections were finalised and, although they softened somewhat after OPEC raised production targets, they are now approaching \$30 per barrel.¹ Prices of some key industrial raw materials, notably metals, have also risen strongly. Moreover, many asset prices have increased markedly during this period. Well into March equity markets continued to rise in many countries, especially in the euro area, driven mainly by volatile technology stocks which remain richly valued even after the sharp correction in April and May. Finally, there is patchy evidence, much of it anecdotal, of property markets becoming overheated in some areas. In particular, quite strong regional or metropolitan area price increases have continued or are increasingly being reported in a number of OECD countries (including, in Europe, France, United Kingdom, Denmark, Finland, Ireland, Netherlands, Spain and Sweden, and elsewhere, parts of the United States, Canada and Australia).

Except in Japan, monetary policies have continued to tighten moderately

Against this background, and with the exception of Japan, monetary tightening has continued and long-term interest rates increased until the early part of this year (Figure I.3). Government bond yields declined subsequently in many countries, influenced in some cases by reduced issuance as budget positions improve and, in the United States, the Treasury's \$30 billion bond buy-back programme. Much of this decline has been reversed recently following the release in April of data suggesting that some inflationary pressures may be emerging in the United States and that further rises in policy rates are increasingly likely in both the United States and the euro area. In foreign exchange markets, the major development since late October (when exchange rate assumptions for *OECD Economic Outlook 66* were made) has been the weakening of the euro against all other major currencies. By early May, when exchange rate assumptions that underlie the projections were made, its depreciation amounted to almost 10 per cent on an effective basis. The US dollar appreciated by 2½ per cent while the other major currencies strengthened only very slightly in effective terms during this period.

Figure I.3. Long-term government bond yields¹



1. 10-year government bonds. Data for May 2000 refer to 19 May.
Source: OECD.

1. As discussed below, oil prices are expected to decline gradually over the projection period.

Monetary policy is assumed to ensure that expansions remain non-inflationary

Considerable uncertainty surrounds prospects for commodity and financial markets and their implications for the world economy. Furthermore, structural change, notably associated with increasing production and diffusion of information technology, has led to upward revisions of estimates of potential growth in the United States and speculation about its possible impact elsewhere. All of these, which are examined in Part II below, have implications for monetary policies. The central projections are based on the assumptions (see Box I.1) that, notwithstanding these uncertainties, monetary authorities succeed in responding to strengthening economic performance in a timely way that allows expansions to proceed at a sustainable, non-inflationary pace, *i.e.* that “hard landing” scenarios are avoided. The principal assumptions are:

- Monetary policies will be tightened nearly everywhere, earlier in the United States and Canada than in the euro area. In Japan, it is assumed that the zero interest rate policy will not be maintained beyond 2000, although money market rates will remain very low.
- Long-term bond markets should have substantially discounted further policy tightening moves. This implies relatively modest increases in long-term interest rates, resulting in a flattening or some inversion of yield curves in many countries.
- Equity prices in the United States are assumed to be broadly unchanged from their level of 23 May, following the 15 per cent drop from their peak in March.
- Oil prices are expected to remain firm during the coming few months, but to soften gradually thereafter with some increase in OPEC production targets or slippage in adherence to targets and a less vigorous rise in world oil demand over the rest of the projection period. While the increases in prices in selected non-oil commodities may remain strong in the near term, more sustainable growth of economic activity may serve to damp the pace of price rises later in the projection period.

Growth in the United States is set to slow...

In the United States, the longest period of expansion on record continues to be spurred by the strength of consumer demand, business capital formation and, increasingly, exports. Although recent wealth accumulation continues to provide significant stimulus to consumption, higher interest rates and the stock market correction that has already taken place will eventually slow private spending and reduce growth to 3 per cent by next year – more than ½ percentage point lower than the estimated trend growth. But the level of output will remain significantly above its potential. Pulled along by the momentum of the US economy, economic activity in Canada should also expand quite strongly in 2000 before slowing in 2001.

... while activity in Europe is broadening and strengthening...

In the euro area, growth of output will continue above that of potential and the output gap is projected to close, helped by the lagged effects of monetary ease over the past two years or so and the absence of further fiscal consolidation. The expansion appears to have become more broadly based across the region with previous “growth laggards” participating more fully in the overall strengthening of economic activity. But expansions around the area's periphery are further advanced and remain exceptionally strong, and in several countries overheating is increasingly of concern. High levels of confidence will encourage strong business investment and consumer spending, while the external environment should be supportive of exports, especially as it will be reinforced by the relative weakness of the euro against other major

Box I.1. Policy and other assumptions underlying the projections

Fiscal policy assumptions are based on measures taken and stated policy intentions, where these are embodied in well-defined programmes.¹ For the OECD area as a whole, the outlook is for fiscal stances, as measured by changes in structural budget balances, to be neutral in 2000 and in 2001. However, in terms of changes in the primary structural balance, there is a tendency to ease fiscal policy somewhat over the coming two years in a number of countries, notably in the European Union where, for the area as a whole, the structural primary balance relative to GDP deteriorates by $\frac{3}{4}$ percentage point over 2000-01. In the United States, the structural primary balance will be broadly stable and in Japan the deficit will decline slightly, partly reflecting the tax consequences of the maturing of long-term postal savings deposits.

Policy-controlled interest rates are set in line with the stated objectives of the relevant monetary authorities with respect to inflation (and, in some cases, to supporting activity) or exchange rates. In the case of the United States, this is interpreted to imply that the federal funds rate will be increased to $7\frac{1}{4}$ per cent by August as the economy continues to grow above potential and inflation picks up. The stated primary objective in the euro area² is the maintenance of price stability over the medium term, where price stability is defined as an annual increase of the harmonised index of consumer prices below 2 per cent. With inflation pressures starting to build up over the next two years, the European Central Bank is assumed to raise its key policy rates by a cumulative $1\frac{1}{4}$ percentage points from mid-2000 to the end of the projection period, pushing three-month money market

rates to $5\frac{1}{2}$ per cent by the end of 2001. In Japan, where the scope for further easing of nominal short-term interest rates has been exhausted, money market rates should begin to rise as the recovery takes hold, although they are assumed to remain very low.

The projections assume unchanged exchange rates from those prevailing on 10 May 2000; in particular, one US dollar equals ¥ 109.4 and 1.10 euro. The fixed exchange rate assumption is modified for Hungary and Turkey to allow for continuous depreciation, reflecting the OECD interpretation of "official" exchange rate policies.

Following the agreement by oil producers to increase oil production ceilings in March 2000, the dollar price of OECD oil imports (cif)³ is projected to average \$25 $\frac{1}{4}$ per barrel in 2000 on the assumption that further increases in production targets are implemented this year. With slower projected growth of global economic activity, oil prices may decline somewhat during 2001, averaging \$22 $\frac{3}{4}$ per barrel. Overall non-oil commodity prices, after having started to increase in the second half of 1999, are projected to rise further as prices of metals and, to a lesser extent, agricultural raw materials, increase due to higher global industrial activity in 2000. During 2001 non-oil commodity prices are assumed to move in line with prices of OECD manufactured exports.

The cut-off date for information used in the projections was 19 May 2000.

Oil and non-oil commodity prices

| | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|--------------------|------|------|------|
| | Percentage changes | | | |
| OECD import oil price (cif) | -34.2 | 37.3 | 45.6 | -9.9 |
| Non-oil commodity prices ^a | -13.7 | -7.2 | 12.4 | 4.6 |
| <i>Memorandum item:</i> | | | | |
| OECD import oil price (cif, \$/barrel) ^b | 12.6 | 17.3 | 25.2 | 22.7 |

a) Total Hamburg commodity price index, excluding energy. OECD estimate for 1999 and OECD projections for 2000 and 2001.

b) The historical data for the OECD crude oil import prices are average cif unit prices as calculated by the International Energy Agency, that is, they include cost, insurance and freight but exclude import duties. OECD estimate for 1999 and OECD projections for 2000 and 2001.

Source: Hamburg Institute for Economic Research (HWWA), International Energy Agency and OECD.

1. Details of assumptions for individual countries are provided in the corresponding country notes in Chapter III, "Developments in Individual OECD Countries".
2. Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain, which have been participating in European Economic and Monetary Union since 1 January 1999.
3. Average OECD import prices are typically about $\frac{1}{2}$ dollar lower than the widely quoted spot Brent crude prices.

currencies. Elsewhere in the European Union, expansions in the United Kingdom and Sweden are projected to slow, although output levels will be significantly above potential levels both this year and next.

... and a fragile recovery may take hold in Japan

Growth in Japan has resumed though at this point the recovery is not yet clearly self-sustaining. The central projection is for growth to pick up significantly in the near term, with the main stimulus coming from business fixed investment which is being underpinned by rising profits, notably in information technology sectors. Higher profits should also allow the payment of increased bonuses which would provide support for household incomes and, given stable employment levels and improving household sentiment, should help to sustain private consumption. The maturing of a large amount of long-term deposits in the postal saving system may also provide some stimulus, even if only a small share of these is spent. Given the improving external environment, exports should also be buoyant. Annual data are likely to be substantially distorted and to understate the strength of the economy (see the box in the note on Japan in Chapter III, "Developments in Individual OECD Countries"). But output should grow at an annual rate of around 3 per cent during the course of this year and 2 per cent on average through 2001.

Growth in the remainder of the OECD area is generally quite strong in 2000 and 2001

Elsewhere in the OECD area, output expansions should generally be strong during 2000 and 2001. Growth in Australia should remain buoyant though slowing from the unsustainable pace over the past two years, while it is expected to peak in New Zealand this year before falling back towards potential in 2001. In Norway and Switzerland activity is projected to strengthen somewhat in 2000 and 2001, while in Iceland it is likely to weaken somewhat. In some of the OECD emerging market economies, growth is, as noted above, exceptionally strong. It is expected to slow in Korea, but it could strengthen further in Mexico. While the Czech Republic is experiencing an only modest recovery, the expansions in Hungary and Poland are projected to continue at rates around 5 per cent on average over the projection period, and Turkey is expected to bounce back somewhat after the decline in output in 1999.

Recoveries in non-member economies are gaining momentum

Economic growth in large parts of the non-OECD area has been stronger than envisaged just six months ago. Recoveries from the crisis of 1997-98 in most of Southeast Asia have been gaining momentum and are projected to continue, while growth in China may start rising again over the coming two years. In the crisis countries, private consumption is increasing and should strengthen further as employment picks up, while export growth has risen strongly and seems likely to remain robust. In much of the South American region, in particular Brazil, expansions appear to have become better established than seemed likely a year ago, and in Russia industrial production has received an additional boost from stronger foreign demand. So long as the OECD area evolves along the lines projected, these positive trends should continue and growth outside the OECD area should average close to 5 per cent this year and next.

Unemployment will fall, mainly in the euro area...

The projected reduction of unemployment in the OECD countries as a whole reflects the sharp declines in joblessness expected in the euro area. As economic activity strengthens further over the next two years, the reduction in unemployment there since 1998 may amount to nearly 3 million persons, bringing the unemployment rate to around 8½ per cent in 2001 (Table I.4). This would reflect both small increases in the labour supply and strong employment gains associated with modest wage growth, labour and product market reforms, as well as government job-creation measures. In contrast, in the United States and several other countries, where over-

Table I.4. Unemployment, output gaps and inflation

| | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------------------------------|------|------|------|------|
| <i>Per cent</i> | | | | |
| Employment growth | | | | |
| United States | 1.5 | 1.5 | 2.1 | 1.0 |
| Japan | -0.7 | -0.8 | -0.1 | 0.3 |
| Euro area | 1.5 | 1.7 | 1.7 | 1.6 |
| European Union | 1.5 | 1.6 | 1.5 | 1.3 |
| Total OECD | 1.1 | 1.3 | 1.5 | 1.2 |
| <i>Percentage of labour force</i> | | | | |
| Unemployment rate | | | | |
| United States | 4.5 | 4.2 | 4.0 | 4.2 |
| Japan | 4.1 | 4.7 | 4.8 | 4.8 |
| Euro area | 10.9 | 10.1 | 9.2 | 8.5 |
| European Union | 10.0 | 9.2 | 8.5 | 7.9 |
| Total OECD | 6.9 | 6.6 | 6.3 | 6.1 |
| <i>Millions</i> | | | | |
| Unemployment levels | | | | |
| United States | 6.2 | 5.9 | 5.6 | 6.0 |
| Japan | 2.8 | 3.2 | 3.2 | 3.2 |
| Euro area | 14.2 | 13.1 | 12.1 | 11.2 |
| European Union | 16.9 | 15.8 | 14.6 | 13.7 |
| Total OECD | 34.2 | 33.5 | 31.9 | 31.3 |
| <i>Per cent</i> | | | | |
| Output gaps^a | | | | |
| United States | 1.2 | 1.8 | 3.1 | 2.3 |
| Japan | -3.1 | -4.0 | -3.5 | -2.5 |
| Euro area | -1.0 | -1.1 | -0.1 | 0.8 |
| European Union | -0.7 | -0.8 | 0.1 | 0.8 |
| Total OECD | -0.3 | -0.2 | 0.8 | 0.9 |
| Inflation^b | | | | |
| United States | 1.2 | 1.5 | 2.1 | 2.3 |
| Japan | 0.3 | -0.9 | -0.8 | -0.1 |
| Euro area | 1.6 | 1.2 | 1.5 | 1.9 |
| European Union | 1.9 | 1.5 | 1.8 | 2.2 |
| Total OECD <i>less</i> high inflation countries ^c | 1.4 | 1.1 | 1.6 | 1.9 |
| Total OECD | 3.3 | 2.5 | 2.8 | 2.5 |

a) Per cent of potential GDP.

b) Percentage change in the GDP deflator from previous period.

c) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of the GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

heating has been a risk, unemployment is projected to reach a low point in 2000 and either to stabilise or to rise in 2001 as their economic growth loses momentum. In Japan, the recovery may not be strong enough to bring any relief to unemployment, which is likely to remain historically high.

The projected rise in OECD inflation remains modest in spite of strengthening growth and rising pressures on resources area-wide. Indeed, in terms of the broadest inflation measure – the GDP deflator – the pace of price increases (excluding several high inflation countries) is expected to accelerate from just 1 per cent in 1999 to almost 2 per cent by 2001. To some degree, this modest level of inflation reflects the outlook in Japan, where a large negative output gap prevails and prices may continue to fall in 2000, before stabilising in 2001 as the recovery of activity takes hold. It is

... and inflation will rise moderately

also in part based on the expectation that oil and primary commodity prices will not continue to rise significantly and are unlikely to lead to further cost pressure or to influence the wage-setting processes in OECD Member countries adversely.

Current accounts in the OECD area have declined partly due to the oil price increase

Available data indicate that the current account balance of all main OECD regions declined during 1999, implying a deterioration for the area as a whole of around \$200 billion (Table I.5). Most of this was accounted for by the United States (\$120 billion), where the deficit reached 3¾ per cent of GDP, and the European Union (\$65 billion), where the surplus fell to ¼ per cent of GDP. Well over half of the counterpart to this deterioration, nearly \$120 billion, is to be found in developing and emerging market countries outside Asia, reflecting financial crises in Russia and Brazil as well as high oil prices. The remainder, more than \$80 billion, appears as an increase in the global current account discrepancy.² Over the projection period, the US current account deficit continues to widen to around 4½ per cent of GDP during 2000 and subsequently remains broadly stable, averaging around \$450 billion. Surpluses in Japan and the European Union are expected to increase somewhat (to 3 per cent and ½ per cent of GDP, respectively) and there will be a substantial strengthening of current account positions in Latin America, Africa and the Middle East.

Many risks to the outlook have existed for some time...

Most of the risks to the outlook that existed last autumn remain,³ but their balance is changing. Some appear to be diminishing. These include substantial downside risks in Japan and many emerging market countries associated with financial fragility and excessive corporate or public sector indebtedness. Indeed, the issue in

Table I.5. Current external balances

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-------------------------------------------------|------------------------|--------|--------|--------|--------|
| | <i>Per cent of GDP</i> | | | | |
| United States | -1.7 | -2.5 | -3.7 | -4.5 | -4.4 |
| Euro area | 1.7 | 1.4 | 0.6 | 0.7 | 1.2 |
| European Union | 1.5 | 1.1 | 0.3 | 0.3 | 0.6 |
| Japan | 2.2 | 3.2 | 2.5 | 2.6 | 2.9 |
| OECD | 0.2 | 0.0 | -0.8 | -1.2 | -1.0 |
| | <i>\$ billion</i> | | | | |
| United States | -143.5 | -221.0 | -340.8 | -444.3 | -461.0 |
| Euro area | 108.6 | 90.4 | 42.1 | 44.2 | 72.4 |
| European Union | 120.2 | 90.7 | 25.7 | 25.3 | 47.9 |
| Japan | 94.3 | 120.8 | 107.0 | 117.5 | 134.3 |
| OECD | 49.5 | -3.4 | -208.6 | -299.3 | -277.1 |
| <i>Memorandum items:</i> | | | | | |
| China and other Asia | 20.6 | 18.2 | 1.6 | 0.1 | -3.4 |
| Latin America | -59.7 | -75.8 | -38.2 | -23.6 | -20.8 |
| Africa, Middle East | -2.1 | -54.4 | -8.3 | 41.9 | 22.1 |
| Former Soviet Union, Central and Eastern Europe | -10.9 | -15.2 | 19.7 | 31.4 | 24.9 |
| World | -3.4 | -76.3 | -160.7 | -180.4 | -200.4 |

Source: OECD.

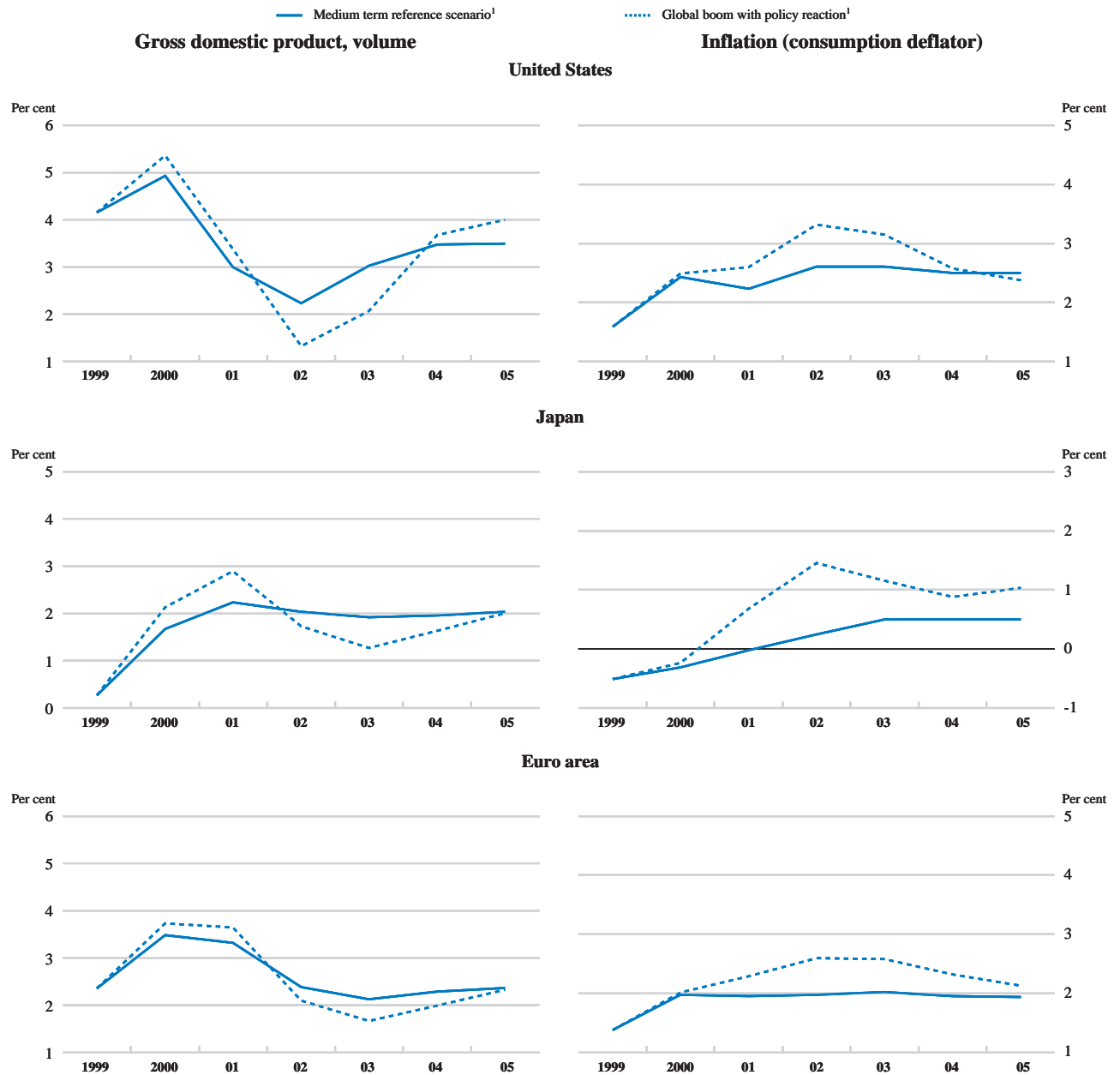
2. For a further discussion, see *OECD Economic Outlook* 66, December 1999, pp. 11-13.

3. The major exception is the millennium bug, for which preparations turned out to be adequate.

Japan appears to be the strength and sustainability of the recovery rather than whether it is taking place, while the momentum of recovery in many emerging market countries now appears to be very strong. These downside risks have not disappeared, however, as either a sharp appreciation of the yen or a stalling of structural reform could threaten the Japanese recovery, while rising world interest rates may pose more serious problems for emerging economies than projected here.

Figure I.4. Global boom scenario

Year-on-year percentage changes



1. See the appendix for the assumptions underlying the scenarios and for a discussion of their main features.

Source: OECD.

Other risks remain much as before and indeed may have increased. *OECD Economic Outlook 66* called attention to several risks with potential global consequences related to imbalances that have emerged during the long expansion in the United States:⁴ the risk that monetary authorities would not react in time to inflation pressures associated with tight labour markets, leading to a “boom and bust” cycle; the risk of a loss of confidence in the dollar arising from continued worsening of the US current account deficit and the resulting increase in net external indebtedness; and the risk of a disorderly correction in equity markets. Six months further along, labour market tightness and the current account deficit have increased further while equity prices remain high.

... and the possibility of global overheating is increasing

Perhaps the major new risk to the outlook that has emerged during the past six months is that the increasingly rapid global expansion gathers too much pace. In this environment, international trade ceases to play its role as a safety valve when demand pressures in a single economy become excessive. Rather, because one country's imports are another country's exports, trade tends to reinforce rising domestic demand pressures. This could lead both monetary authorities and financial markets, looking at the situation of countries individually, to underestimate the overall strength of demand. Widespread slippage that led to pro-cyclical fiscal policies would aggravate such risks. The appendix to this chapter sets out the OECD's medium-term reference scenario, which broadly describes smooth and non-inflationary adjustments of activity in OECD countries to their productive potential over the next five years. It also describes an alternative “global boom” scenario. This takes as its starting point stronger underlying demand and output than projected here by around ½ to ¾ per cent *per annum*, depending on the country, *i.e.* around the top of the range of private sector forecasts for most countries. If monetary authorities underestimate the global strength of demand and are somewhat slow to respond, the result could be higher inflation in most countries and a substantially more pronounced cycle than is envisaged in the central projections (Figure I.4).

Uncertainties surrounding major global forces at work

Uncertainty surrounds the interpretation and implications of developments in commodity and financial markets

Improvements in the global economic situation have taken place against a background of striking, and often volatile, developments in commodity and financial markets, notably equity markets. Widespread concern exists that these developments are unhelpful, even dangerous, and that optimism about the global outlook is unwarranted in view of:

- The role that rising oil and commodity prices have played in bringing some past expansions to an end, notably on two occasions in the early and late 1970s.
- The experience of financial market excesses in the late 1980s and resulting balance sheet problems in the early 1990s.
- Recurrent crises in emerging markets triggered by turbulent financial markets during the mid- and late-1990s.

4. See the appendix to Chapter I, *OECD Economic Outlook 66*, December 1999, pp. 33-38.

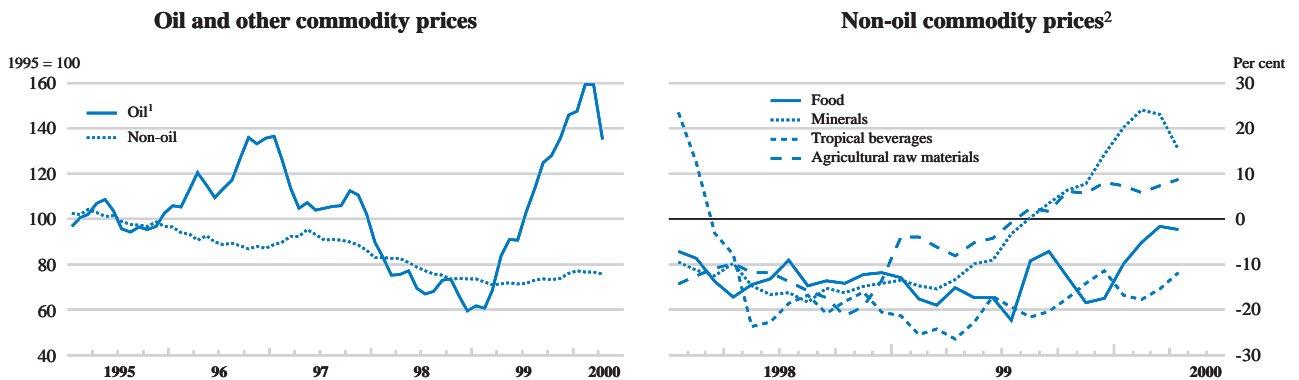
At the same time, rapidly increasing production and diffusion of information technology have generated considerable enthusiasm for a “new economy” which will be less inflation prone and capable of delivering more rapid rises in output and living standards than has been the case in OECD economies in recent decades. This enthusiasm has influenced developments in financial markets, notwithstanding the recent correction in technology stocks. It has been reinforced by the failure of pessimistic predictions concerning inflation and equity market prospects to be realised, notably in the United States where positive surprises have now continued for several years. Given that prudence dictates that the lessons of the past not be forgotten, while the guidance provided by past empirical relationships may have to come under increasing scrutiny, considerable uncertainty surrounds the interpretation and implications of these developments. The remainder of this section examines some of the issues involved more closely.

Will the run-up in primary commodity prices be destabilising?

The significant rallies in many primary commodity prices over the past year have raised the question of how great is the risk of a replay of the inflation-recession experiences which occurred in the wake of the two oil price shocks in the 1970s. This issue, at least for now, would largely appear to turn on oil prices: the rise in non-oil commodity prices has been mainly confined to metals and minerals, which do not account for a large share of overall commodity use. Average prices of all non-oil commodity prices have been rising since mid-1999, but not very rapidly, and they remain only slightly above the extremely low levels reached during the emerging markets crisis (Figure I.5). Widely quoted spot oil prices, on the other hand, have been volatile and, notwithstanding the agreement of OPEC and non-OPEC producers in late March to raise production targets by 1¾ million barrels per day, are now approaching \$30 per barrel. Furthermore, despite OPEC's tacit commitment to stabilise prices at a somewhat lower level, reflected in the projections,⁵ the oil market remains vulnerable to both demand and supply shocks, with limited spare capacity in most key oil-producing countries (see Box I.2).

Oil and metals prices have risen steeply

Figure I.5. Primary commodity price developments



1. Data for February to April 2000 are OECD estimates.

2. Year-on-year percentage changes.

Sources: Hamburg Institute for Economic Research (HWWA), the International Energy Agency and OECD.

5. Even though the oil price profile used in the projections assumes a significant decline from current levels, they will remain above the annual average of any year after 1985. This average has varied within a range of \$12¼ (in 1986) to \$22¼ (in 1990).

Box I.2. Demand, supply and production capacity in the oil market

Considerable uncertainty surrounds the outlook for oil markets. The sharp decline of spot market prices for crude oil in late March has been partially reversed and prices for delivery 12 months forward have fallen only slightly. With inventories very low, the increased production quotas agreed in late March may not be sufficient to prevent renewed pressures on prices later this year, as the current seasonal weakness of demand for oil dissipates.

The stylised facts about the oil market are summarised in the table below ("The oil market").

- In 1999, world demand for oil averaged just over 75 million barrels per day, an increase of just over

5¼ per cent since 1996. Nearly two thirds of world demand originates in the OECD area.

- OPEC has been producing around 30 million barrels per day or almost 40 per cent of total supply.
- Through 1998, production generally exceeded usage by a sizeable amount, allowing for significant additions to stocks. When supply was curtailed in 1999 and demand increased strongly, the stock-draw reached 1 million barrels per day, reducing total industry stocks by nearly 10 per cent.

The oil market

| | 1996 | 1997 | 1998 | 1999 | 2000 | Memorandum item: Per cent of total 1999 demand |
|----------------------------------|--------------------------------|------|------|------|-------------------|------------------------------------------------------|
| | <i>Million barrels per day</i> | | | | | |
| Demand | | | | | | |
| OECD | 45.9 | 46.7 | 46.9 | 47.6 | 48.3 | 63.2 |
| Non-OECD | 25.7 | 26.8 | 27.1 | 27.6 | 28.4 | 36.8 |
| Total | 71.6 | 73.4 | 73.9 | 75.2 | 76.7 | 100.0 |
| Supply^a | | | | | | |
| OECD | 21.7 | 22.1 | 21.9 | 21.4 | 22.2 | 28.4 |
| Non-OECD (excl. OPEC) | 21.9 | 22.4 | 22.7 | 23.2 | 23.5 | 30.8 |
| Total non-OPEC | 43.6 | 44.5 | 44.7 | 44.6 | 45.8 | 59.2 |
| OPEC ^b | 28.4 | 29.9 | 30.8 | 29.4 | n.a. | 39.0 |
| Total | 72.0 | 74.4 | 75.5 | 74.1 | n.a. | 98.2 |
| Changes in stocks | 0.5 | 1.0 | 1.5 | -1.1 | n.a. | -1.8 |
| Average OECD import price | 17.8 | 19.1 | 12.6 | 17.3 | 25.2 ^c | |

a) Comprises crude oil, condensates, natural gas liquids, oil from non-conventional sources and other sources of supply.

b) Including Iraq.

c) OECD projection.

Source: The International Energy Agency, *Monthly Oil Market Report*, various issues.

During 1998-99, OPEC, in collaboration with key non-OPEC producers (Mexico, Norway, Oman and Russia), reduced their production targets in several steps with a view to engineering a reversal of the oil price slide which started in 1997 and accelerated towards the end of 1998 (see Table "OPEC crude oil production 1998-2000"). The subsequent steep increase in oil prices – Brent crude rose from \$10 to more than \$30 per barrel in the year to March and, despite some subsequent weakness, remains around that level in late May 2000 – reflected not only growth of global oil demand, but also tight adherence to the agreement in comparison to past experience. Compliance peaked at around 90 per cent in the third quarter of 1999. It weakened to around 70 per cent in early 2000, with actual production in the first quarter run-

ning around 1 million barrels per day above target. Participants to the production-cut agreement (excluding Iran) decided in late March 2000 to increase the production target by a total of 1¼ million barrels per day, effectively offsetting the reduction implemented a year earlier. However, with production already running above target and capacity constraints limiting the scope for the new targets to be exceeded, the net addition to the oil market may be relatively modest. In addition to the increase in target production, there is a tacit agreement among OPEC members to implement a price target range of \$22-\$28 per barrel for their basket of seven crudes. The "trigger"-mechanism would call for adjustment to OPEC supply by 500 000 barrels a day if the basket price stays outside the target range for 20 consecutive trading days.

Box I.2. Demand, supply and production capacity in the oil market (*cont.*)OPEC crude oil production 1998-2000^a

Million barrels per day, quarterly averages

| | OPEC excluding Iraq | Actual cutback ^b | Cutback target | Actual cutback as a per cent of target | Iraq | OPEC |
|-------------|---------------------|-----------------------------|----------------|----------------------------------------|------|------|
| 1998 | | | | | | |
| 1st quarter | 27.0 | .. | .. | .. | 1.8 | 28.8 |
| 2nd quarter | 26.6 | 0.7 | 1.3 | 45 | 2.0 | 28.6 |
| 3rd quarter | 25.1 | 1.9 | 2.6 | 69 | 2.4 | 27.5 |
| 4th quarter | 25.2 | 1.7 | 2.6 | 65 | 2.4 | 27.6 |
| 1999 | | | | | | |
| 1st quarter | 25.3 | 1.6 | 2.6 | 61 | 2.5 | 27.8 |
| 2nd quarter | 23.8 | 3.5 | 4.3 | 80 | 2.5 | 26.3 |
| 3rd quarter | 23.4 | 3.9 | 4.3 | 89 | 2.8 | 26.2 |
| 4th quarter | 23.9 | 3.4 | 4.3 | 79 | 2.3 | 26.2 |
| 2000 | | | | | | |
| 1st quarter | 24.1 | 3.2 | 4.3 | 72 | 2.3 | 26.4 |

a) Excludes condensates, natural gas liquids and oil from non-conventional sources.

b) From April 1998 to March 1999, cutbacks are measured against OPEC's original February 1998 "baseline" of 26.99 million barrels per day; from April 1999 onwards, cutbacks are measured against OPEC's revised February 1998 "baseline" of 27.29 million barrels per day.

Source: The International Energy Agency, *Monthly Oil Market Report*, 11 April 2000.

OPEC's ability to reduce price volatility depends on its capacity to supply extra oil in the short term, given the low levels of stocks (see Table "OPEC sustainable crude oil production capacity"). The extra production capacity available is concentrated in a few countries, mainly Saudi Arabia, but also Kuwait, the United Arab Emirates and Iran (outside the new agreement). Among the non-OPEC participants in the agreement, Mexico is the only country that can quickly increase its production on a sustained basis. Countries with little spare capacity have little to gain from an overall output increase, given that beyond a certain point they would not be able to raise production to compensate for lower prices. This provides considerable leverage over

the markets to the few countries with spare capacity, notably Saudi Arabia. Despite this, relatively modest shifts in world demand or non-OPEC supply could lead to a recurrence of the price swings experienced in recent years. Indeed, oil prices plunged to \$10 because the cartel expanded production just as the Asian crisis was unfolding and activity in the OECD area slowing. When the cartel decided to attempt to boost oil prices in 1999 the target range was \$20 to \$25. In the event, world economic activity strengthened at an unexpected pace during 1999 and, notwithstanding the decline from \$30 per barrel in early March to the (new) tacitly agreed \$22-28 range, oil prices in late May stand around \$30 per barrel.

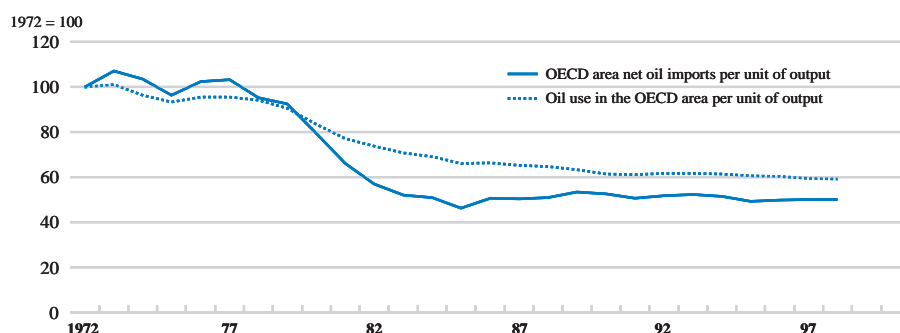
OPEC sustainable crude oil production capacity

Million barrels per day

| | Current capacity | February 2000 production | Spare capacity |
|--------------------------|------------------|--------------------------|----------------|
| Saudi Arabia | 10.8 | 7.8 | 3.0 |
| Kuwait | 2.7 | 1.9 | 0.8 |
| United Arab Emirates | 2.5 | 2.1 | 0.4 |
| Iran | 3.7 | 3.4 | 0.3 |
| Others (cumulated) | 10.1 | 8.9 | 0.8 |
| Total OPEC 10 | 29.3 | 24.1 | 5.3 |
| Iraq | 2.8 | 2.6 | 0.2 |
| Total OPEC | 32.1 | 26.6 | 5.4 |
| <i>Memorandum items:</i> | | | |
| Mexico | 3.3 | 3.0 | 0.3 |
| Norway | 3.3 | 3.2 | 0.1 |

Source: The International Energy Agency, *Monthly Oil Market Report*, 10 March 2000.

Figure I.6. Declining oil dependence in the OECD area



Source: International Energy Agency.

Lower oil dependence limits the shock to oil importers

Despite risks, there are a number of reassuring features of the current situation. First, declining oil dependence since the first oil shock in 1973 limits the overall impact of any price rise as well as exposure to future shocks.⁶ Indeed, OECD oil imports per unit of output have been halved since the early 1970s, and oil use per unit of output has gone down by about 40 per cent (Figure I.6).

Inflation and capacity pressures are lower than in previous oil price shocks

Second, notwithstanding the increasing strength of the world economy, the macro-economic environment is less conducive to rising inflation than during earlier oil price shocks. In most OECD countries, the inflation performance on which the oil price increase has been superimposed is markedly better than in 1973 or 1979-80 (Figure I.7). Inflation was substantially higher in most countries, and in many cases rising, prior to the previous shocks. At the same time, pressures on resources in Europe and Japan appear to be lower than during previous oil price shocks. Even in the United States these pressures as recently as late 1999 were lower than at the time of the earlier shocks of the 1970s, although continued rapid growth is changing the picture.

Core inflation remains low...

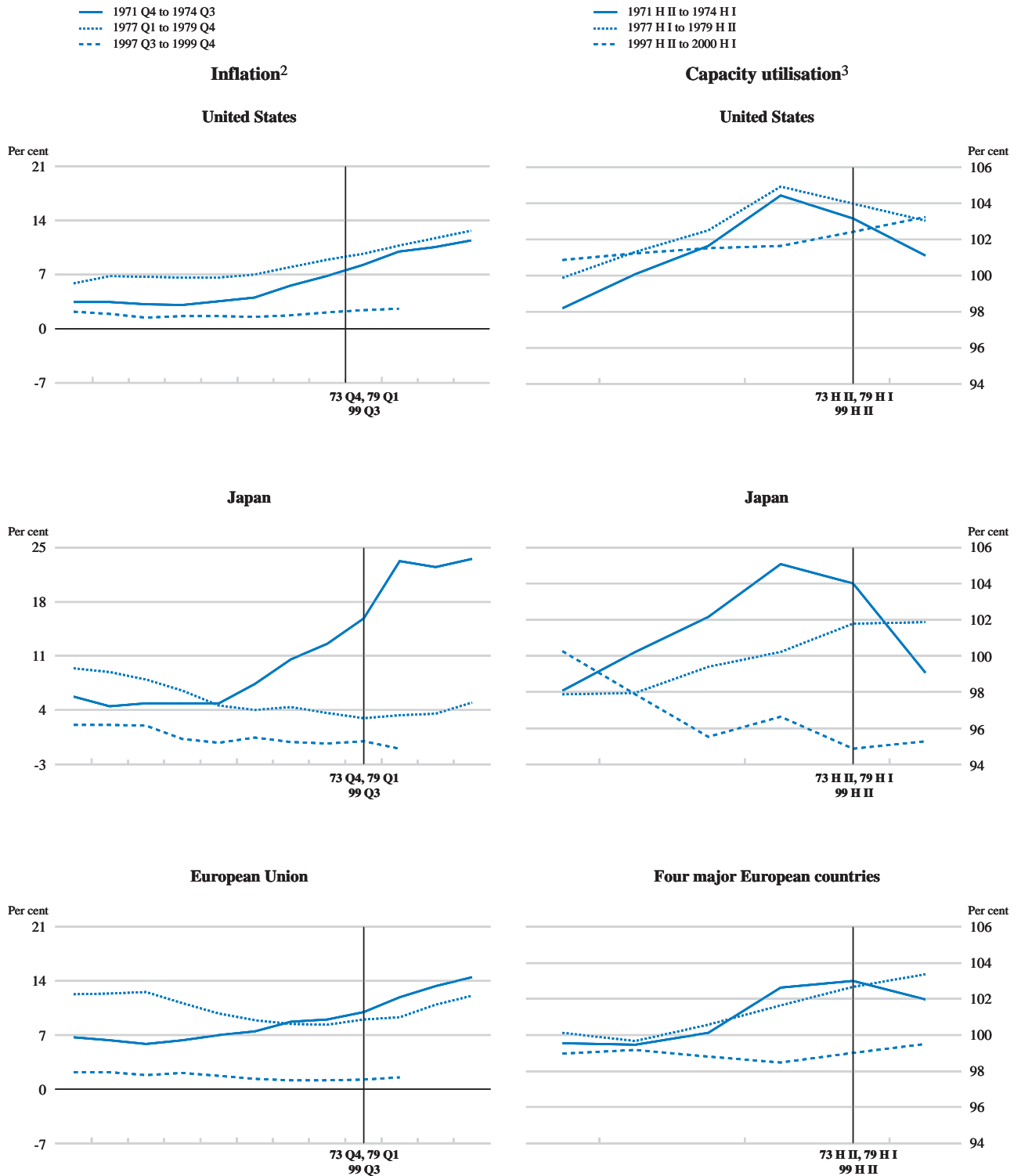
Third, there has so far been little response to rising oil and non-oil commodity prices even though these have been under way for a year. They have been reflected in rising import prices and producer prices in many countries (Figure I.8) and they are visible in the behaviour of headline inflation, although in Japan they have been attenuated by the strength of the yen. Nevertheless, any spillover into "core" inflation, which remains low nearly everywhere, has been at most modest.

... wage settlements have not responded...

Indeed, there is at present little evidence that rising energy prices have significantly spilled over into wage formation processes across the OECD area (Figure I.9). In the United States, the rise in private sector hourly earnings, while now slightly higher than during 1999 and the early part of 2000, remains in line with the experience

6. The effects of a \$10 increase in oil prices were illustrated in the *OECD Economic Outlook* 66, December 1999 (see Box I.2, "The rise in oil prices: a cause for concern?", pp. 8-9). Such a terms of trade loss would be somewhat smaller relative to GDP compared to that incurred during the Gulf crisis a decade ago, only a sixth of what occurred in 1980 and one third to one fourth of what happened in 1973. It should be noted that the projected oil price at around \$25¼ in 2000 is not exceptionally high in real terms. In constant 1972 dollars, it roughly corresponds to \$10 per barrel, similar to levels experienced between 1974 and 1978 but much lower than the \$15 average level reached between 1979 and 1986.

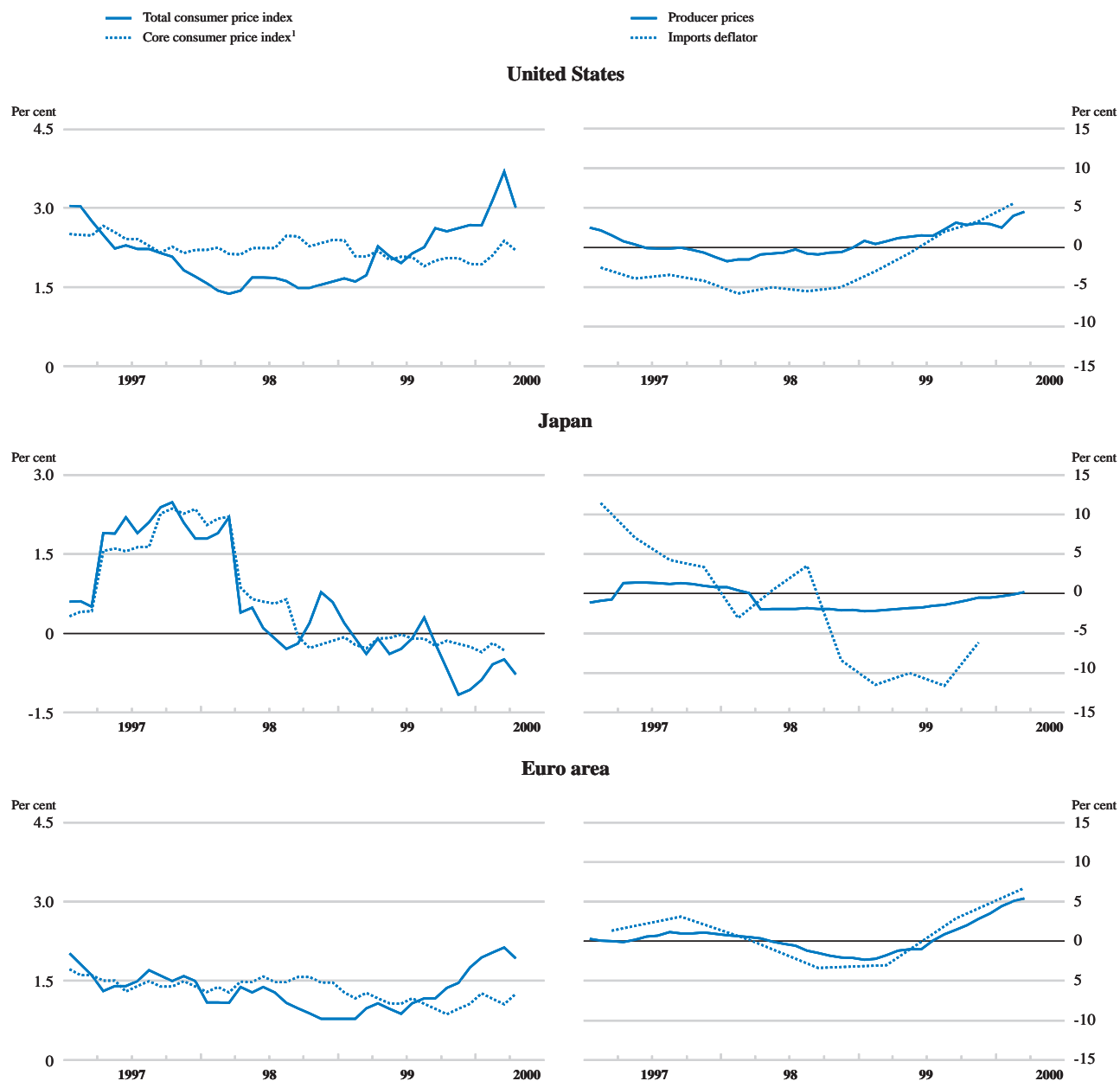
Figure I.7. Inflation and capacity utilisation during three oil shocks¹



1. The vertical line indicates the timing of the oil shocks.
 2. Year-on-year changes in consumer price index.
 3. Ratio of actual and potential real GDP of business sector in per cent.
 Source: OECD.

Figure I.8. Headline and core inflation

Year-on-year percentage changes



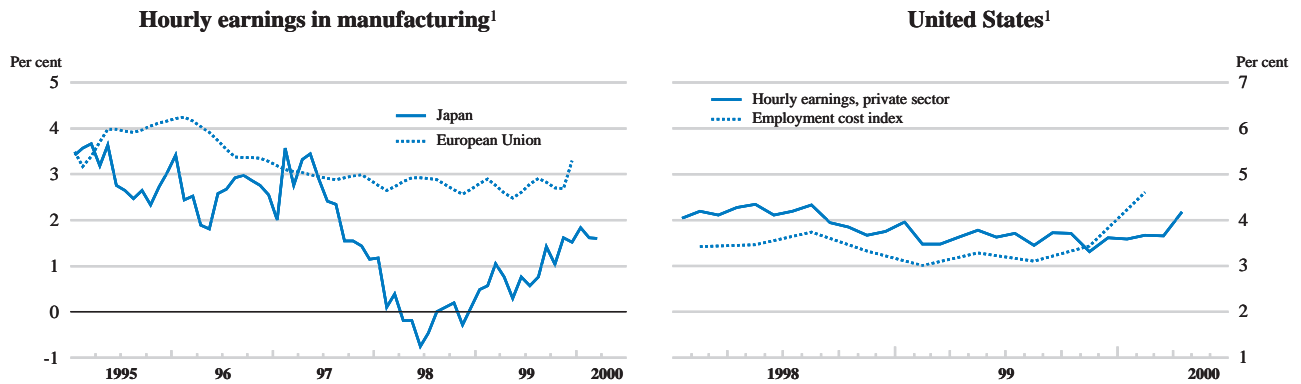
1. Non-food and non-energy consumer price index.

Source: OECD.

of 1998, before energy prices began to rise. There was also little sign of an acceleration in overall employment costs until the first quarter of 2000.⁷ In the European Union, growth in manufacturing earnings has remained steady at low levels that have

7. The 1.4 per cent increase (s.a.) in the employment cost index in the first quarter of 2000 was a result of a 1.1 per cent increase in wages and salaries (up from 0.9 per cent in 1999 Q4) and a 2 per cent increase in benefits (up from 1.2 per cent in 1999 Q4).

Figure I.9. Labour cost indicators



1. Year-on-year percentage changes.
Source: OECD.

prevailed since 1997. The recent moderate settlements in the German labour market provide further evidence that any spillover effects are indeed modest, if present at all, at the current juncture.

Fourth, the impact on inflation expectations does not appear to have been great. Most indicators, both those based on inflation forecasts and those derived from the difference between indexed and conventional bond yields, show some increase from the very low levels reached in late 1998 and early 1999 (Figure I.10). A large part of the increases took place during the early and middle months of 1999 when the rebound in oil and commodity prices was in its early stages, but evidence of increases continuing after the beginning of 2000 is limited. Since all of these indicators, but especially those derived from bond yields, reflect the sense of crisis that followed the Russian default and the collapse of the “Long-Term Capital Market Fund” in the late summer of 1998, the most useful comparison may be with the period preceding these events. On this basis, the evidence still suggests some rise in inflation expectations in a number of cases but by rather modest amounts. Since the general strengthening of the global economy could be expected to encourage higher inflation expectations, any increase attributed to rising oil and commodity prices alone has probably been small. This could indicate that the oil price hike is widely perceived to be temporary, but also that the price stability objective of monetary policy is now judged to be credible.

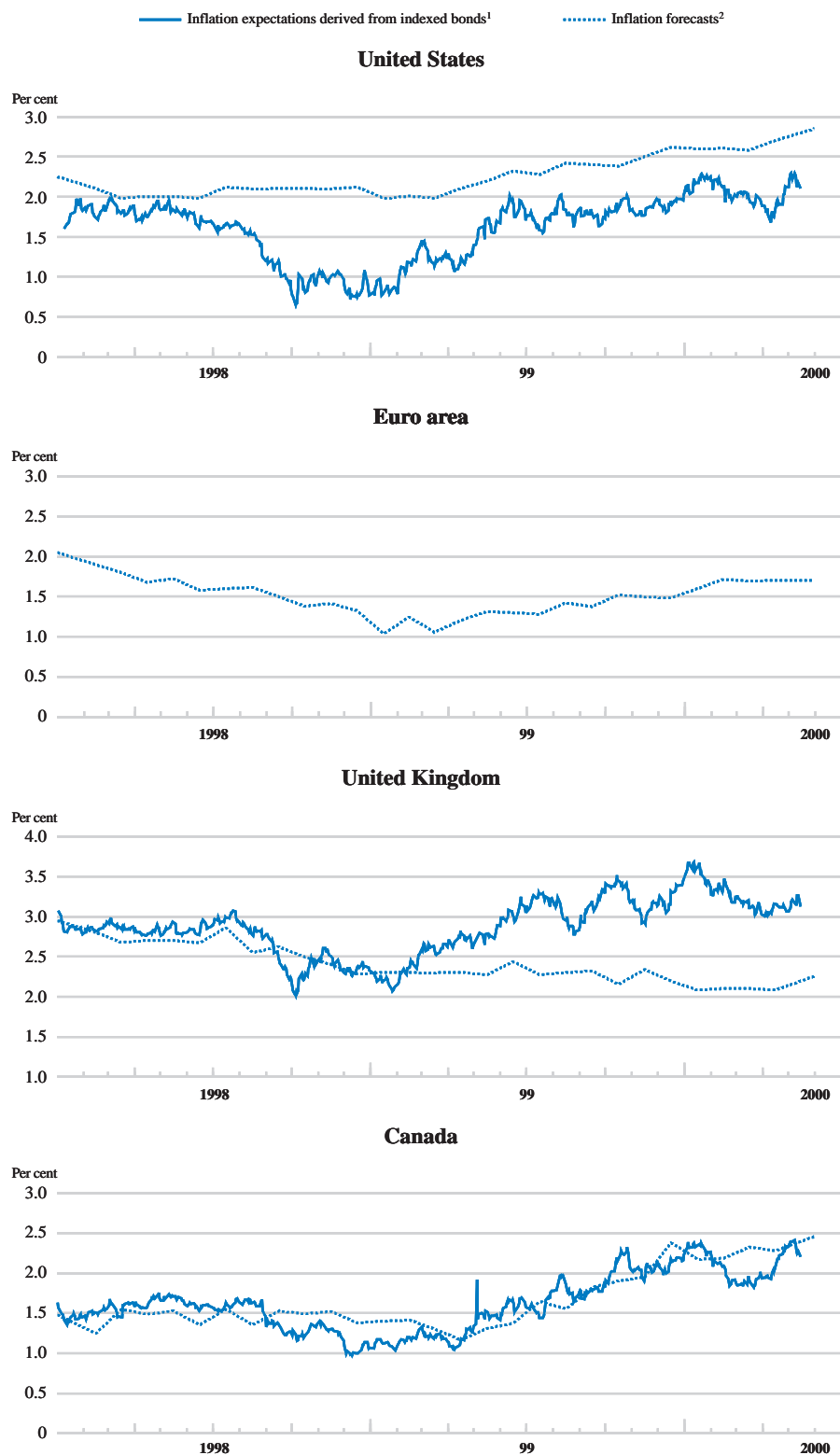
... and inflation expectations have picked up only a little

Financial market developments: stabilising force or fuel for the boom?

As the past decade has demonstrated, financial conditions have become a major influence on spending and output trends. As such, they are capable of operating as a stabilising force, substantially reducing the monetary authorities' need for policy adjustments; alternatively, they may reinforce underlying trends in the economy and increase the pressure on monetary authorities to respond. At least until late April, with growth already strong or gathering pace in many OECD countries, financial market conditions overall appear to have been working to reinforce the need for

Financial market developments are important influences on spending

Figure I.10. Inflation expectations



1. Average yearly inflation expectations over the next 10 or 20 years.

2. Data based on inflation forecasts as reported in various issues of *Consensus Forecasts*.

Sources: Bloomberg, Consensus Economics Inc., OECD.

monetary tightening. The major exception has been Japan, where such tightening would not be desirable in any case at present.

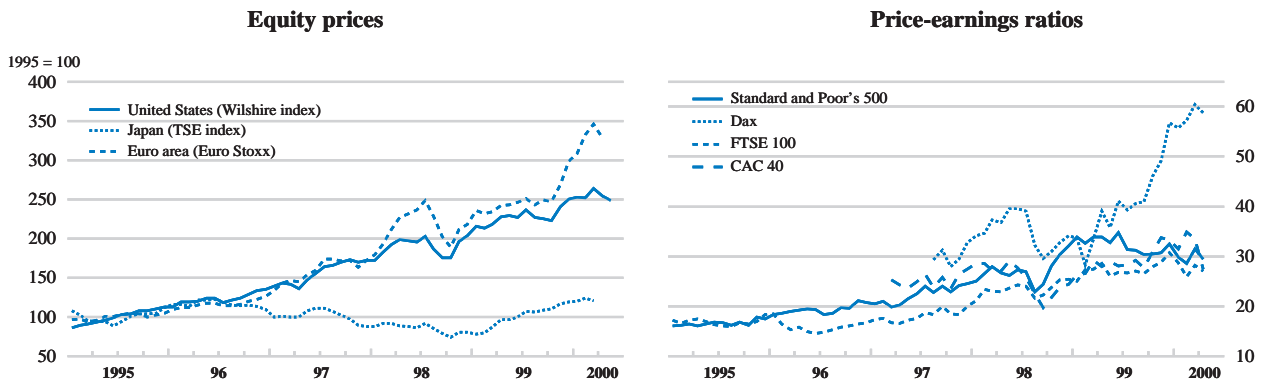
The persistent buoyancy of equity markets has clearly continued to fuel the boom in the United States in the face of rising policy-determined interest rates. The increase in stock market wealth between the beginning of 1999 to mid-May 2000 of just over a quarter could, on the basis of historical relationships,⁸ eventually add around 2 per cent to annual private consumption for an extended period. Given the increase in the share of households owning equities from a third in 1989 to a half in 1999,⁹ the impact on consumption may be even stronger than these historical relationships indicate. And business investment is also likely to have been spurred by the high valuation of equities relative to net worth.¹⁰ The strengthening of stock markets during 1989 and the early part of 2000 in Japan and Europe may similarly have stimulated spending, though it has proven more difficult to find robust relationships between consumption and equity wealth in these countries in the past.

Equity markets have fueled the boom in many countries...

Since the current boom in equity markets began in the United States in 1995, the possibility of a severe correction has frequently been cited as a downside risk to the outlook. At this stage, equity prices in the United States and in Europe are still close to record levels relative to corporate earnings (Figure I.11), and continue to be based on optimistic projections of future earnings and on lower risk premia than have been demanded in the past. In Japan, prices have risen sharply since 1998, notwithstanding the recent corrections, and are also expensive relative to earnings. High price-earnings ratios in major markets seem to be mostly confined to high-technology

... and an orderly stock market correction in the United States could be a stabilising influence

Figure I.11. Equity prices and price-earnings ratios



Source: Bloomberg.

8. The marginal propensity to consume out of stock market wealth in the United States is estimated to range from 0.04 to 0.07, see L. Boone *et al.*, "Stock market fluctuations and consumption behaviour: Some recent evidence", *OECD Economics Department Working Paper* No. 208, December 1998. With a marginal propensity of 0.04, the estimated increase in equity wealth from the beginning of 1999 to mid-May 2000 of \$2 750 billion could raise private consumption by around \$110 billion, which is just under 2 per cent of total private consumption in 1998.
9. See A.B. Kennickell *et al.*, "Recent Changes in US Family Finances: Results from the 1998 Survey of Consumer Finances", *Federal Reserve Bulletin*, Vol. 86, No. 1, January 2000.
10. Tobin's q – the ratio of the market value of equities to net worth (tangible capital valued at replacement cost or market value plus financial assets minus debt) – in the non-farm non-financial corporate sector in the United States rose from 1.17 in 1995 to 1.68 in 1998 and 2.02 in 1999, see Federal Reserve, *Flows of Funds*, Federal Reserve Statistical Release, 10 March 2000.

companies, where it is particularly difficult to assess earnings potential. It has been clear for some that there was a risk that high-technology equity prices could be marked down if investors' expectations are not met. Indeed, an important correction has been under way since March in all major markets and continued volatility of stock markets suggests that some uneasiness with current valuations remains. However, provided a downward adjustment takes place in a reasonably orderly way, without creating serious liquidity problems for leveraged investors, this could prove to be stabilising in a number of countries. Indeed, as illustrated in *OECD Economic Outlook 66*, a model-based simulation suggests that a drop in equity prices of 30 per cent in the United States (and 15 per cent in other major OECD economies) might lower US GDP growth by 1¼ percentage points in a period of one year and a half.¹¹ Against the current projection for GDP growth, such a reduction would take growth to well below its estimated potential rate, but the level of output would probably still be above potential. There is less need for spending restraint in Europe than in the United States, but the impact of such a correction would be less in Europe and would mainly work to reduce the need for rising interest rates. In contrast, for Japan such a development would not be helpful to the nascent recovery.

The bond market has been having only a limited restraining effect...

The run up in government bond yields in most countries since early 1999 has so far probably only had a limited effect in restraining demand growth. This increase followed a significant decline associated with the crises in emerging markets, and nominal government bond yields remain lower today in most countries than in early 1997, before the emerging market crisis affected the global economy. In the United States, real long-term interest rates (measured as nominal rates minus contemporaneous inflation) are barely back to their average level over the past ten years, whereas they are still below their ten-year averages in Japan and the euro area (Figure I.12). The modest increases in real interest rates in the United States are confirmed by yields on index-linked government bonds, while yields on such instruments have been stable in the United Kingdom since early 1999 and even fallen slightly in Canada. The yield spread between corporate and government bonds has widened since early 1999 in a few countries, but this is not a general pattern.

... partly because reduced supply of government bonds is putting downward pressure on yields

From early 2000 to mid-April, government bond yields declined in many countries, *inter alia* the United States, the United Kingdom, Canada and Sweden, partly in response to concerns about a dwindling supply of government securities. The importance of supply factors was amply demonstrated by the reaction in bond markets to the announcement by the US Treasury in early February that it intended to reduce the issuance of longer-dated bonds and also to start buying back bonds prior to maturity. The subsequent rally in the bond market reduced yields markedly on longer dated securities, offsetting an important part of the increase that had taken place throughout 1999. Corporate bond yields and conventional mortgage rates did not follow the downward movement in government bond yields, but remained fairly stable at levels only marginally higher than those prevailing before the emerging market crisis (Table I.6).

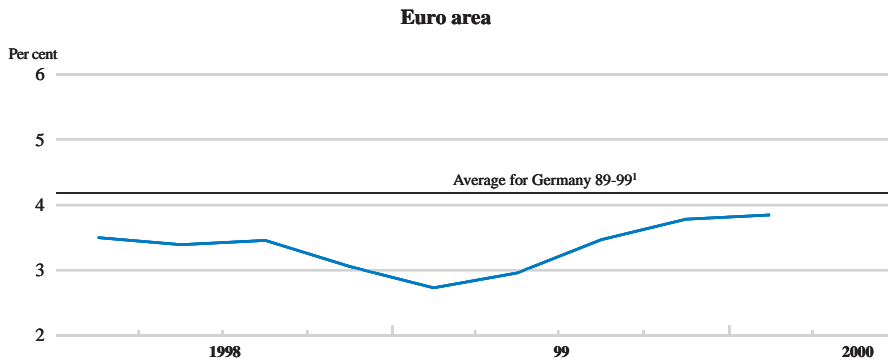
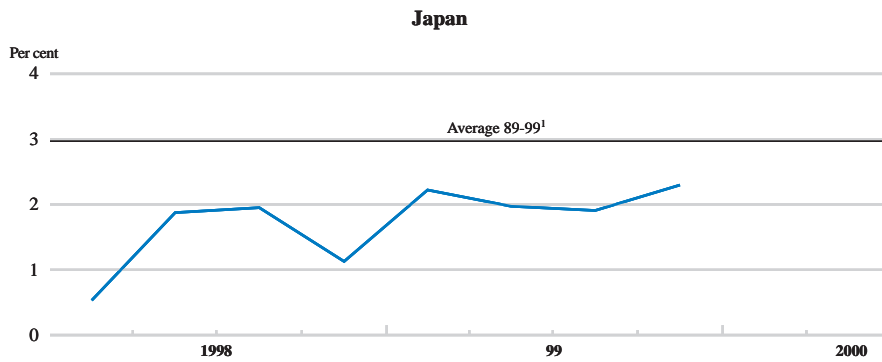
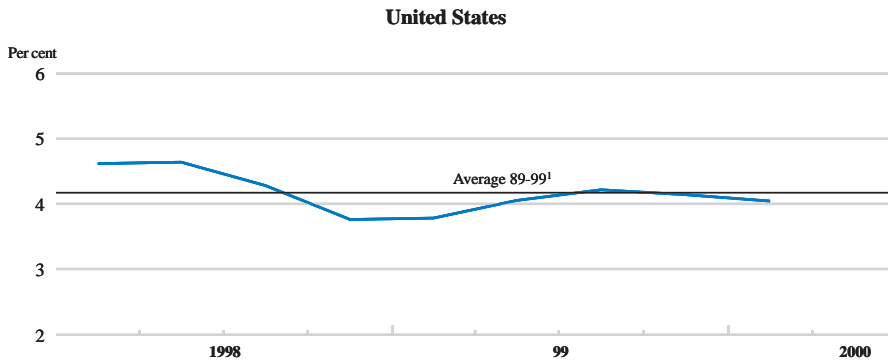
But since late April some tightening has taken place in credit markets

Since late April some tightening in credit markets has become evident as markets have reacted to data released in the United States pointing to continuing unexpected strength of activity and some indications of emerging cost and price pressures there. The supply-driven reduction in government bond yields has been substantially

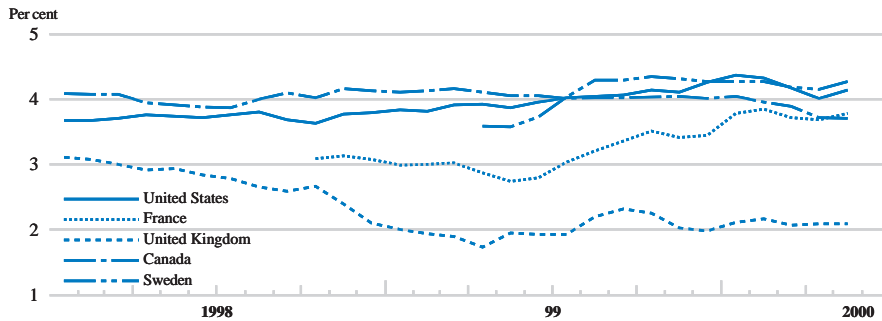
11. See the appendix to Chapter I in *OECD Economic Outlook 66*, December 1999.

Figure I.12. Real long-term interest rates

A. Nominal long-term interest rates minus consumer price inflation



B. Yields on indexed government bonds



1. Deflated by the consumption deflator.
Sources: Bloomberg, OECD.

Table I.6. Yields on government and private bonds in the United States

| Weekly average for week ending: | Government bonds | | Corporate bonds | | Conventional mortgages |
|------------------------------------|------------------|---------|-----------------|-------------|---------------------------|
| | 10-year | 30-year | Moody's Aaa | Moody's Baa | |
| 10 Jan. 1997 | 6.57 | 6.80 | 7.42 | 8.11 | 7.85 |
| 9 Jan. 1998 | 5.49 | 5.75 | 6.55 | 7.13 | 6.94 |
| 8 Jan. 1999 | 4.76 | 5.20 | 6.28 | 7.34 | 6.79 |
| 4 June 1999 | 5.80 | 5.95 | 7.13 | 7.92 | 7.41 |
| 7 Jan. 2000 | 6.56 | 6.58 | 7.73 | 8.25 | 8.15 |
| 4 Feb. 2000 | 6.58 | 6.33 | 7.65 | 8.22 | 8.25 |
| 3 March 2000 | 6.39 | 6.15 | 7.71 | 8.35 | 8.27 |
| 31 March 2000 | 6.13 | 5.94 | 7.63 | 8.34 | 8.23 |
| 21 April 2000 | 6.01 | 5.88 | 7.68 | 8.45 | 8.16 |
| 5 May 2000 | 6.40 | 6.10 | 7.87 | 8.74 | 8.28 |
| 19 May 2000 | 6.49 | 6.19 | 8.07 | 9.02 | 8.64 |

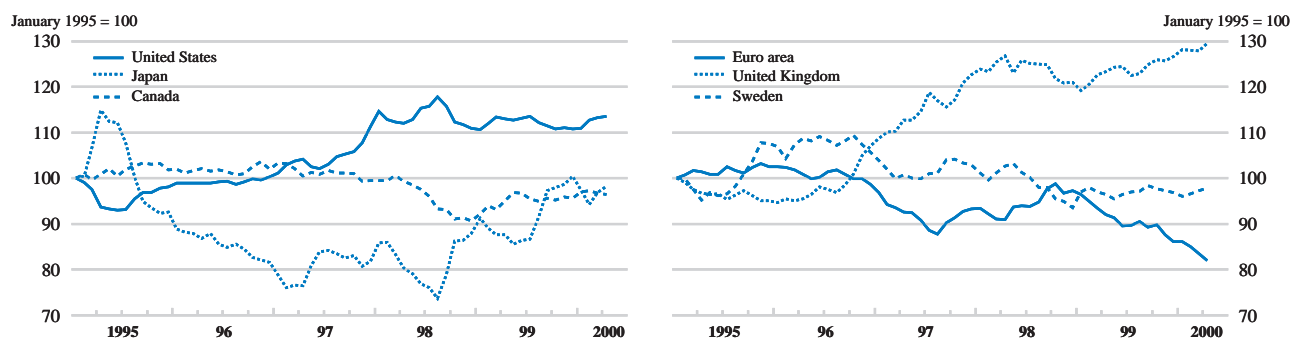
Source: Federal Reserve.

reversed and long-term rates on private debt instruments have increased significantly. Long-term bond rates in most other countries have also drifted upward.

The stabilising role of recent exchange rate movements has been mixed

Exchange rate movements over the past year have made at best a mixed contribution towards reallocating world demand away from buoyant economies towards areas with significant slack. In the United States, the real effective exchange rate has been broadly constant (Figure I.13) and thus not helped to restrain total demand for domestic output. Indeed, the recovery of exports since mid-1999 appears to have contributed to the recent strengthening of activity in the United States. On the other hand, real effective appreciation in the United Kingdom and Canada may be contributing to a necessary slowing of growth. In Japan, the appreciation of the effective exchange rate has directed world demand away from Japanese products and thus worked to undermine the recovery. So far the real effective appreciation of the yen of some 10 per cent since early 1999 has not prevented Japanese industries from taking advantage of the recovery of world trade. However, had the exchange rate not appreciated, GDP growth might have been 1 percentage point higher in 2000 than currently projected (Box I.3). In the euro area, the drop in the effective exchange rate

Figure I.13. Real effective exchange rates



Source: OECD.

Box I.3. The macroeconomic implications of exchange rate movements since January 1999

Since the creation of the euro at the start of 1999, it has depreciated by approximately 15 per cent in effective terms; while the yen and sterling have appreciated by 7 to 10 per cent. In contrast, the US and Canadian dollars have been more stable, appreciating by around 5 per cent. According to the OECD's INTERLINK model, the consequences of these movements and what might have happened had they not occurred, are as follows.

- By itself, a higher level of the euro would have implied markedly weaker growth in the euro area (lower by an average of 1 percentage point in both 1999 and 2000) which would have translated into further reductions in the inflation rate, despite the boost from oil prices. To offset these effects, euro area interest rates would have needed to be around 2 percentage points lower over the projection period. Such an alternative mix of monetary conditions might have delivered similar growth for 2001 as in the central projection, but the economy would have been weaker in the current year (see figure below).
- By contrast, without the appreciation of the yen over the past 15 months, Japan might have benefited from growth picking up towards 3 per cent in 2000 and 3½ in 2001. Inflation would also have risen towards 1½ per cent. Thus the yen's appreciation has significantly hindered monetary policy and delayed the recovery, especially as the Bank of Japan has been unable to lower short-term interest rates to offset the impact of the appreciation.
- The potential impact on the United States is relatively minor, because the dollar has been comparatively stable. Growth might have been fractionally stronger, with inflation slightly higher in 2001, reflecting movements in import and export prices of its trading partners which are relatively large in dollar terms. A small (50 basis point) rise in interest rates in 1999 beyond what actually occurred would have sufficed to offset this.
- The effective appreciation of the sterling and the Canadian dollar have reinforced monetary policy restraint in both countries, lowering growth by ½ to ¾ of a percentage point and inflation by up to 1 percentage point and, thereby, avoiding more aggressive interest-rate hikes.
- Overall, the combination of a stronger euro in relation to major currencies and lower interest rates would have resulted in a significantly weaker current account position for the euro area (by up to 1½ percentage points of GDP) – it would be moving into deficit in 2001 – with counterpart improvements for Japan, Canada, the United States, and the United Kingdom ranging between ½ and 1 percentage point of GDP, with a US deficit in 2001 of 3½ per cent of GDP compared with 4½ per cent in the current projections.

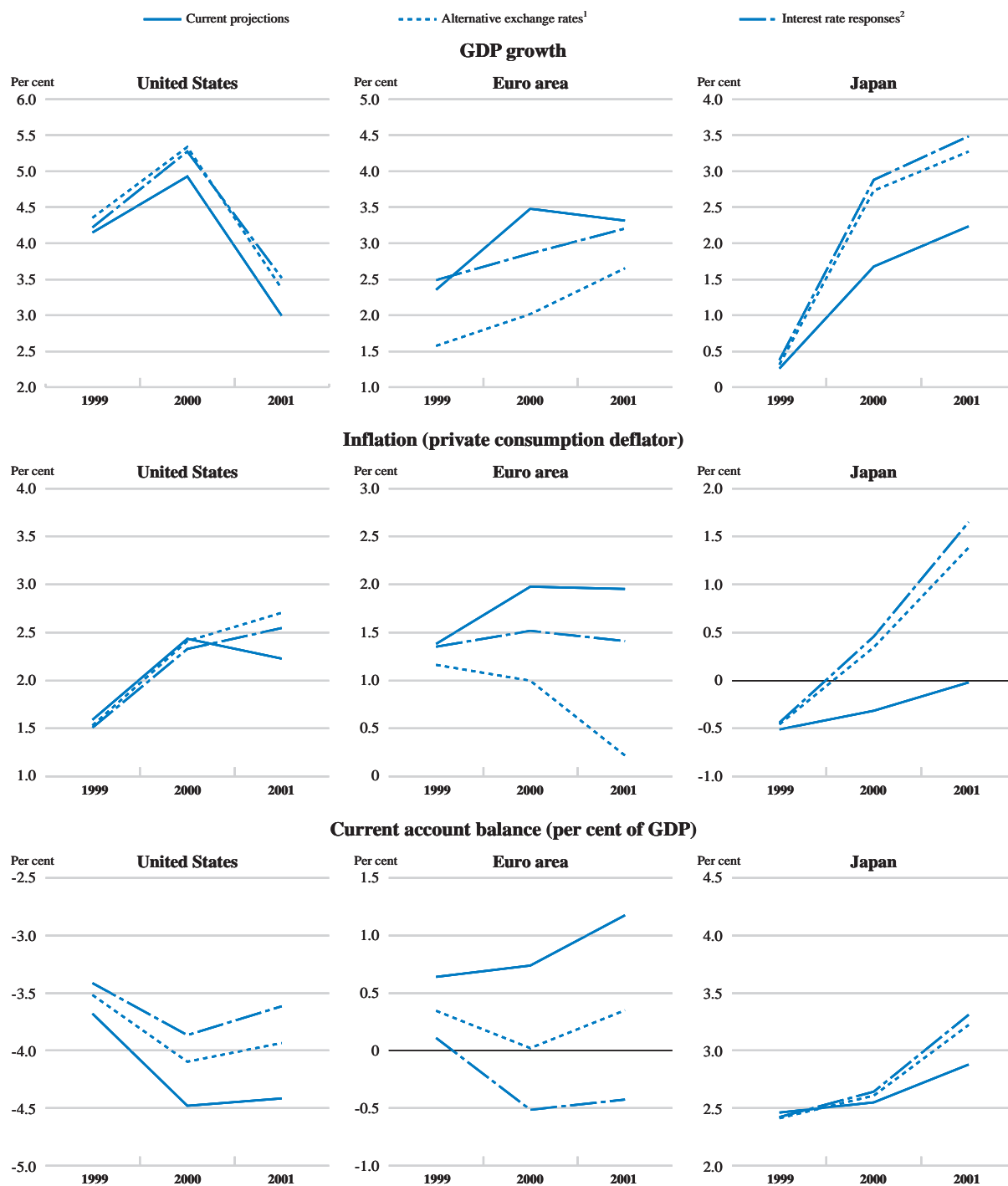
(continued on next page)

played an important role in pulling the area out of the temporary downturn in late 1998 and early 1999. However, the continued depreciation since mid-1999 despite a robust pick-up in domestic demand is increasingly unhelpful, as it may adversely affect inflation developments in the future.

Overall, developments in financial markets during the past year have often worked against monetary authorities, although recent firming in bond markets in most countries and corrections in technology stocks may be pointing to a change in this regard. A large part of the monetary tightening since the latter part of 1999 appears to have been in line with investors' expectations, that, until recently, have undergone relatively little revision. As a result, increases in policy rates have had little impact on the asset prices and rates of return in financial markets through which monetary policy influences aggregate demand. Indeed, as of mid-April, market expectations for monetary policy developments during the course of 2000, as measured by the implied yields on interest rate futures, were broadly unchanged from the beginning of the year in the United States and from even earlier in Europe and Japan (Figure I.14). Only since late April have the implied yields risen significantly in the United States and Europe, indicating a reassessment of the likely need for a firmer monetary policy during 2000. This has tightened financial conditions somewhat, and should help to restrain demand in both areas. In Japan, there has similarly been some reassessment by the markets, although in the opposite direction as uncertainties about the strength of the recovery have continued.

Box I.3. The macroeconomic implications of exchange rate movements since January 1999 (cont.)

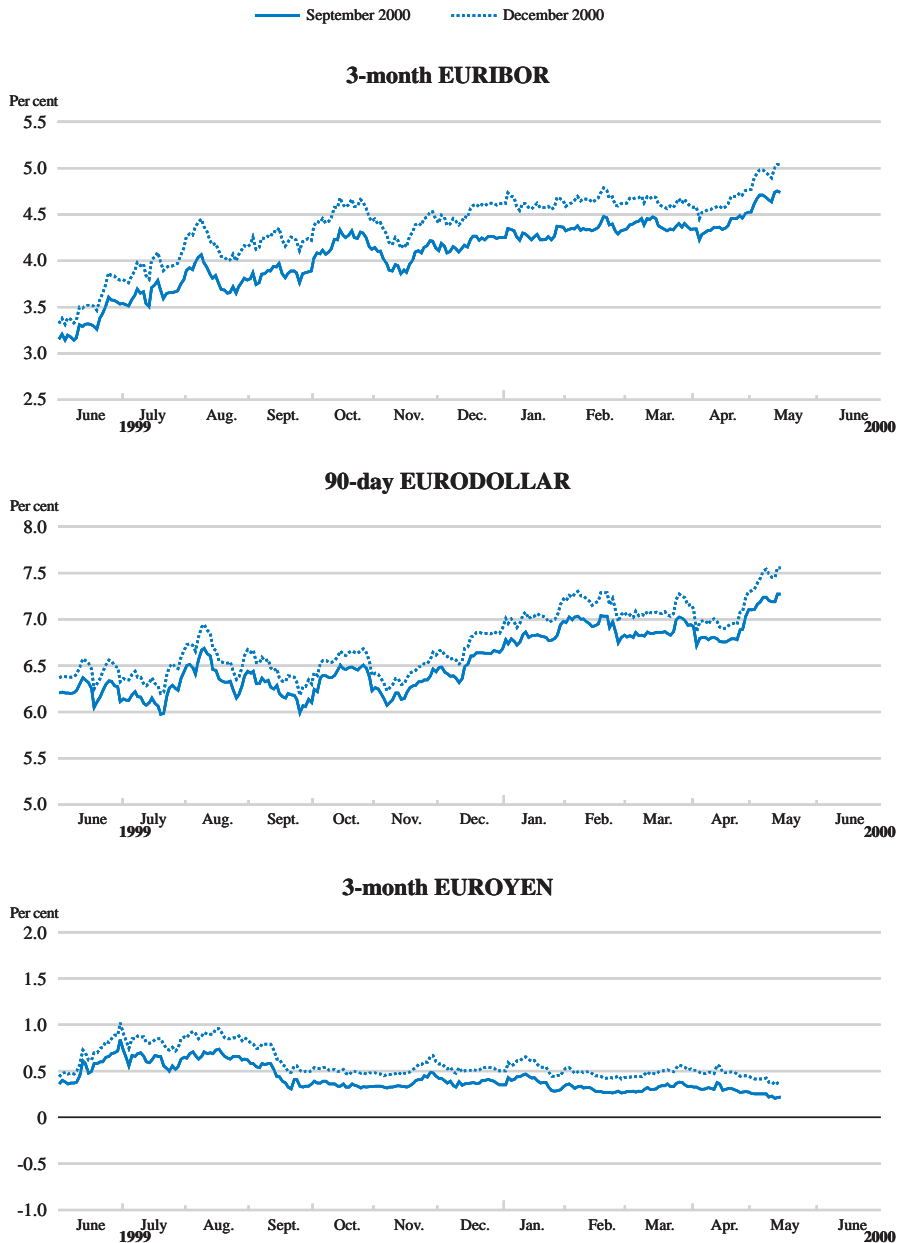
Implications for major OECD regions



1. Exchange rates are held fixed at their levels of the first week of 1999. Interest rates are held at their baseline paths (i.e. actual values plus current projections).
2. As for the alternative exchange rate simulation (see Footnote 1) except interest rates in US and Euro area which are adjusted to bring inflation back towards its baseline level.

Source: OECD.

Figure I.14. Implied yields from interest rate futures

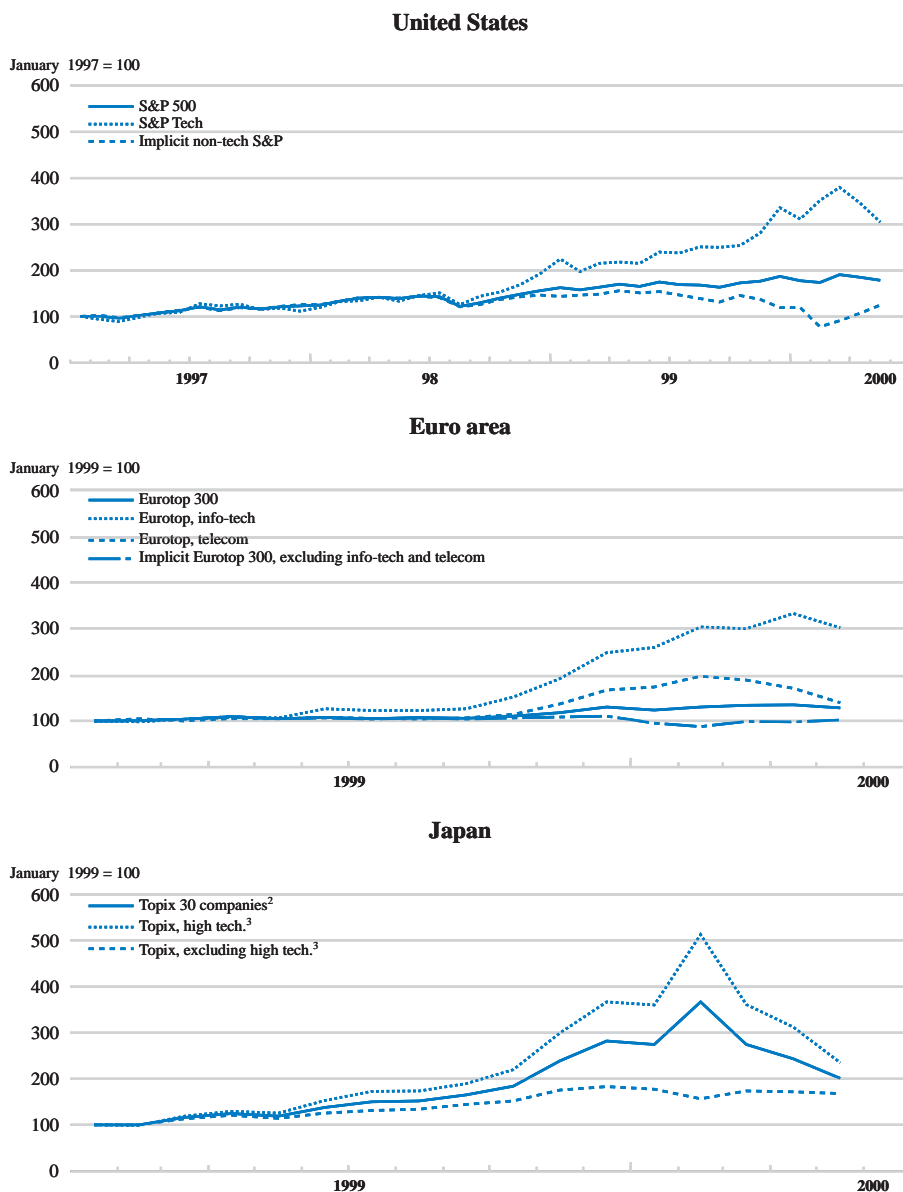


Source: Bloomberg.

The “new economy”: how much real impact now?

The striking feature of financial developments since 1998 is the contrasting movements in equity prices of “new-economy” and “old-economy” companies (Figure I.15). Share prices of companies related to information and communication technology (ICT) have surged, even allowing for their correction in April and May, while equity prices of other companies have remained flat or even fallen. Thus, stock prices of the companies making up the technology sector in the S&P500 index in the United States have

Share prices of companies engaged in information and communication technology surged until recently...

Figure I.15. Equity prices for “new” and “old” economy companies¹

1. End-of-month values, except for the last observation which is from 22 May 2000.

2. Capitalisation weighted index constructed by OECD, of the 30 companies in the Topix 30 index in mid-April 2000.

3. Composite index constructed by OECD.

Sources: Bloomberg, OECD.

increased by around 100 per cent since the autumn of 1998 to mid-May, whereas equity prices of the remaining companies have been volatile without a clear trend. A similar pattern can be observed in Europe since January 1999, whereas equity prices of high technology companies in Japan have risen more than the share prices of other companies.

... and capital has been reallocated to such activities

Buoyant stock markets have been accompanied by a reallocation of capital to sectors engaged in information and communication technology. In the United States, the bulk of new equity issues of some \$56 billion dollars in 1999 was related to new

technology companies, and the extraordinary increase in venture capital financing from \$19 billion in 1998 to \$48 billion in 1999 was primarily channelled to such companies.¹² At the same time, significant buy-backs of own shares by old-economy corporations facilitated the reallocation of capital towards the new sectors. Moreover, some companies in the ICT sectors have begun to expand by using high prices of their own shares to buy old-economy companies which could benefit from new technologies. Some of these trends are also present outside the United States. In particular, investors world-wide have been willing to provide risk capital to young high-technology companies on a massive scale, even to companies with no profit history behind them.¹³

Provided that it raises economy-wide productivity growth rates, the increased production and use of information and communication technology¹⁴ may have important macroeconomic effects.¹⁵ Until recently, macroeconomic studies failed to detect any productivity-raising effects of computers. These findings were arguably in part influenced by serious measurement problems associated with the recording of output in some of the industries using ICT most intensively. Thus, the recording of the output of banks and financial institutions, which are heavy users of information technology, is generally regarded to be poor,¹⁶ and any productivity-raising effects of computers in these sectors would go largely unnoticed in national accounts. But little impact of computers on aggregate growth was also not surprising in the early stages of diffusion, the stock of ICT capital being very small compared to the capital stock at large.

Recent data for the United States suggest, however, that new technology has played an important role in raising labour productivity growth, especially since the mid-1990s. This is due to productivity growth increases in both the ICT-producing sectors and the ICT-using sectors:

- Productivity growth rates in the computer industry in the United States are estimated to have surged in the latter part of the 1990s. This within-sector acceleration is estimated to have raised labour productivity growth in the non-farm business sector as a whole by 0.2 to 0.3 percentage point in the 1995-99 period.¹⁷
- An accelerated capital deepening due to greater use of ever-cheaper computer equipment is estimated to have raised hourly labour productivity growth by

The macroeconomic impact of ICT depends on its effect on productivity growth

In the United States, ICT has boosted productivity growth since the mid-1990s

12. In the first half of 1999, three-quarters of all venture capital funds were invested in new technology companies, see Council of Economic Advisors, *Economic Report of the President, 2000*, Washington DC.

13. Since declining from their March peaks, technology share prices have been volatile and capital markets have become considerably more discriminating in their willingness to provide new money. Whether this is temporary, as was the liquidity crisis which followed the collapse of Long-Term Capital Markets in 1998, or reflects permanently more conservative attitudes in the markets remains to be seen.

14. See OECD, *OECD Information Technology Outlook 2000*, Paris; and Chapter VI, "E-Commerce: Impacts and Policy Challenges".

15. The impact of ICT on aggregate productivity growth rates in the 1990s is discussed in greater detail in Chapter V, "Recent Growth Trends in OECD Countries". See also S. Scarpetta *et al.* (2000), "Economic Growth in the OECD Area: Recent Trends at the Aggregate and Sectoral Level", *OECD Economics Department Working Paper* (forthcoming).

16. For example, until the revision of national accounts to SNA93 basis last year, the service of automatic teller machines had simply been ignored in the measurement of financial sector output.

17. See R.J. Gordon (1999), "Has the 'New Economy' Rendered the Productivity Slowdown Obsolete?", *Northwestern University, Working Paper*; S.D. Oliner and D.E. Sichel (2000), "The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?", *Federal Reserve Board of Governors, Discussion Paper*; D.W. Jorgenson and K.J. Stiroh (2000), "Raising the Speed Limit: U.S. Economic Growth in the Information Age", Harvard University (*mimeo*).

close to ½ percentage point in the 1995-99 period.¹⁸ This is almost one half of the total increase of output per hour growth in the non-farm business sector compared with the 1973-95 period. Though part of this acceleration may be related to cyclical factors, OECD estimates suggest that there has also been a noticeable improvement in trend labour productivity growth.

At present, there is little direct evidence of ICT-driven network externalities in aggregate data. Nevertheless, anecdotal evidence suggests that businesses are exploiting network effects through the reorganisation of production and distribution.

Evidence of significant ICT-driven increases in productivity growth in countries outside the United States is limited

Evidence that greater use of information and communication technology has raised productivity growth rates outside the United States significantly is limited. Nevertheless, many of the forces generated by ICT that have been operating in the United States are working elsewhere, even if far less forcefully. Provided the overall policy framework is conducive to maximising the benefits, it would be surprising if they do not eventually lead to similar results. In the Nordic countries, where ICT use is comparable or even greater than in the United States, and more intensive than in most other countries, there is already some evidence that labour productivity growth has risen over the 1990s. This evidence can be interpreted in different ways: it may be related to the use of new technology, although it has also been influenced by the turbulent macroeconomic environment in the early 1990s, when deep recessions forced producers to take drastic measures to increase efficiency in order to survive.

Policy requirements in OECD countries

The United States and other economies with tight capacity: encouraging a soft landing

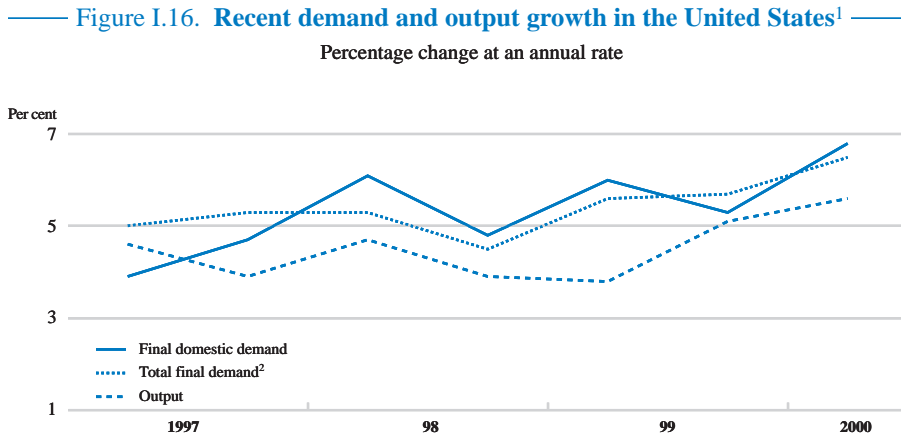
Policy tightening is required in countries with excess demand

In a number of OECD countries, growth has been strong for most of the period since the early 1990s, and spare capacity appears to have been eliminated. The challenge for the authorities in these countries is to bring about an orderly reduction in demand growth to prevent overheating and the need for a subsequent sharp tightening of policy. Steering these economies towards a soft landing in many cases has been made more difficult by the strength of financial markets and the global recovery. The task continues to be complicated by uncertainty about the extent to which new technology and structural change have raised the non-inflationary potential of their economies. Moreover, the projected fall in oil prices may mask the inflationary effects of excess demand later this year and reduce the pressure to take needed corrective action.

In the United States total demand growth has become unsustainable

The situation is clearest in the United States. Notwithstanding the benign inflation environment and the benefits of diffusion of information technology on productivity, the recent strength of domestic demand and activity does not appear to be sustainable. Final domestic demand growth has risen substantially during the past three years and is estimated to be approaching 7 per cent at an annual rate during the

18. See Council of Economic Advisors (2000), *op. cit.*; and S.D. Oliner and D.E. Sichel (2000), *op. cit.*



1. OECD projections for the first half of 2000.
2. Final domestic demand plus exports of goods and services.
Source: OECD.

first half of 2000 (Figure I.16). As the emerging market crisis has receded and export demand has recovered, growth of output has risen to over 5 per cent since mid-1999. This is more than a full percentage point above the recently-raised OECD estimate of the potential growth rate. At the same time, evidence that demand is putting pressure on capacity persists: the unemployment rate has continued to fall, now standing more than 1 percentage point below the rate that the OECD estimates to be compatible with price stability in the medium to longer term, and the current account deficit continues to widen rapidly. Cost and inflation data released in late April reinforce the presumption that slowing is necessary.

Since the momentum in the economy strengthened in mid-1999, the Federal Reserve has responded in a gradual but pre-emptive way, raising interest rates in several small steps even though, at least until March, core inflation hardly moved. Nonetheless, the monetary tightening that has already taken place seems unlikely to restrain demand growth sufficiently, and it is likely that the authorities will have to raise interest rates more rapidly than the markets appear to have been discounting in mid-May. In the central forecast, a 75 basis point increase in the policy rate by August is judged to be necessary on top of the 50 basis point rise in May to engineer a soft landing.¹⁹ However, should the assumed increase in policy rates fail to weaken the momentum in the economy, the monetary brakes would have to be used more forcefully.

Monetary policy will have to be tightened further...

The required monetary tightening will also depend on the future stance of fiscal policy. The emergence of a structural budget surplus in 1999 after several years of tight fiscal policy has led to calls for higher public spending and lower taxes which may prove difficult to resist. Emergency measures have already been invoked to increase spending beyond previously agreed, if unrealistic, caps, and discretionary

... and a pro-cyclical fiscal policy needs to be avoided

19. The implied yields from interest rate futures reported in Figure I.14 suggest that market expectations for 90-day rates were fairly steady from the beginning of the year to late April. Since then the implied yields have moved up significantly; by mid-May they were 7¼ per cent for September and 7½ for December. These rates normally trade at a small premium, of the order of 20 basis points, to the federal funds rate.

measures have been taken to cut taxes slightly. So far, however, the impact of this easing has been offset by unexpectedly strong revenues which appear to be at least partly structural. Moreover, prospective saving on debt servicing costs implies that the overall fiscal stance may be slightly restrictive in 2000 before turning broadly neutral in 2001. This is appropriate as any easing of the fiscal stance in the near term would be unhelpful for an economy that is confronted with excess demand and would increase the need for monetary tightening. To the extent that it is judged desirable to use surplus revenues to reduce taxes and increase spending, it would be appropriate to postpone such actions until the economy is in better position to meet the extra demand. Even over the longer run, discretionary easing should not be allowed to compromise a rapid repayment of public debt, which would ease the task of dealing with the fiscal consequences of the ageing of the population.

The rising current account deficit poses some risks

One consequence of the strong growth of domestic demand since 1997 which has raised concern has been the rapid increase in the current account deficit, now running in excess of 4 per cent of GDP. The availability of foreign goods to satisfy strong domestic demand has played an important role in sustaining the non-inflationary character of the expansion and has helped to support weak demand outside the United States. The widening of the current account deficit has not been difficult to finance, with foreign investors taking advantage of higher actual and expected rates of return than available elsewhere, while the dollar has remained fairly stable in effective terms. However, the US net international investment position is deteriorating rapidly (from -5 per cent of GDP in 1995 to -20 per cent in 1999) and questions exist as to the implications this may have for the willingness of foreign investors to continue to accumulate claims on the United States. At some stage a reassessment may take place and the dollar could come under disruptive downward pressure. In this case, the monetary authorities could be exposed to a dilemma if a weakening exchange rate added to inflationary impulses while reduced capital inflows tended to weaken asset prices and demand.

Rising international indebtedness, like richly valued equity markets, entails the risk that difficult balance sheet adjustments may be necessary at some stage, particularly should sentiment in financial markets change. Rising household and non-financial business sector debt have also raised concerns in this regard, although debt servicing obligations have at most only risen modestly.²⁰ While these features of the current situation do not warrant any direct policy intervention to influence them, they point to the desirability of balance sheets that contain some cushion to cope with adverse circumstances and are thus elements that policy makers should monitor.

Monetary policy will also have to be tightened further in several other countries

The United Kingdom, Canada, Australia, New Zealand and Sweden also face the problem of managing a slowdown to sustainable growth rates in circumstances where margins of slack are already exhausted. Core inflation has so far remained broadly stable in these countries, in some cases thanks in part to the appreciation of their currencies since early 1999. To maintain inflation within targets, the monetary authorities in all five countries have raised their key policy rates since last autumn. However, with the exception of New Zealand, the impact on restraining demand has been or will be moderated to some extent by concomitant reductions in cyclically

20. According to figures from the Federal Reserve, household debt service payments, amounted to 13.5 per cent of disposable personal income in the fourth quarter of 1999, only around ½ percentage point higher than the average for the past 20 years. Net interest payments of non-financial corporations were 9 percentage points lower as share of pre-tax profits plus net interest payments than in the previous 20 years. On the health of household and business balance sheets, see Chapter VIII, "Monetary Policy in a Changing Environment".

adjusted primary budget surpluses. With fiscal policy restraint diminishing while spare capacity is disappearing, further rises in policy rates are likely to be required to bring the economies to a soft landing. Inflationary tensions in Korea are also likely to require some tightening of monetary policy.

The euro area: prolonging the expansion

The recovery in the euro area has evolved as expected last autumn, and growth prospects in the near term appear to be better than at any time since the late 1980s. The fall in the unemployment rate has continued without generating inflation pressure. It was not accompanied by a clear increase in the growth of labour compensation in the course of 1999; and the increase in productivity growth since late 1998 and early 1999 was reflected in a deceleration of unit labour costs throughout the year. More recent wage settlements, notably in Germany in March, continue to be moderate.

In the euro area, the underlying inflation rate is still low despite a robust recovery

With the recovery now having taken root, the critical issue is how long the expansion can last without running into inflationary bottlenecks. On the basis of the OECD current estimates of the level and the growth rate of potential output, the projected expansion will not have a long run before it starts putting excess pressure on resources. Indeed, spare capacity may be exhausted and a positive output gap could emerge over the coming 18 months, possibly heralding some inflationary tensions beyond the short-term projection horizon. Upside risks associated with the favourable external environment reinforce this concern. However, the OECD potential output estimates are based on broadly unchanged supply-side developments in the near future compared with the recent past. Thus, the structural unemployment rate is only expected to fall by ½ percentage point from 1999 to 2001, and the underlying productivity growth is projected to be broadly unchanged.

The expansion may soon result in excess pressure on resources...

The supply side in the euro area could be stronger than embodied in the projections. An important uncertainty is that labour and product market reforms in several countries in the euro area and in the European Union at large may have been more successful in reducing structural unemployment rates than currently recognised,²¹ thereby increasing the availability of resources that can be employed without creating inflationary tensions. In addition, several other factors may increase the growth of productivity in the near future:

... but potential output could be stronger than currently recognised

- Deeper integration of product and financial markets in the euro area, as mirrored *inter alia* in the sharp increase in mergers and acquisition activity (Box I.4), should encourage market-driven industrial consolidation and restructuring. It may eventually show up in improved area-wide productivity.
- Regulatory reform in electricity and telecommunications sectors is already prompting greater efficiency and lower prices in some countries and this could continue in the coming years, at the same time as reforms may be extended to other sectors.
- New technology may provide some added impetus to productivity growth in the future, though, as noted above, such effects appear to have been limited thus far. In this regard, the deregulation of the telecommunications sector, noted above, will be particularly important.

21. See Chapter VII, "Recent Labour Market Performance and Structural Reforms".

Box I.4. Cross-border mergers and acquisitions: recent trends and possible effects

The sharp increase in cross-border merger and acquisition (M&A) activity in the course of the 1990s (see table) is an indication of the effort businesses are making to increase their competitiveness. The estimated value of international M&A deals in 1998 was over \$500 billion,¹ and is likely to have risen strongly since then with the rise in overall merger activity. Most global M&As have involved companies on either side of the Atlantic or companies located in the European Union, but there has also

been an increase in foreign corporations acquiring domestic companies in Japan. The increase in M&A activity has been noticeable in most sectors. Unlike in previous global merger waves, recent M&As have tended to unite companies in similar lines of operations and many deals have involved the merging of very big companies. Thus, very large scale M&As have taken place in petroleum, automobiles, telecommunications, pharmaceuticals, banks, electricity and entertainment.

Cross-border mergers and acquisitions 1991-98

US\$ billion

| | Inward | | | Outward | | |
|---------------------------|--------|------|-------|---------|------|-------|
| | 1991 | 1995 | 1998 | 1991 | 1995 | 1998 |
| United States | 23.8 | 61.4 | 202.7 | 13.2 | 65.7 | 132.9 |
| European Union | 38.7 | 74.8 | 223.4 | 50.5 | 98.7 | 330.6 |
| Other developed countries | 8.9 | 30.8 | 52.5 | 16.2 | 47.8 | 76.5 |
| Developing countries | 13.8 | 70.3 | 79.3 | 5.4 | 25.1 | 18.0 |

Note: Inward M&A involves domestic companies being acquired by non-residents; outward M&A involves domestic companies acquiring foreign companies.

Source: KPMG Corporate Finance, 1999.

The increase in international M&A activity in the latter part of the 1990s has been spurred by supportive financial conditions and changes in the policy environment. As in earlier merger waves, high stock prices have encouraged companies to expand through mergers, as target companies could be acquired in exchange for generously valued shares of the acquiring company. Ample availability of external finance on attractive terms in the corporate bond market has also stimulated merger activity, the bulk of the extraordinary increase in issuance in the eurobond market in 1999 being reportedly related to M&A activity. Moreover, regulatory reform and privatisation, notably in telecommunications and the energy sector, have also played important roles in the current global merger boom, making cross-border company unions possible where regulations and state ownership had earlier barred such developments. Finally, the deeper market integration in Europe with the introduction of the euro has facilitated cross-border operations in the participating countries, and severe balance-sheet problems in Japan have reduced resistance to foreign ownership of domestic companies.

While financial conditions and changes in the policy environment have served as catalysts for recent M&A activity, the ultimate economic justification of corporate mergers is that they increase the profitability of the united companies. The classical argument in favour of mergers in general is that they

allow the exploitation of economies of scale and scope. Mergers may also increase shareholder value by weakening competition and allowing the merged unit to exploit its market power by increasing prices, though competition enforcement agencies are likely to limit such anti-competition gains. But it is also possible that profitability is not the dominant criteria in determining mergers and acquisitions, management of the acquiring companies pursuing its own interest of output maximisation when corporate governance structures are weak.

The empirical evidence suggests that mergers often fail to generate any increase in profitability. A long list of studies on domestic mergers² shows that the perceived profitability of acquiring companies, as reflected in their share price, has fallen after mergers, though equity prices of the target companies typically rise. This could indicate that the intrinsic advantages associated with bigger companies may often be overstated, but may also mirror possible adjustment costs related to corporate mergers and the difficulties in extracting cost savings. High costs of merging two companies with distinct corporate cultures have been singled out as a reason for disappointing post-merger performance. Acquiring companies may also be blocked in their efforts to realise potential cost savings by greater-than-expected restrictions on corporate restructuring imposed by the authorities or prevailing social norms.

1. Recent trends in M&A activity are discussed in N.-H. Kang and S. Johansson (2000), "Cross-border Mergers and Acquisitions: Their Role in Industrial Globalisation", *OECD STI Working Papers* 2000/1.
2. See M. Maher and T. Andersson (2000) "Corporate Governance: Effects on Firm Performance and Economic Growth" in L. Renneboog *et al.* (eds.), *Convergence and Diversity of Corporate Governance Regimes and Capital Markets*, Oxford University Press (forthcoming).

Given that these developments tend to reinforce each other, and that their effects are cumulative, there is some reason to be optimistic about prospects for potential output growth.

In this uncertain environment, a gradual return to a neutral stance remains the appropriate policy for the European Central Bank. As assumed in the projections, this would imply bringing the refinancing rate to 5 per cent over the next one and a half years. However should inflation pressure threaten to be inconsistent with the ECB's objective of medium-term price stability, this tightening will have to be implemented earlier than assumed in the projections. Euro weakness may complicate the monetary authorities' task but will only merit a response if it generates second-round inflationary effects.

The ECB should pursue a gradual return to a neutral stance

As government budgets in the euro area have benefited from the recovery, some discretionary fiscal easing may take place in the near future. General government budget balances in 1999 turned out to be significantly stronger than anticipated last autumn, by close to ½ percentage point of GDP.²² However, better-than-expected starting points have not yet been reflected in updated stability programmes, prepared in the context of the Stability and Growth Pact, target budget balances for 2002 in more than half of all euro area countries remaining largely unchanged (Table I.7). Indeed, a number of these countries have already announced plans to spend some of the revenue gains due to stronger cyclical growth to reduce high tax burdens. In the countries where these revenue reductions are concentrated in areas where the tax system appears to impart particularly heavy costs, they make the tax system more supportive of economic dynamism (Box I.5).

Windfall tax revenues can be helpful to facilitate tax reforms...

Table I.7. Budget targets in Stability and Convergence Programmes of EU countries

Per cent of GDP

| | 1998-99 Programme | 1999-2000 Programme | |
|------------------------------|-------------------|---------------------|------|
| | 2002 | 2002 | 2003 |
| Stability Programme | | | |
| Austria | -1.4 | -1.4 | -1.3 |
| Belgium | -0.3 | 0.0 | 0.2 |
| Finland | 2.3 | 4.6 | 4.7 |
| France | -0.8 | -0.7 | -0.3 |
| Germany | -1.0 | -1.0 | -0.5 |
| Ireland | 1.6 ^a | 2.5 ^a | n.a. |
| Italy | -1.0 ^a | -1.0 ^a | -0.1 |
| Luxembourg | 1.7 | 2.9 | 3.1 |
| Netherlands | -1.1 | -1.1 | n.a. |
| Portugal | -0.8 | -0.7 | -0.3 |
| Spain | 0.1 | 0.1 | 0.2 |
| Convergence Programme | | | |
| Denmark | 2.6 ^a | 2.3 | 2.5 |
| Greece | -0.8 ^a | 0.2 | n.a. |
| Sweden | 2.5 ^a | 2.0 | n.a. |
| United Kingdom | -0.1 | -0.1 | -0.4 |

a) 2001.

Source: European Commission.

22. Some of the improvement may be due to the change to the new ESA95 national accounting system.

Box I.5. Main features of recent and envisaged tax reforms in EU countries

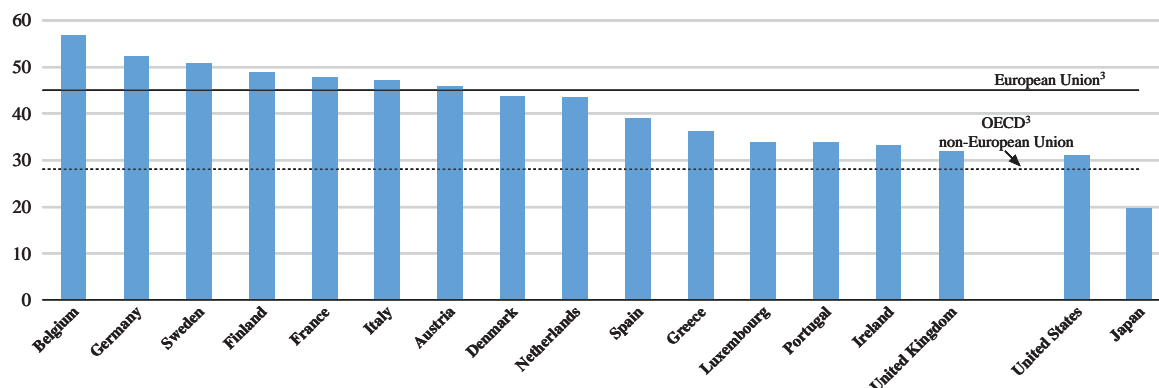
After several years of fiscal consolidation efforts, a few EU countries took advantage of buoyant revenues to reduce taxes in 1999 and several have announced plans to cut taxes in 2000 and beyond. However, though some of these tax measures have involved cutting indirect taxes with little overall impact on supply-side conditions, many have been designed to have a significant structural impact. The main objectives have been to increase employment incentives and opportunities, boost productivity, and protect the environment. This has often implied a reduction in the overall tax burden; a shift away from labour to other tax bases, including increases in “green” taxes; and improved neutrality in the taxation of savings.

The taxation of labour, which is far higher than in most other parts of the OECD area (see figure below), has been the main target of recent and envisaged reform efforts. Many

measures are designed to lower tax wedges on labour to foster work incentives and/or boost demand for labour, in particular for low-paid workers. Cuts in marginal rates on labour income have been a key device to boost the supply of labour (Austria, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden, and the United Kingdom). France, Germany and Greece are also raising the general personal income tax allowance, thus exempting the income of most low-skilled workers from taxation. In addition, some countries are introducing tax reliefs so as to make work more attractive to targeted groups of the population, e.g. spouses or low-paid workers. Thus, an earned income tax credit and/or a tax relief for childcare expenses have been introduced or raised in Belgium, Finland, Italy, the Netherlands and the United Kingdom, while Ireland is switching gradually from a joint to an individual assessment of married couple income.

Average tax wedge on labour, 1998¹

As a percentage of gross labour costs²



1. For a single individual at the income level of the average production worker.

2. Gross wage plus employers' contributions.

3. GDP weighted average.

Source: OECD, Taxing wages.

... but a major easing of fiscal policy is not appropriate in the near term

On currently announced policies, the discretionary easing of the area-wide fiscal stance is modest, but there is a risk that it could turn out to be larger than built into the central projections. This would be a mistake on two grounds. First, the timing would be bad: any substantial fiscal relaxation would be inappropriate for an economy that may be running out of spare capacity. Second, underlying fiscal positions in many countries have not yet been improved as much as needed: fiscal expansion would worsen them and reduce the capacity of euro area countries to meet the longer-run fiscal challenges related to the ageing of their populations and that in a context where public debt is still uncomfortably high in most countries.

Structural reform effort needs to be intensified to mobilise under-utilised labour resources and to increase productivity

Over the longer run, the current policy challenge in the euro area is to further mobilise under-utilised labour resources and to raise trend productivity growth rates. This is required if the euro area aspires to have the same proportion of its population in work as in the other principal OECD areas (Figure I.17). As demonstrated by the experience of a few countries in the euro area, sustained comprehensive reforms

Box I.5. Main features of recent and envisaged tax reforms in EU countries (cont.)

Reductions in payroll taxes have been another important way of encouraging the integration of those most plagued by unemployment into the labour market. Cuts are designed to favour low-paid workers in Belgium, France, Italy and the United Kingdom and new permanent contracts in Spain, while in Greece they are granted for any net job creation. To stimulate demand for labour, the European Commission last year gave Member states the option of reducing VAT rates on certain labour-intensive services for the period 2000-02. Nine countries have seized this opportunity: Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom.

In some cases, these tax cuts on labour are being financed by increasing reliance on other tax bases. Green taxes are playing a role and, indeed, most EU countries are introducing or raising taxes on electricity and/or other sources of greenhouse gases, notwithstanding the failure to reach an agreement on the 1997 European Commission proposal on energy taxes. France and Germany are also rebalancing the tax burden away from labour to business and financial income, by changing their corporate tax and/or social security contribution bases while Italy has transferred the financing of part of social security expenditure from contributions to general taxation.

Enhancing tax neutrality on capital income accruing from different financial assets has also been high on the agenda. Some EU countries are gradually moving from a comprehensive income tax model towards a separate taxation of labour and capital income through the personal income tax – a system already in place in Nordic countries. As a result, different types of capital income are increasingly being taxed at flat rate and these rates are tending to converge (France, Italy, Netherlands, and Spain). Another dimension is the reduction in the generous tax privileges granted to

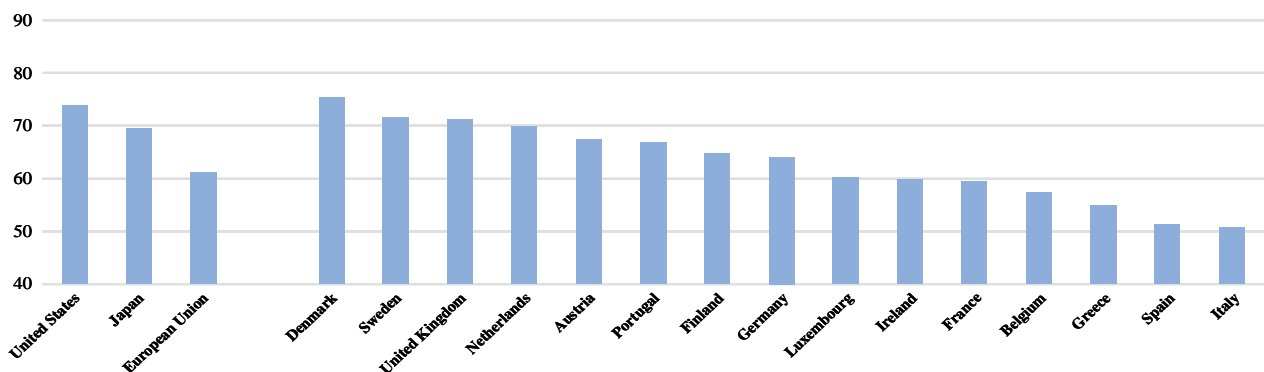
owner-occupied housing investment, notably in the United Kingdom, which is fully phasing out mortgage interest relief, but more modestly in Netherlands, Denmark, and Spain.

Progress in reforming business taxes has been more limited. Corporate income tax rates have been cut marginally in Portugal and more significantly in Germany and Italy. In Germany this has been accompanied by measures to broaden the base, in the form of tighter rules for the depreciation of capital and other allowances, which will substantially erode the net tax relief stemming from lower rates but improve the overall neutrality of the system. In addition, the proposed reduction in the taxation of capital gains on inter-company share holdings would provide financial institutions in particular, with greater flexibility in managing their portfolios. This should facilitate the rationalisation of German industry and improve corporate governance. Some recent measures designed to assist business and encourage productivity, on the other hand, are working to reduce the neutrality of the system. In particular, tax privileges for small and medium-sized enterprises have been reinforced in some countries, in most cases through reduced tax rates on profits below a given threshold (France, Greece, Netherlands, Portugal, Spain, and United Kingdom), and several countries have enhanced tax relief for expenses on R&D and new technologies.

Recent and envisaged measures to simplify the tax system are contributing to lower collection and compliance costs, especially for small companies, in some EU countries. Austria, Finland, France, Germany, Italy, Portugal, and Spain, have progressed in this direction, by streamlining tax reliefs, reducing the number of tax brackets, eliminating small taxes, simplifying tax forms, and/or improving their tax administrations' communication and information technologies.

Figure I.17. Employment rates in the United States, Japan and the European Union, 1998

Employment as a percentage of population aged 15-64



Source: OECD.

along the lines of the *OECD Jobs Strategy* recommendations – covering not only labour market policies but also areas such as product market competition, education, innovation and technology – have succeeded in reducing structural unemployment and increasing labour force participation.²³

Japan: sustaining the recovery

In Japan, policy requirements have not changed despite the recovery

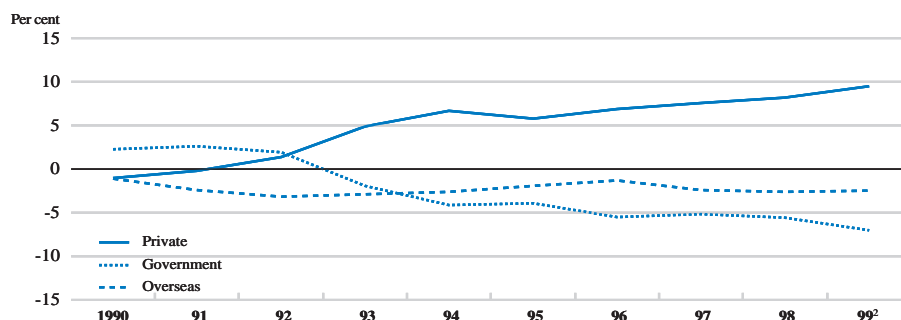
Policy requirements in Japan have not changed markedly since last autumn. Notwithstanding the ambiguous picture that emerges from available economic data, the recovery that began last year appears to be reasonably well established but there is a risk that it might peter out in the not too distant future. Indeed, the economy may settle down on a growth path that will leave it with a large margin of underused capacity and high unemployment, as its expansion is restrained by corporate restructuring and the inevitable fiscal retrenchment. In this environment, the policy priority remains to sustain the recovery in the short run without excessively compromising the longer-term health of the economy, while at the same time making the economy more dynamic and thus better equipped to unwind the imbalances that it has inherited from the past.

Continued high budget deficits are warranted in view of the current cyclical slack...

The outlook for the Japanese economy does not permit significant fiscal consolidation to be implemented over the coming 12 to 18 months. However, there would no longer seem to be a need for emergency supplementary budgets to support the recovery. A postponement of fiscal retrenchment will add to public debt, but if expectations of a timely consolidation are well established this is unlikely to unsettle financial markets and result in a major hike in bond yields in the near term. The willingness of investors to fund the large government budget deficit without demanding higher interest rates is related to ample private saving in excess of private investment (Figure I.18), and this is likely to continue in the near future unless investment is much stronger than anticipated. Moreover, the reduction in bank lending abroad following the financial crisis which broke in late 1997 and excess liquidity in money markets to keep overnight interest rates close to zero have encouraged private banks to increase their holdings of government securities (Table I.8). As long as the zero interest rate policy is maintained and banks' foreign lending does not expand, these

Figure I.18. Net lending by sector in Japan¹

As a percentage of GDP



1. Fiscal years. Note that the figures for the 1998 fiscal year are adjusted for the assumption by the central government of the debt of the Japan National Railways Settlement Corporation and the National Forest Special Account.
2. OECD estimates.

Source: OECD.

23. OECD (1999), *Implementing the OECD Jobs Strategy – Assessing Performance and Policy*, Paris.

Table I.8. Sectoral acquisitions of central government securities in Japan

Per cent of net increase in central government securities outstanding

| | FY1996 | FY1997 | FY1998 | FY1999 ^a |
|----------------------------------------------------------------------------------------|--------|--------|--------|---------------------|
| Central Bank, Postal Saving, Trust Fund Bureau and other public financial institutions | 71 | 27 | 82 | -3 |
| Private banks | -11 | 28 | -10 | 64 |
| Insurance companies and pension funds | 32 | -4 | 30 | 54 |
| Other domestic sectors | 3 | 15 | 0 | 28 |
| Overseas | 5 | 34 | -2 | -42 |

a) First three quarters only.

Source: Bank of Japan, Flow of Funds.

factors will continue to support the bond market. At some stage, though, interest rates will increase, adding to debt servicing costs, and amplify the short-term debt spiral that is in train.

While strong deficit reduction may be avoided in the short run, it is necessary to start preparing without delay for consolidation measures in the medium term. Given the scale of the required improvement in public finances merely to arrest the rise in the debt-to-GDP ratio when the ageing of the population is putting pressure on the budget, actions will have to be taken both to cut expenditure, notably public works programmes, and to increase revenues.²⁴ Several OECD countries that have successfully reduced serious fiscal imbalances have found it useful to establish medium-term fiscal plans that contained specific expenditure and/or revenue targets and a clear and transparent strategy to achieve these objectives.²⁵ Such programmes have also increased transparency in fiscal policy making and increased accountability in the delivery of policy targets, and adherence to such plans has ultimately been rewarded in greater credibility of the fiscal authorities. A clear strategy for establishing a medium-term fiscal plan could provide the Japanese authorities with an important tool to consolidate the budget in an orderly and credible way.

In view of the underlying weakness of the economy, monetary policy will have to continue to provide a strong stimulus to the economy in the near term, though the “zero interest-rate” policy could be eased as the economic recovery becomes better established. The extraordinary low policy rates in effect since March 1999 have helped to keep interest rates low over the whole of the maturity spectrum and may have contained the rise in the yen. However, provided the recovery progresses as projected by the OECD, it might be appropriate to lift policy-determined interest rates by a modest amount over the coming 12 to 18 months. On the other hand, should the recovery falter, it would be desirable if the monetary authorities could provide additional stimulus to the economy, including through purchases of government bonds.

... but preparation for budget consolidation in the medium-term should start now

Monetary policy will have to remain very easy even if a small increase in interest rates may be appropriate as the recovery consolidates

24. OECD, *OECD Economic Survey of Japan*, 1999, Paris.

25. See e.g. OECD (1997), “Budgeting for the Future – Multiyear Budget Forecasts”, OECD/GD(97)178 (available at www.oecd.org/puma/online); and *OECD Economic Outlook* 60, December 1996.

Substantial progress has been made in some areas of financial reform...

To lift the longer-term growth potential of the economy, financial reforms need to proceed in line with earlier plans. Significant progress has already been achieved in two important areas:

- Important elements of the “Big Bang” financial reform package have been implemented, and stronger actual and prospective competition in financial markets is encouraging rationalisation in the sector. Domestic banks, even from different traditional corporate groups, are merging, and foreign presence in the financial markets has increased.
- Changes in accounting rules are greatly improving the transparency of financial statements in the corporate sector. Consolidated accounting has been in effect since the last fiscal year; financial statements for the current reporting period will have to record saleable financial assets and property on the basis of current market values rather than historical cost, and explicitly recognise unfunded pension liabilities; and long-term security holdings, notably cross shareholdings, will have to be marked to market starting in the coming fiscal year, with write-downs required for large capital losses.

These measures are intensifying pressures to speed up the process of corporate restructuring, stimulate economy-wide competition and increase efficiency.

... but there is still some unfinished business in the clean-up of bad debts in the banking system

There is, however, some unfinished business on the financial sector reform agenda, and doubts still remain about the health of some financial institutions. The shift from a blanket to a more limited deposit guarantee system has been postponed from 2001 to 2002 to allow more time to deal with non-performing loans in credit unions and cooperatives. The large public capital injection into 15 major banks in March 1999 has been used to remove non-performing loans from their balance sheets. However, a quarter of all loans of these banks is below prime grade quality, and real estate loans are still large and renewed problems of non-performance could emerge if property prices continue to soften. Financial problems in the insurance sector have yet to be dealt with, and progress has slowed in cleaning up bad debts of housing loan corporations (*jusen*) and other financial institutions.

Product and labour market reforms need to be implemented

Reforms in product and labour markets are also required to make the economy more dynamic. Statutory entry barriers and other regulations hamper competition in many segments of the product market and reduce production efficiency. The recovery offers an opportunity to step up regulatory reform efforts, and to implement the detailed recommendations contained in the *OECD Review of Regulatory Reform in Japan*.²⁶ It is also urgent to review if traditional labour market institutions, such as life-time employment, that have served Japan well for most of the post-war period, need to be adjusted in the light of the rise in unemployment and the ongoing corporate restructuring. To allow the economy to derive the maximum benefits from information and communication technology, an emphasis should be placed on removing obstacles to the diffusion of computers and Internet use. The speed at which mobile telephones were diffused in Japan once barriers had been removed demonstrates the capacity of the economy to adopt new technology when the framework conditions are right.

26. OECD, *Regulatory Reform in Japan*, Paris, 1999.

Appendix: Medium-term scenarios

This appendix describes the main features of the current version of the OECD medium-term reference scenario, which is compatible with the present short-term projections, and gives further details of the various assumptions and simulation results involved in the analysis of “Global boom” scenarios discussed in the risks section of the main text.

The medium-term reference scenario

The medium-term reference scenario extends the current short-term projections to the end of 2005 (see Tables I.9 and I.10 and Figure I.19). Following the period of robust near-term expansion, growth for the OECD area is projected to slow gradually over the period towards a medium-term growth rate of just over 2¾ per cent, with growth in world trade also moderating from current high levels to an average of 7½ per cent *per annum*. Excluding certain high-inflation countries, area-wide inflation remains broadly stable at around 2 per cent *per annum*; the average unemployment rate remains stable at around 6 per cent; falling over the period by ¾ percentage point in Europe, but rising by about 1 percentage point in the United States. Fiscal consolidation towards overall balance is projected to continue over the medium term, but the distribution of government net lending positions across countries and regions remains quite uneven, with substantial surpluses in a number of countries. Overall, government debt declines somewhat, significantly so for Europe and the euro area, but remains high in a number of countries and continues to rise strongly in Japan. In spite of closing output gaps, the projected high levels of current account imbalances between the major OECD countries and regions persist over the medium term.

The medium-term reference scenario extends the projections to the end of 2005

Scope and key assumptions

The medium-term reference scenario, which is constructed using the OECD INTERLINK model, is conditional on specific assumptions about policies and economic developments in OECD and non-OECD countries and regions. Its main purpose is to provide a basis for comparisons with scenarios based on alternative assumptions and to provide insights on the possible build-up or unwinding of specific imbalances and tensions in the world economy over the medium term and on the scope for policies to assist the adjustment process. The reference scenario does not embody a specific view about the timing of future cyclical events but instead assumes a pattern of growth such that the gap between actual and potential output is broadly eliminated in all OECD countries over the medium term. Commodity prices and key exchange rates are assumed to be unchanged in real terms beyond the short-term horizon (with certain exceptions). Monetary policies are assumed to be directed towards keeping inflation low or in line with medium-term objectives. Fiscal policies are assumed to be consistent with current policy settings and, for the most part, continued fiscal consolidation, achieved at fixed tax-to-GDP ratios, through trend reductions in public consumption and social spending. Consistent with short-term projections, the reference scenario assumes continuing recovery in the principal non-OECD regions, with import growth adjusting steadily back towards historic trend rates of growth over the period.

It assumes a closing of output gaps over the medium-term period

Table I.9. Medium-term reference scenario summary

Per cent

| | Real GDP growth | Inflation rate ^a | | Unemployment rate ^b | | Current balance ^c | | Long-term interest rate | |
|-----------------------------------|-----------------|-----------------------------|------------------|--------------------------------|------|------------------------------|------|-------------------------|------------------|
| | 2002-2005 | 2001 | 2005 | 2001 | 2005 | 2001 | 2005 | 2001 | 2005 |
| United States | 3.1 | 2.3 | 2.3 | 4.2 | 5.3 | -4.4 | -3.9 | 6.8 | 6.4 |
| Japan | 2.0 | -0.1 | 0.2 | 4.8 | 4.0 | 2.9 | 3.2 | 2.2 | 3.5 |
| Germany | 1.9 | 1.4 | 1.4 | 7.7 | 7.2 | 0.4 | 2.0 | 6.2 | 5.6 |
| France | 2.2 | 1.6 | 1.6 | 8.8 | 8.2 | 2.6 | 2.5 | 6.3 | 5.6 |
| Italy | 2.4 | 2.2 | 1.8 | 10.5 | 9.8 | 2.2 | 2.8 | 6.4 | 5.7 |
| United Kingdom | 2.2 | 3.2 | 2.4 | 5.8 | 6.0 | -2.0 | -2.6 | 6.1 | 5.8 |
| Canada | 2.8 | 2.3 | 2.1 | 6.6 | 6.5 | 0.6 | 0.7 | 6.6 | 6.3 |
| Total of above countries | 2.6 | 1.8 | 1.8 | 5.7 | 5.9 | -1.3 | -0.9 | 5.8 | 5.6 |
| Australia | 3.5 | 2.8 | 2.4 | 6.4 | 6.6 | -4.1 | -3.8 | 7.2 | 7.1 |
| Austria | 2.2 | 1.8 | 1.7 | 4.5 | 4.8 | -2.7 | -2.2 | 6.4 | 5.8 |
| Belgium | 2.3 | 1.3 | 1.7 | 7.8 | 7.5 | 3.4 | 3.4 | 6.4 | 5.8 |
| Czech Republic | 3.3 | 4.4 | 2.6 | 10.5 | 7.8 | -2.9 | -2.4 | 6.8 ^d | 6.0 ^d |
| Denmark | 2.1 | 2.5 | 2.1 | 5.4 | 6.0 | 2.7 | 3.3 | 6.6 | 6.3 |
| Finland | 2.7 | 2.6 | 2.4 | 8.5 | 8.0 | 7.7 | 7.2 | 6.3 | 5.8 |
| Greece | 3.6 | 2.7 | 2.7 | 9.8 | 8.9 | -3.0 | -2.4 | 5.1 ^d | 4.5 ^d |
| Hungary | 4.9 | 5.2 | 3.5 | 6.2 | 5.5 | -5.2 | -3.2 | 10.6 ^d | 7.7 ^d |
| Iceland | 2.2 | 6.1 | 5.1 | 1.9 | 3.8 | -6.2 | -3.9 | 11.9 | 9.5 |
| Ireland | 6.5 | 4.3 | 4.9 | 3.3 | 5.0 | -0.3 | -0.2 | 6.4 | 5.9 |
| Korea | 5.8 | 2.7 | 2.5 | 4.1 | 3.6 | 1.9 | 0.4 | 10.6 | 8.5 |
| Luxembourg | 3.8 | 1.7 | 1.6 | 2.7 | 4.3 | 0.0 | 0.0 | 6.4 | 5.8 |
| Mexico | 4.8 | 8.5 | 4.4 | 2.4 | 2.5 | -3.6 | -4.0 | 14.5 | 9.8 |
| Netherlands | 2.0 | 3.0 | 2.8 | 2.1 | 3.0 | 6.0 | 5.7 | 6.3 | 5.7 |
| New Zealand | 2.7 | 2.3 | 1.9 | 6.0 | 5.9 | -6.0 | -3.4 | 7.5 | 6.5 |
| Norway | 2.3 | 0.9 | 2.4 | 3.6 | 4.0 | 13.9 | 12.7 | 7.1 | 5.5 |
| Poland | 4.7 | 6.5 | 3.9 | 13.1 | 10.2 | -7.4 | -5.9 | 14.0 ^d | 9.5 ^d |
| Portugal | 3.1 | 2.9 | 2.9 | 4.0 | 4.8 | -10.5 | -9.6 | 6.4 | 5.8 |
| Spain | 2.7 | 2.9 | 2.6 | 12.9 | 11.0 | -3.2 | -3.3 | 6.5 | 5.8 |
| Sweden | 2.3 | 2.3 | 2.4 | 4.3 | 5.4 | 2.1 | 2.1 | 6.3 | 6.0 |
| Switzerland | 1.8 | 1.7 | 2.0 | 1.8 | 1.8 | 12.4 | 12.4 | 4.7 | 4.2 |
| Turkey | 5.5 | 21.0 | 10.5 | 7.2 | 6.2 | -2.1 | -2.5 | 23.1 | 25.0 |
| <i>Memorandum items</i> | | | | | | | | | |
| Total of above European countries | 2.5 | 2.4 ^e | 2.1 ^e | 8.1 | 7.4 | 0.9 | 1.1 | 6.5 ^e | 5.8 ^e |
| Total of above OECD countries | 2.8 | 2.2 ^e | 2.0 ^e | 6.1 | 5.9 | -1.0 | -0.8 | 6.4 ^e | 5.9 ^e |
| Euro area | 2.3 | 1.9 | 1.9 | 8.5 | 7.9 | 1.2 | 1.7 | 6.3 | 5.7 |

Note: For further details see "Sources and Methods".

a) Percentage change from the previous period in the GDP deflator.

b) Per cent of labour force.

c) Per cent of nominal GDP.

d) Short-term interest rate.

e) Excluding Turkey.

Source: OECD.

Broad features of the reference scenario

The scenario projects some slowdown in OECD growth beyond 2001...

Following the short-term period of rapid but slowing growth in the United States and sustained recovery in Europe, output in the OECD area as a whole is projected to slow somewhat beyond 2001 and stabilise at an average 2¾ per cent *per annum*, consistent with the closing of a positive output gap by 2005 (Table I.9). Over the same period world trade growth also falls from the current high levels in excess of 10½ per cent to a more stable rate of 7½ per cent *per annum* in 2002 and thereafter. Given very different short-term cyclical positions, the pattern and timing of growth differ quite significantly across the main OECD regions (see Figure I.19).

Table I.10. Fiscal trends in the medium-term reference scenario

As a percentage of nominal GDP

| | Financial balances ^a | | Gross financial liabilities ^b | | | Gross public debt (Maastricht definition) ^c | |
|-----------------------------------|---------------------------------|------|------------------------------------------|-------|------------------------------|--------------------------------------------------------|------|
| | 2001 | 2005 | 2001 | 2005 | Change between 2001 and 2005 | 2001 | 2005 |
| United States | 1.7 | 1.9 | 56.2 | 46.5 | -9.7 | | |
| Japan | -6.3 | -5.7 | 119.4 | 144.0 | 24.6 | | |
| Germany | -1.7 | 0.0 | 63.3 | 59.5 | -3.8 | 60.8 | 57.1 |
| France | -1.2 | -0.6 | 62.6 | 57.7 | -4.9 | 56.4 | 51.5 |
| Italy | -1.1 | 0.3 | 108.9 | 94.7 | -14.2 | 107.3 | 93.1 |
| United Kingdom | 0.9 | -0.6 | 46.9 | 41.9 | -5.0 | 39.9 | 34.8 |
| Canada | 2.2 | 1.7 | 80.3 | 65.2 | -15.1 | | |
| Total of above countries | -0.6 | -0.1 | 72.8 | 69.9 | -2.9 | 65.7 | 59.1 |
| Australia | 0.4 | 1.0 | 22.6 | 18.3 | -4.3 | | |
| Austria | -1.9 | -0.8 | 63.4 | 60.3 | -3.1 | 63.4 | 60.3 |
| Belgium | 0.5 | 1.2 | 104.8 | 86.6 | -18.2 | 104.8 | 86.6 |
| Czech Republic | -6.0 | -5.3 | | | | | |
| Denmark | 2.8 | 2.9 | 46.7 | 32.2 | -14.5 | 43.9 | 29.4 |
| Finland | 4.9 | 3.9 | 53.6 | 44.3 | -9.2 | 37.3 | 28.0 |
| Greece | -0.8 | 0.8 | 100.3 | 84.1 | -16.3 | 100.3 | 84.0 |
| Hungary | -3.6 | -3.5 | | | | | |
| Iceland | 2.2 | 1.9 | 35.1 | 24.1 | -11.0 | | |
| Ireland | 4.8 | 4.6 | 33.5 | 5.5 | -28.0 | 33.5 | 5.5 |
| Korea | 2.5 | 4.2 | 16.4 | 17.6 | 1.2 | | |
| Netherlands | 0.1 | -0.7 | 56.5 | 49.6 | -6.9 | 56.5 | 49.6 |
| New Zealand | 1.4 | 1.5 | | | | | |
| Norway | 11.6 | 13.1 | 24.7 | -1.4 | -26.1 | | |
| Poland | -2.6 | -1.2 | | | | | |
| Portugal | -1.4 | -0.9 | 57.3 | 49.1 | -8.2 | 55.8 | 47.6 |
| Spain | -0.1 | 0.0 | 62.1 | 53.8 | -8.3 | 57.9 | 49.6 |
| Sweden | 3.2 | 1.9 | 52.3 | 35.9 | -16.4 | 49.5 | 33.1 |
| <i>Memorandum items</i> | | | | | | | |
| Total of above European countries | -0.5 | 0.0 | 67.9 | 59.8 | -8.1 | 64.8 | 57.0 |
| Total of above OECD countries | -0.3 | 0.1 | 68.9 | 65.1 | -3.8 | | |
| Euro area | -0.9 | 0.1 | 71.4 | 63.4 | -8.0 | 69.2 | 61.2 |

Note: For further details see "Sources and Methods".

a) General government fiscal surplus (+) or deficit (-) as a percentage of GDP.

b) Includes all financial liabilities, as defined by the System of National Accounts (where data availability permits) and covers the general government sector, which is a consolidation of central government, state and local government and the social security sector.

c) The Maastricht definition of gross public debt is based on data provided by the Commission of European Communities up to 1998 and projected forward in line with the OECD projection for GDP and general government financial liabilities.

Source: OECD.

With the United States economy continuing to grow rapidly in the near term and a rising output gap, the subsequent slowdown in GDP growth to below potential is assumed to continue into the medium term, reflecting a slowing of domestic demand as the near-term tightening of financial conditions takes effect. The overall slowdown, however, comes to an end in 2003, and activity moves steadily back thereafter to moderately higher growth, consistent with potential, by the end of the period.²⁷

In Europe, the recent momentum of recovery and continued robust short-term growth imply a shift towards positive output gaps in many countries (Italy being a

27. Reflecting recent significant revisions in national accounts statistics and productivity estimates, OECD estimates of the potential growth rate for the United States have been revised upwards since November 1999, from around 3¼ per cent to slightly above 3½ per cent *per annum*.

Figure I.19. Medium-term reference scenario



1. Per cent difference between the level of real GDP and its estimated potential.

2. GDP deflators. Totals for OECD and OECD Europe exclude Turkey.

3. Totals for OECD and OECD Europe government net lending exclude Luxembourg, Mexico, Switzerland and Turkey.

4. The OECD Europe rate is represented by that of the euro area as from 1999; before 1999 the German rate is shown. The total OECD rate excludes Turkey.

Source: OECD.

notable exception) in the region. Though remaining firm, reflecting continuing strength in exports and private consumption and the pick-up in investment, some moderation in growth is assumed over the medium term, so that GDP growth for OECD European economies stabilises at an average 2½ per cent (2¼ per cent in the euro area). Given its starting point, the process of medium-term adjustment is more drawn out in the Japanese economy. In spite of some slowing of potential output in recent years (to around 1¼ per cent) and the projected short-term recovery in GDP this year and next, the negative output gap remains substantial (at around 2 per cent at the end of 2001) and is likely to close only gradually over the medium term. After picking up substantially through 2001, GDP is assumed to grow steadily thereafter at around 2 per cent *per annum*, supported by stronger consumption and investment demand and also exports, reflecting the sustained recovery in world trade and in the Asian region in particular.

Labour productivity in the OECD is assumed to accelerate slightly to grow at about 2 per cent *per annum*, a little higher than the average for the past decade. Area-wide employment growth is expected to remain at around an average of 1 per cent *per annum* and, with the labour force growing at slightly below 1 per cent, there is little further reduction in unemployment for the OECD area which remains on average at 6 per cent over the period. This situation however reflects offsetting movements; for the United States unemployment edges up towards 5¼ per cent as the economy slows over the period; and for Europe there are further falls as growth continues and the effects of labour market reforms are assumed progressively to take effect. For the euro area, the unemployment rate falls by a further ½ percentage point, to around 8 per cent by 2005, but remains at or above 9 per cent in Italy and Spain. For Japan, a gradual fall in unemployment to around 4 per cent is projected.

Given current fiscal assumptions and sustained medium-term growth, the scenario shows further progress in reducing actual and structural deficit levels as shares of GDP (Table I.10). For the OECD area as a whole, government deficits fall gradually from around ½ per cent of GDP this year and next, to near balance in 2005. Overall, the pace of fiscal consolidation is sufficient to reduce the ratio of gross general government financial liabilities to GDP for the total OECD area to around 70 per cent in 2001, with some gradual improvements thereafter. Nonetheless, there are significant differences between regions.

For the United States, the government budget remains in substantial surplus over the period, rising to almost 2 per cent of GDP by 2005 and, as a result, public sector debt falls significantly. Within Europe, most countries are assumed to continue to make further progress in reducing deficits or to maintain surpluses and for the euro area the combined deficit falls from around 1 per cent of GDP this year to approximate balance by 2005, implying an important reduction in the ratio of public-sector debt to GDP. By contrast, for Japan the combination of domestic fragility and successive fiscal packages has resulted in large actual and underlying structural deficits. With economic recovery proceeding only slowly over the medium term, the scope for significant fiscal consolidation is extremely limited and projected deficit reductions (to around 5¾ per cent of GDP by 2005) are achieved only through a substantial slowing of government consumption and reductions in investment expenditures. As a result, the projected levels of public sector debt rise quite substantially over the period (increasing by an average 5 percentage points of GDP *per annum*).

Monetary policy is assumed to be set with a view to ensuring that inflation remains low over the medium term, at or below 2 per cent for the area as a whole.

... while unemployment remains stable for the OECD, falling in Europe but rising in the United States

The scenario assumes further progress in reducing budget deficits

Inflation remains low...

For the United States, policies are assumed to remain firm in the face of underlying inflationary pressures, with real long-term interest rates staying at about 4 per cent over the period and inflation at around 2¼ per cent. For Japan, where the negative output gap remains large and closes only slowly, the rate of inflation remains close to zero over most of the period. Within Europe the rate of inflation remains stable, at around 2 per cent for the euro area.

... but large current account imbalances persist in major OECD regions

For the OECD area, the external sector remains in small deficit (¾ per cent of GDP) over most of the period but, without major changes in potential growth rates or trade openness and at current real exchange rates, there is little overall adjustment in the current external imbalances between regions. For OECD Europe, there is some modest increase in the current external surplus to around 1¾ per cent of GDP. For the United States, the external deficit declines marginally to around 4 per cent of GDP by 2005, while for Japan, the external surplus stays at around 3 per cent of GDP.

Global boom scenarios

The projections feature rapid growth across OECD and non-OECD economies

An important feature of the current short- and medium-term projections is that most economies in the OECD area (and many in the non-OECD area) are now experiencing robust growth or strong recoveries, accompanied by low or declining rates of unemployment.²⁸ Although there are uncertainties about the precise levels of output gaps, the direction of recent movements is very clear and consistent with a shift towards more positive gaps for the OECD area as a whole, both this year and next.²⁹ The combination of low or falling unemployment and closing output gaps points towards the possibility of tighter labour- and product-market conditions and a risk of increasing inflationary pressures over the projection period. In the main projections and the medium-term reference scenario outlined above, these pressures are assumed to remain under control and to dissipate, as monetary conditions remain firm and area-wide growth moderates. Nonetheless, there is a risk that the forces underpinning growth may be stronger than currently expected, that the combination of policies and normal equilibrating mechanisms may fail to slow growth, or worse that fiscal policies in some countries may become overly relaxed or pro-cyclical as budget improvements lead to pressures for more spending or lower taxes, adding further short-term stimulus to growth.

Stronger-than-expected growth could imply greater inflation pressures

Higher-than-expected growth in one or other region of the OECD is not by itself problematic when it is consistent with higher potential. When this is not the case and where it is confined to a single region, then relative movements in growth and inflation rates between regions typically lead to corresponding regional shifts in competitiveness and trade performance, which are essentially stabilising for the region concerned and tend to be neutral for the OECD area as a whole. However, when rapid growth in demand occurs in many countries at the same time, such stabilising mechanisms no longer apply, and there is a risk that the underlying inflation pressures become self-reinforcing. Empirical evidence also tends to confirm the existence of significant asymmetries in the links between levels and changes in area-wide output gaps and commodity prices. Thus although the general trend in real non-oil

28. This is true even for Japan in the sense that the projections feature substantial near-term recovery.

29. The methods the OECD uses to estimate the output gaps are based on a consistent production function approach, as described by C. Giorno, P. Richardson, D. Roseveare and P. van den Noord, "Potential output, output gaps and structural budget balances", *OECD Economic Studies* No. 24, 1995/1.

commodity prices over past decades has been steadily downward, those occasions where commodity prices have risen quite sharply have also coincided with periods of rapid and coincident surges in growth and sharp increases in output gaps across regions.³⁰

The “global boom” scenario discussed in the risks section of the main text, provides an illustration of the potential scale of such effects and the potential strength of associated inflation contagion effects, based on alternative scenarios using the OECD INTERLINK model. Starting from the medium-term reference scenario outlined above, three different sets of scenarios were constructed, each on the assumption that real GDP growth for 2000 and 2001 might be respectively ½ and ¾ per cent stronger than expected in the main projection.³¹ These comprise:

Three global boom scenarios illustrate the potential risks

- Individual regional booms, without explicit policy reactions.
- Global boom, without explicit policy reactions.
- Global boom, with fiscal and monetary policy reactions.

For illustrative purposes, the first two cases assume real interest rates to be unchanged from baseline, whereas fiscal policies are assumed to be such that revenue increases associated with faster growth in 2000 and 2001 are partly re-spent, implying little or no improvement in fiscal deficits in the near term and consolidation in line with the baseline thereafter. Thus monetary policy is assumed not to react to inflation and fiscal policies are pro-cyclical, contributing further to demand pressure. In the final case, monetary policies are assumed to tighten sharply in the United States and Europe, but only once inflation pressures are visible.³² Fiscal policies are set so that underlying structural deficits are unchanged, with additional revenues being used to reduce actual deficits. The main results for these scenarios are reported in Figure I.20.

The broad pattern of effects coming from individual regional shocks is similar across regions. In the short term the movements in GDP growth imposed for the shock imply a sharp widening of positive output gaps in the United States and Europe and a closure of the negative gap in Japan.³³ Beyond 2001, growth declines sharply, reflecting a variety of influences, including the loss of international competitiveness and the influence of higher inflation on consumer and corporate wealth, savings and investment. Thus, for each region, higher-than-expected short-term growth leads to a subsequent decline and an accentuated cyclical pattern. Although the output gap closes over the medium term, the intervening sustained period of higher

Regional booms involve a sharper cycle and changes in competitive positions...

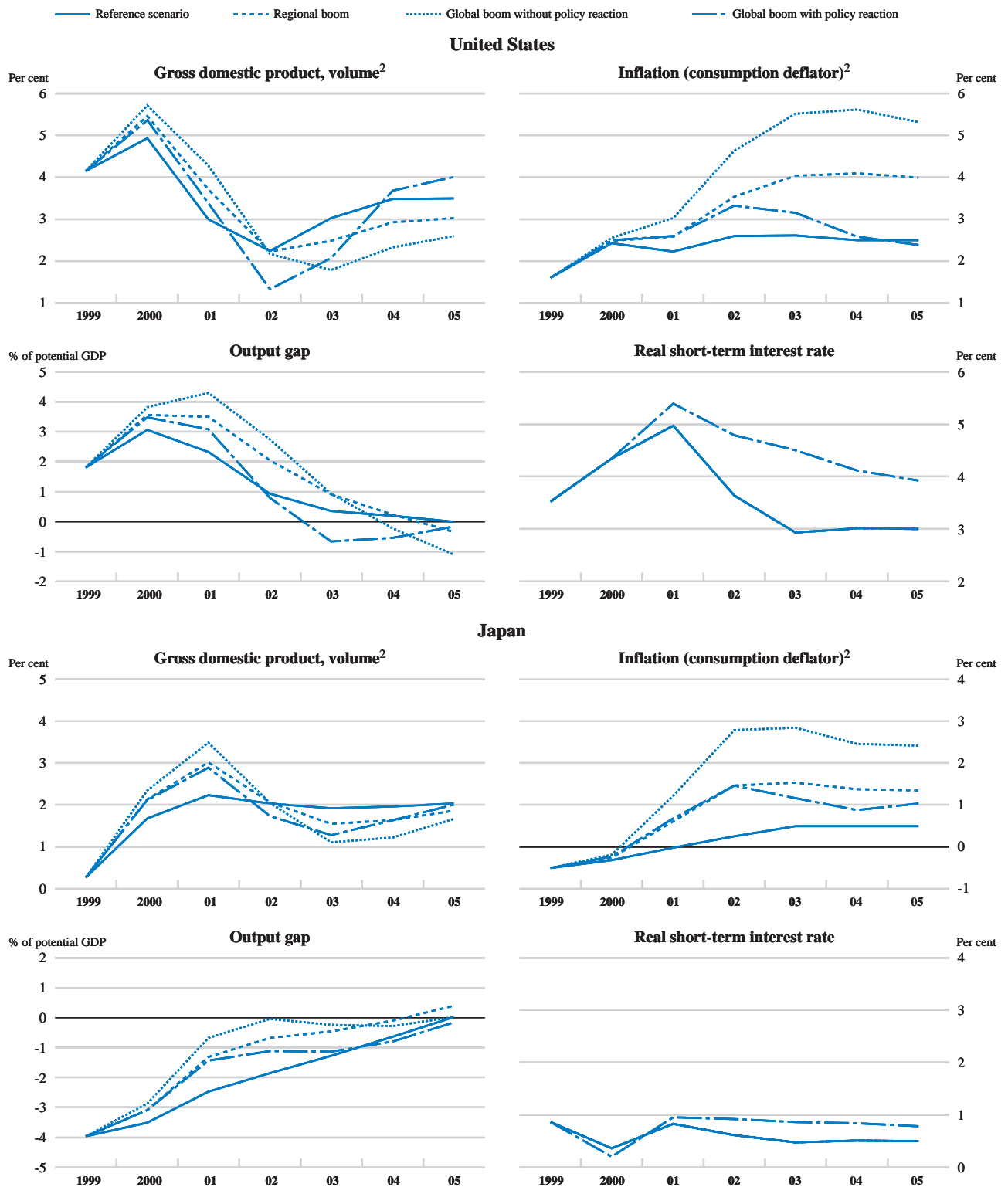
30. Movements in non-oil commodity prices are clearly correlated with the cycle in world economic growth and recent OECD analysis (available on request) is suggestive of an asymmetric relationship, with the responsiveness of commodity prices during an upswing being almost double that during a downswing. This analysis further suggests that an increase in global output by 1 percentage point in excess of potential may quickly lead to a jump in non-oil commodity price inflation of between 10 to 15 per cent *per annum*.

31. Such upward revisions would be broadly in line with the “upper” limit of private sector forecasts for the area as a whole. In constructing the scenarios, higher GDP growth in 2000 and 2001 is assumed to reflect a combination of higher private and public sector spending, calibrated on the basis of individual regional shocks. The global shocks assume the same *ex ante* demand stimulus, but allow for the further transmission of demand and price effects through international trade volumes and price linkages, and through commodity prices.

32. Given the very low starting point for inflation in Japan, only a moderate tightening is required to keep inflation reasonably low.

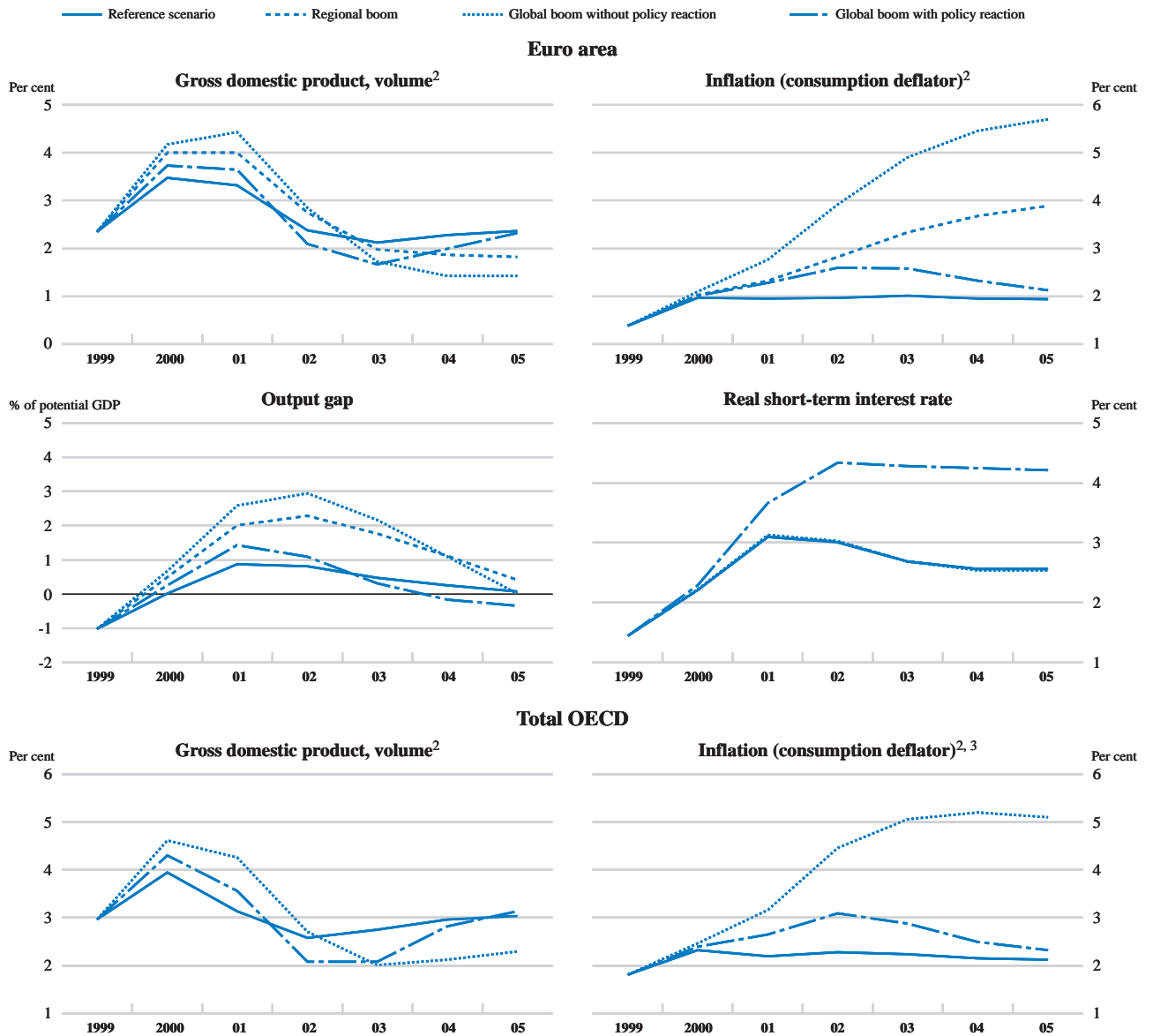
33. Though the precise levels of current output gaps are uncertain, the effects of significantly higher growth in relation to potential on them is unambiguous.

Figure I.20. Global boom scenario¹



1. See text for a description of the scenarios.
 2. Year-on-year percentage changes.
 Source: OECD.

Figure I.20. Global boom scenario (continued)¹



1. See text for a description of the scenarios.
 2. Year-on-year percentage changes.
 3. Excluding Turkey.
- Source: OECD.

positive output gaps is sufficient to give a significant rise in inflation, by about 1½ percentage points for the United States and Japan, and about 2 percentage points for Europe, where nominal rigidities tend to be greater and adjustment rates slower.³⁴

34. In the case of Japan, inflation rises in spite of a low starting point, reflecting the rapid closure of the gap, as well as imported price inflation from commodities.

Thus, although inflation stabilises in the medium term, it does so at permanently higher rates.

... but a global boom involves linkage effects which may greatly reinforce inflation pressures...

By comparison, the combined global shock, without policy reaction, implies a further and substantial accentuation of the growth cycle, with positive growth being significantly greater (by up to 50 per cent) in the short term, reflecting the importance of linkages multipliers, and the subsequent decline in the second phase is also significantly deeper.³⁵ For the OECD area as a whole, the output gap rises to about 2 to 3 per cent over the next three years, *i.e.* to levels similar to those experienced in the early 1970s. In the absence of policy tightening, the inflation effects are approximately double those given by the individual regional shocks, reflecting mainly the strength of the international price transmission mechanisms but also the strong asymmetric effects of sustained demand pressure on non-oil commodity prices, which rise by up to 60 per cent relative to the reference scenario. Without policy reaction, inflation for the area as a whole rises to around 5 per cent.

... unless policies tighten early to dampen the cycle and bring inflation under control

In the final global shock (summarised in Figure I.4 of the main text), the monetary and fiscal authorities are assumed to take more appropriate (though somewhat delayed) action once inflation begins to pick up. Here real short-term interest rates are raised substantially (by up to 1½ percentage points) in the United States, Europe and, to a lesser extent, Japan in 2001 and remain significantly above reference scenario levels thereafter. As a result, growth is reined in, dropping below baseline somewhat earlier than in the previous case, but nonetheless moves back towards potential in a smoother fashion, with the cumulative rise in output gap fully reversed over the period. Inflation still rises somewhat above baseline, reflecting lack of pre-emptive action, by up to ¾ percentage point by 2002, slightly above 3 per cent in the case of the United States, but falls steadily thereafter to an OECD average of 2 to 2¼ per cent by the end of the period.

35. Indeed, the decline could be even steeper, if, for example, the possible repercussions of the “inflation surprise” on stock markets were also factored in.

II. DEVELOPMENTS IN INDIVIDUAL OECD COUNTRIES

United States

The economy is now in its fourth year of growth above 4 per cent, although a slowing is projected as from the second half of 2000. Despite a significant improvement in the underlying growth potential, demand is currently outstripping supply and generating inflationary pressures that are starting to show up in core inflation. A large output gap, an unemployment rate below 4 per cent of the labour force and a current account deficit that may reach 4½ per cent of GDP in 2000 are unlikely to be sustainable.

There is the need for a further significant tightening of monetary policy. The Federal Reserve has already increased interest rates by 1¾ percentage points since the summer of 1999, but a further increase to 7¼ per cent in the coming months would be appropriate. Such a move should suffice to slow the economy to a growth rate of 3 per cent in 2001, given the recent correction in the stock market. Fiscal policy should guard against further acceleration in the pace of discretionary federal spending.

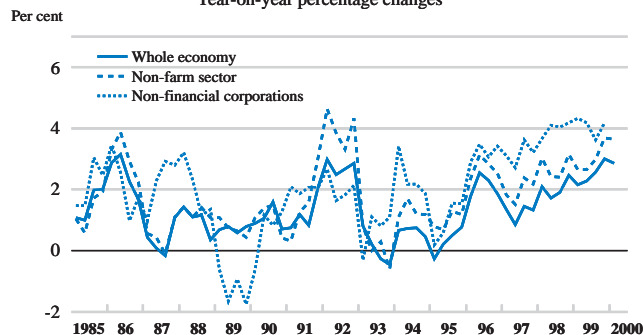
Recent economic performance has witnessed a significant acceleration in productivity gains that has led to a rise in the economy's potential growth rate to above 3½ per cent. The pick-up in whole-economy labour productivity growth since 1995 has been around ¾ percentage point relative to average growth in the two previous decades. Part of the explanation for this increase has been a surge in technical progress in the computer sector, though an improvement appears to have occurred in most areas and can be seen even when the computer sector is excluded.¹ Some part of this productivity increase is clearly structural in nature.

Productivity has accelerated, bringing an increase in the growth of potential output

United States

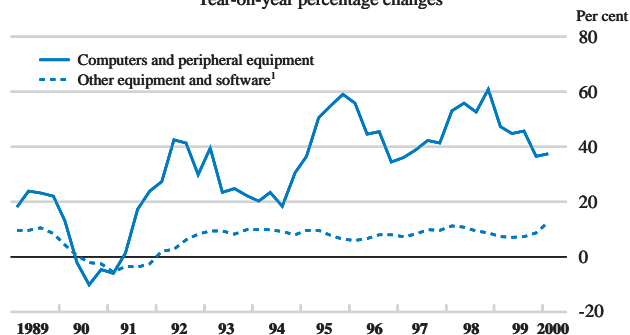
Labour productivity has accelerated

Year-on-year percentage changes



Computer investment is still surging

Year-on-year percentage changes



1. Excluding transportation equipment.

Sources: Bureau of Labor Statistics, Bureau of Economic Analysis and OECD.

1. This development would be even more marked, if output were measured using income rather than expenditure indicators, as is conventionally the case. Indeed, non-financial corporations (whose output is measured from the income side) have managed to improve labour efficiency by slightly more than 3½ per cent annually in the past four years.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|----------------------------------------|------|------|------|------|------|
| Employment ^a | 2.4 | 2.2 | 1.8 | 2.0 | 1.0 |
| Unemployment rate ^b | 4.9 | 4.5 | 4.2 | 4.0 | 4.2 |
| Employment cost index | 3.1 | 3.5 | 3.2 | 4.5 | 4.6 |
| Compensation per employee ^c | 4.0 | 4.9 | 4.4 | 4.4 | 4.8 |
| Labour productivity ^c | 2.0 | 2.2 | 2.5 | 3.2 | 2.2 |
| Unit labour cost ^c | 2.0 | 2.6 | 1.8 | 1.2 | 2.6 |
| GDP deflator | 1.9 | 1.2 | 1.5 | 2.1 | 2.3 |
| Private consumption deflator | 2.0 | 0.9 | 1.6 | 2.4 | 2.2 |
| Real household disposable income | 3.3 | 4.1 | 4.0 | 3.2 | 2.9 |

a) Whole economy, for further details see "Sources and Methods".

b) As a percentage of labour force.

c) In the business sector.

Source : OECD.

Increased investment in information technology has been at the centre of this improvement

The principal factor behind the better productivity performance has been rapid growth in outlays on computers and peripheral equipment – more than tripling the stock of such goods in the past five years. This has significantly boosted the growth of real capital per employee. All told, the combined impact of information technology on output growth, through both faster productivity gains in the computer sector and increased capital per worker outside the computer sector, accounts for most of the increase in the OECD's estimate of the growth of potential output from 3 per cent in 1995² to above 3½ per cent in 1999.

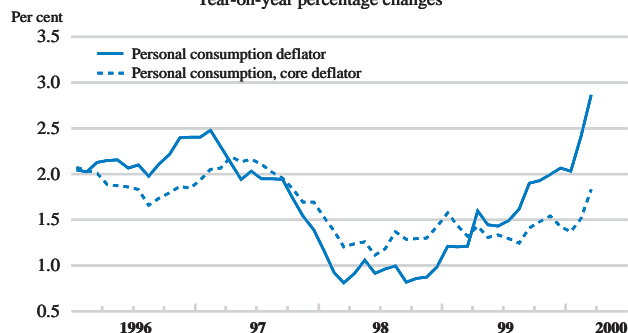
Faster productivity growth has boosted profits and wealth...

The strength of the upswing in productivity helped corporate profits to rise by over 5 per cent on average in 1999, with the increase during the year reaching nearly 10 per cent by the fourth quarter compared to a year earlier. Book profits grew even faster as inventory values increased in this period. This performance kept companies'

United States

Higher oil prices have pushed up inflation

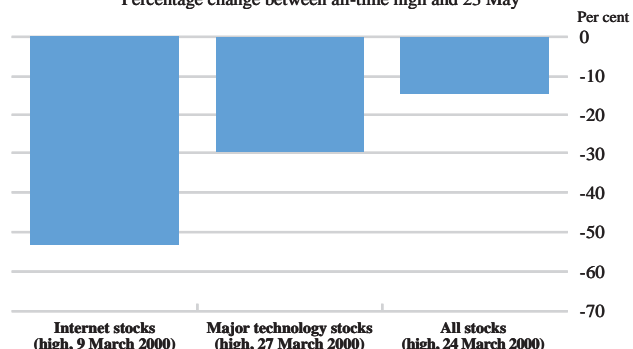
Year-on-year percentage changes



Sources: Bureau of Economic Analysis and Bloomberg.

Stock market prices have fallen

Percentage change between all-time high and 23 May



2. Prior to recent statistical revisions, potential GDP growth for 1995 was estimated at 2.7 per cent.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 4.5 | 3.7 | 2.4 | 1.1 | 1.5 |
| Private sector financial balance ^b | -0.7 | -2.6 | -4.2 | -5.5 | -5.4 |
| General government financial balance ^b | -0.9 | 0.4 | 1.0 | 1.6 | 1.7 |
| Current account balance ^b | -1.7 | -2.5 | -3.7 | -4.5 | -4.4 |
| Short-term interest rate ^c | 5.7 | 5.5 | 5.4 | 6.8 | 7.3 |
| Long-term interest rate ^d | 6.4 | 5.3 | 5.6 | 6.6 | 6.8 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month euro-dollar.

d) 10-year government bonds.

Source: OECD.

financial deficit to a very modest level and resulted in a stable interest burden, at almost half the level of the early 1990s. Earnings per share were particularly strong amongst technology companies, that in aggregate posted a 66 per cent gain against an increase of only 20 per cent for other large companies. Such rapid increases encouraged hopes of even better future performance and led to a marked run-up in their share prices during 1999, while other equity prices rose only slightly. Overall, by the end of 1999, real household net worth had jumped by 10½ per cent from its level a year previously.

This increase in household wealth has encouraged consumption thereby contributing to demand growing even faster than supply. Since the second quarter of 1999, final domestic sales have steadily accelerated, reaching 8 per cent (annual rate) in the first quarter of 2000. With foreign demand also speeding up and the dollar remaining relatively stable, until recently, exports have added to the pace of the expansion. As a

... pushing up demand more than supply, and generating imbalances in the economy

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion \$ | Percentage changes, volume (1996 prices) | | | | |
| Private consumption | 5 237.5 | 3.4 | 4.9 | 5.3 | 5.5 | 2.7 |
| Government consumption | 1 171.8 | 2.3 | 1.2 | 2.6 | 1.8 | 2.3 |
| Gross fixed investment | 1 462.9 | 7.5 | 10.6 | 8.2 | 8.3 | 4.4 |
| Public | 250.2 | 2.4 | 4.0 | 9.0 | 8.6 | 3.4 |
| Residential | 313.3 | 2.4 | 9.2 | 7.4 | -0.1 | -1.4 |
| Non-residential | 899.5 | 10.7 | 12.7 | 8.3 | 10.8 | 6.2 |
| Final domestic demand | 7 872.2 | 4.0 | 5.4 | 5.5 | 5.6 | 3.0 |
| stockbuilding ^a | 29.9 | 0.5 | 0.1 | -0.4 | -0.1 | 0.1 |
| Total domestic demand | 7 902.1 | 4.5 | 5.5 | 5.1 | 5.4 | 3.1 |
| Exports of goods and services | 874.2 | 12.5 | 2.2 | 3.8 | 6.8 | 7.9 |
| Imports of goods and services | 963.1 | 13.7 | 11.6 | 11.7 | 10.1 | 7.2 |
| net exports ^a | - 89.0 | -0.3 | -1.3 | -1.2 | -0.8 | -0.2 |
| GDP at market prices | 7 813.2 | 4.2 | 4.3 | 4.2 | 4.9 | 3.0 |
| Industrial production | — | 6.3 | 4.3 | 3.5 | 5.5 | 3.0 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|---------------------------|---------|---------|-------|-------|
| | <i>\$ billion</i> | | | | |
| Merchandise exports | 679.7 | 670.2 | 683.0 | 746 | 807 |
| Merchandise imports | 876.4 | 917.2 | 1 030.2 | 1 181 | 1 259 |
| Trade balance | - 196.7 | - 246.9 | - 347.1 | - 435 | - 452 |
| Invisibles, net | 53.2 | 25.9 | 6.3 | - 9 | - 9 |
| Current account balance | - 143.5 | - 221.0 | - 340.8 | - 444 | - 461 |
| | <i>Percentage changes</i> | | | | |
| Merchandise export volumes ^a | 14.5 | 2.1 | 4.0 | 7.3 | 8.0 |
| Merchandise import volumes ^a | 14.2 | 11.7 | 12.7 | 10.8 | 7.5 |
| Export performance ^b | 3.7 | - 1.2 | - 2.2 | - 3.4 | - 0.4 |
| Terms of trade | 1.5 | 3.0 | - 1.4 | - 1.7 | 1.0 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

result, GDP is estimated to have grown at an average annual rate of 6 per cent between the middle of 1999 and the first quarter of 2000, bringing output to around 3 per cent above its potential level. Moreover, unemployment has fallen to below 4 per cent of the labour force, with an even greater drop in broader definitions of those looking for work. With such a tight labour market, there is some recent evidence of wages accelerating, but, even so, the growth of unit labour costs has remained low. Nonetheless, the core rate of increase in the consumer price deflator has risen to 1.8 per cent over the 12 months to March 2000 and, with surging energy prices, the overall rate reached 2.9 per cent.

Higher interest rates are required to prevent a permanent acceleration in inflation...

The growing imbalance between supply and demand in both product and labour markets points to the need for a substantial increase in interest rates in order to check inflationary pressures. The projections assume that the Federal funds rate will be raised a further $\frac{3}{4}$ percentage point to $7\frac{1}{4}$ per cent by August. The growing likelihood of such a tightening may have been one of the factors that led to a stock market correction by 23 May of some 15 per cent from its all-time high, with particularly large falls in the Internet sector of the market. The overall market was then 8 per cent below its end-1999 level. The combination of falling equity prices and rising profits has reduced the overall market price-to-earnings ratio to under 30, while, excluding the technology sector, the price-to-earnings ratio is down to 24, back to its level at the beginning of 1998. The projections assume that there will be a slight further decline in the value of equities from their mid-May level.

... the more so as fiscal policy is unlikely to restrain demand next year

Fiscal policy seems unlikely to restrain the growth of demand next year, in contrast to the recent trend. Discretionary federal spending has been rising significantly and should continue to increase in 2001, exceeding previously legislated, but unrealistic, caps by some \$60 billion. Nonetheless with buoyant revenue, the federal budget should register another increased surplus this fiscal year, of some \$210 billion (2.2 per cent of GDP). In order to maintain a liquid market in government debt and avoid an increase in its average maturity, the government started repurchase operations in March and will expand this programme during the rest of the year. Such action, generated a significant fall in government bond yields from January onwards that was not fully replicated in the corporate bond market.

Given the projected increase in short-term interest rates and the fall in the stock market, activity is projected to slow considerably in the remainder of 2000, with the pace of the expansion dropping below potential growth. Nonetheless, the average level of GDP may still be almost 5 per cent above that in 1999, with through-the-year growth at about 4 per cent. By 2001, though, year-on-year growth is projected to drop to 3 per cent, bringing some increase in unemployment. The principal spending component driving the projected slowdown should be private consumption, as real income growth eases while the wealth effect starts to reverse and the household saving rate increases correspondingly. Business investment should also ease, especially outside the computer area, as demand growth slackens. However, demand pressures might persist, resulting in some rise in underlying inflation. This may be most noticeable for the GDP deflator, as the increase in the overall private consumption deflator will be held back by the projected fall in oil prices. As US domestic demand growth slips below that elsewhere, the current account deficit should stabilise at around 4½ per cent of GDP.

With tighter financial conditions, growth should slow during this year

The principal risk to this projection is that the tightening in financial conditions is insufficient to slow the growth of the economy to the extent that is projected. Such a result could occur if consumers had become more optimistic about permanent income trends, the boom in high-tech investment were to be more persistent than expected or the world economy to be more buoyant. In addition, if the dollar were to weaken, cost pressures could become more entrenched. The result would be that an even greater increase in interest rates than in the projection would be needed to restrain activity sufficiently to rein in the incipient wage-price spiral, generating a hard landing for the economy.

But risks of a hard landing have increased

Japan

Clear signs of improved economic activity in recent months have eased earlier concerns about a deflationary spiral, despite statistical ambiguities pertaining to the second half of 1999 (see Box). The economy now appears to be on the path of a cyclical recovery, boosted in the first half of this year by public works spending and by policy-induced housing construction which will continue till next spring. Some temporary strengthening of private consumption is likely, but its underlying trend may remain weak as continuing corporate restructuring weighs on growth of wage incomes. Output growth is projected to reach an annual rate of 3 per cent in 2000, and with the impact of the fiscal stimulus waning, to slow to under 2 per cent towards the end of 2001.

Uncertainties remain as to how solidly-based is the on-going recovery. A sharp turn in policy direction should therefore be avoided. While it is necessary to maintain an easy monetary policy stance, another supplementary budget is unlikely to prove necessary to stimulate growth and fiscal policy should be gradually reoriented toward consolidation in a transparent medium-term framework. Restructuring of the economy should be facilitated by continuing reforms which reduce barriers to new market entrants, promote managerial accountability and result in a more efficient system of social protection.

Economic activity has been gaining momentum...

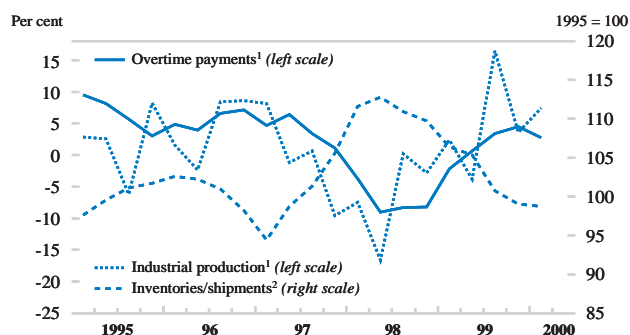
While conflicting statistics blur the reading of economic activity during the second half of 1999 (see Box), conjunctural indicators clearly point to increasing momentum at the start of this year. Industrial production, machinery orders, indicators of construction activities and job offers are all on the rise. The on-going recovery is led by exports and business fixed investment, with the latter being driven by spending related to information technology and boosted by a marked improvement in corporate profits due to restructuring efforts and inventory adjustment. Consumption has remained sluggish as wage incomes have been restrained by corporate restructuring, even though conjunctural improvement in incomes has started to revive household spending.

... and deflationary pressures are easing...

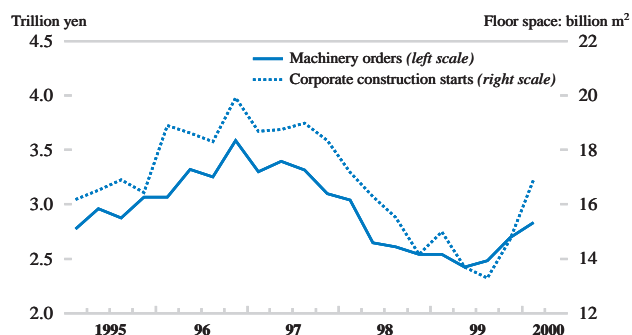
The large slack in the economy continued to exert downward pressure on prices during 1999 with the GDP deflator declining by some ¾ per cent. Nevertheless, consumer and domestic wholesale prices showed signs of stabilising in the course of the year, although a number of conflicting forces make interpretation difficult. Rising oil and commodity prices have to some extent been offset by the appreciation of the

Japan

Industrial production has increased



Investment is picking up



1. Year-on-year percentage change.

2. The inventory-shipment ratio covers finished projects of manufacturing industry.

Sources: Ministry of Labour and Bank of Japan.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | 1.1 | -0.7 | -0.8 | -0.1 | 0.3 |
| Unemployment rate ^a | 3.4 | 4.1 | 4.7 | 4.8 | 4.8 |
| Compensation of employees | 2.1 | -1.0 | -1.1 | 0.1 | 0.7 |
| Unit labour cost | 0.5 | 1.5 | -1.3 | -1.6 | -1.5 |
| Household disposable income | 1.3 | 0.3 | 0.4 | -0.1 | 1.8 |
| GDP deflator | 0.3 | 0.3 | -0.9 | -0.8 | -0.1 |
| Private consumption deflator | 1.7 | 0.2 | -0.5 | -0.3 | 0.0 |

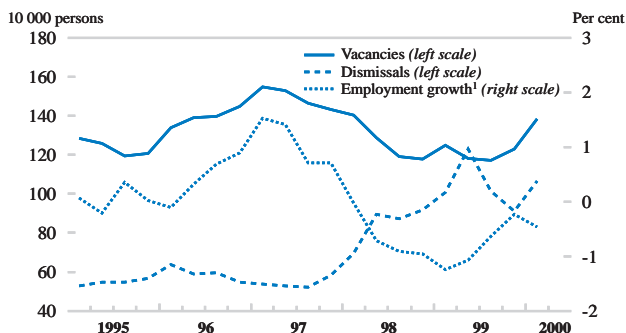
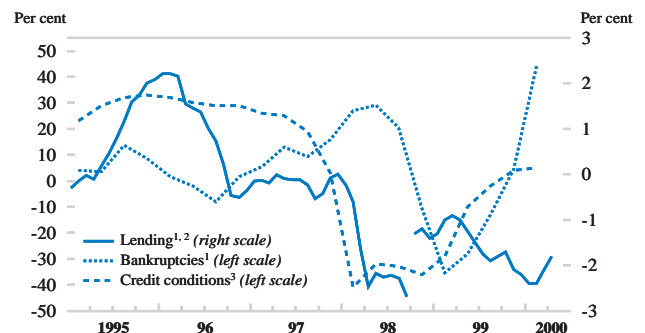
a) As a percentage of labour force.

Source: OECD.

yen, while deregulation has contributed to welcome price decreases in areas such as telecommunications and broker services. Some indicators of deflationary pressures such as demand and supply imbalances (*Tankan Survey*) have shown signs of improvement. On the other hand, real estate prices have continued to decline for all but prime locations.

Corporate restructuring has been uneven and will remain a burden on the economy. Over-indebtedness and over-capacity continue to be a serious problem in the retailing, wholesaling, construction and real estate sectors where a number of companies survive only due to abnormally low interest rates and fiscal measures which support construction activity. Creditors remain under pressure to reduce their non-performing assets, and the extension of government credit guarantees for small firms for another year have not prevented an increase in the number of bankruptcies and associated dismissals in recent months. The pace of restructuring may quicken with changes in accounting regulations, which make transparent the poor balance sheets of many companies, and the introduction of a new bankruptcy law which facilitates corporate reorganisation.

... but restructuring will continue to reduce short-term growth prospects

Japan
Labour is being redeployed

Financial adjustment is continuing


1. Year-on-year percentage changes.

2. From third quarter of 1998, adjusted for loan write-offs.

3. Opinion on financial institutions' lending attitudes (accommodative minus severe in per cent).

Sources: Ministry of Labour and Bank of Japan.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 12.6 | 13.4 | 13.1 | 12.2 | 12.0 |
| General government financial balance ^{b,e} | -3.3 | -5.0 | -7.0 | -6.7 | -6.3 |
| Current account balance ^b | 2.2 | 3.2 | 2.5 | 2.6 | 2.9 |
| Short-term interest rate ^c | 0.6 | 0.7 | 0.2 | 0.3 | 0.7 |
| Long-term interest rate ^d | 2.4 | 1.5 | 1.8 | 1.9 | 2.2 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3 month CDs.

d) 10-year government bonds.

e) The 1998 deficit would have risen by 5.4 percentage points if account were taken of the assumption by the central government of the debt of the Japan National Railway Settlement Corporation and the National Forest Special Account.

Source: OECD.

Monetary and financial conditions underpin activity

The authorities have continued to supply ample liquidity to the money market in support of their “zero interest rate” policy, which has succeeded in maintaining low interest rates across the yield curve. Nevertheless, broader indicators of monetary policy stance present a mixed picture due, in part, to continuing structural changes in the economy. Despite excess bank reserves, money supply growth has proven sluggish until recently, as bank credit has declined by some 2 per cent in 1999 (6 per cent if debt write-offs are included). Surveys of overall credit supply conditions report a significant improvement, but smaller companies still mention tough bank lending attitudes. In fact, lending to this sector has contracted substantially, while larger companies appear to have chosen to reduce their borrowing. Following the decline in systemic risk, the precautionary demand for money might also have fallen. Despite negative interest rate differentials, the exchange rate has remained under upward pressure against the US dollar, leading to repeated exchange market intervention. As the economy recovers and deflationary concerns dissipate, the projection assumes

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|------------------------------------|--------------------------------|------------------------------------------|-------|------|------|------|
| | current prices trillion yen | Percentage changes, volume (1990 prices) | | | | |
| Private consumption | 299.3 | 0.5 | -0.5 | 1.2 | 1.3 | 2.1 |
| Government consumption | 48.4 | 1.5 | 1.5 | 1.3 | 0.3 | 0.6 |
| Gross fixed investment | 147.4 | -0.8 | -7.4 | -1.0 | 1.3 | 2.1 |
| Public ^a | 43.7 | -10.4 | -3.0 | 7.8 | -3.9 | -4.8 |
| Residential | 27.5 | -16.2 | -14.4 | 1.4 | 0.5 | 2.0 |
| Non-residential | 76.2 | 9.0 | -7.6 | -5.6 | 4.2 | 5.5 |
| Final domestic demand | 495.2 | 0.1 | -2.5 | 0.5 | 1.2 | 1.9 |
| stockbuilding ^b | 2.4 | 0.1 | -0.6 | 0.1 | 0.1 | 0.2 |
| Total domestic demand | 497.6 | 0.2 | -3.1 | 0.6 | 1.4 | 2.1 |
| Exports of goods and services | 49.7 | 11.6 | -2.5 | 1.9 | 8.0 | 4.8 |
| Imports of goods and services | 47.0 | 0.5 | -7.6 | 5.3 | 6.7 | 4.5 |
| net exports ^b | 2.7 | 1.4 | 0.5 | -0.3 | 0.3 | 0.2 |
| GDP at market prices | 500.3 | 1.6 | -2.5 | 0.3 | 1.7 | 2.2 |
| Industrial production ^c | — | 3.6 | -7.1 | 0.5 | 5.9 | 2.5 |

a) Including public corporations.

b) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

Statistical issues in assessing the state of the economy

The economy did not re-enter recession in 1999

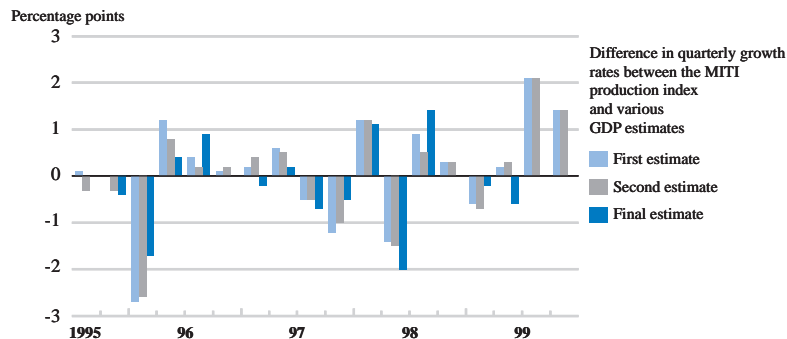
In view of the weakness of the economy since 1997, and the extraordinary policy measures which have been put in place to deal with it, much attention has been given to high frequency statistics in order to gauge progress and, if necessary, to recommend further policy action. A great deal of confusion has, however, arisen since different types of statistics point to radically different economic developments in 1999, particularly in the second half. Specifically, the initial estimates of quarterly GDP pointed to two quarters of negative growth in the second half of 1999 following a marked acceleration in the first half, while a variety of other indicators, including the index of tertiary sector activity, industrial production and employment, all pointed to an almost opposite situation.

There are reasons to suppose that the quarterly estimates of GDP give a misleading picture of economic developments through 1999. These estimates are mainly based on demand statistics and in particular on the estimate of private consumption from the Household Survey. This Survey pointed to major falls in household income and consumption, particularly in the second half of the year, due to a substantial cut in bonuses. The Monthly Labour Survey, which has a different sample coverage, indicated a much smaller decline in household income. Moreover, the Household Survey excludes single-person households whose consumption has been developing dynamically. This spending is reflected in quarterly estimates through a proxy measure, which, however, has diverged from the results of a separate semi-annual survey of single-person households. An additional difficulty in estimating GDP from demand statistics

in 1999 was the lack of full information concerning the implementation of public works programmes, which were legislated at the end of 1998. Government investment activity in the initial quarterly national accounts is estimated mainly from the statistics on public construction works. This is then revised after government accounts are closed. In recent years the actual level of public construction was lower than initially programmed reflecting the weak financial position of local governments. Strong growth of public investment in the first half of 1999 was influenced by its development in the second half of 1998 which was much weaker than suggested at first by the statistics on public construction works. The apparent strength of public investment in the first half of 1999 could be revised down once actual settlement data for local governments become available. The problem with tracking public investment is part of a wider problem with availability of timely and accurate statistics on general government accounts, which has been highlighted in past *OECD Economic Surveys*; improvements in this area are welcome.

Another measure of overall economic activity is provided by the index of aggregate production – including the index of industrial production and various indicators of service sector output – which pointed to continued growth in the second half of 1999 after a weak first half. This pattern is also shown in employment trends. The index of aggregate production often differs from demand-based quarterly GDP estimates, although there has usually been a tendency for the difference to reverse the following quarter. The second half of 1999 is, in this respect, unusual. On balance, it appears that activity was significantly stronger in the second half of the year than the initial quarterly estimates of GDP indicate.

A differing time profile of production index and GDP



Sources: Ministry of International Trade and Industry and Economic Planning Agency.

(continued on next page)

Statistical issues in assessing the state of the economy (cont.)

Semi-annual growth figures are a better indicator of economic activity this year

For the purposes of the OECD Economic Outlook, annual figures of GDP are usually an adequate indicator of the underlying momentum or tendency of the economy. However, where there is a great deal of volatility associated with statistical problems or unusual seasonal patterns, this may not be the case since the GDP growth for any year reflects a carry-over from the last period of the previous year. Thus even though the OECD projects annualised growth rates of 3 per cent for each of the two halves of 2000 (Table), annual

growth will only amount to some 1¾ per cent because the officially recorded growth rate in the second half of 1999 was -2½ per cent. But, had the economy been growing by say some 1 per cent in the second half of 1999, the annual growth rate projected for 2000 would amount to around 2½ per cent. In view of this uncertainty, the half yearly projections shown in the box table provide a clearer picture of the OECD's assessment of likely future developments than the annual figures. The final revised estimate for 1999 will be available at the end of the current year, although it is not the practice to fundamentally revise the pattern of quarterly growth indicated by the initial demand-side GDP estimates.

Half yearly estimates of GDP and major components

Seasonally adjusted annualised rate

| | 1999 ^a | | 2000 | | 2001 | |
|-------------------------------------|-------------------|------|------|-----|------|-----|
| | H1 | H2 | H1 | H2 | H1 | H2 |
| GDP | 3.4 | -2.5 | 3.1 | 3.0 | 2.2 | 1.6 |
| Consumption | 2.8 | -1.0 | 1.9 | 2.5 | 2.0 | 1.8 |
| Gross fixed investment | 7.0 | -6.6 | 4.5 | 3.4 | 2.2 | .7 |
| of which: | | | | | | |
| Non residential business investment | -2.9 | -.6 | 4.9 | 7.7 | 4.8 | 4.8 |

a) Based on official quarterly estimates. Deseasonalised by OECD.

that the zero interest rate policy will be lifted by the end of the year although short-term rates are expected to remain low.

Fiscal policy remains expansionary in the short run

Fiscal policy is set to remain expansionary aided by the budget stimulus package from November 1999, which will only become fully effective this year. The projected decline in the structural budget deficit this year and next is misleading since it is due to the payment of deferred tax liabilities on postal savings accounts, a large volume of which have been maturing since April. However, in the absence of a further package, fiscal policy should become somewhat less expansionary in 2001. The major tax scheme to foster housing was due to expire this year, but has now been extended until June 2001. All in all, the general government deficit is set to remain between 6 and 7 per cent of GDP, with gross debt rising from 105 per cent of GDP in 1999 to nearly 120 per cent in 2001. Gross debt issues are expected to reach some yen 86 trillion this year, with a larger share being taken up by the banking sector. In order to market debt on such a scale while avoiding an increase in long-term rates, an increased proportion will be in shorter maturities.

After a pick-up in activity this year, growth should slow

Growth is projected to pick up noticeably in the course of this year reaching an annualised rate of some 3 per cent (see Box) before slowing to around 1½ per cent toward the end of 2001. With potential growth currently around 1¼ per cent, the

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|-------|-------|--------|-------|-------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 409.3 | 373.9 | 403.0 | 448 | 467 |
| Merchandise imports | 307.7 | 251.5 | 279.3 | 321 | 334 |
| Trade balance | 101.6 | 122.4 | 123.7 | 127 | 134 |
| Invisibles, net | - 7.3 | - 1.6 | - 16.7 | - 9 | 1 |
| Current account balance | 94.3 | 120.8 | 107.0 | 118 | 134 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 11.8 | - 1.2 | 2.1 | 8.4 | 5.2 |
| Merchandise import volumes ^a | 1.7 | - 5.3 | 9.6 | 6.7 | 5.0 |
| Export performance ^b | 0.8 | - 3.3 | - 7.2 | - 3.9 | - 3.7 |
| Terms of trade | - 3.9 | 6.5 | 4.9 | - 4.8 | 0.2 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

output gap will decrease and deflationary tendencies should fade. Underlying the improved growth performance is the recovery of business fixed investment linked to rising profits. However, with a greater emphasis on rate of return in corporate management, investment is not likely to go back to the high levels of the past and is therefore projected to slow to a more sustainable rate in 2001. Higher profits are expected to raise household incomes via bonuses from summer 2000 onward and, with employment stabilising and consumer sentiment improving, private consumption should then pick-up. Maturing postal savings deposits should also support consumption, even though only a small proportion might be spent. On the other hand, government investment is likely to dampen growth increasingly over the projection period as public works are projected to fall after a final boost in the first half of this year. Similarly, given the planned expiration of schemes to promote housing investment, such expenditures should start to decline in 2001; with so much capacity already in place, this sector is likely to be a drag on the economy for some time to come. Low wage and price growth should serve to maintain competitiveness and, in the context of buoyant world markets, exports could expand by around 8 per cent this year and by 5 per cent in 2001. At the same time, with world interest rates rising and profitability strong outside Japan, factor income revenues should increase leading to a rise in the current account surplus.

Risks to the projection are much more balance of than has been the case in the past. On the upside, regulatory reform and the potential for catch-up in the information technology sector could lead to significantly higher investment and growth than projected. The downside risks are equally significant. A great deal of restructuring remains to be done, particularly in non-manufacturing firms, and any important rise in domestic interest rates would worsen the balance sheet in a number of sectors. The fiscal situation would become more difficult and banks could be faced with substantial capital losses, which would lower their lending capacity.

Risks have become more balanced

Germany

Real GDP grew by 1.5 per cent in 1999 with activity accelerating in the second half of the year. The upswing is export driven, but domestic demand is also gaining strength. Buoyant incoming orders, both domestic and foreign, improving business sentiment and rising capacity utilisation all point to a further acceleration of activity. Stronger consumption and investment are underpinned by phased income tax reductions for both households and business. Growth is therefore expected to accelerate to around 3 per cent in both 2000 and 2001.

The general government deficit fell to 1.1 per cent of GDP in 1999 and is projected to remain roughly constant in 2000. But, in view of the tax reform, it could rise again to some 1¾ per cent of GDP in 2001. With the output gap closing, the government needs to exercise fiscal restraint through stricter spending control to improve public finances over the medium term. This should be backed by further structural reform, notably with respect to the labour market and the transfer system.

Economic activity accelerated in the second half of 1999...

GDP grew 1.5 per cent in 1999, with activity accelerating in the second half. The upswing was largely export driven with the foreign balance turning to a positive growth contribution. Sales to the dynamic Asian countries and Japan as well as to Latin America and Eastern Europe improved markedly, and stronger growth in the European Union also supported German exports. Activity was underpinned by steady growth of private consumption, which benefited from increasing real disposable income. Investment in equipment also remained robust though continuing to slow down in the second half. The recession in construction appears to have ended, although this is not true for the new Länder.

... and the business climate improved significantly

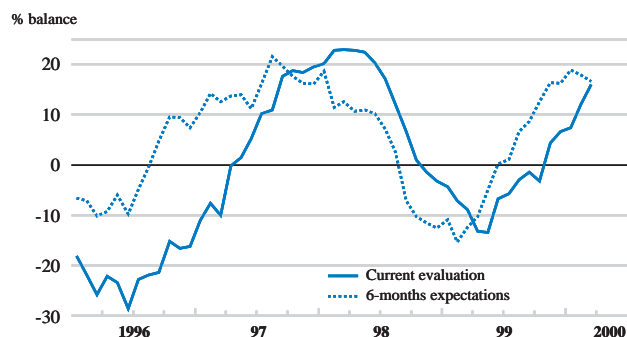
Industrial production continued to rise in the first quarter of 2000, and forward-looking indicators suggest that the upswing is continuing. Incoming orders in manufacturing have been buoyant since mid-1999, indicating an acceleration in domestic demand. Capacity utilisation in manufacturing has risen to its highest level since 1991, and business sentiment has improved substantially.

The labour market is also improving

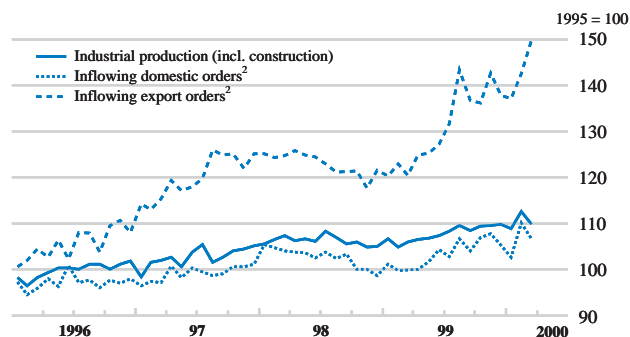
Owing to this favourable environment employment started to increase during the winter (seasonally adjusted) after a temporary decline in the summer, even though cuts were being made in public works programmes. With labour force

Germany

Business¹ sentiment has improved significantly



Industrial order inflow is high



1. Manufacturing excluding food.

2. In manufacturing, volume.

Sources: IFO Institut, Deutsche Bundesbank and OECD.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | -0.8 | 0.4 | 0.3 | 0.5 | 0.9 |
| Unemployment rate ^a | 9.8 | 9.3 | 9.0 | 8.5 | 7.7 |
| Compensation of employees | 0.3 | 1.6 | 2.1 | 2.2 | 3.1 |
| Unit labour cost | -1.1 | -0.6 | 0.7 | -0.6 | 0.0 |
| Household disposable income | 2.0 | 2.8 | 2.3 | 3.6 | 4.6 |
| GDP deflator | 0.8 | 1.0 | 1.0 | 0.6 | 1.4 |
| Private consumption deflator | 1.7 | 0.9 | 0.8 | 1.5 | 1.5 |

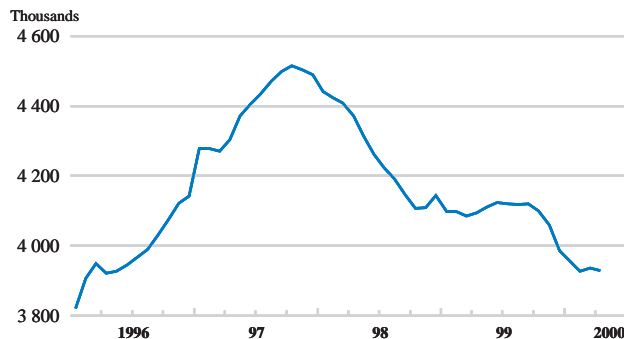
a) As a percentage of labour force.

Source: OECD.

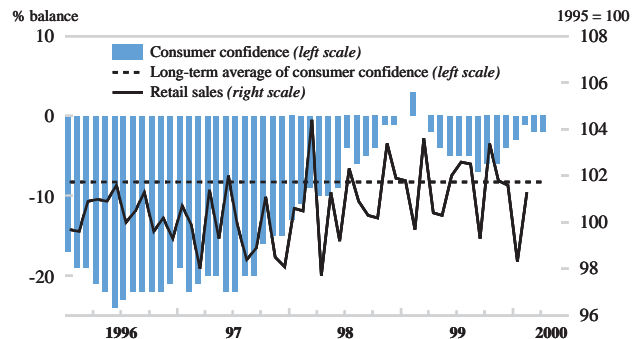
participation falling, this has resulted in a reduction in the unemployment rate by almost one percentage point (also seasonally adjusted) since summer 1999. Unit labour costs increased by 0.7 per cent in 1999, with productivity growing more slowly and wages more rapidly than the year before. With key wage settlements for 2000 and 2001 already set, real wage growth is expected to fall short of productivity increases in both years. Given that receipts from energy taxes are being used to lower pension contribution rates, unit labour costs are projected to decline in 2000 and remain roughly stable thereafter.

Core inflation remained modest, although the headline inflation rate drifted up to some 1¾ per cent in the first quarter of 2000, mainly driven by higher oil prices. Despite increases in short-term interest rates by the European Central Bank monetary conditions remain accommodative. While long-term rates have risen, the increase has levelled off recently and real rates remain low by historical standard. The euro has continued to depreciate and, despite last year's rise in unit labour costs, German competitiveness remains favourable.

Monetary conditions remain favourable...

Germany
Unemployment¹ is coming down


1. Seasonally adjusted, registered unemployment.
Sources: Deutsche Bundesbank and OECD.

Consumer confidence is improving


Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 9.5 | 9.1 | 8.6 | 8.4 | 8.8 |
| General government financial balance ^b | -2.6 | -1.7 | -1.1 | -1.2 | -1.7 |
| Current account balance ^b | -0.1 | -0.2 | -0.9 | -0.5 | 0.4 |
| Short-term interest rate ^c | 3.3 | 3.5 | 3.0 | 4.3 | 5.1 |
| Long-term interest rate ^d | 5.7 | 4.6 | 4.5 | 5.8 | 6.2 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month interbank rate.

d) 10-year government bonds.

Source: OECD.

... and fiscal conditions
support growth

The general government deficit came in at 1.1 per cent in 1999, lower than expected. While a steep increase in tax revenues – partly caused by reduced tax concessions – accounts for a large part of the drop in the deficit, spending restraints also contributed to the outcome. Fiscal conditions, however, are likely to support growth both this year and next. In 2000, an increase in energy taxes will be more than compensated by reductions in income taxes – notably for families – and social security contributions, so that the total tax burden should decline. For 2001 the government has decided to bring forward reforms of income and company taxation, originally scheduled for 2002. The reforms include *inter alia* significant reductions in statutory tax rates for both personal and corporate income, and an increase in the basic income tax allowance. The tax base will be broadened, notably in terms of more restrictive depreciation rules. These new measures could lead to tax reductions

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion DM | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 2 055.4 | 0.7 | 2.3 | 2.1 | 2.3 | 2.7 |
| Government consumption | 717.5 | -1.1 | 0.5 | 0.2 | 0.5 | 0.3 |
| Gross fixed investment | 779.4 | 0.5 | 1.4 | 2.3 | 2.8 | 3.4 |
| Public | 76.7 | -7.5 | -3.9 | 5.1 | 0.5 | 0.7 |
| Residential | 274.8 | 0.2 | -3.6 | -0.1 | 0.8 | 0.8 |
| Non-residential | 427.8 | 2.1 | 5.4 | 3.3 | 4.3 | 5.2 |
| Final domestic demand | 3 552.3 | 0.3 | 1.7 | 1.8 | 2.0 | 2.4 |
| stockbuilding ^a | - 5.6 | 0.4 | 0.7 | 0.4 | -0.2 | -0.1 |
| Total domestic demand | 3 546.7 | 0.7 | 2.5 | 2.2 | 1.8 | 2.2 |
| Exports of goods and services | 908.8 | 10.9 | 7.0 | 4.3 | 10.5 | 8.9 |
| Imports of goods and services | 869.5 | 8.3 | 8.5 | 7.1 | 7.0 | 6.5 |
| net exports ^a | 39.3 | 0.8 | -0.3 | -0.7 | 1.1 | 0.9 |
| GDP at market prices | 3 586.0 | 1.5 | 2.2 | 1.5 | 2.9 | 3.0 |
| GDP at market prices in billion € | 1 833.5 | | | | | |
| Industrial production | – | 3.6 | 4.2 | 1.5 | 4.3 | 4.3 |
| <i>Memorandum items</i> | | | | | | |
| Investment in machinery and equipment | 291.4 | 3.7 | 9.9 | 5.6 | 5.9 | 6.5 |
| Construction investment | 488.0 | -1.4 | -3.9 | 0.0 | 0.5 | 0.9 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|--------|--------|--------|-------|------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 510.7 | 542.6 | 540.6 | 544 | 593 |
| Merchandise imports | 438.7 | 462.9 | 467.9 | 468 | 497 |
| Trade balance | 72.0 | 79.7 | 72.7 | 76 | 96 |
| Invisibles, net | - 75.1 | - 84.4 | - 92.5 | - 87 | - 88 |
| Current account balance | - 3.1 | - 4.7 | - 19.8 | - 11 | 8 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 8.1 | 7.5 | 4.3 | 11.3 | 9.2 |
| Merchandise import volumes ^a | 6.6 | 10.9 | 4.0 | 8.3 | 6.6 |
| Export performance ^b | - 1.4 | 0.6 | - 4.2 | 0.6 | 0.5 |
| Terms of trade | - 1.6 | 3.4 | - 0.3 | - 2.5 | 0.2 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

of around one per cent of GDP. Mainly on this ground, the government has revised its deficit targets presented to the EU (Stability Programme). The government now foresees a slight drop in the deficit-to-GDP ratio in 2000 but an increase of ½ per cent in 2001. In the OECD's projections the deficit remains roughly unchanged in terms of GDP in 2000 but rises by about ½ per cent of GDP in 2001, increasing to 1¾ per cent of GDP. In structural terms, the deficit may rise from about ¼ per cent of GDP in 1999 to just below 1 per cent in 2000 and to 2 per cent in 2001.

Activity is projected to pick up further over the next two years, with GDP growing by around 3 per cent in both 2000 and 2001. World trade growth is expected to be buoyant, and accelerating exports are projected to be the main driving force in both years, with the foreign balance contribution to growth amounting to around one per cent in each year. As employment is rising and income taxes are being cut, disposable income will expand rapidly and private consumption is projected to grow at rates around 2½ per cent over the next two years. Rising domestic and foreign demand, high capacity utilisation in manufacturing and rising profits should lead also to strengthening investment growth, although there may be some dampening effect arising from reduced depreciation rates in 2001. But growth in the construction sector will remain weak, largely because of ongoing downward adjustment in the east. The unemployment rate (in national accounts terms) is projected to fall from 9.0 per cent in 1999 to 7.7 per cent in 2001, helped by demographic developments. Given the strength of the economy, inflation is projected to pick up but will remain below 2 per cent.

The expansion should accelerate further...

A risk to these projections would arise if there were a "hard landing" of economic activity in the United States. On the domestic side, investment could turn out stronger than expected, but failure to connect tax reform with tight spending controls could have a negative impact on business sentiment, and growth could disappoint.

... but there are both external and domestic risks to activity

France

The French economy appears poised for a period of strong growth in 2000 and 2001, largely driven by domestic demand, but also supported by a favourable international environment. Several factors lie behind the projected expansion of demand: accommodative monetary conditions; real wage growth and strong job creation, which contribute to higher household earnings; and high consumer and business confidence. Labour market prospects are bright in the near term, with employment rising rapidly and unemployment falling steadily.

In the immediate future, consumer price inflation should remain moderate, in part thanks to the authorities' decision to reduce the standard value-added tax rate. Over time, however, tensions could emerge on both the labour and goods markets, with an impact on wages and prices. Business surveys indicate that production bottlenecks in certain sectors are appearing. Some employers also report greater hiring difficulties. Against this background, a cautious fiscal policy in 2000-01, based on firm public expenditure control, would help set the stage for strong and sustainable growth in the medium term.

Strong output expansion in late 1999 and early-2000...

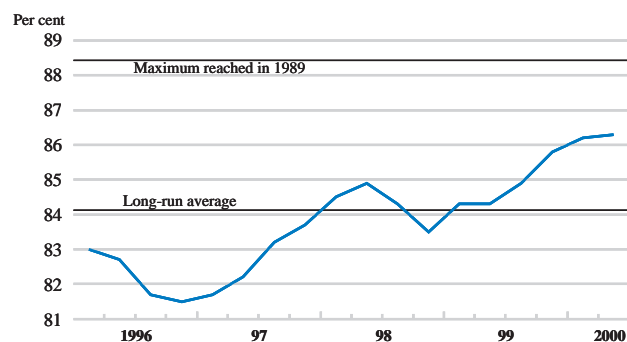
Output rebounded strongly in 1999, as in most other euro-zone countries. For the year as a whole, real GDP grew by 2.9 per cent. The rebound was led by household demand, business investment and exports. Private consumption benefited from the steady increase in real wages, a marked rise in job creation and high consumer confidence. Purchases of new cars reached the highest level in 10 years, while demand for information technology products and services increased vigorously. Households took the opportunity of higher earnings and low interest rates to resume real estate purchases. Although there is no good statistical evidence of a wealth effect, the steady increase in stock and housing prices may also have supported consumer demand.

... is contributing, together with other factors, to strong job creation

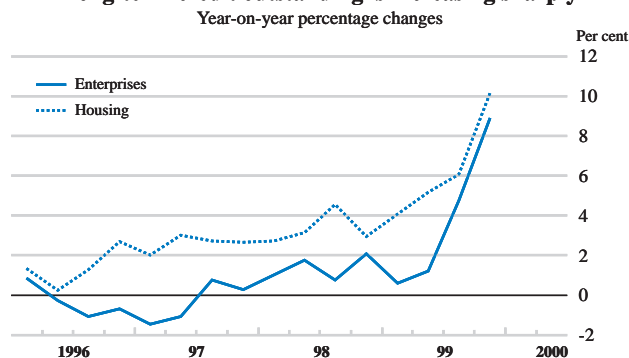
After years of lacklustre performance, business investment surged. With brighter demand prospects, industrial firms expanded and renewed their stock of capital, as they reached capacity limits. Exports grew strongly in the second half of the year with vigorous demand from other European countries, North America and East Asia. A rebuilding of inventories took place in the fourth quarter partly in anticipation of possible problems with the millennium bug. In these circumstances, employment

France

Capacity utilisation has risen



Long-term credit outstanding is increasing sharply



Sources: INSEE and OECD.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | 0.5 | 1.1 | 2.0 | 2.3 | 2.0 |
| Unemployment rate ^a | 12.4 | 11.8 | 11.1 | 9.8 | 8.8 |
| Compensation of employees | 2.8 | 3.9 | 3.9 | 4.5 | 4.6 |
| Unit labour cost | 0.9 | 0.6 | 0.9 | 0.8 | 1.7 |
| Household disposable income | 3.0 | 3.7 | 3.0 | 3.8 | 4.6 |
| GDP deflator | 1.2 | 0.8 | 0.3 | 1.0 | 1.6 |
| Private consumption deflator | 1.4 | 0.7 | 0.7 | 1.3 | 1.5 |

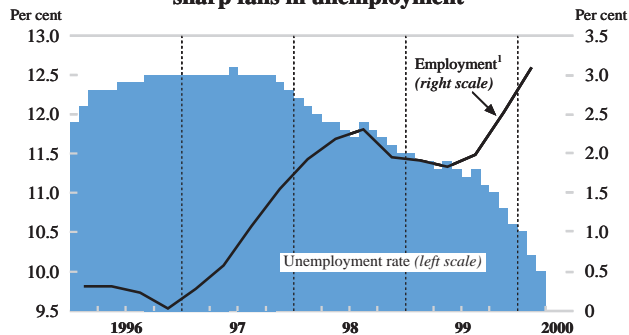
a) As a percentage of labour force.

Source: OECD.

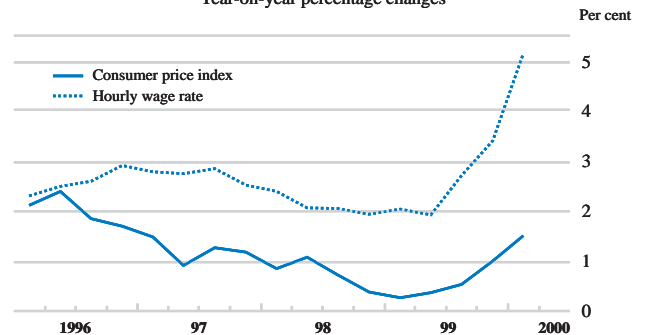
grew rapidly, helping reduce unemployment from its high level and halting the decline in participation ratios, especially among young persons. Net job creation was at an unprecedented level of 450 000 in 1999, most importantly in the private sector where it was mainly driven by output expansion. Inflation picked up slightly in the second half of the year as a result of higher oil prices, and hourly wages accelerated in the context of the working time reduction toward 35 hours per week.

Monetary conditions were supportive in 1999 and are expected to remain so in 2000. With low interest rates, both consumer and enterprise borrowing picked up strongly in 1999. Households increased their indebtedness to finance real estate and durable goods purchases, while businesses took new bank credits to pay for fixed investments and a wave of mergers and acquisitions. Although long-term rates edged higher in 1999, this trend was reversed in the first quarter of 2000. Concomitantly, the weaker exchange rate of the euro *vis-à-vis* the US dollar and the yen helped boost exports. In contrast to monetary conditions, the fiscal policy stance turned out to be restrictive in 1999. Tax revenue increased more than expected, in particular corporate income tax, reducing the general government structural deficit significantly. Following this development, the authorities decided to cut taxes by the equivalent of 1 per

Accommodative monetary conditions and tax cuts...

France
Employment recovery has prompted sharp falls in unemployment

Wage inflation is edging up

Year-on-year percentage changes



1. Year-on-year percentage changes.

Sources: INSEE and OECD.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 16.0 | 15.6 | 15.7 | 15.2 | 15.0 |
| General government financial balance ^b | -3.0 | -2.7 | -1.8 | -1.4 | -1.2 |
| Current account balance ^b | 2.7 | 2.8 | 2.6 | 2.5 | 2.6 |
| Short-term interest rate ^c | 3.5 | 3.6 | 3.0 | 4.3 | 5.1 |
| Long-term interest rate ^d | 5.6 | 4.7 | 4.6 | 5.9 | 6.3 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month interbank rate.

d) 10-year benchmark government bonds.

Source: OECD.

cent of GDP in 2000. This tax reduction takes the form of lower value-added tax, property tax, income tax, and social security contributions. The overall public deficit should nevertheless decline in 2000-01, thanks to tight controls on central government expenditure.

... should support output expansion in 2000 and 2001

Recent business and consumer surveys suggest that near term prospects are bright. In all sectors, order books are well filled and firms intend to increase output. In manufacturing, firms also indicate intentions to boost investment in 2000. Consumer confidence remains high and preliminary reports indicate continuing strong household spending in the early part of the year. The accommodative monetary conditions, together with the recent tax cuts, will help ensure that domestic demand stays strong in the short term. The growth of exports should decelerate slightly from its previous fast pace, as foreign demand expansion slows, especially in North America. Overall, real GDP should increase by 3¾ per cent in 2000. In 2001, domestic demand should remain strong, except

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion FF | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 4 442.8 | 0.1 | 3.4 | 2.3 | 3.1 | 3.3 |
| Government consumption | 1 922.9 | 2.1 | 0.3 | 2.6 | 1.8 | 1.4 |
| Gross fixed investment | 1 469.2 | 0.0 | 6.6 | 7.1 | 5.6 | 3.5 |
| General government | 256.0 | -5.5 | 2.8 | 2.2 | 1.5 | 1.9 |
| Household | 362.5 | 0.9 | 3.6 | 7.7 | 6.0 | 2.6 |
| Other | 850.7 | 1.3 | 9.0 | 8.2 | 6.5 | 4.2 |
| Final domestic demand | 7 834.9 | 0.6 | 3.3 | 3.3 | 3.3 | 2.9 |
| stockbuilding ^a | - 12.2 | 0.1 | 0.7 | -0.5 | 0.1 | 0.0 |
| Total domestic demand | 7 822.7 | 0.6 | 3.9 | 2.8 | 3.3 | 2.9 |
| Exports of goods and services | 1 831.4 | 12.1 | 7.7 | 3.6 | 10.9 | 8.9 |
| Imports of goods and services | 1 700.2 | 7.1 | 11.3 | 3.1 | 10.2 | 9.3 |
| net exports ^a | 131.2 | 1.3 | -0.6 | 0.2 | 0.4 | 0.1 |
| GDP at market prices | 7 953.9 | 1.9 | 3.2 | 2.9 | 3.7 | 2.9 |
| GDP at market prices in billion € | 1 212.6 | | | | | |
| Industrial production ^b | - | 3.7 | 5.2 | 2.2 | 5.1 | 4.6 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Quarterly index.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|-------|-------|-------|-------|------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 285.7 | 301.5 | 291.8 | 300 | 326 |
| Merchandise imports | 259.0 | 275.4 | 269.2 | 279 | 305 |
| Trade balance | 26.6 | 26.1 | 22.5 | 21 | 22 |
| Invisibles, net | 12.1 | 14.6 | 15.2 | 12 | 13 |
| Current account balance | 38.7 | 40.7 | 37.7 | 32 | 34 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 12.1 | 8.8 | 3.6 | 11.6 | 9.4 |
| Merchandise import volumes ^a | 7.4 | 12.3 | 4.2 | 10.8 | 9.8 |
| Export performance ^b | 2.3 | - 0.3 | - 0.4 | 1.3 | 1.0 |
| Terms of trade | 0.4 | 1.5 | - 1.0 | - 1.8 | 0.1 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

for gross capital formation which is projected to slow down, especially residential. Hence, real GDP growth is projected to continue at about 3 per cent in 2001.

Such good output prospects should lead to further significant employment gains. Total employment may grow by about 500 000 in 2000 and by 450 000 in 2001, mainly in the private sector, reducing the unemployment rate to about 8¾ per cent towards the end of 2001, somewhat below the level compatible with stable inflation. This trend may add to labour market tensions, which are beginning to emerge, and drive wages higher. With current economic expansion entering its fifth year in 2001, labour productivity is projected to slow down and, combined with more rapid wage increases, unit labour costs are projected to accelerate. Import prices will also rise due to the weaker euro. Helped by a lower value-added tax, consumer price inflation is, nevertheless, expected to remain low over the projection period.

Unemployment should fall further, but inflation is likely to remain moderate

A significant degree of uncertainty prevails in this projection, due to several factors. The impact of the 35-hour laws on labour costs is particularly difficult to predict. Despite wage moderation and greater flexibility in working arrangements associated with recently negotiated 35-hour agreements, and subsidies to enterprises, the reduced working time could lead to increased labour costs and production bottlenecks. There is also some degree of uncertainty regarding the behaviour of consumers in the near term. Unlike in other OECD countries, French households have not reduced their savings rate significantly, devoting a constant share of their income to building up further financial assets. However, this behaviour could change. The improving labour market conditions could, for example, convince consumers that the need for precautionary savings has diminished. Should labour costs and domestic demand increase more strongly than expected, it would very likely drive inflation higher.

A significant degree of uncertainty surrounds the projection

Italy

Real GDP seems set to expand by close to 3 per cent this year, spurred by accelerating world demand, improving business confidence and a macroeconomic policy stance conducive to growth. The momentum given by the export sector is reinforcing investment demand. Private consumption is currently more subdued, but it should strengthen as employment expands. With the contribution of real net exports remaining positive, the growth momentum should be maintained in 2001. Inflation will reach 2½ per cent this year, reflecting the pass-through of the oil-price rise and euro depreciation into an already relatively high rate of domestic price increase.

Meeting the objectives of further fiscal consolidation and a lower burden of taxation requires strict control of public spending, for which the completion of pension reform and further gains in administrative efficiency are essential. Together with measures to improve labour-market conditions, increased competition and removal of entry barriers are also required in some sheltered areas of the non-financial services sector, if the objectives of higher employment and better-balanced regional development are to be met and external competitiveness is to be maintained.

Economic activity has accelerated...

Economic activity firmed in the second half of 1999, as rebounding exports helped to boost business confidence. Strong business fixed investment was accompanied by a pick-up in public works. Private consumption expanded only slowly, however, as accelerating inflation held back real income growth, compounding the restraining effect of already fragile household confidence.

... accompanied by an expansion in employment

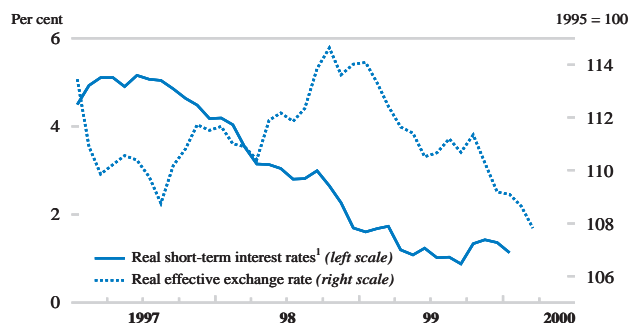
The rate of capacity utilisation in manufacturing has risen above its mid-1998 level, but remains 2 percentage points below the 1990 cyclical peak, pointing to a continued negative gap between actual and potential output. Employment rose in 1999, thanks mainly to rising part-time and atypical contracts in services. While the level of employment remains much higher than a year ago, the latest labour-market data are mixed: employment has risen further in the Centre-North but weakened in the South. In seasonally-adjusted terms, the overall rate of unemployment rose from 11 to 11.2 per cent in the first quarter of 2000.

Growth has been supported by a strengthening of exports...

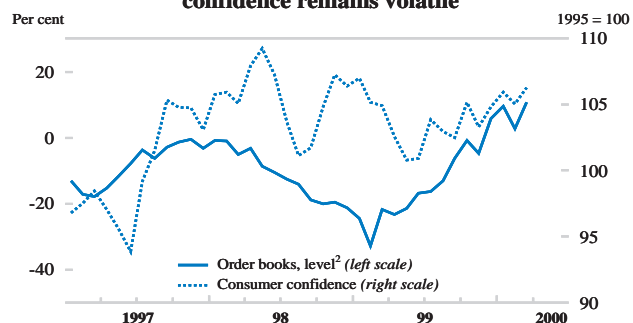
On the external side, the factors underlying the fall in the trade surplus in 1999 included brisk imports and slowly-recovering exports, together with significant terms of trade losses. However, the growth of exports turned strongly positive from the second half of 1999, reflecting both the depreciation of the euro and improving world

Italy

Monetary conditions are supportive



Order books have strengthened but consumer confidence remains volatile



1. Short-term interest rate deflated by consumer price inflation.

2. Per cent balance of positive and negative answers.

Source: OECD.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | 0.4 | 1.1 | 1.2 | 1.5 | 1.3 |
| Unemployment rate ^a | 11.8 | 11.9 | 11.5 | 11.0 | 10.5 |
| Compensation of employees | 4.8 | -0.6 | 3.9 | 4.0 | 4.2 |
| Unit labour cost ^b | 2.9 | -2.1 | 2.4 | 1.0 | 1.0 |
| Household disposable income | 3.3 | 2.9 | 3.1 | 4.1 | 4.5 |
| GDP deflator | 2.4 | 2.7 | 1.5 | 2.2 | 2.2 |
| Private consumption deflator | 2.2 | 2.1 | 2.2 | 2.6 | 2.3 |

a) As a percentage of labour force.

b) The estimate for 1998 takes into account the introduction of the regional tax (IRAP) which was accompanied by the partial abolition of the employers' compulsory contributions to the health care system.

Source : OECD.

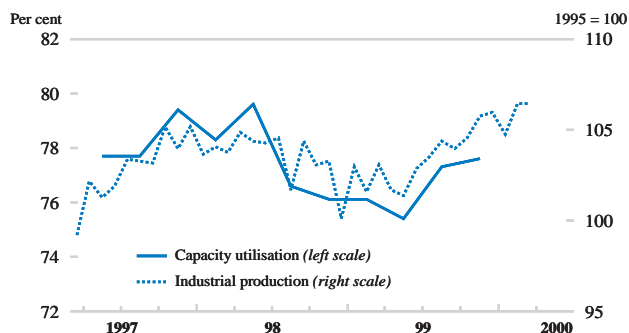
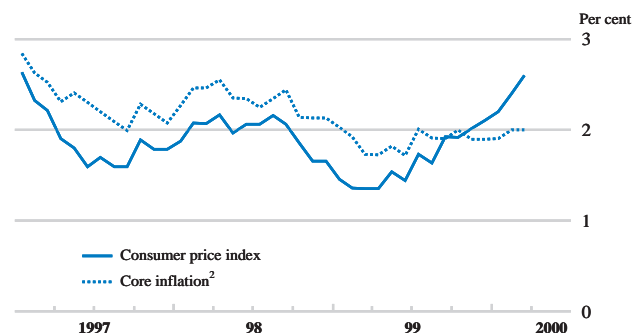
demand. Competitiveness gains translated, inter alia, into better exports of traditional goods (furniture and textiles, for example), which had been badly hit by the improvement of competitiveness in emerging East Asia. Recent developments point to the euro area playing an increasingly important part in supporting Italian sales abroad.

In the wake of accelerating oil prices and a weakening euro, the annual rate of consumer price inflation rose to 2.5 per cent by March 2000 before easing somewhat in April. To counter inflationary pressures, the government has introduced a set of temporary administrative measures, including the partial rebate of fuel taxes and a cap on public tariffs and insurance premiums. "Core" inflation – i.e. inflation excluding energy and food components – is running at roughly double the 1 per cent euro-area average rate. Furthermore, judging from business surveys, "core" inflation is expected to trend up towards headline inflation.

... but inflation is rising...

Wage growth remains quite subdued and any wage catch-up for purchasing power losses is unlikely to become significant this year, as the planned wage rounds will affect only a small share of total private employees. Even though an acceleration

... which may imperil competitiveness

Italy
Capacity utilisation and production pick up

CPI inflation has exceeded core inflation¹


1. Year-on-year percentage changes.

2. Harmonised consumer price index less energy, food, alcoholic beverages and tobacco.

Sources: OECD; Eurostat.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 14.6 | 13.4 | 12.7 | 12.7 | 12.7 |
| General government financial balance ^b | -2.7 | -2.8 | -1.9 | -1.5 | -1.1 |
| Current account balance ^b | 2.9 | 1.9 | 1.0 | 1.6 | 2.2 |
| Short-term interest rate ^c | 6.9 | 5.0 | 3.0 | 4.3 | 5.1 |
| Long-term interest rate ^d | 6.9 | 4.9 | 4.7 | 6.0 | 6.4 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month interbank rate.

d) 10-year government bonds.

Source: OECD.

in compensation per employee is expected for 2000, measured in terms of unit labour costs relative to the European Union average, manufacturing export competitiveness will not deteriorate significantly. Nevertheless, high domestic inflation in a number of sheltered sectors will continue to raise non-factor costs in the tradeable sectors, tending to erode Italy's competitiveness vis-à-vis its euro-area partners.

*Relatively low real interest rates
are boosting demand...*

Monetary conditions are fairly easy by recent historical experience, notwithstanding the recent moves of the European Central Bank towards restraint. Indeed, relatively high rates of actual and expected inflation in Italy translate into comparatively low short-term real interest rates. From the beginning of 2000, this has been associated with buoyant credit to households, which is expanding markedly from a relatively low base.

*... while fiscal policy is acting
pro-cyclically*

Helped mainly by better than expected fiscal revenues and also lower interest payments, the fiscal outturn for 1999 was just below the initial target of 2 per cent of GDP. The 2000 budget encompasses measures to boost employment and economic

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices trillion L. | Percentage changes, volume (1995 prices) | | | | |
| Private consumption ^a | 1 109.4 | 3.0 | 2.3 | 1.7 | 1.5 | 2.2 |
| Government consumption | 343.8 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 |
| Gross fixed investment | 348.8 | 1.2 | 4.1 | 4.4 | 5.5 | 4.9 |
| Machinery and equipment | 190.5 | 4.2 | 7.4 | 6.2 | 5.7 | 5.3 |
| Construction | 158.4 | -2.3 | -0.1 | 1.8 | 5.2 | 4.2 |
| Residential | 89.2 | -2.7 | -0.6 | 1.6 | 3.4 | 3.0 |
| Non-residential | 69.2 | -1.8 | 0.5 | 1.9 | 7.5 | 5.7 |
| Final domestic demand | 1 802.0 | 2.2 | 2.4 | 2.0 | 2.1 | 2.5 |
| stockbuilding ^b | 6.4 | 0.3 | 0.6 | 0.4 | -0.2 | 0.0 |
| Total domestic demand | 1 808.5 | 2.5 | 2.9 | 2.5 | 1.8 | 2.4 |
| Exports of goods and services | 491.1 | 6.5 | 3.3 | -0.4 | 10.9 | 9.5 |
| Imports of goods and services | 397.3 | 10.2 | 9.1 | 3.4 | 7.1 | 7.5 |
| net exports ^b | 93.8 | -0.6 | -1.3 | -1.0 | 1.1 | 0.8 |
| GDP at market prices | 1 902.3 | 1.8 | 1.5 | 1.4 | 2.9 | 3.1 |
| GDP at market prices in billion € | 982.4 | | | | | |
| Industrial production | – | 3.8 | 1.3 | 0.0 | 3.7 | 3.5 |

a) Final consumption in the domestic market by households.

b) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|--------|--------|-------|-------|-------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 238.3 | 242.0 | 231.3 | 240 | 263 |
| Merchandise imports | 191.1 | 199.8 | 209.3 | 215 | 232 |
| Trade balance | 47.1 | 42.2 | 22.0 | 25 | 31 |
| Invisibles, net | - 13.6 | - 18.9 | - 9.9 | - 8 | - 8 |
| Current account balance | 33.6 | 23.2 | 12.0 | 17 | 24 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 4.6 | 1.8 | 0.2 | 11.4 | 9.9 |
| Merchandise import volumes ^a | 9.9 | 9.5 | 4.2 | 7.7 | 7.8 |
| Export performance ^b | - 4.4 | - 6.4 | - 3.6 | 1.0 | 1.2 |
| Terms of trade | - 0.7 | 5.6 | - 1.2 | - 2.9 | - 0.2 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

activity, in the form of tax relief and higher capital spending in the South, equal to two-thirds of a per cent of GDP. This will be offset by an equivalent fiscal correction, allowing a target of 1½ per cent for the general government deficit. However, this would not be enough to prevent a decline in the structural primary surplus, implying a pro-cyclical impulse from the budget.

Real GDP growth is projected to pick up from just below 1½ per cent last year to around 3 per cent in 2000 and this pace should be maintained in 2001. Buoyant exports and strong investment are currently the most dynamic components of demand. In addition to benefiting from recent low real interest rates, the business sector should also continue responding to more generous tax treatment of new investment since tax reform in 1998. Improving employment prospects and rising household incomes should gradually underpin stronger private consumption, albeit with a lag. Although the effects of the recent oil shock and euro weakening are assumed to be temporary, the inflation rate, measured on the basis of the consumption deflator, is expected to remain in the 2¼-2½ per cent range. Strong domestic demand and inadequate competition in the sheltered sectors might prevent it from falling significantly in 2001. At the same time, the rate of unemployment should decline by 1 percentage point to 10½ per cent, which will be above the structural rate, suggesting that generalised pressures on wage costs should be contained, although there may be regional and sectoral pressures. On the external side, favourable export-market growth and exchange rate depreciation will make for an increasing trade surplus. Combined with a further reduction in the deficit on the invisible balance, this will be reflected in a higher current account surplus.

Real GDP growth is expected to pick up...

There are several uncertainties surrounding these projections. On the negative side, there is a risk that accelerating inflation could lead to domestic cost pressures which could prevent Italy from fully exploiting the opportunities provided by a recovering world demand and a lower euro. Higher inflation could also undermine consumer confidence. On the other hand, if there were to be a fuller catch-up of real wages to productivity growth, consumption would be stronger, but at the cost of more entrenched inflationary forces. These prospective dangers emphasise the need for enhancing product market competition and the performance of the labour market. A risk of overheating could, moreover, arise if strengthening domestic and external stimuli were reinforced by budget slippage, which could occur if current spending and local deficits are not brought under better control.

... although the domestic environment constitutes a possible risk

United Kingdom

The economy expanded strongly during 1999. Activity continues to be underpinned by robust domestic demand, but the trade deficit is widening. Excess domestic demand has been reflected in accelerating service prices, offset thus far by subdued goods price inflation associated with the strength of the pound. Such pressures may be harder to contain in the future: wage growth has picked up and the rise in oil and commodity prices has not yet been fully passed through.

While monetary policy has responded with a series of interest rate hikes since last September, further tightening is likely to be needed to keep GDP growth in line with potential and prevent inflation from significantly overshooting the target. Several years of impressive fiscal consolidation have created room to increase outlays on the Government's priority areas and the March 2000 Budget provided for a sharp acceleration of spending on health care in particular. While a substantial funding boost to health and education would seem to be justified from a longer-term perspective, it will likely provide stimulus to an economy with little spare capacity. Even so, the fiscal stance over the next two years is to be tighter than foreseen in the March 1999 Budget.

Domestic demand pressures are partly absorbed by a growing trade deficit

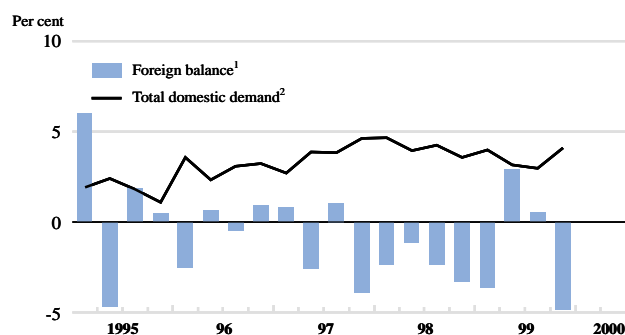
Growth picked up strongly in the second half of 1999, and as a result the year average of just over 2 per cent was only slightly below potential. It continued to be underpinned by the momentum of all major components of final domestic demand, including government spending, which grew by 4½ per cent last year (the sharpest rise since 1979), and was only partly offset by de-stocking and net imports. Thanks to buoyant foreign markets, export volumes picked up in the course of 1999, but the persistent strength of the pound caused further market share losses. With strong import growth, the goods trade deficit widened sharply, reaching 3 per cent of GDP.

Productivity has accelerated lately, but so have wages

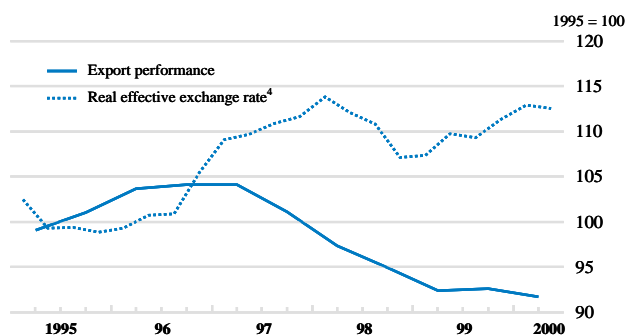
Employment continued to expand throughout 1999, albeit at a slower pace, and labour productivity, which had been languishing since the mid-1990s, picked up. Strong employment gains in the service sector have been partly offset by labour shedding in manufacturing sectors most exposed to foreign competition. Firms which had heretofore responded to lower demand by hoarding labour, on the assump-

United Kingdom

Growth is still driven by strong domestic demand



The strong pound has affected export performance³



1. Contribution of net balance to GDP growth.
 2. Year-on-year percentage changes.
 3. In manufacturing.
 4. Based on export prices.
- Sources: ONS and OECD.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | 1.6 | 1.2 | 1.0 | 0.9 | 0.5 |
| Unemployment rate ^a | 6.9 | 6.2 | 5.9 | 5.7 | 5.8 |
| Compensation of employees | 6.9 | 7.3 | 6.2 | 6.7 | 6.2 |
| Unit labour cost | 3.3 | 5.1 | 4.1 | 3.7 | 3.8 |
| Household disposable income | 6.4 | 2.5 | 5.6 | 5.9 | 5.7 |
| GDP deflator | 2.9 | 3.2 | 2.9 | 3.0 | 3.2 |
| Private consumption deflator | 2.5 | 2.5 | 2.4 | 2.5 | 2.8 |

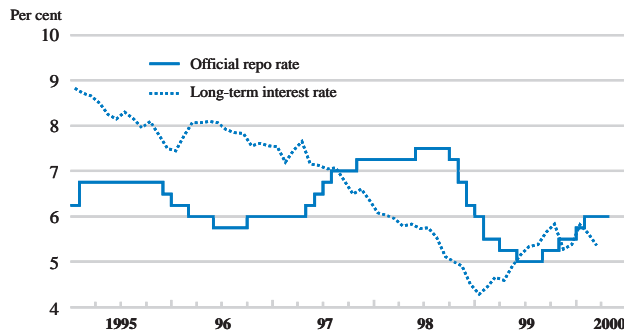
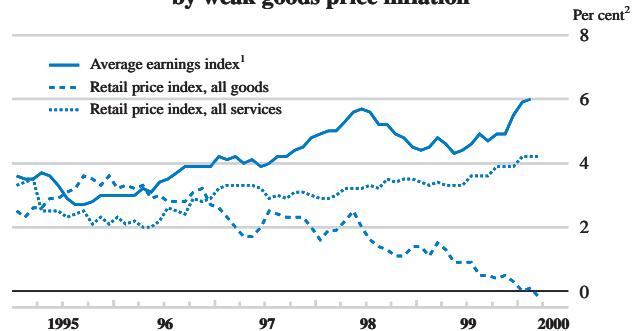
a) As a percentage of labour force.

Source: OECD.

assumption that the strength of the pound would be temporary, saw their margins squeezed further in 1999 and were forced to reduce unit labour costs, resulting in a 3 per cent fall in manufacturing employment. Against this backdrop, the overall unemployment rate stabilised slightly below 6 per cent. Further non-inflationary reductions in the unemployment rate may be hard to achieve, especially in light of the acceleration of wages in late 1999. While domestic demand pressures have been partly absorbed by a steep rise in imports in the second half of 1999, they are also fuelling service price inflation (an indicator of domestically-generated inflation), which exceeded 4 per cent in early 2000. So far, this has been largely offset by slowing goods prices, owing to falling import prices. Indeed, RPIX inflation (the retail price index excluding mortgage interest payments) has remained distinctly below the 2.5 per cent target. On the harmonised consumer price index of the European Union (EU), inflation has been below that in all other EU countries in each of the first four months of 2000, at 1 per cent or less.

As activity strengthened and as the downside risks related to foreign demand evaporated, monetary policy was gradually tightened from September 1999, with four 25 basis points increases in the official repo rate, to 6 per cent. While short-term market interest rates have risen by a similar magnitude, long-term rates have – like

The Bank of England has reacted promptly to cool domestic demand. More may be needed...

United Kingdom
Monetary policy has tightened

Domestic inflationary pressures are offset by weak goods price inflation


1. All employees.

2. Year-on-year percentage changes.

Sources: Bank of England and ONS.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 9.6 | 6.3 | 6.2 | 6.1 | 6.2 |
| General government financial balance ^b | -2.0 | 0.2 | 1.1 | 1.1 | 0.9 |
| Current account balance ^b | 0.8 | -0.1 | -1.4 | -1.8 | -2.0 |
| Short-term interest rate ^c | 6.8 | 7.3 | 5.4 | 6.6 | 7.0 |
| Long-term interest rate ^d | 7.0 | 5.5 | 5.1 | 5.7 | 6.1 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month interbank rate.

d) 10-year government bonds.

Source: OECD.

elsewhere – recently fallen back, leading to an inverted yield curve. The latter may partly reflect a shortage of public bonds. With little slack in the labour market, a buoyant housing market, a widening external trade deficit and domestically-generated inflation running above 2.5 per cent, the Bank of England faces the difficult task of cooling domestic demand while hoping that this does not put too much further upward pressures on the exchange rate.

... as strong private expenditure growth combined with increases in public spending...

Contrasting with the neutral stance projected in the 1999/2000 Budget, significant further consolidation appears to have been achieved ex post. As output growth and tax elasticities exceeded expectations, the fiscal balance showed a surplus of 1.6 per cent of GDP against a projected 0.3 per cent deficit. On a calendar year and national accounts basis, the cyclically-adjusted budget balance is estimated to have moved from a slight deficit in 1998 to a surplus of 0.9 per cent of GDP in 1999. Against this background, and in a context of sound public finances, the 2000/01 Budget provided for a sharp acceleration in spending on health care in particular,

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-------------------------------|-----------------------------|------------------------------------------|------|------|------|------|
| | current prices billion £ | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 485.4 | 3.9 | 3.2 | 3.9 | 3.3 | 2.6 |
| Government consumption | 146.1 | -1.4 | 0.7 | 4.4 | 3.8 | 3.2 |
| Gross fixed investment | 125.7 | 7.5 | 11.0 | 5.2 | 3.8 | 3.4 |
| Public ^a | 13.0 | -10.0 | 7.9 | 5.5 | 12.8 | 7.0 |
| Private residential | 27.5 | 2.5 | 1.8 | 0.4 | 3.6 | 2.7 |
| Private non-residential | 85.1 | 11.8 | 14.1 | 6.4 | 2.8 | 3.2 |
| Final domestic demand | 757.2 | 3.5 | 4.1 | 4.2 | 3.5 | 2.9 |
| stockbuilding ^b | 1.6 | 0.3 | 0.0 | -0.6 | 0.1 | 0.0 |
| Total domestic demand | 758.8 | 3.8 | 4.1 | 3.6 | 3.6 | 2.9 |
| Exports of goods and services | 220.3 | 8.6 | 2.4 | 2.9 | 8.5 | 6.7 |
| Imports of goods and services | 224.5 | 9.2 | 8.8 | 7.5 | 9.8 | 7.7 |
| net exports ^b | -4.2 | -0.3 | -2.1 | -1.7 | -0.9 | -0.8 |
| GDP at market prices | 754.6 | 3.5 | 2.2 | 2.1 | 2.9 | 2.3 |
| Manufacturing production | – | 1.3 | 0.3 | -0.1 | 2.0 | 2.6 |

a) Including nationalised industries and public corporations.

b) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|--------|--------|--------|-------|-------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 281.4 | 271.9 | 267.3 | 283 | 302 |
| Merchandise imports | 300.9 | 305.9 | 310.4 | 331 | 358 |
| Trade balance | - 19.5 | - 34.1 | - 43.1 | - 48 | - 56 |
| Invisibles, net | 30.3 | 32.9 | 22.4 | 23 | 25 |
| Current account balance | 10.8 | - 1.1 | - 20.7 | - 26 | - 31 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 7.6 | 1.6 | 1.3 | 7.5 | 6.2 |
| Merchandise import volumes ^a | 8.7 | 9.5 | 5.6 | 9.5 | 7.7 |
| Export performance ^b | - 1.4 | - 6.4 | - 3.8 | - 2.3 | - 2.1 |
| Terms of trade | 1.5 | 1.7 | 1.4 | 0.9 | 0.3 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

partly unwinding the unexpected fiscal tightening in 1999. While the actual surplus is projected to remain close to 1 per cent of GDP over the projection horizon, reflecting strong activity, the cyclically-adjusted surplus is projected to decline to around half a per cent of GDP in 2001.

Given the high level of business and consumer confidence as well as the prospect of strong gains in real disposable income, the strength of domestic demand is expected to carry on through 2000. Although this will be partly offset by a negative contribution from the external sector, GDP growth is set to outstrip potential growth, adding to the emerging wage and price pressures. The unwinding of the past effect of exchange rate appreciation plus the pass-through of higher commodity prices will push RPIX inflation closer to target and will probably call for a further tightening of monetary policy, albeit perhaps not quite as much as during the previous interest rate cycle, depending *inter alia* on exchange rate developments. With rising real interest rates and weaker income gains contributing to damping domestic demand, real GDP growth is projected to move back into line with potential in 2001. This slowdown would not quite suffice, however, to prevent inflation from rising slightly above target.

... are expected to push GDP above potential in 2000

The upside risks to this scenario include a better export performance despite the strong pound, which would exacerbate existing excess domestic demand pressures. Possibly mitigating those, however, would be an under-estimation of the intensification of competition and the ongoing productivity upsurge. Alternatively, too rapid a depreciation of the pound could push up inflation, providing the first serious test of monetary policy credibility since the Bank of England gained independence. On the downside, a stock market meltdown could weaken consumption and investment.

While the risks on output growth appear to be balanced, there may be upside risks on inflation if the pound were to depreciate rapidly

Canada

Economic expansion has remained strong and broadly based, bolstered by buoyant US demand, rising world commodity prices and improved consumer confidence associated with substantial job creation. Although the economy now appears to be operating at, or slightly above, full capacity, as conventionally measured, core inflation (excluding energy and other volatile items) has stayed well within the bottom half of the official target range. By the end of the projection period, growth is expected to have moderated from over 4 to less than 3 per cent, despite renewed fiscal stimulus, as US demand becomes less supportive and tighter monetary conditions restrain household and business spending.

Notwithstanding some evidence that the non-inflationary capacity of the economy has expanded in recent years, stronger demand for Canadian output from both domestic and external sources could put upward pressure on prices. In these circumstances, to facilitate the task of monetary policy, over the projection horizon, any net budget revenue windfalls should not be used to increase public spending, but rather to accelerate debt reduction.

With ongoing strong growth, significant further inroads have been made into unemployment

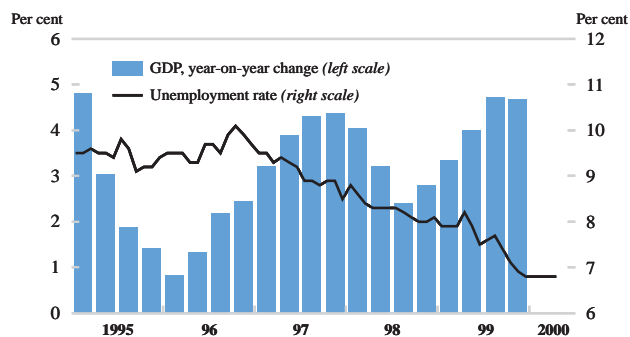
Over the five quarters to late-1999, real GDP growth averaged 4¾ per cent per annum and the economy appears to have continued to expand solidly thus far this year. The strength of demand and output has been widespread, with exports and investment in machinery and equipment leading the way, but housing investment and private consumption have also been expanding at a healthy pace. Business spending has been underpinned by a sharp rise in corporate profitability to well above the historical average, reflecting rising commodity prices and a booming manufacturing sector. Household demand has been bolstered by a pick-up in disposable income owing to employment gains and some personal income tax cuts. Recent indicators point to a slowdown in business investment, but this may be an after-effect of Y2K spending last year. Consumer confidence has also dipped, although households' expectations of future employment have continued to rise. Indeed, job creation remained strong in the first quarter of 2000, with employment 3 per cent higher than a year earlier. As a result, the unemployment rate has dropped to below 7 per cent, the lowest level since the mid-1970s, despite rising labour force participation.

Core inflation has remained stable despite rapid energy price increases

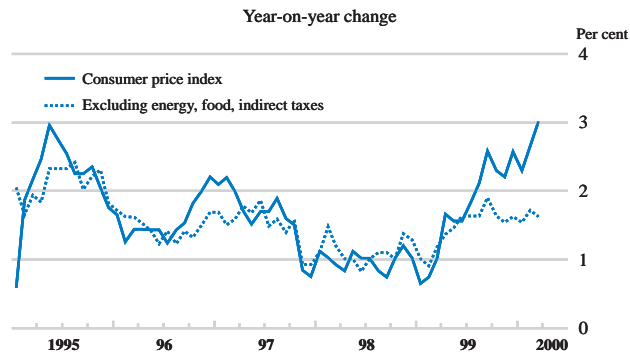
In recent months, headline consumer price inflation has moved up to 3 per cent, largely reflecting higher gasoline and fuel oil prices. But the Bank of Canada's indicator of core inflation (excluding energy, food, and indirect taxes) has remained relatively stable at around 1½ per cent, well inside the bottom half of the 1 to 3 per cent

Canada

Stronger growth has lowered unemployment



But core inflation remains moderate



Source: Statistics Canada.

Employment, income and inflation

Percentage changes

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|------|------|------|------|------|
| Employment | 2.3 | 2.6 | 2.8 | 2.5 | 1.6 |
| Unemployment rate ^a | 9.1 | 8.3 | 7.6 | 6.8 | 6.6 |
| Compensation of employees | 5.8 | 4.0 | 4.5 | 5.7 | 5.0 |
| Unit labour cost | 1.8 | 0.9 | 0.3 | 1.4 | 2.0 |
| Household disposable income | 3.5 | 3.2 | 3.4 | 5.5 | 5.4 |
| GDP deflator | 0.8 | -0.6 | 1.7 | 2.9 | 2.3 |
| Private consumption deflator | 1.8 | 1.0 | 1.2 | 2.2 | 2.1 |

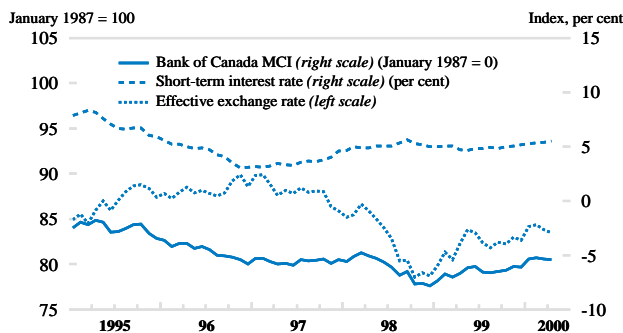
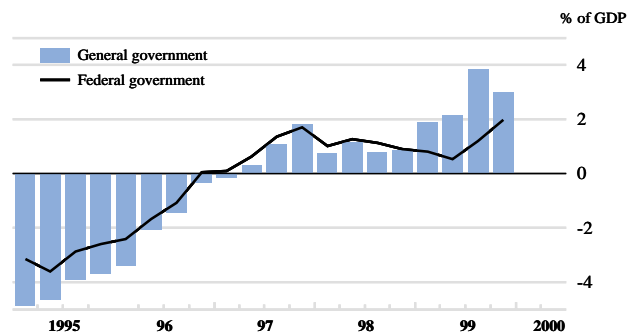
a) As a percentage of labour force.

Source: OECD.

target band. While the economy is operating slightly above estimated potential output, two factors have acted to moderate core inflation: the pass-through to consumer prices from the currency depreciation in 1998 appears to have peaked; and an upward movement in wage increases through 1999 was in large part offset by productivity gains. With rebounding commodity prices entailing a marked improvement in Canada's terms of trade, the current account has moved into broad balance. Canada's net international indebtedness has declined substantially relative to GDP, to about 32 per cent, its lowest level in over 20 years.

Despite the benign inflation environment, the Bank of Canada has become concerned about activity picking up too much momentum since excess supply in the economy has been eliminated on some measures. To reduce inflation risks, it has increased the Bank Rate four times since last November, following similar moves by the US Federal Reserve. Canadian interest rates have remained below their US counterparts, however, since the Bank had held them steady during the initial phase of US tightening in the summer of 1999. This might help explain why the Canadian dollar has appreciated less than might have been expected on the basis of commodity price developments alone. The projections assume that further increases in short-term interest rates will be necessary to keep inflation comfortably within the target range in the period ahead. The extent of required interest-rate hikes depends, among other

Monetary conditions have tightened

Canada
Monetary conditions have tightened

The budget has remained in surplus


Sources: Statistics Canada and Bank of Canada.

Financial indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------|------|------|------|------|
| Household saving ratio ^a | 2.8 | 2.4 | 1.4 | 1.0 | 1.4 |
| General government financial balance ^b | 0.8 | 0.9 | 2.8 | 2.5 | 2.2 |
| Current account balance ^b | -1.6 | -1.8 | -0.5 | 0.4 | 0.6 |
| Short-term interest rate ^c | 3.5 | 5.0 | 4.9 | 6.1 | 6.6 |
| Long-term interest rate ^d | 6.5 | 5.5 | 5.7 | 6.4 | 6.6 |

a) As a percentage of disposable income.

b) As a percentage of GDP.

c) 3-month prime corporate paper.

d) Over-10-year government bonds.

Source: OECD.

things, on movements in the exchange rate, which is assumed constant in the projections. Long-term interest rates are expected to remain slightly below comparable US rates, given less intensive capacity pressures than in the United States and Canada's improving fiscal position.

After nearly seven years of restraint, fiscal policy is becoming expansionary

The general government financial surplus rose to 2¾ per cent of GDP in 1999 from 1 per cent a year earlier. This rise is largely accounted for by a sharply higher provincial surplus, with the federal government surplus remaining relatively stable, at around 1 per cent of GDP (national accounts basis). Although the strength of the economy has boosted revenues and reduced spending, the large positive swing in the overall financial balance in 1999 also implies a significant non-cyclical tightening in the fiscal stance (by about 1 per cent of GDP, after abstracting from special factors). Since 1993, the structural budget balance has improved by 8 percentage points of GDP, according to OECD estimates. However, tax reductions (including the re-indexation of the personal income tax system) and additional spending (in particular

Demand and output

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion C\$ | Percentage changes, volume (1992 prices) | | | | |
| Private consumption | 482.1 | 4.2 | 2.8 | 3.2 | 3.6 | 2.8 |
| Government consumption | 172.2 | -0.5 | 1.7 | 1.0 | 1.9 | 1.7 |
| Gross fixed investment | 144.0 | 13.9 | 3.6 | 9.3 | 8.1 | 5.4 |
| Public ^a | 19.1 | -5.3 | 4.9 | 9.3 | 8.2 | 4.2 |
| Residential | 39.6 | 12.6 | -1.9 | 6.5 | 7.7 | 5.0 |
| Non-residential | 85.4 | 18.8 | 5.7 | 10.4 | 8.3 | 5.7 |
| Final domestic demand | 798.3 | 4.9 | 2.7 | 3.9 | 4.2 | 3.2 |
| stockbuilding ^b | 3.1 | 0.7 | -0.4 | 0.1 | 0.3 | 0.0 |
| Total domestic demand | 801.4 | 5.7 | 2.2 | 4.0 | 4.4 | 3.1 |
| Exports of goods and services | 321.0 | 8.5 | 8.2 | 9.7 | 8.7 | 6.4 |
| Imports of goods and services | 287.4 | 14.6 | 5.8 | 9.7 | 9.6 | 6.9 |
| net exports ^b | 33.6 | -1.7 | 1.0 | 0.2 | -0.1 | -0.1 |
| error of estimate ^b | - 1.1 | 0.2 | -0.1 | 0.0 | 0.1 | 0.0 |
| GDP at market prices | 833.9 | 4.0 | 3.1 | 4.2 | 4.3 | 3.0 |
| Industrial production | — | 5.5 | 2.3 | 4.5 | 5.8 | 3.6 |

a) Excluding nationalized industries and public corporations.

b) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

External indicators

| | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------|--------|--------|--------|-------|-------|
| <i>\$ billion</i> | | | | | |
| Merchandise exports | 217.6 | 217.2 | 242.8 | 275 | 296 |
| Merchandise imports | 200.4 | 204.5 | 220.0 | 246 | 265 |
| Trade balance | 17.1 | 12.7 | 22.9 | 29 | 31 |
| Invisibles, net | - 27.4 | - 23.7 | - 25.8 | - 26 | - 27 |
| Current account balance | - 10.3 | - 11.1 | - 2.9 | 3 | 4 |
| <i>Percentage changes</i> | | | | | |
| Merchandise export volumes ^a | 9.2 | 8.3 | 10.5 | 9.1 | 6.7 |
| Merchandise import volumes ^a | 16.9 | 7.3 | 10.4 | 10.2 | 7.2 |
| Export performance ^b | - 3.2 | - 1.6 | - 1.5 | - 1.3 | - 0.8 |
| Terms of trade | - 1.2 | - 3.0 | 3.8 | 2.5 | 0.3 |

a) Customs basis.

b) Ratio between the total of export volumes and export market of total goods.

Source: OECD.

for healthcare and innovation) announced in recent federal and provincial budgets imply a significant easing in the fiscal stance in the projection period, roughly unwinding the 1999 tightening in terms of the structural primary balance.

In the period ahead, the pace of economic expansion is projected to slow but to remain robust, with real GDP growth still averaging 3 per cent in 2001. This reflects both external and domestic influences. While Canada has so far benefited from its strong trade links with the United States, the projected slowdown in the US economy implies a significant decrease in its export market growth. At the same time, past and prospective monetary tightening is expected to dampen the growth in domestic demand. On the other hand, renewed fiscal stimulus should bolster domestic spending, although households may prefer to take advantage of tax cuts to strengthen their balance sheets, especially in the case of a stock market correction. Such a “soft landing” scenario would avoid the emergence of major tensions and imbalances in the economy, with inflation remaining within the target band and the external current account in slight surplus.

There are some risks to this outlook, however. One derives from the fact that, during the projection period, the economy may be operating somewhat above OECD estimates of non-inflationary capacity, although the latter build in a considerable acceleration in potential output growth (to over 3 per cent *per annum*) owing in part to efficiency gains. Continued low core inflation could mean that the sustainable level of output is even higher than estimated, but it is by no means clear to what extent technological advances have enhanced productivity performance in Canada. In fact, the two industries which are leaders in the “new economy” (electronic equipment and industrial machinery) both make up a much smaller share of output and have made slower productivity advances than in the United States. Nevertheless, capital deepening associated with strong computer investments could spur growth in labour productivity. These uncertainties about the economy’s productive potential will put the inflation-targeting framework to the test, the more so since the surge in energy prices could show up in higher inflation expectations. The other major risk to the outlook is a possible “hard landing” of the US economy, which would obviously have serious consequences for the Canadian economy, given the strong trade and financial linkages between the two countries.

Growth prospects are favourable

But to what extent the “new economy” has arrived in Canada is uncertain

Australia

Strong economic growth continued through the second half of 1999, supported by robust domestic demand and sharply recovering exports. Reflecting further employment gains, unemployment continued to fall, while inflation pressures remained minimal. With the global outlook improving, exports are likely to be a major engine of growth.

Given the substantial current account deficit, fiscal policy should remain geared to preserving the achieved budget surplus, which should help to maintain financial market confidence. Monetary policy should remain vigilant against inflation risks, including possible second-round effects flowing from the introduction of the goods and services tax in mid-2000. With unemployment still high in the ninth year of economic expansion, further structural reforms are needed to enhance the cyclical responsiveness of the labour market.

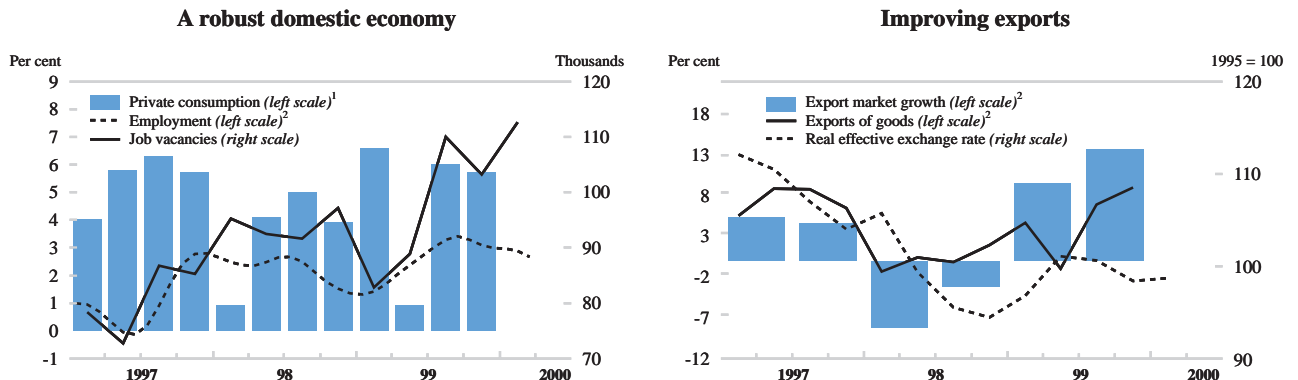
The economy continued to expand at an annual rate of above 4 per cent in the second half of 1999, and entered 2000 with substantial momentum. Household spending was boosted by accelerating employment growth, capital gains from rising house and equity prices, inexpensive and easily accessible loans and high consumer confidence. Economic activity was further supported by the sharp recovery of exports from the slump induced by the Asian crisis, together with increased supply from new resource projects and a high level of agricultural production.

Economic activity has been sustained by robust household spending

Employment strengthened in the second half of 1999 and early 2000, so that in spite of growing labour-force participation the unemployment rate fell below 7 per cent in the first quarter of 2000. Growing skill shortages have not resulted in a major acceleration of hourly pay rates, which continued to grow at about 3 per cent in the second half of 1999 but picked up somewhat in early 2000. Together with sizeable productivity gains, this has helped to keep the growth of unit labour costs very low. Nevertheless, underlying inflation measures crept up into the lower half of the Reserve Bank's 2 to 3 per cent target range at the end of 1999, fuelled in part by higher house purchase prices. Headline inflation has been raised by higher petrol prices and tobacco taxes, despite reductions in health insurance contributions and some indirect tax rates.

Employment growth has reduced unemployment further, while inflation has remained on target

Australia



1. Seasonally adjusted in volume terms. Percentage changes over the previous period, at annual rates.

2. Year-on-year percentage changes.

Source: Australian Bureau of Statistics.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|---------------------------------------------|------|------|------|------|
| | current prices billion A\$ | Percentage changes, volume (1997/98 prices) | | | | |
| Private consumption | 307.5 | 3.8 | 4.1 | 4.5 | 3.8 | 3.6 |
| Government consumption | 96.8 | 2.0 | 2.8 | 5.0 | 2.5 | 3.4 |
| Gross fixed capital formation | 116.5 | 11.3 | 6.7 | 5.7 | 3.9 | 4.5 |
| Final domestic demand | 520.8 | 5.1 | 4.4 | 4.9 | 3.6 | 3.8 |
| Stockbuilding ^a | 1.7 | -1.6 | 1.7 | 0.3 | -0.1 | 0.0 |
| Total domestic demand | 522.5 | 3.5 | 6.2 | 5.1 | 3.5 | 3.7 |
| Exports of goods and services | 100.8 | 11.5 | -0.4 | 5.0 | 10.0 | 8.4 |
| Imports of goods and services | 101.7 | 10.3 | 5.9 | 9.4 | 5.2 | 6.3 |
| Net exports ^a | -0.9 | 0.2 | -1.3 | -1.0 | 0.8 | 0.4 |
| Statistical discrepancy ^a | -0.1 | 0.1 | 0.2 | 0.2 | -0.5 | -0.4 |
| GDP at market prices | 521.5 | 3.9 | 5.1 | 4.4 | 3.9 | 3.7 |
| GDP deflator | - | 1.4 | 0.4 | 1.0 | 2.8 | 2.8 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | - | 1.4 | 1.3 | 1.1 | 4.0 | 3.5 |
| Industrial production | - | 1.8 | 0.8 | 2.3 | 3.0 | 3.3 |
| Unemployment rate | - | 8.5 | 8.0 | 7.2 | 6.7 | 6.4 |
| Household saving ratio ^b | - | 4.1 | 2.6 | 1.7 | 1.7 | 1.9 |
| General government financial balance ^c | - | -0.5 | 0.6 | 1.6 | 0.7 | 0.4 |
| Current account balance ^c | - | -3.1 | -5.0 | -5.7 | -4.8 | -4.1 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

Source: OECD.

Monetary policy is becoming less accommodative...

The Reserve Bank (RBA) raised the target cash rate by ¼ percentage point in November 1999, when it became clearer that the Asian crisis was largely over and that the prevailing supportive monetary policy settings were no longer appropriate. This was the first increase in almost five years. With monetary conditions still rather easy, and a growing risk of imported inflation from the exchange rate weakness in early 2000, the RBA raised the cash rate in three further pre-emptive hikes by a cumulative 1 percentage point between February and May 2000, to 6 per cent. The projections below assume additional cash rate increases, broadly in line with movements of the US federal funds rate.

... while demand will be supported by a modest fiscal stimulus

Consistent with the expected strong macroeconomic performance, the general government budget is set to remain in surplus over the projection period, reducing the debt-to-GDP ratio substantially. The main features of the Commonwealth Government's tax package, *The New Tax System*, are the introduction of a 10 per cent goods and services tax (GST) with an exemption for basic food items, and the phased abolition of a variety of other indirect taxes. The package will also provide substantial income tax cuts and increases in welfare benefits in fiscal year 2000-01, the effects on government finances being partly offset by higher indirect tax revenues. On balance, the fiscal stance is likely to be mildly supportive over the projection period.

A gradual slowing of economic growth will help to contain cyclical inflation pressures...

Economic growth will weaken somewhat as domestic demand decelerates. A slowing of business investment this year is in line with investment intention surveys and reflects the mature stage of the investment cycle and the likely deferral of some capital spending until after 1 July 2000, when the new GST is expected to reduce the

cost of such spending. Household expenditure also may slow, in view of higher interest rates and the rise in gross household indebtedness. With the mix of growth likely to change towards exports and the terms of trade improving, the current external deficit may shrink substantially. Given the projected robust economic expansion, unemployment should decline further. The introduction of the GST is likely to raise measured consumer price inflation above the RBA's target by a substantial margin during the second half of 2000 and the first half of 2001, but this is not expected to become embedded into core inflation. In particular the income tax cuts and the increases in welfare benefits are designed to more than compensate for the cost-of-living effects of the GST.

A major risk in the projections is that the ongoing labour market improvements and high asset prices keep household expenditures stronger than projected. Moreover, the price-level effect of the new GST could spill over into wage demands, requiring monetary policy settings tighter than assumed. On the other hand, growth prospects would probably suffer if there were a "hard landing" of the US economy.

... although risks remain

Austria

Economic growth decelerated in 1999 to 2¼ per cent, as the negative effects from faltering exports and a slowdown in business and housing investment out-weighed the positive impact of higher private consumption. However, improved competitiveness, following a lower nominal effective exchange rate, and stronger foreign demand should revive exports, and thus business investment prospects. Private consumption should be supported by continued high real income growth boosted by income tax reductions and increased family benefits. This favourable environment should allow GDP growth to increase to close to 3 per cent over this year and next.

The recent tax reform and “family package” have required the new government to introduce ambitious fiscal consolidation measures to reach the targets laid down in Austria’s Stability Programme. However, with little emphasis on reducing support programmes and entitlement spending, additional efforts are required to improve longer-term fiscal sustainability. With the output gap closing and labour demand rising further, structural reforms are necessary to avoid the build-up of inflation pressures.

Growth is picking up...

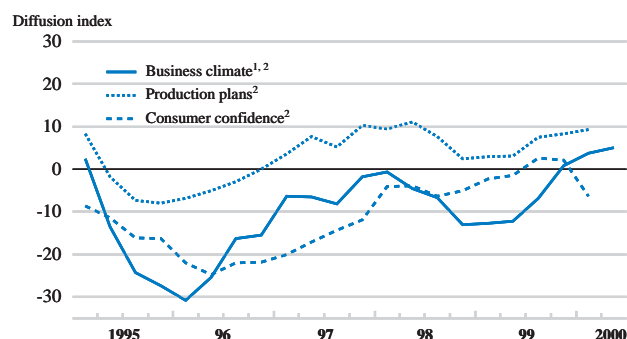
The economy gathered pace in the second half of 1999, due mainly to the recovery of private consumption and net exports. While export growth had slowed down in the first half of the year, its upswing in the second half was supported by a marked improvement in tourism. On the other hand, modest public consumption and investment growth, with a significant decline in housing and government investment, restrained activity. The resulting slowdown in imports allowed net exports to maintain a growth contribution of above ½ percentage point.

... and labour demand is rising

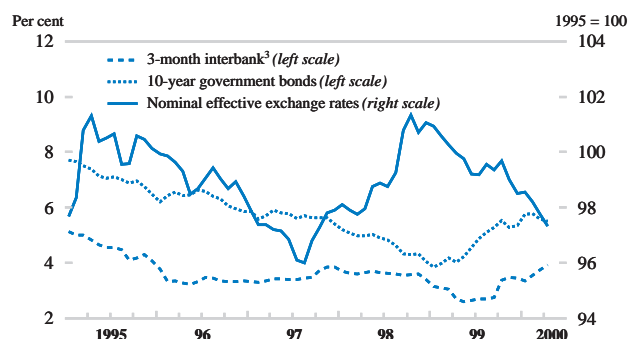
Strong employment growth in 1999 of 1½ per cent occurred primarily in the service sector, supported by public job provision programmes. The improved employment outlook induced a strong labour supply response, limiting the fall in the unemployment rate. Continued growth in employment in early 2000 has further lowered the registered unemployment rate to 6 per cent. Wage growth picked up in the second half of 1999. Consumer price inflation also increased to 1¾ per cent in the beginning of 2000, mainly driven by higher oil and import prices.

Austria

Confidence remains high



Monetary conditions are supportive



1. Anticipated business conditions.

2. Seasonally adjusted. Balance of positive-negative replies.

3. From January 1999, Euribor.

Sources: WIFO and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Sch | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 1 406.9 | 0.1 | 1.5 | 2.4 | 2.5 | 2.6 |
| Government consumption | 496.7 | -0.4 | 2.0 | 0.8 | 0.5 | 0.5 |
| Gross fixed capital formation | 570.0 | 0.8 | 6.8 | 2.8 | 3.7 | 4.6 |
| Final domestic demand | 2 473.5 | 0.2 | 2.8 | 2.2 | 2.4 | 2.7 |
| Stockbuilding ^a | 11.2 | 0.3 | -0.1 | -0.1 | -0.2 | 0.0 |
| Total domestic demand | 2 484.8 | 0.5 | 2.7 | 2.1 | 2.2 | 2.7 |
| Exports of goods and services | 969.9 | 10.1 | 8.7 | 4.7 | 8.5 | 7.9 |
| Imports of goods and services | 996.2 | 9.4 | 6.9 | 3.5 | 6.7 | 7.2 |
| Net exports ^a | - 26.3 | 0.2 | 0.7 | 0.6 | 0.9 | 0.4 |
| GDP at market prices | 2 453.2 | 1.2 | 2.9 | 2.2 | 3.0 | 3.1 |
| GDP at market prices in billion € | 178.3 | | | | | |
| GDP deflator | – | 1.6 | 0.6 | 0.6 | 1.4 | 1.8 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 1.8 | 0.7 | 0.7 | 1.6 | 1.7 |
| Industrial production | – | 6.6 | 8.3 | 5.4 | 5.8 | 6.5 |
| Unemployment rate ^b | – | 5.6 | 5.7 | 5.3 | 5.0 | 4.5 |
| General government financial balance ^c | – | -1.9 | -2.4 | -2.0 | -1.9 | -1.9 |
| Current account balance ^c | – | -2.5 | -2.3 | -2.8 | -3.2 | -2.7 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) See data annex for details.

c) As a percentage of GDP.

Source: OECD.

With the depreciation of the euro inducing a decline in the nominal effective exchange rate by about 2½ per cent since the summer of 1999, monetary conditions have remained supportive. Some of the increases in long-term interest rates in 1999 have been reversed since January 2000, and real rates remain low by historical standard. Over the projection period, a tightening of monetary conditions is projected, as the European Central Bank acts in response to a maturing business cycle in the euro area.

Monetary conditions have remained supportive...

Income tax reductions and increased family benefits that became effective in January 2000 are expected to result in foregone revenues of about 1.1 per cent of GDP this year. To prevent these measures from increasing general government deficit, which came in at 2 per cent of GDP in 1999, the federal government introduced a fiscal consolidation programme, consisting of both spending cuts and revenue raising measures, to be incorporated into the 2000 budget. If fully implemented, these measures could allow the general government deficit to be reduced to 1.7 per cent of GDP as stipulated in Austria's Stability Programme, assuming that local governments also maintain their surpluses. While this appears unlikely, the deficit ratio is nonetheless projected to decline to below 2 per cent in 2000. However, in 2001 the general government deficit is projected to remain unchanged as a share of GDP, despite higher economic growth, reflecting the fact that a considerable part of the government's fiscal consolidation measures in 2000 are one-off.

... while tax reductions and new benefits have required further consolidation measures

Sustained employment growth and income tax reductions should help maintain the expansion in private consumption at around 2½ per cent over the projection period. With Austria's competitiveness remaining strong and world trade accelerating, exports should pick up, supporting high business investment. On the other hand,

Growth prospects are favourable...

residential as well as public investment and consumption should remain weak. Overall, GDP growth is projected to strengthen over the projection period to close to 3 per cent in both 2000 and 2001.

... although domestic risks remain

While these favourable growth prospects will help the budgetary position, there is a risk that the budget deficit could turn out higher than projected if the fiscal consolidation package is not fully implemented. Also the projected rapid employment creation could increase strains in a tightening labour market, entailing a risk of higher inflation pressures.

Belgium

After a short-lived slowdown, real GDP growth has picked up again and is projected to be 3½ per cent in 2000 and 3¼ per cent in 2001, with exports remaining one of the major driving forces. Strong employment growth is expected to continue, cutting the unemployment rate to less than 8 per cent in 2001. With a weak euro and diminishing economic slack, inflation is likely to pick up somewhat. The general government budget is projected to move into surplus in 2001 even though on a cyclically adjusted basis it is likely to remain close to balance.

Given the buoyancy of the economy, fiscal consolidation should be stepped up, thereby accelerating the reduction of the still high public debt-to-GDP ratio. Structural reform needs to be pursued on a wide front and notably in the labour market where cuts in non-wage labour costs and active measures should be complemented by a more flexible wage formation process and stronger incentives to work.

After a relatively slack period, economic activity picked up markedly in the second half of 1999, but for the year as a whole real GDP growth slowed to 2.5 per cent. The rebound, which has continued in the first months of this year, has been essentially export led, although business fixed investment has been buoyant in the non-industrial sector and, as a result of better demand prospects, the manufacturing sector has moved from a phase of significant destocking to one of restocking. Employment growth has been robust, partly reflecting the creation of a large number of jobs in the public sector or through special labour market programmes. The standardised unemployment rate has progressively declined and, at 8.5 per cent in March 2000, it was close to the OECD estimate of the structural unemployment rate. The pronounced increase in consumer price inflation in early 2000 (2 per cent year-on-year in April 2000) has largely reflected the surge in oil prices. Wages and labour costs have remained subdued.

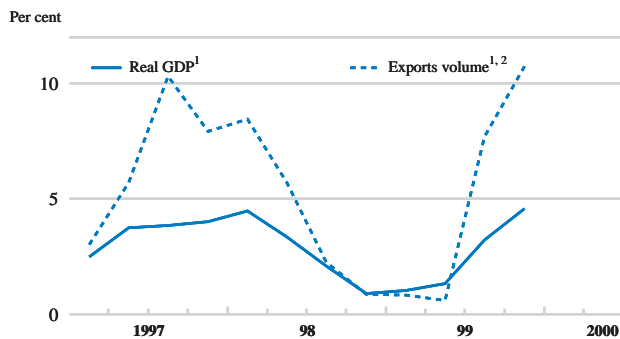
Led by exports, economic growth has accelerated

The 2000 Budget provides for a small discretionary easing of fiscal policy, mainly because of an acceleration in the multi-annual reduction in social security contributions. However, since real GDP growth is expected to exceed significantly the rate assumed in the Stability Programme (2.5 per cent), the general government

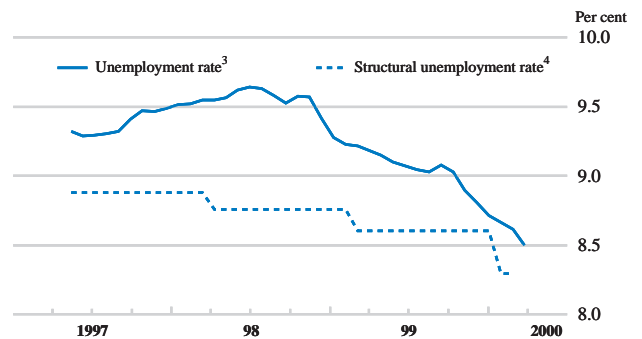
Macroeconomic policy, on balance, seems broadly neutral...

Belgium

Export-led growth has resumed



Unemployment has fallen further



1. Year-on-year percentage changes.
2. Goods and services.
3. Standardised unemployment rates.
4. Or NAWRU.

Source: OECD.

budget is likely to reach balance already in 2000 and, under the assumption of unchanged policies, to move into a modest surplus in 2001. However, on a cyclically adjusted basis, the budget is projected to remain close to balance. Monetary conditions are expected to tighten somewhat reflecting the pick up in activity in the euro area as well as rising inflation.

... and other forces are supporting activity

Several indicators point to a continuation of the expansion in 2000: consumer confidence and capacity utilisation rates are historically high; and the conjunctural indicators of the National Bank of Belgium, which lead economic activity by only a few months, have rebounded sharply over the past year or so. Beyond that, exports are expected to remain the main engine of growth, reflecting both the buoyancy of foreign markets and the strong competitive position of Belgian firms as a result of the sizeable depreciation of the euro and of a good performance in terms of unit labour costs. With nearly all components of domestic demand also projected to be relatively buoyant, the expansion should be broadly based.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion BF | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 4 504.3 | 2.2 | 3.8 | 2.0 | 2.8 | 2.5 |
| Government consumption | 1 807.2 | 0.0 | 1.4 | 2.8 | 2.3 | 2.5 |
| Gross fixed capital formation | 1 687.1 | 6.5 | 3.7 | 5.4 | 4.0 | 4.7 |
| Final domestic demand | 7 998.7 | 2.6 | 3.3 | 2.9 | 3.0 | 3.0 |
| Stockbuilding ^a | - 28.9 | 0.1 | 0.8 | -1.0 | 0.4 | 0.1 |
| Total domestic demand | 7 969.8 | 2.7 | 4.1 | 1.8 | 3.4 | 3.1 |
| Exports of goods and services | 5 917.2 | 6.7 | 4.2 | 5.0 | 8.8 | 7.7 |
| Imports of goods and services | 5 582.9 | 5.8 | 6.3 | 4.1 | 8.8 | 7.9 |
| Net exports ^a | 334.3 | 0.9 | -1.2 | 0.8 | 0.4 | 0.2 |
| GDP at market prices | 8 304.1 | 3.5 | 2.7 | 2.5 | 3.6 | 3.2 |
| GDP at market prices in billion € | 205.9 | | | | | |
| GDP deflator | - | 1.3 | 1.6 | 0.9 | 0.7 | 1.3 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | - | 1.5 | 0.8 | 1.1 | 1.9 | 1.7 |
| Industrial production | - | 4.9 | 3.2 | 0.9 | 2.5 | 3.0 |
| Unemployment rate | - | 9.4 | 9.5 | 9.0 | 8.3 | 7.8 |
| Household saving ratio ^b | - | 12.5 | 12.2 | 12.9 | 12.7 | 12.8 |
| General government financial balance ^c | - | -1.8 | -1.0 | -0.7 | 0.0 | 0.5 |
| Current account balance ^c | - | 4.8 | 4.1 | 4.0 | 3.4 | 3.4 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

Source: OECD.

The outlook is broadly favourable but inflation is likely to rise

Led by exports, real GDP growth is projected to increase to 3½ per cent in 2000 and 3¼ per cent in 2001. Owing to a pick up in job creation in the private sector, total employment growth should accelerate, and the standardised unemployment rate may fall to around 7¾ per cent in 2001, somewhat below the structural rate. Tensions are likely to arise, but the Law on Employment and Competitiveness (linking the maximum increase in compensation per employee to the expected weighted average

increase in Germany, France and the Netherlands) combined with the multiannual programme of cuts in employers' social security contributions should limit the acceleration in compensation per employee. Sharply higher import prices are expected to boost private consumption inflation to around 1¾ per cent. The increase in the "health price index" – which, among other things, excludes most energy products and which is used for the indexation of wages and social security benefits – should be more modest. Nonetheless, the main risk to this projection is that, with strengthening pressures on resource utilisation and widespread indexation (albeit on the basis of the "health price index"), higher import prices may accentuate domestic inflation.

Czech Republic

GDP grew moderately in the second half of 1999, reflecting stronger European demand for Czech exports and marking an end to the recession. Despite still rising unemployment, the sharp fall in inflation during the year began to reverse itself in the first quarter of 2000, mainly as a result of rising oil prices. Early data indicate that the recovery remains narrowly based and, despite an anticipated pick-up in investment, domestic demand is projected to increase only slowly in 2000 and 2001.

While a loosening of macroeconomic policy in 1999 contributed to the recovery of domestic demand, efforts now need to concentrate on promoting the restructuring of industry, reducing work disincentives and tightening the fiscal stance. In order to ensure that monetary policy continues to be pursued in a prudent manner, the government will want to ensure that planned revisions to the Czech National Bank Act and the Constitution in no way put the independence of the Bank at risk.

The recession came to an end in the second half of 1999...

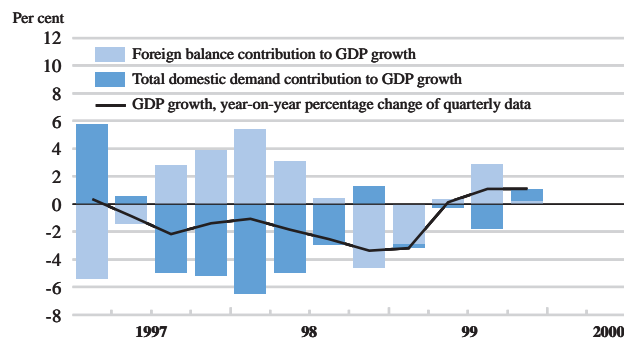
GDP fell by 0.2 per cent in 1999, reflecting a large drop in the first quarter and strengthening thereafter. For the second half as a whole, moderate growth in private and government consumption was substantially offset by a 7.1 per cent fall in investment. Meanwhile, strong western European demand helped trigger a recovery in export growth and allowed the current account deficit to fall to 2 per cent of GDP in 1999. Most recently during the first three months of 2000, industrial output has risen 4.8 per cent as compared with the same period a year earlier, while the trade deficit has remained broadly unchanged, despite higher payments for oil (about 0.4 per cent of GDP).

... while inflation is beginning to pick up from very low levels even as unemployment continues to rise

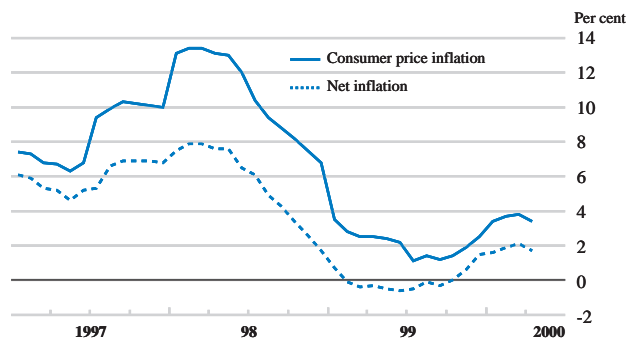
Inflation, after declining substantially to a low of 1.1 per cent (year-over-year) in July 1999 (from an average of 10.8 per cent in 1998), began picking up in the autumn and stood at 3.4 per cent in April 2000. At the same time, net inflation (*i.e.* changes in the prices of non-regulated goods and services) at 1.7 per cent in April remains well below the central bank's 4.5 ± 1 per cent end-of-year target. Despite a moderation in nominal wages and rising unemployment (9 per cent in 1999 Q4), the unexpected and sharp decline in inflation resulted in strong real wage growth.

Czech Republic

A weak recovery



Inflation¹ picking up



1. Year-on-year percentage change of monthly data. Net inflation excludes impact of changes in regulated prices and indirect taxes.
Sources: Czech National Bank and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Kc | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 810.7 | 2.1 | -2.8 | 1.2 | 0.8 | 0.8 |
| Government consumption | 312.5 | 3.6 | 0.6 | -0.1 | 0.2 | 2.0 |
| Gross fixed capital formation | 500.6 | -4.3 | -3.8 | -5.5 | 2.2 | 4.5 |
| Final domestic demand | 1 623.8 | 0.3 | -2.5 | -1.1 | 1.1 | 2.1 |
| Stockbuilding ^a | 48.9 | 0.0 | -0.8 | 0.8 | 0.0 | 0.1 |
| Total domestic demand | 1 672.7 | 0.3 | -3.2 | -0.3 | 1.1 | 2.1 |
| Exports of goods and services | 831.3 | 8.1 | 10.7 | 6.6 | 10.0 | 8.0 |
| Imports of goods and services | 931.7 | 7.2 | 7.9 | 5.8 | 8.8 | 7.3 |
| Net exports ^a | -100.4 | 0.0 | 1.1 | 0.1 | 0.3 | 0.1 |
| GDP at market prices | 1 572.3 | 0.3 | -2.3 | -0.2 | 1.4 | 2.3 |
| GDP deflator | - | 6.5 | 11.0 | 2.4 | 4.1 | 4.4 |
| <i>Memorandum items</i> | | | | | | |
| Consumer price index | - | 8.5 | 10.7 | 2.2 | 3.8 | 4.7 |
| Private consumption deflator | - | 7.7 | 9.7 | 2.1 | 3.9 | 4.6 |
| Industrial production | - | 4.7 | 3.1 | -3.1 | 3.0 | 5.0 |
| Unemployment rate | - | 4.8 | 6.5 | 8.8 | 10.2 | 10.5 |
| Household saving ratio ^b | - | 8.3 | 9.3 | 10.3 | 10.2 | 9.6 |
| General government financial balance ^{c,d} | - | -2.0 | -2.4 | -4.3 | -5.9 | -6.0 |
| Current account balance ^c | - | -6.1 | -2.4 | -2.0 | -2.8 | -2.9 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

d) OECD estimate which adjusts official data so as to increase international and intertemporal comparability.

Source: OECD.

The recovery in demand during 1999 was aided by a significant easing of both monetary and fiscal policy. In May 2000, the Central Bank's two-week repo rate stood at 5.25 per cent, almost one third its level of a year before. Meanwhile, sharp increases in both cyclical and discretionary spending saw the general government deficit (net of privatisation revenues and adjusted by the OECD to improve international and intertemporal comparability) rise to 4.3 per cent of GDP in 1999. While these steps served to promote demand, a tightening of prudential regulations and the privatisation of several state-controlled banks provoked a cleaning up of balance sheets in the banking sector and a decline in new credits, which prompted an acceleration in the pace of industrial restructuring and slower overall growth.

Macroeconomic policy eased sharply in 1999, supporting demand, but banking-sector restructuring had the opposite effect

The recovery that began in 1999 is expected to strengthen somewhat this year and next. Real wages are projected to grow only moderately in 2000, as firms compensate for their unexpected rise the year before. This, coupled with continued weakness in labour markets, should restrain private consumption growth. Despite an expected recovery in investment spending and relatively strong exports, overall growth is projected to be moderate and unemployment should carry on rising, albeit less quickly than in the recent past. Inflation is expected to continue moving upward in response to higher oil, food and commodity prices. Nevertheless, it should remain moderate by historical standards. Assuming unchanged policies, the general government deficit is expected to rise further, reaching 6 per cent of GDP in 2001.

The recovery is expected to consolidate in 2000 and 2001...

... but its strength and durability will depend on the pace of supply-side reforms

Future outturns will depend importantly on maintaining the pace of structural reform and the speed with which the economy reacts. Last year's impressive reduction of inflation suggests that firm-level restructuring has gone a long way to improving the flexibility of the economy. Nevertheless, if the pace of reform slows, progress may stall. While this might result in less unemployment and higher levels of demand in the short run, over the longer term it would likely be reflected in lower productivity and a slower convergence to OECD income levels. Finally, there is a risk that high unemployment could become endemic, unless social benefit systems are revised so as to reduce work disincentives.

Denmark

The economy slowed last year as fiscal tightening restrained household demand, while gross fixed capital formation fell and a sharp downward adjustment of inventories took place. In contrast, the falling effective exchange rate has boosted exports and moderated increases in imports. Labour-market pressures have eased, and inflation seems to have peaked. Strong export expansion should continue to underpin activity and gradually spill over into domestic demand, producing a progressive pick-up in output growth to almost 2½ per cent by 2001.

With output likely to remain close to its potential level, budgetary slippage must be avoided and structural reforms to increase labour supply continued. Current policy settings appear broadly appropriate to keep the economy on course and avoid the risks of renewed inflation.

The pace of activity slowed early in 1999, after a long period of strong expansion, especially in domestic demand, but it recovered in the second half of the year. Weakness in household disposable income growth fed through into a slower expansion in private consumption. Together with declining fixed investment and an inventory run-down, this reduced GDP growth for the year to 1.6 per cent, the smallest increase since 1993. However, exports jumped by 7 per cent and imports were weak, so that the net foreign balance boosted GDP by 2¼ percentage points.

Growth slowed in early 1999 but picked up again as the year progressed

Wage gains in the private sector have fallen back to an annual rate of 4 per cent, pointing to less labour-market pressure, although employment has continued to grow at a rate of almost 1 per cent per year and unemployment has edged down further. Productivity growth has been correspondingly low. Consumer price inflation has climbed to above 3 per cent, in part the result of higher prices for energy, but also because of increases in indirect taxes. It currently hovers near the Maastricht convergence criterion, having breached it in recent months.

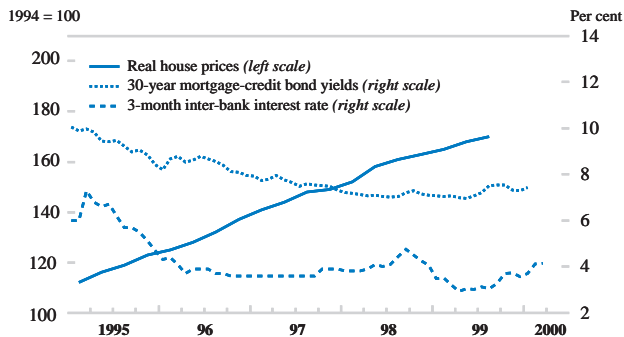
Labour market pressures have eased

Fiscal policy tightened in 1999 and is assumed to be broadly neutral over the short term, with no significant spending or tax initiatives in the budget for 2000. The reduction in tax deductibility of mortgage interest payments, being phased in progressively, has played a large role in slowing the domestic economy by restraining

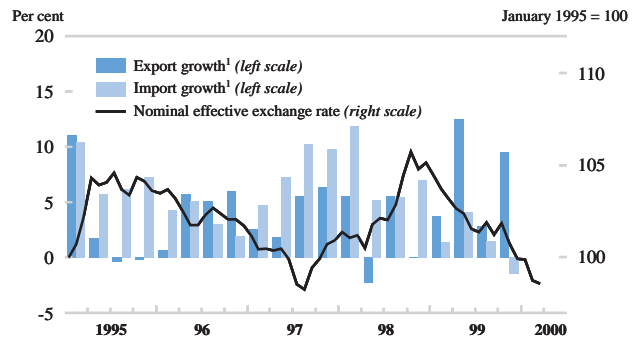
While tighter fiscal policy has played a major role in cooling down the economy...

Denmark

Have house prices peaked?



A resurgence of exports



1. Year-on-year percentage change.
Sources: Statistics Denmark and Denmarks Nationalbank.

real disposable income growth. However, households have been able to shift to floating-rate mortgages to take advantage of the significant gap between short- and long-term interest rates, supporting continuing increases in house prices.

... the depreciation of the effective exchange rate has limited the extent of the slowdown

While the appreciating nominal effective exchange rate during 1998 helped to take some of the steam out of the economy, more recent movements in the effective exchange rate, reflecting the evolution of the euro, have had a positive effect on GDP and, to some extent, offset weak domestic demand. The effective depreciation has also boosted the current account by bringing about a switch towards the tradables sector. Together with stronger Danish export markets, this explains the major turn-around in export activity signalled above.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Dkk | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 533.2 | 3.7 | 3.5 | 0.7 | 1.4 | 1.8 |
| Government consumption | 274.6 | 1.3 | 3.0 | 1.1 | 1.1 | 1.0 |
| Gross fixed capital formation | 198.4 | 8.0 | 6.7 | -0.7 | 1.2 | 1.6 |
| Final domestic demand | 1 006.2 | 3.9 | 4.0 | 0.5 | 1.3 | 1.6 |
| Stockbuilding ^a | 2.5 | 0.5 | 0.3 | -1.0 | 0.0 | 0.0 |
| Total domestic demand | 1 008.7 | 4.4 | 4.3 | -0.5 | 1.3 | 1.6 |
| Exports of goods and services | 379.4 | 4.1 | 2.2 | 7.0 | 6.5 | 6.3 |
| Imports of goods and services | 327.2 | 8.0 | 7.3 | 1.3 | 4.4 | 4.6 |
| Net exports ^a | 52.2 | -1.1 | -1.6 | 2.1 | 1.0 | 0.9 |
| GDP at market prices | 1 060.9 | 3.1 | 2.5 | 1.6 | 2.2 | 2.4 |
| GDP deflator | — | 1.6 | 2.1 | 2.6 | 2.7 | 2.5 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 2.0 | 1.8 | 2.5 | 2.8 | 2.5 |
| Industrial production | — | 5.8 | 2.1 | 2.6 | 2.5 | 2.5 |
| Unemployment rate | — | 7.7 | 6.4 | 5.5 | 5.4 | 5.4 |
| Household saving ratio ^b | — | 4.8 | 5.7 | 5.1 | 5.0 | 5.1 |
| General government financial balance ^c | — | 0.1 | 0.9 | 3.0 | 2.8 | 2.8 |
| Current account balance ^c | — | 0.6 | -1.1 | 1.1 | 2.1 | 2.7 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

Source: OECD.

The economy should strengthen modestly...

With robust conditions projected for Denmark's main trading partners, and a constant effective exchange rate assumed over the projection period, net exports are expected to contribute around 1 percentage point to GDP growth this year and next. Private domestic demand is projected to slowly pick up as the benefits from the external sector gradually spread to the rest of the economy, but the scheduled further cuts in the tax deductibility of mortgage payments and slower wage growth should keep household consumption relatively subdued. In all, real GDP growth is projected to be 2¼ per cent this year and 2½ per cent in 2001. However, with a projected return to higher productivity growth rates than seen in recent years, employment growth is expected to slow and the unemployment rate to remain close to current levels.

With output close to potential, there is a risk that the economy could start to overheat. Apart from external developments, important factors in this regard would be a renewed pick-up in wage inflation, and budgetary slippage. Continued efforts to increase labour supply would help to offset any renewed build-up of labour market pressures and lift the productive capacity of the economy. On the other hand, a sharp correction in house prices or unforeseen increases in interest rates would slow the pace of activity. However, current policy settings should enable balanced growth to continue, setting aside the uncertainty surrounding the outcome of the September referendum on full participation in Economic and Monetary Union.

*... but renewed inflation
remains a risk*

Finland

After a temporary and mild slowdown in 1999, robust economic activity is projected, reflecting stronger world and domestic demand. Despite an unemployment rate still slightly above 10 per cent, labour shortages in some regions and sectors are likely to lead to higher wage inflation.

The main policy challenges are to prevent overheating and an ensuing boom-bust cycle while at the same time improving supply-side conditions. Fiscal policy should therefore remain cautious. At a minimum, lower than originally projected social security outlays and debt interest payments should not be spent elsewhere. Structural reforms, especially those having an immediate impact on labour supply, should be stepped up.

Strong growth leads to labour shortages

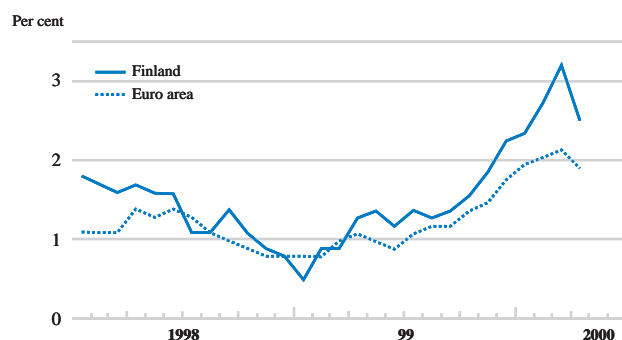
In 1999, weaker external demand led to a deceleration of output growth to 3.5 per cent from 5 per cent a year earlier, but a significant pick-up occurred in the second half of the year due to stronger exports. The electronic equipment industry remained a growth engine in 1999, with a contribution of 1¼ percentage points to the increase in GDP. Despite the slowdown, employment growth picked up to 3½ per cent. Reflecting the creation of low-productivity jobs in the service sector as well as some labour hoarding in traditional export industries, overall productivity thus, did not rise, notwithstanding the double-digit increase in the electronic equipment industry. Despite a further significant decline, the unemployment rate has remained high, 10½ per cent in March 2000, but labour shortages have already become a serious bottleneck in some sectors and regions. The tight housing market has led to strong house price rises, especially in the capital area where house prices rose 15 per cent in 1999. Consumer price inflation, which averaged 1.2 per cent in 1999, moved up slightly in recent months mainly due to the sharp oil price rise, reaching 3.2 per cent in March, the second highest in the euro area and 1.1 percentage points above the euro area average.

Successive wage deals point to rising labour cost

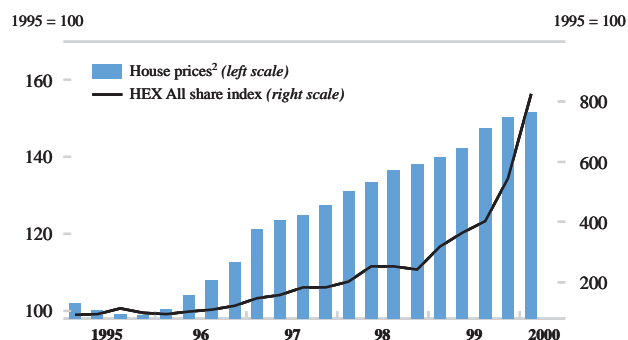
After moderate centralised wage deals in 1996-99, this year's wage round has been negotiated at the branch level. The first agreements covering 90 per cent of the employees were relatively moderate, with a wage rise of 3.1 per cent. However, subsequent deals showed stronger gains, of 4 to 5 per cent, and are likely to lead to catch-up effects in 2001.

Finland

Inflation¹ picks up faster than elsewhere in the euro area



Record level for house and share prices



1. Harmonised consumer price index, year-on-year percentage changes.

2. Real prices, deflated by the consumer price index.

Sources: Statistics Finland and Eurostat.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion FIM | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 308.5 | 3.5 | 4.6 | 2.9 | 3.4 | 3.3 |
| Government consumption | 135.6 | 4.1 | 1.5 | 0.3 | 0.5 | 0.6 |
| Gross fixed capital formation | 99.7 | 11.9 | 7.8 | 4.8 | 6.6 | 6.2 |
| Final domestic demand | 543.9 | 5.2 | 4.5 | 2.7 | 3.4 | 3.3 |
| Stockbuilding ^a | - 1.5 | 0.7 | 0.8 | -0.7 | 0.0 | -0.1 |
| Total domestic demand | 542.3 | 6.0 | 5.4 | 1.9 | 3.4 | 3.1 |
| Exports of goods and services | 219.9 | 14.1 | 9.3 | 7.4 | 9.9 | 8.7 |
| Imports of goods and services | 175.6 | 11.3 | 8.5 | 3.4 | 6.2 | 5.8 |
| Net exports ^a | 44.3 | 2.0 | 1.1 | 2.0 | 2.4 | 2.1 |
| GDP at market prices | 585.9 | 6.3 | 5.0 | 3.5 | 5.4 | 4.8 |
| GDP at market prices in billion € | 98.5 | | | | | |
| GDP deflator | - | 2.1 | 2.9 | 1.0 | 2.4 | 2.6 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | - | 1.3 | 2.1 | 2.1 | 2.6 | 2.5 |
| Unemployment rate | - | 12.7 | 11.4 | 10.2 | 9.2 | 8.5 |
| General government financial balance ^b | - | -1.5 | 1.3 | 2.3 | 3.8 | 4.9 |
| Current account balance ^b | - | 5.5 | 5.6 | 5.2 | 6.5 | 7.7 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of GDP.

Source: OECD.

Fiscal policy remained tight in 1999 and is expected to continue so in 2000, but may become less restraining in 2001 despite rising demand pressures. The general government budget surplus increased by 1 percentage point to 2.3 per cent of GDP in 1999 and is projected to rise further to 5 per cent in 2001. The income tax has been cut by around FIM 1.5 billion (¼ per cent of GDP) in 2000 and the Government Programme foresees further cuts in 2001. Owing to the substantial depreciation of the euro and despite the European Central Bank's recent rate hikes, monetary conditions remain very easy in light of the advanced Finnish cyclical position.

Fiscal policy becomes less restrictive

Short-term growth prospects are favourable. In 2000 and 2001, exports should be boosted by strong international demand, while private consumption is expected to be underpinned both by substantial employment growth, contributing to a robust rise in real disposable income, and by wealth effects related to soaring house prices. Real GDP is projected to increase by 5½ per cent in 2000, falling back to 5 per cent in 2001. The slight deceleration expected next year is mainly due to lack of spare capacity in the paper industry and shortages of skilled workers in the electronic equipment industry. Spurred by strong job creation, the unemployment rate should drop further to 8½ per cent by 2001. Increasing labour shortages are likely to lead to an acceleration in wage inflation in 2001. Consumer price inflation is projected to rise in 2000, reflecting mainly the higher oil price, and to stabilise at around 2½ per cent in 2001.

Growth is projected to strengthen further

The major risk to this outlook concerns labour cost developments. Wages could accelerate by even more than projected due to labour market shortages. This would boost domestic demand and output in the short term, but could impact negatively in the longer run due to the loss in cost competitiveness.

Wage inflation remains a risk

Greece

Growth remained vigorous in 1999 and is set to gather further momentum in 2000 and 2001, boosted by healthy growth in consumption, robust investment, and improved export prospects. Headline inflation has picked up in the first quarter of 2000 reflecting higher energy prices. However, Greece has already met the last pending criterion on inflation for euro area membership and is soon to be considered for entry in January 2001. The projections suggest a stabilisation of the inflation rate in the two years ahead, although stronger consumer price increases cannot be ruled out as demand pressures keep rising.

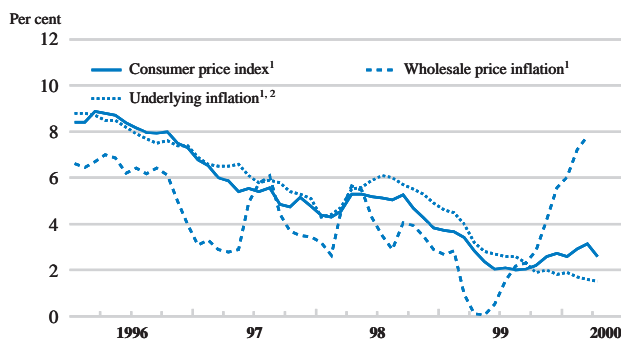
Ensuring the sustainability of low inflation at levels close to the euro area average, by forestalling demand pressures, is key to securing competitiveness and boosting employment growth. To offset the expected easing of monetary conditions in the run up to joining the euro area, the pace of fiscal consolidation should be stepped up by restraining government spending. Enhanced competition in product markets, and faster than currently planned opening to competition of network industries would hold down input costs and help secure low inflation.

Activity has remained vigorous, while inflation has picked up

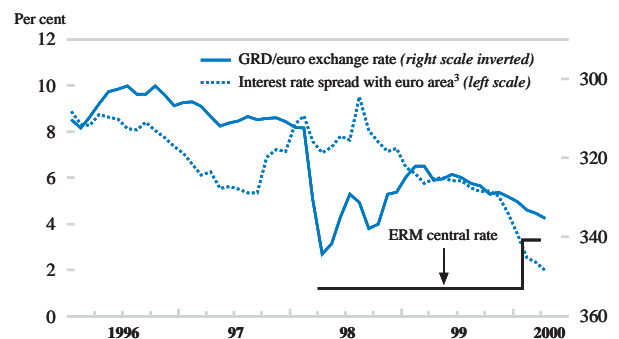
Economic activity was resilient in 1999, with GDP growth estimated at around 3¼ per cent, supported by strong consumption and healthy investment activity. Industrial production has remained sluggish in 1999, but business confidence is recovering, led by improving export prospects. Construction activity has also weakened. After hitting a 2 per cent floor in September 1999, headline consumer price inflation picked up to a year-on-year rate of 3.1 per cent in March 2000 reflecting the surge in oil prices. It dropped to 2.6 per cent in April however, owing to a more moderate pace of energy price increases, a reduction in telephone charges, and the continuing effects of the indirect tax cuts on cars, heating oil, petrol and electricity prices. Underlying consumer price inflation has remained subdued, though steeply rising wholesale prices herald further near term cost increases. With the 12-month average harmonised consumer price inflation dropping to 2 per cent in February 2000, Greece formally fulfilled the last pending criterion for euro area membership. Greece's application to join the European Economic and Monetary Union as from January 2001 will be reviewed in June 2000.

Greece

Higher energy prices have pushed up inflation



Monetary conditions are set to ease further



1. Year-on-year percentage changes.

2. Excluding fresh food and energy products.

3. 12-month Treasury bill rate and 12-month EURIBOR.

Sources: Bank of Greece and ECB.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Dr | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 22 050.8 | 2.7 | 2.1 | 2.6 | 2.9 | 3.1 |
| Government consumption | 4 348.0 | 1.7 | 2.0 | 0.5 | 0.5 | 0.5 |
| Gross fixed capital formation ^a | 5 829.1 | 13.1 | 8.1 | 7.1 | 6.2 | 7.9 |
| Final domestic demand | 32 227.9 | 4.5 | 3.2 | 3.2 | 3.3 | 3.8 |
| Stockbuilding ^{b,c} | 95.5 | -0.4 | -0.1 | 0.0 | 0.0 | 0.0 |
| Total domestic demand | 32 323.4 | 4.1 | 3.2 | 3.2 | 3.3 | 3.8 |
| Exports of goods and services | 5 245.6 | 7.9 | 4.2 | 6.2 | 11.1 | 9.0 |
| Imports of goods and services | 7 633.9 | 9.5 | 1.9 | 5.4 | 7.1 | 7.3 |
| Net exports ^b | -2 388.3 | -1.1 | 0.3 | -0.3 | 0.2 | -0.2 |
| GDP at market prices | 29 935.1 | 3.4 | 3.7 | 3.2 | 3.8 | 3.9 |
| GDP deflator | — | 6.7 | 4.9 | 2.5 | 2.2 | 2.7 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 5.6 | 4.7 | 2.6 | 2.7 | 2.6 |
| Industrial production | — | 1.0 | 3.4 | 0.5 | 3.0 | 3.5 |
| Unemployment rate | — | 9.7 | 10.9 | 10.7 | 10.3 | 9.8 |
| General government financial balance ^d | — | -3.9 | -2.5 | -1.6 | -1.5 | -0.8 |
| Current account balance ^{d,e} | — | -6.2 | -3.0 | -3.1 | -2.9 | -3.0 |

a) Excluding ships operating overseas.

b) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

c) Including statistical discrepancy.

d) As a percentage of GDP.

e) On settlement data basis.

Source: OECD.

Ensuring the sustainability of low inflation is the main policy issue

Monetary conditions have eased, with the Bank of Greece reducing its key intervention rates by 2¾ per cent since November 1999. Nonetheless, the short-term interest rate differential with the euro area remains sizeable, implying significantly easier monetary conditions in the run-up to joining the single currency. The planned phasing out of credit control measures and the sharp decrease in the commercial banks' required reserve ratio, to comply with the rules of the European Central Bank, could further boost liquidity. To partly offset the impact of looser monetary conditions on inflation, the drachma's central rate in the Exchange Rate Mechanism was revalued by 3½ per cent in January 2000. The implementation of the 1999 Budget has been on track, with the general government deficit coming down to 1.6 per cent of GDP, somewhat below the initial target. Buoyant value-added and corporate income tax revenues, as well as the strong yield from the stamp tax on stock market transactions, have more than offset a 0.5 per cent of GDP overrun in current primary expenditure. Owing to the tax and benefit package introduced in September 1999, the stance of fiscal policy has eased in 2000, despite a further projected drop in the budget deficit owing to lower debt interest payments. On current policies, the fiscal stance is projected to remain broadly neutral in 2001, but it might ease if additional tax cuts and more generous social spending pledged by the recently re-elected Government were to be implemented.

Growth should gather steam, but inflation risks remain

Boosted by strong exports and by brisk private consumption, growth is expected to gather momentum in the two years ahead, at a pace of nearly 4 per cent in 2000 and 2001. Lower real interest rates should bolster business investment and also help construction to recover, while public investment supported by the European Union should remain robust. Even so, continuing wage moderation and lower interest rates

are likely to restrain the rise in business costs so that, on balance, the private consumption deflator may stabilise at around 2¾ per cent over the next two years. However, inflation could be higher than projected as domestic demand is gathering steam, boosted by an easing macroeconomic policy stance, while the beneficial effects of indirect tax cuts are vanishing.

Hungary

GDP accelerated in the second half of 1999, growing 4.5 per cent for the year as a whole. Stronger export performance helped reverse a rising trend in the current account deficit which, coupled with better than anticipated fiscal results, restored investor confidence and allowed interest rates to decline. Inflation, which had been falling slowly, also began to pick up in the second half of 1999 in response to rising oil prices, changes to the pharmaceutical subsidy system and tightening labour market conditions. Growth is projected to remain strong, which, in combination with higher oil prices, should result in a widening of the current account deficit and a temporary slowing of the disinflation process.

If signs of overheating emerge, the government should further tighten fiscal policy, preferably through cuts in current expenditures, as opposed to the alternative of slowing measured inflation by delaying regulated price increases. In particular, if strong growth and higher inflation swell revenues the government should allow automatic stabilisers to work and should resist the temptation to increase spending, even if it means outperforming its deficit target.

GDP grew 4.5 per cent in 1999, supported by an acceleration in exports in the second half of the year and rising personal consumption. Meanwhile, robust industrial production and retail sales in the early months of 2000 suggest that this trend is continuing. The strong demand-side environment led to a 3 per cent increase in employment during 1999, with the highest rates having been recorded in the more depressed regions of the country. This helped push the unemployment rate below 7 per cent. Meanwhile strong growth and higher oil prices contributed to rising year-on-year monthly inflation, which peaked at 11.2 per cent in December 1999 before falling to 9.2 per cent in April 2000.

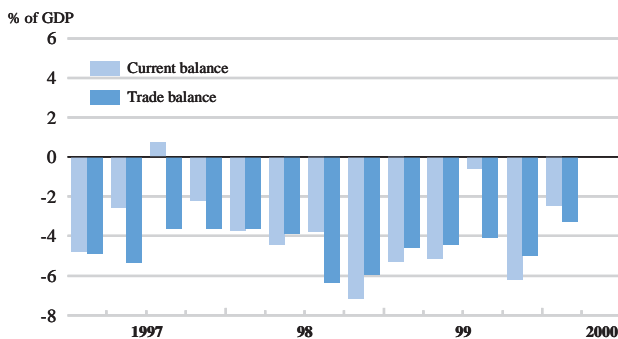
Strong exports yielded an acceleration of economic activity in the second half of 1999...

The combination of large and growing current-account and fiscal deficits during the first six months of 1999 temporarily pushed the currency to the mid-point of its fluctuation band. Investor confidence weakened and the risk premium on the forint rose to 5.5 per cent, entailing a significant tightening of monetary conditions. In response, the government cut back on investment and froze the public service wage bill which, together with substantial asset sales, helped the official general government deficit fall below 4 per cent. This, plus a surge of exports in the second half of 1999, resulted in a reversal of the upward movement in the current account deficit, the resumption of

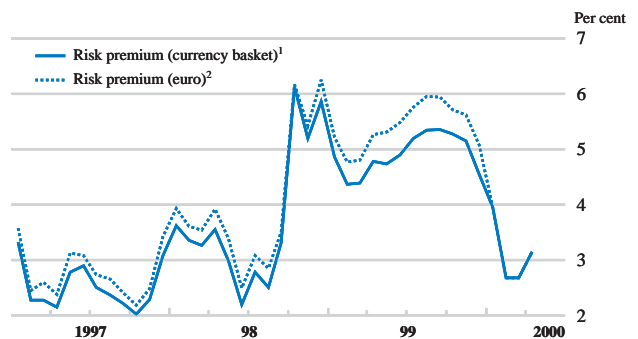
... and a reversal in the rising current account deficit

Hungary

An improved current account



The risk premium declines



1. The annualised rate on 90 day Hungarian T bills less the pre-announced devaluation of the currency over the same period less a weighted average of US and euro interest rates up to December 1999 and then euro rates only.
2. As above except that euro rates are used throughout the period, the currency basket and euro risk premiums are thus identical in 2000. European Central Bank estimates are used for the period prior to January 1999 when the euro did not exist.

Source: OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion HUF | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 3 499.0 | 1.9 | 4.8 | 5.1 | 5.2 | 5.0 |
| Government consumption | 1 594.4 | 3.1 | 2.8 | 2.5 | 2.0 | 1.5 |
| Gross fixed capital formation | 1 475.5 | 9.2 | 13.3 | 6.6 | 8.3 | 10.0 |
| Final domestic demand | 6 568.9 | 3.8 | 6.3 | 4.8 | 5.2 | 5.5 |
| Stockbuilding ^a | 399.9 | 0.4 | 1.9 | -0.2 | 0.1 | 0.1 |
| Total domestic demand | 6 968.8 | 4.0 | 7.8 | 4.3 | 5.0 | 5.2 |
| Exports of goods and services | 2 678.7 | 26.4 | 16.7 | 13.2 | 15.0 | 14.2 |
| Imports of goods and services | 2 753.6 | 24.6 | 22.8 | 12.3 | 14.3 | 14.2 |
| Net exports ^a | - 74.9 | 0.6 | -2.9 | 0.1 | 0.1 | -0.3 |
| GDP at market prices | 6 893.9 | 4.6 | 4.9 | 4.5 | 5.2 | 5.0 |
| GDP deflator | - | 18.5 | 12.6 | 9.0 | 7.4 | 5.2 |
| <i>Memorandum items</i> | | | | | | |
| Consumer price index | - | 18.3 | 14.2 | 10.0 | 8.0 | 6.0 |
| Private consumption deflator | - | 18.0 | 13.3 | 9.9 | 8.5 | 6.0 |
| Industrial production | - | 11.0 | 12.5 | 10.2 | 10.0 | 9.0 |
| Unemployment rate | - | 8.9 | 8.0 | 7.1 | 6.5 | 6.2 |
| Household saving ratio ^b | - | 13.6 | 16.7 | 17.5 | 17.7 | 18.2 |
| General government financial balance ^{c,d} | - | -6.9 | -6.1 | -5.7 | -4.6 | -3.6 |
| Current account balance ^c | - | -2.1 | -4.9 | -4.3 | -4.5 | -5.2 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

d) OECD estimate which adjusts official data so as to increase international and intertemporal comparability.

Source: OECD.

strong capital inflows and a substantial decline in the risk premium. Indeed, by the fourth quarter of 1999, the central bank was regularly intervening in the market to prevent these flows from causing an appreciation of the currency.

Strong exports and domestic demand should stimulate aggregate output...

Looking forward, GDP is projected to expand by just over 5 per cent in each of 2000 and 2001, with both private consumption and investment the driving forces behind growth. Strong western European demand should sustain rapidly rising exports, but the external sector's net contribution to growth is expected to be mitigated by imports. This, combined with the oil price rise, is likely to lead to a widening of the current account deficit in 2001. Despite the rapid pace of growth, increased labour force participation is expected to moderate the fall in unemployment and, in this environment, inflation will fall only gradually.

... but, if wage demands rise in response to higher inflation, the economy could overheat

The major risks to this projection are on the upside and concern the reaction of wages to tightening labour conditions and the inflationary impact of higher oil prices. Indeed, more rapid than anticipated wage growth would likely yield stronger consumer demand, a larger current account deficit, reduced competitiveness and both higher and more persistent inflation. While this would reduce the upward pressure on the currency and raise government revenues, it might result in an overheating of the economy and a further widening of the current account deficit. In this context, and especially given the constraints imposed on monetary policy by the "crawling peg" exchange rate regime and capital inflows, inflation could come in higher than projected here, notwithstanding efforts to curtail it by slowing the pace of regulated price increases, unless fiscal policy were further tightened.

Iceland

The economy remains overheated. Output growth seems likely to be close to 4 per cent in 2000, after four years of increases averaging 5 per cent. Inflation has surged – to reach almost 6 per cent of late. Some easing in the pace of activity may occur next year, as the growth of real income slows. Nonetheless, with unemployment low the inflation rate is unlikely to slacken, and the current account deficit may remain large.

The inflationary pressures require a policy response. Additional increases in interest rates are therefore necessary in order to restore price stability, even if this were to generate a further currency appreciation. Although, the government budget is in surplus, further tightening of fiscal policy would also help.

While domestic demand growth slackened markedly in 1999 as several large investment projects ended and private consumption slowed, real GDP still grew by about 4½ per cent, because slower demand growth was largely reflected in a deceleration of imports. Unemployment consequently fell to an average of 1.9 per cent of the labour force, with the annual rate of inflation accelerating significantly and reaching 5.9 per cent by May 2000.

The economy is overheated

The Central Bank reacted to the pick-up in inflation by raising official interest rates during 1999 and again at the beginning of 2000. The move has, however, lagged behind that of inflation. By May 2000, the official repo rate – at 10.1 per cent – was only 2.2 percentage points higher than a year earlier against 3.9 percentage points for inflation. Moreover, the growth of the money stock remains high, at over 17 per cent and bank credit is expanding rapidly due to the growth of foreign borrowing by the banking sector. The projections assume that official rates will rise to 12 per cent by next year. When interest rates were last increased in February, the Central Bank also appropriately widened the fluctuation bands for the exchange rate (see figure), which subsequently moved close to its old upper limit. Public spending added to the growth of demand in 1999, but extremely buoyant tax revenue resulted in an increase in the general government surplus to 2¼ per cent of GDP. This year, the impact of public spending should be more neutral, allowing a further reduction in general government net debt to 22 per cent of GDP.

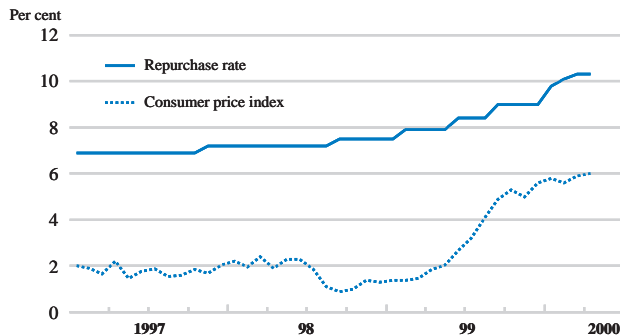
Interest rates are projected to rise further

In 2000, some deceleration in economic activity seems likely. The growth of real income has declined significantly, as recent wage settlements have decelerated, at a time when inflation has picked up. However, consumers will continue to benefit

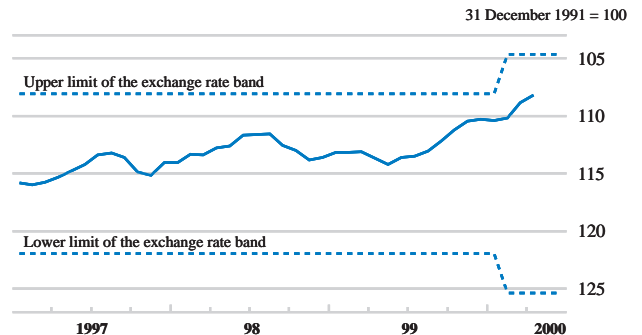
But inflation may stabilise at a high rate...

Iceland

Monetary policy has been tightened



The exchange rate has appreciated



Sources: Central Bank of Iceland and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Ikr | Percentage changes, volume (1990 prices) | | | | |
| Private consumption | 296.8 | 6.0 | 11.0 | 7.2 | 4.3 | 2.0 |
| Government consumption | 100.4 | 3.1 | 3.6 | 4.7 | 3.5 | 2.5 |
| Gross fixed capital formation | 87.3 | 10.5 | 25.9 | -2.0 | 9.1 | 0.2 |
| Final domestic demand | 484.5 | 6.2 | 12.3 | 4.8 | 5.1 | 1.7 |
| Stockbuilding ^a | - 1.2 | 0.0 | 0.1 | -0.1 | 0.1 | 0.0 |
| Total domestic demand | 483.3 | 6.2 | 12.5 | 4.7 | 5.1 | 1.7 |
| Exports of goods and services | 176.8 | 5.7 | 2.2 | 5.8 | 2.8 | 6.6 |
| Imports of goods and services | 173.8 | 8.5 | 23.3 | 6.3 | 6.5 | 3.5 |
| Net exports ^a | 3.1 | -0.9 | -7.7 | -0.6 | -1.8 | 0.8 |
| GDP at market prices | 486.4 | 5.3 | 4.7 | 4.4 | 3.7 | 2.7 |
| GDP deflator | — | 3.5 | 5.8 | 4.1 | 5.3 | 6.1 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 1.8 | 1.7 | 3.3 | 5.5 | 5.9 |
| Unemployment rate | — | 3.9 | 2.8 | 1.9 | 1.7 | 1.9 |
| General government financial balance ^b | — | 0.0 | 0.5 | 2.2 | 2.4 | 2.2 |
| Current account balance ^b | — | -1.4 | -5.6 | -6.2 | -7.6 | -6.2 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of GDP.

Source: OECD.

from a surge in housing and equity prices that has increased wealth substantially. This may lead to some fall in the saving ratio, thereby moderating the deceleration in household outlays. Housing investment, though, should remain buoyant. On the other hand, with no sales of boats to foreigners expected this year, business capital formation should expand significantly, particularly in the fishing sector, though this will be offset by an equivalent fall in exports, leaving GDP unchanged. Overall, the growth of domestic demand and GDP should slacken to under 4 per cent. In 2001, higher short-end and index-linked mortgage lending rates should restrain activity, holding real growth down to under 3 per cent. Nonetheless, unemployment is projected to remain low, adding to inflationary pressures despite the recent appreciation of the exchange rate. By reducing competitiveness, however, this appreciation, could make the reduction of the high current account deficit more difficult.

... raising the risks of a hard landing

The risk that a sharp slowdown in activity will be required to reduce inflation to a level similar to that abroad has risen. Recent pay settlements are still running at a pace beyond that consistent with stable prices, and there is a possibility of wage drift. Moreover, the growth in bank credit remains excessive, thereby accentuating the possibility of a hard landing if interest rates are increased.

Ireland

Strong, broad-based economic activity is likely to continue this year supported by a rapid increase in the labour force. But as net exports weaken and inflation accelerates, real GDP growth is projected to slow from around 10 per cent this year to 8 per cent in 2001.

With fiscal and structural policies the only instruments now available, the focus should be on strengthening the supply side of the economy and ensuring effective implementation of the new national wage agreement. The budget surplus needs to be maintained at the current high level in order to contribute to national savings and to finance future liabilities. Moreover, reforms to the tax and social security system need to continue with a view to strengthening incentives to work. Efficient infrastructure development remains a priority.

Real GDP growth was around 9 per cent in 1999 and momentum picked up in the course of the year supported by buoyant investment. Employment grew by 6.3 per cent – and was particularly strong in construction and in business services – leading to a rapid rise in household income. Real retail sales (excluding volatile auto sales) were expanding at an annualised rate of 11 per cent at the start of this year.

Growth has remained strong...

Consumer price inflation (the European harmonised index, HICP) reached some 4¾ per cent at the beginning of this year compared with 2 per cent a year earlier. Some 80 basis points of this acceleration were due to a cigarette tax. Goods prices have been strongly influenced by the depreciation of the currency and by rising oil prices. Service price increases have continued to mount, reflecting high demand and the need to pay wages similar to those in the high productivity manufacturing sector. Demographic developments, rising household incomes and lagging supply account for much of the continued rise of house prices in 1999 (25 per cent, down from 30 per cent in 1998).

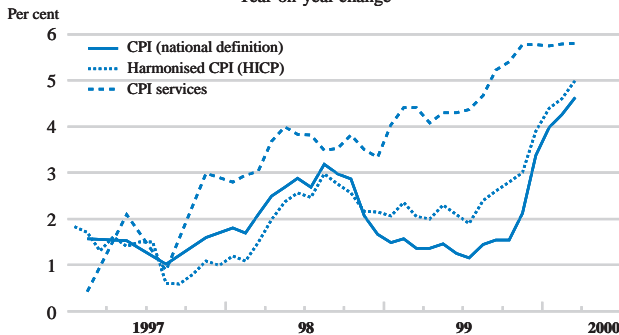
... and inflation is picking up

The authorities have prepaid off-budget pension liabilities amounting to 2 per cent of GDP in 1999 (and 2¼ per cent this year). Taking these transactions (and payments to a future pension fund) into account, the fiscal policy stance appears broadly neutral, even though changes in the structural budget position indicate that it is expansionary this year with substantial tightening in 2001. Measures have been focussed on the supply side, with tax changes aimed at encouraging labour force participation. Tax cuts have been a major element in establishing a new national agreement which foresees wage growth of some 5½ per cent annually over the next two to three years and seeks to alter wage setting in the public sector where increases

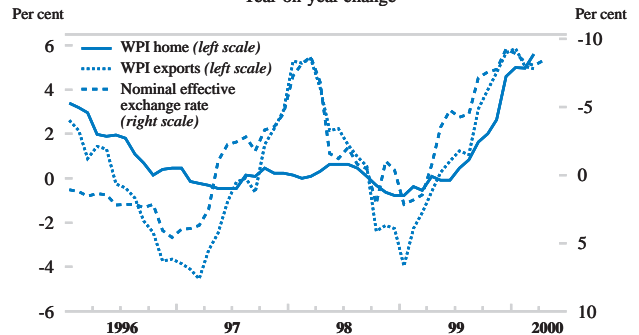
Fiscal policy is supply oriented

Ireland

Inflation has accelerated
Year-on-year change



Exchange rate weakness has lifted goods prices
Year-on-year change



Sources: Central Statistics Office and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Ir£ | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 25.1 | 7.3 | 7.4 | 7.8 | 8.0 | 8.0 |
| Government consumption | 6.5 | 4.8 | 5.9 | 3.6 | 4.8 | 3.8 |
| Gross fixed capital formation | 8.6 | 17.4 | 16.8 | 11.6 | 11.0 | 11.3 |
| Final domestic demand | 40.1 | 9.0 | 9.3 | 8.1 | 8.3 | 8.3 |
| Stockbuilding ^a | 0.4 | 0.5 | 0.2 | -0.4 | 0.0 | 0.0 |
| Total domestic demand | 40.6 | 9.5 | 9.4 | 7.6 | 8.2 | 8.2 |
| Exports of goods and services | 34.3 | 17.0 | 20.5 | 14.0 | 17.1 | 11.1 |
| Imports of goods and services | 29.4 | 16.1 | 23.2 | 14.5 | 16.3 | 11.7 |
| Net exports ^a | 5.0 | 2.5 | 0.6 | 1.3 | 2.7 | 1.0 |
| GDP at market prices | 45.2 | 10.7 | 8.9 | 8.7 | 9.9 | 8.0 |
| GDP at market prices in billion € | 57.4 | | | | | |
| GDP deflator | – | 3.5 | 5.7 | 4.0 | 4.5 | 4.3 |
| GNP at market prices | 40.1 | 9.0 | 8.1 | 7.7 | 8.7 | 7.0 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 2.5 | 3.7 | 3.8 | 4.2 | 3.8 |
| Industrial production | – | 15.3 | 15.8 | 12.0 | 14.0 | 10.5 |
| Unemployment rate | – | 10.4 | 7.6 | 5.5 | 3.6 | 3.3 |
| Household saving ratio ^b | – | 11.7 | 11.7 | 11.3 | 11.7 | 11.6 |
| General government financial balance ^c | – | 0.6 | 2.2 | 1.7 | 2.0 | 4.8 |
| Current account balance ^d | – | 2.5 | 2.0 | 0.3 | 0.9 | -0.3 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

d) As a percentage of GNP.

Source: OECD.

have been particularly high. In addition, to address infrastructure deficiencies, public investment is set to rise significantly this year and next as part of the National Development Plan. The projection assumes that the government will implement only some of the basic elements of its tax cut plans in 2001 and that public investment scheduled for 2000 will only be partially realised with a more marked pick up next year.

Growth is expected to remain very strong this year, slowing in 2001...

A broad-based GDP growth of around 10 per cent is projected in 2000 accompanied by a rapid increase in the labour force due to tax changes which encourage greater female participation and immigration. Sustained, strong employment expansion could reduce the rate of unemployment to some 3¼ per cent in 2001. Labour market pressures are projected to result in wages rising at a faster rate than specified in the national agreement and, in turn, to an acceleration of inflation. GDP growth is projected to slow to nearer potential in 2001 (8 per cent) as the contribution from the external sector falls from 2¾ per cent this year to 1 per cent. With export growth slowing and imports still buoyant, the current account is expected to move into deficit.

... but there is a strong inflation risk which would threaten competitiveness

The main risk to this projection is that inflation could pick up and competitiveness erode more than foreseen. This would accentuate the output growth slowdown projected in 2001 and should not be a cause for concern except if accompanied by a sharp strengthening of the nominal effective exchange rate which would require a rapid adjustment of wage growth. There is some risk as well that a sharp downward adjustment of house prices could destabilise the economy. However, with tight bank supervision, such a risk remains manageable.

Korea

The performance of Korea's economy was excellent by nearly every indicator in 1999 and early 2000, based on significant progress achieved in rehabilitating the financial sector and improving the balance sheets of the corporate sector. Following its worst recession in the post-war period in 1998, the economy rebounded with output growth of almost 11 per cent in 1999. The unemployment rate has been substantially reduced to below 5 per cent, while inflation remains low at around 1½ per cent. Output growth is projected to slow to a more sustainable rate of around 6 per cent in 2001 as pent-up demand is reduced, the contribution of inventories declines and fiscal consolidation begins.

The key to sustaining the expansion is the effective implementation of recent structural reforms in order to advance market-based restructuring of the financial and corporate sectors. The monetary authorities should respond quickly to any signs of future inflationary pressures as the expansion continues. Limiting the growth of public spending in order to balance the budget by 2004 should be an important priority to prevent a further accumulation of debt.

Following an output decline of almost 7 per cent in 1998, the even stronger recovery in 1999 was led by a rebound in private consumption and large contributions from stockbuilding and investment in machinery and equipment. The resulting boom in imports halved the current account surplus from nearly 13 per cent of GDP in 1998 to around 6 per cent in 1999, while a resumption of employment growth reduced the unemployment rate from its peak of over 8 per cent at the beginning of 1999 to around 4¾ per cent a year later. Despite the rapid pace of the expansion, consumer price inflation remained subdued, particularly if energy and agricultural products are excluded. Some slack appears to persist in the economy: the unemployment rate is high by historical standards, the labour force participation rate is still depressed and the capacity utilisation rate is below the peaks recorded during previous expansions.

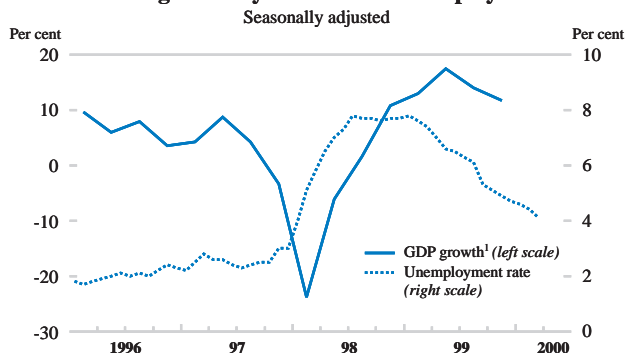
The recovery in 1999 was strong, but inflation remained subdued

The success in implementing structural reforms and supportive macroeconomic policies have underpinned the early and sustained recovery. The overnight interest rate has been kept at 5 per cent or less since early 1999, well below its pre-crisis level, while the long-term bond yield was in single digits during most of the year. The collapse in mid-1999 of the Daewoo group – the second largest conglomerate in

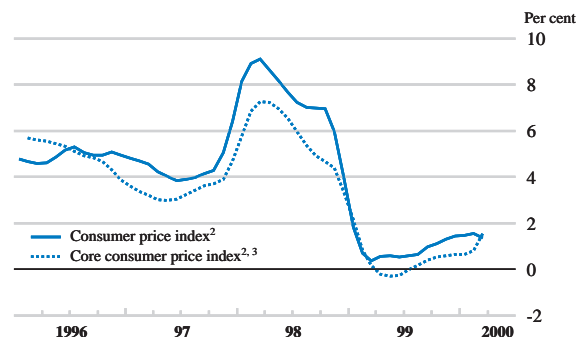
The recovery was supported by progress in implementing structural reforms, an easy monetary policy stance...

Korea

A strong recovery has reduced unemployment



Inflation remains subdued



1. Percentage change over previous quarter, annual rates.

2. Three-month moving average, year-on-year changes.

3. Excludes energy and agricultural products (apart from grains).

Sources: Bank of Korea and OECD.

Korea – resulted in some weakening of the exchange rate and a significant rise in long-term interest rates. However, government policies to ease the impact of Daewoo on the financial markets were successful in limiting the negative consequences for the real economy. The won resumed its upward course and is now about 10 per cent higher relative to the US dollar than in September 1999, although it remains about 20 per cent below its pre-crisis level.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|------------------------------------------------------|--------------------------------|------------------------------------------|-------|------|------|------|
| | current prices trillion won | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 233.6 | 3.5 | -11.4 | 10.3 | 7.7 | 6.4 |
| Government consumption | 42.5 | 1.5 | -0.4 | -0.6 | 1.5 | 1.0 |
| Gross fixed capital formation | 154.0 | -2.2 | -21.2 | 4.1 | 12.5 | 5.8 |
| Final domestic demand | 430.1 | 1.2 | -13.8 | 7.1 | 8.6 | 5.7 |
| Stockbuilding ^a | 4.8 | -2.0 | -5.5 | 4.8 | 1.7 | 0.3 |
| Total domestic demand | 434.9 | -0.8 | -19.6 | 13.4 | 10.7 | 6.1 |
| Exports of goods and services | 123.5 | 21.4 | 13.2 | 16.3 | 18.0 | 12.8 |
| Imports of goods and services | 140.7 | 3.2 | -22.4 | 28.9 | 28.0 | 15.2 |
| Net exports ^a | -17.2 | 5.7 | 12.3 | -0.8 | -0.7 | 0.7 |
| Statistical discrepancy ^a | 0.8 | 0.1 | 0.1 | 0.3 | 0.0 | 0.0 |
| GDP at market prices | 418.5 | 5.0 | -6.7 | 10.7 | 8.5 | 6.0 |
| GDP deflator | – | 3.1 | 5.3 | -1.6 | 0.6 | 2.7 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 5.5 | 8.6 | 0.5 | 2.9 | 2.8 |
| Industrial production | – | 4.7 | -6.5 | 23.2 | 11.5 | 7.0 |
| Unemployment rate | – | 2.6 | 6.8 | 6.3 | 4.5 | 4.1 |
| Household saving ratio ^b | – | 17.6 | 16.7 | 16.6 | 17.1 | 17.3 |
| Consolidated central government balance ^c | – | -1.5 | -4.2 | -2.9 | -2.1 | -1.5 |
| Current account balance ^c | – | -1.5 | 12.8 | 6.1 | 2.1 | 1.9 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

Source: OECD.

... and a substantial increase in government spending

Fiscal policy has also supported the recovery. Government spending rose by a fourth between 1997 and 1999, principally reflecting increased outlays to assist the unemployed. The resulting budget deficits boosted government debt from 14 to 22 per cent of GDP over that period – still significantly below the OECD average. In addition, however, 64 trillion won (14 per cent of GDP) of government-guaranteed borrowing was used to restructure the financial sector. A large rise in tax revenues in 1999 reduced the budget deficit from 4 per cent of GDP in 1998 to less than 3 per cent. Beginning in 2000, spending increases are to be limited to 2 percentage points below the growth of nominal output in order to balance the budget by 2004.

The economy is projected to slow to a more sustainable pace in 2001

With fiscal consolidation underway and the contribution from stockbuilding waning, output growth is projected to slow from 8½ per cent in 2000 to around 6 per cent in 2001 – a rate roughly in line with the economy's potential. A pick up in growth in Korea's export markets is likely to help keep the current account in surplus

at around 2 per cent of GDP in 2001. The main risks to this outlook would be a depreciation of major Asian currencies and a slowdown in growth in key overseas markets. Moreover, a correction in the US share prices could have significant repercussions in Korea, given the close correlation observed recently between stock markets in the two countries. If these risks are avoided, the continued expansion is likely to further reduce the unemployment rate, to around 4 per cent. Inflation may remain below 3 per cent through 2001, near the central bank's 2.5 per cent core inflation target, with some increase in interest rates.

Luxembourg

Real GDP growth is estimated to have been 5 per cent again in 1999 and is projected to edge up to around 5½ per cent in 2000 and 2001, reflecting stronger growth in neighbouring countries. Owing to higher import prices and some domestic tensions, inflation may rise to around 2 per cent. With job creation at the highest level in more than a decade and the unemployment rate below 3 per cent, the labour market is very tight and increasingly dependent on cross-border workers.

Given the strength of the expansion and incipient inflationary tensions, the focus of economic policies should shift from subsidising new industries to stepping up structural and regulatory reforms. In particular, stronger incentives to work and less onerous work-time regulations – especially for part-time workers – would improve the functioning of the labour market and make the economy more flexible in general.

Economic growth has been very strong...

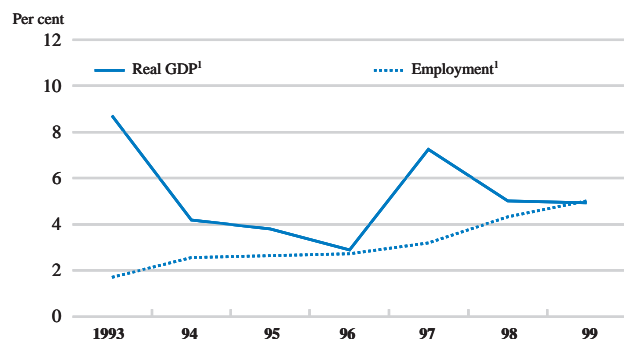
Real GDP growth may have levelled-off at around 5 per cent in 1999. Domestic demand is estimated to have been especially strong, reflecting the buoyancy of investment and private consumption, which benefited from tax cuts and the activation of an indexation threshold for wages and social security benefits. On the other hand, owing to the strong import content of investment and domestic demand in general, as well as to the hesitant conjunctural situation in many export markets, the contribution to growth of the foreign balance decreased markedly. Although consumer price inflation averaged only 1 per cent in 1999, it rose significantly through the year, mainly as a result of higher energy prices. Despite employment growth of the order of 5 per cent in 1999, the unemployment rate (national definition) only edged down to 2.8 per cent. Most new jobs were again taken up by cross-border workers, who now represent 28 per cent of total domestic employment.

... and will be boosted further by strengthening exports

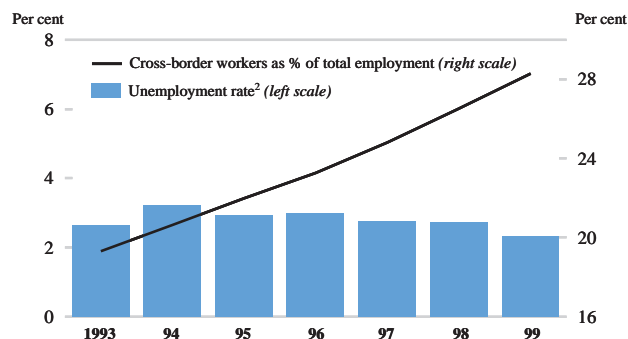
Over the projection period, the economy should benefit from the acceleration of the expansion in neighbouring countries, as well as from increased international competitiveness as a result of the depreciation of the euro. With inflation rising, the next indexation threshold for wages and social security benefits could be reached before the end of 2001. The stance of fiscal policy appears broadly neutral, with the general

Luxembourg

Growth has remained strong



Growth in cross-border workers remains high



1. Year-on-year percentage changes.

2. Standardised rates.

Sources: Statec; OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion LF | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 273.7 | 3.8 | 2.3 | 3.0 | 2.8 | 3.1 |
| Government consumption | 102.8 | 2.1 | 2.8 | 3.3 | 3.3 | 3.0 |
| Gross fixed capital formation | 114.3 | 10.9 | 1.9 | 9.0 | 5.1 | 5.3 |
| Final domestic demand | 490.8 | 5.1 | 2.3 | 4.5 | 3.5 | 3.7 |
| Stockbuilding ^a | - 0.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total domestic demand | 490.1 | 5.6 | 2.3 | 4.5 | 3.5 | 3.6 |
| Exports of goods and services | 597.7 | 10.5 | 9.9 | 5.2 | 8.9 | 7.9 |
| Imports of goods and services | 524.3 | 9.3 | 8.3 | 4.9 | 7.7 | 7.1 |
| Net exports ^a | 73.4 | 2.5 | 3.0 | 1.2 | 2.7 | 2.3 |
| GDP at market prices | 563.5 | 7.3 | 5.0 | 4.9 | 5.6 | 5.3 |
| GDP at market prices in billion € | 14.0 | | | | | |
| GDP deflator | – | 3.3 | 1.5 | 1.2 | 1.9 | 1.7 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 1.7 | 1.7 | 1.0 | 2.0 | 1.8 |
| Industrial production | – | 7.3 | 4.3 | 3.1 | 4.5 | 5.0 |
| Unemployment rate | – | 3.3 | 3.1 | 2.9 | 2.8 | 2.7 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

Source: OECD.

government surplus likely to rise somewhat – from 2½ per cent of GDP in 1999 – owing to the strength of the expansion.

The current period of remarkable economic growth and rapid job creation is expected to continue in 2000 and 2001. Real GDP growth is projected to edge up to around 5½ per cent in both years, driven by exports of goods and especially services. Total domestic demand should lose some buoyancy but the contribution to growth of the foreign balance is likely to increase to over 2 percentage points. Employment growth should remain above 4 per cent, with cross-border workers again filling most new jobs. At less than 3 per cent, unemployment may be essentially structural and is expected to edge down to only 2.7 per cent in 2001. Inflation could rise to 2 per cent in 2000, mainly reflecting the increase in energy prices, and decline only slightly in 2001, as general inflationary pressures continue to build. There is a risk that, in the current context of a very tight labour market and strong pressures on resource utilisation, the widespread use of indexation, by causing higher import prices to boost wages, might adversely affect price expectations and strengthen domestic inflation.

The outlook is favourable but there is a risk of inflation

Mexico

Output accelerated during the course of 1999 and into 2000, supported by the continuing strength of the United States and a pick-up in domestic demand. Disinflation resumed and the current account deficit narrowed. Domestic demand will be held back this year by tight macroeconomic policies in the political transition. It is expected to strengthen in 2001 and, with the United States economy projected to slow, it should become the main engine of output growth. Inflation should continue to fall, to around 7½ per cent by December 2001, while the current account deficit could widen somewhat.

Macroeconomic policies will have to remain tight this year to reduce Mexico's vulnerability to shifts in investors' confidence. The central bank will need to remain vigilant if the ambitious objective of inflation convergence with Mexico's main trading partners is to be achieved by 2003. To ensure continued fiscal discipline while strengthening core public spending programmes, measures are needed to increase tax revenues. A healthy business environment requires increasing competition in several network areas, most notably the electricity sector.

Output growth is stronger, inflation lower, the current-account deficit smaller

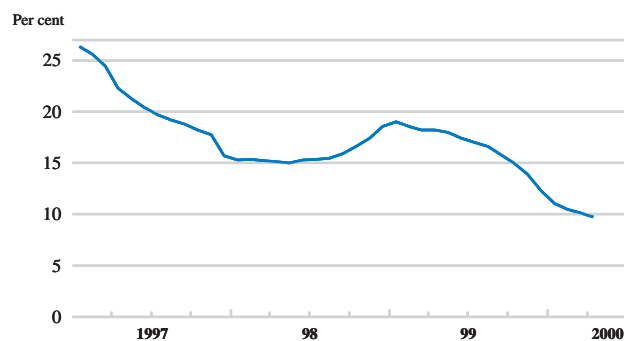
Following the slowdown in activity consequent on the financial turbulence of late 1998, GDP growth accelerated from the second half of 1999, driven by strong net exports to the United States and a pick-up in private domestic demand. With the expansion spreading across sectors of activity, employment in the formal sector increased significantly. Real wages have risen markedly, but continuing high productivity gains in manufacturing have kept unit labour costs in check. Manufacturing exports have remained buoyant and the current account deficit narrowed to just below 3 per cent of GDP in 1999. With the peso broadly stable against the dollar from March 1999, the effective exchange rate has appreciated. This has contributed to the decline of consumer price inflation – to less than 10 per cent by April 2000.

Fiscal policy is set to remain tight...

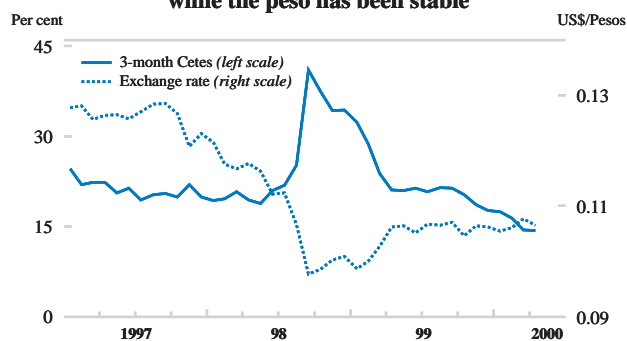
Despite lower year-average GDP growth in 1999 than in 1998, the public sector financial deficit was virtually unchanged, at 1¼ per cent of GDP, while the primary surplus widened to 2½ per cent. Against a background of lower domestic interest rates, higher oil prices and strengthening growth, the 2000 budget aims to reduce the public sector deficit slightly, while the primary surplus is set to rise by about ½ percentage point. Oil-related revenues account for one third of government receipts and, with the average oil price currently substantially higher than the budget assumption for 2000, the fiscal target should be easily met. Windfall clauses included

Mexico

Disinflation has resumed¹



Interest rates have declined while the peso has been stable



1. Consumer price index inflation, year-on-year percentage change.
Source: OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------|---------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Pesos | Percentage changes, volume (1993 prices) | | | | |
| Private consumption | 1 644.9 | 6.5 | 5.4 | 4.3 | 5.2 | 5.0 |
| Government consumption | 243.7 | 2.9 | 2.2 | 1.0 | 4.0 | 3.0 |
| Gross fixed capital formation | 451.1 | 21.0 | 10.3 | 5.8 | 6.9 | 9.8 |
| Final domestic demand | 2 339.7 | 8.5 | 6.0 | 4.3 | 5.4 | 5.8 |
| Stockbuilding ^a | 136.8 | 1.2 | 0.2 | -0.8 | 0.0 | 0.0 |
| Total domestic demand | 2 476.5 | 9.6 | 6.0 | 3.4 | 5.3 | 5.7 |
| Exports of goods and services | 812.9 | 10.7 | 12.1 | 13.9 | 12.5 | 8.2 |
| Imports of goods and services | 759.5 | 22.7 | 16.5 | 12.8 | 14.0 | 10.0 |
| Net exports ^a | 53.4 | -2.5 | -1.1 | 0.3 | -0.5 | -0.7 |
| GDP at market prices | 2 529.9 | 6.8 | 4.8 | 3.7 | 4.8 | 5.0 |
| GDP deflator | — | 17.7 | 15.5 | 15.9 | 10.2 | 8.5 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 16.5 | 20.5 | 16.4 | 10.0 | 8.6 |
| Unemployment rate ^b | — | 3.7 | 3.2 | 2.5 | 2.4 | 2.4 |
| Current account balance ^c | — | -1.9 | -3.7 | -2.9 | -3.2 | -3.6 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Based on the National Survey of Urban Employment.

c) As a percentage of GDP.

Source: OECD.

in the budget should limit the risk that an oil bonus would induce excess spending. For 2001, the projections assume a continued prudent fiscal policy stance.

A tight monetary setting is being maintained this year, as part of a strategy designed to shield against possible volatility associated with the political transition. The reduction in short-term interest rates in 1999 was roughly in line with the decline in inflation, so that real interest rates remained rather high. The monetary programme for 2000 focuses on bringing inflation down to at most 10 per cent by December, a rate to which price expectations have already converged; beyond this, its aim is to achieve inflation in line with that of Mexico's main trading partners by 2003. The persistence of inflationary pressures prompted a tightening of monetary policy in January 2000. But after a temporary hike, short-term interest rates resumed their downward path, the three-month *Cetes* rate reaching a low of 14 per cent in April, before rising again in May in response to a new monetary tightening. Given the uncertainties attaching to the election outcome in Mexico and the projected interest-rate trends in the United States, no further real interest rate decline has been incorporated in the OECD projections for the remainder of 2000. Next year, following the formation of the new government, real interest rates are assumed to ease somewhat.

... and the monetary stance remains cautious

Real GDP growth is likely to reach between 4½ and 5 per cent this year and next. With the United States expansion projected to slow, growth will be increasingly dependent on private domestic demand. In the process, the current account is likely to widen. Inflation is projected to decline gradually to 7½ per cent by December 2001 on the assumption of an unchanged nominal exchange rate. The uncertainties attaching to the outlook chiefly concern the external environment, particularly developments in the United States, where a more marked slowing and higher interest rates could have negative spillover effects.

Conditions favour sustained growth, notwithstanding short-term uncertainties

Netherlands

After levelling off in 1999, real GDP growth is projected to increase to 4 per cent or so in 2000 and 2001, supported by stronger exports and the 2001 income tax reform. Labour market conditions will tighten further and the unemployment rate may fall to 2 per cent in 2001 with a risk of overheating. Despite the great buoyancy of the economy, the general government surplus is expected almost to disappear as a result of an easing in fiscal policy and the introduction of the income tax reform.

Given the strength of the economy, the authorities should use fully the degree of flexibility embodied in the Dutch budgetary framework to accelerate fiscal consolidation, thereby reducing the risk of overheating, signs of which are already emerging. There is also a need to speed up the process of structural reform and implement effectively recent measures aimed at tapping the large pool of benefit recipients not in employment.

Over the past few quarters economic growth has picked up again

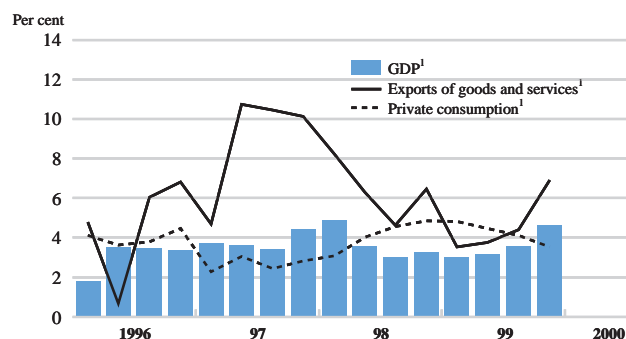
Exports rebounded strongly in the second half of 1999 and real GDP growth accelerated, with this trend continuing early in 2000. For 1999 as a whole, economic growth was little changed at 3.6 per cent. Pressures on resource utilisation have remained very strong, especially in the service sector. The number of vacancies is now greater than at the peak of the previous cycle at the beginning of the decade when the economy was in a situation of overheating. The unemployment rate (national definition) has fallen to less than 3 per cent, significantly below the structural rate estimated by the OECD. Tight labour market conditions have boosted growth in wages and compensation per employee in the private sector, the latter reaching 3.6 per cent in 1999 compared with an EU average of 2.5 per cent. Consumer price inflation has dropped to around 2 per cent in the first months of 2000 as a result of the abolition of the TV licence fee at the beginning of the year.

The macroeconomic policy mix is changing with fiscal policy due to become expansionary...

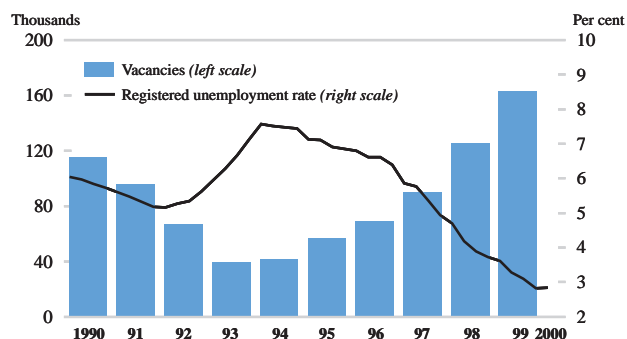
A major discretionary easing in fiscal policy is programmed for 2000 and 2001, reflecting the spending of some of the large budget windfalls and the introduction, in 2001, of an income tax reform which will entail a once-off reduction in the tax burden of over ½ per cent of GDP. The reform will also include a shift from direct to indirect taxes and a decrease in the benefit replacement rate. While the general government budget may remain in small surplus, reflecting the strength of the expansion, it is likely to move back into a significant deficit on a cyclically adjusted basis,

Netherlands

Growth has shifted towards exports



The labour market has tightened



1. Volume, year-on-year percentage changes of quarterly data.
Sources: Statistics Netherlands and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Gld | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 346.1 | 2.6 | 4.1 | 4.2 | 3.8 | 4.2 |
| Government consumption | 160.6 | 3.3 | 3.3 | 2.6 | 2.5 | 2.5 |
| Gross fixed capital formation | 146.3 | 5.9 | 5.2 | 5.7 | 5.3 | 5.0 |
| Final domestic demand | 653.0 | 3.5 | 4.2 | 4.1 | 3.8 | 4.0 |
| Stockbuilding ^a | 1.5 | -0.1 | 0.1 | -0.3 | 0.1 | 0.1 |
| Total domestic demand | 654.4 | 3.5 | 4.2 | 3.8 | 3.9 | 4.0 |
| Exports of goods and services | 402.1 | 9.0 | 6.4 | 4.7 | 9.0 | 8.0 |
| Imports of goods and services | 362.2 | 9.0 | 7.7 | 5.1 | 8.9 | 8.4 |
| Net exports ^a | 39.9 | 0.6 | -0.3 | 0.0 | 0.6 | 0.2 |
| GDP at market prices | 694.3 | 3.8 | 3.7 | 3.6 | 4.3 | 4.0 |
| GDP at market prices in billion € | 315.1 | | | | | |
| GDP deflator | – | 2.0 | 1.9 | 1.3 | 2.7 | 3.0 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 2.1 | 1.8 | 1.9 | 2.6 | 3.4 |
| Industrial production | – | 5.5 | 2.4 | 1.2 | 5.0 | 4.5 |
| Unemployment rate | – | 5.5 | 4.2 | 3.2 | 2.5 | 2.1 |
| Household saving ratio ^b | – | 5.7 | 4.2 | 2.8 | 2.4 | 3.7 |
| General government financial balance ^c | – | -1.2 | -0.8 | 0.5 | 0.6 | 0.1 |
| Current account balance ^c | – | 7.3 | 6.5 | 5.8 | 6.2 | 6.0 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income, excluding net contributions (actual and imputed) to life insurance and pension schemes.

c) As a percentage of GDP.

Source: OECD.

in 2001. Monetary conditions are expected to tighten somewhat, reflecting the strength of the expansion in the euro area and rising inflation.

Owing to more buoyant export markets and the gain in international competitiveness resulting from the sizeable depreciation of the euro, net exports are likely to be adding to the strong growth in domestic demand in sustaining a vigorous expansion of output. Private consumption is projected to remain buoyant, boosted by the income tax reform, as well as by the significant, albeit declining, wealth effect stemming from the boom in house prices in the past few years. Given high rates of capacity utilisation and the positive outlook for the economy, business fixed investment is likely to continue to grow rapidly, despite the progressive increase in interest rates.

... and other forces are also supportive of growth...

Real GDP growth is projected to increase to 4 per cent or more in 2000 and 2001, compared with a trend rate of growth estimated by the OECD of a little over 3 per cent. Hence, the positive output gap is likely to widen further, and the unemployment rate may decline to 2 per cent by 2001. The growth rate of the private consumption deflator is expected to approach 3½ per cent in 2001, of which ¾ of a percentage point is attributable to the tax reform. Even allowing for the hike in indirect taxes, the cut in direct taxes will significantly increase real disposable income. But it is uncertain to what extent this and other features of the tax reform, such as the reduction in benefit replacement rates, will moderate the demand for

... so that economic activity is expected to accelerate, increasing inflationary pressures

higher wages that normally could be expected in view of the tensions in the labour market. Hence, the margin of error of the projections for wages and prices is rather large. The increase in import prices and indirect taxes could have a negative impact on the inflationary climate and undermine wage moderation, adding to the risk of overheating.

New Zealand

The economy ended the 1990s on a robust note with real GDP expanding at double-digit rates in the last half of 1999. Easy monetary conditions, together with a recovery from the drought that had weighed heavily on economic performance, contributed to the rebound. The output gap narrowed rapidly, but inflation pressures nevertheless remained muted. The current account deficit, on the other hand, widened substantially even abstracting from special factors, but should now begin to fall somewhat, underpinned by the recovery in agriculture and rising commodity prices. The recent momentum in domestic demand is expected to continue into 2000, before slowing thereafter because of restraint exercised by large interest-rates hikes.

With the output gap expected to turn positive in 2000, a tighter monetary stance will be essential to ease demand pressures and keep inflation well within the official target band. While net exports are anticipated to improve given the favourable competitive position, the external deficit will remain large, pointing to the need to maintain fiscal discipline.

The pick-up in GDP growth in the final two quarters of 1999 was broadly based with all sectors posting large gains. Much of this is attributable to the recovery from the drought; this boosted agricultural output, food-related manufacturing and stock building. At the same time, rising employment and incomes bolstered consumer confidence, supporting personal expenditures and residential investment, although the latest indicators point to a slowing in the latter area, perhaps in response to recent interest-rate hikes. Low interest rates during most of 1999, along with improving profitability, also helped to stimulate business investment, which was one factor underlying the large increase in imports. With exports only just beginning to recover from the drought, the current account deficit shot up to about 8 per cent of GDP at the end of the year, of which 0.6 percentage point resulted from the import of a new naval frigate. Meanwhile, strong output growth led to employment gains, and a fall in the unemployment rate to 6.4 per cent in early 2000, still somewhat above its estimated structural level. Inflation therefore remained weak, even with a narrowing of the output gap to about 1 per cent.

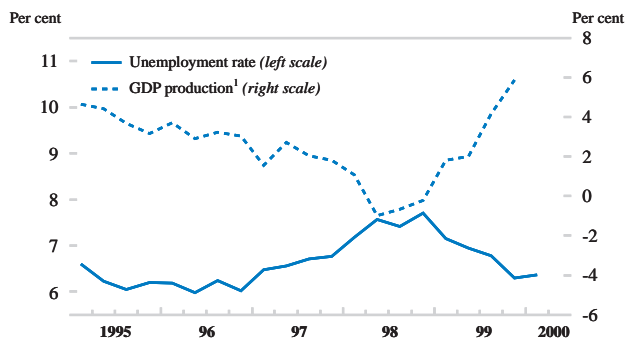
Economic activity picked up steam in the last half of 1999...

Monetary conditions (combined interest- and exchange-rate movements) have remained easy in 2000, despite the cumulative 200 basis point increase in the Overnight Cash Rate to 6.5 per cent since November 1999. The exchange rate, despite

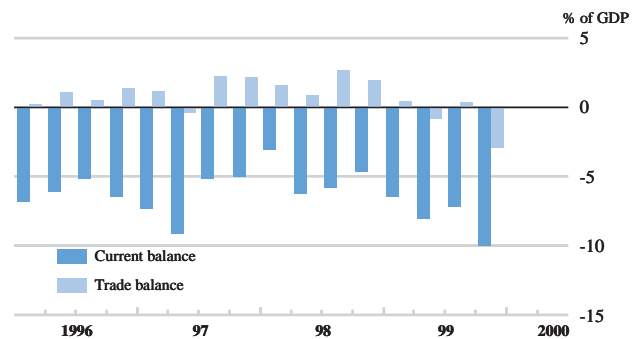
... assisted by very easy monetary conditions

New Zealand

Economic growth rebounds



The current account deteriorates



1. Year-on-year percentage changes.

Source: Statistics New Zealand.

robust GDP and the prospect of a firming in commodity prices, nevertheless faces downward pressure from the large external deficit. The Reserve Bank has indicated that the extent of future interest rate increases will depend mainly on the strength of consumer spending and its sensitivity to record high household debt levels. The projections assume that a further substantial tightening in monetary conditions will be necessary to slow domestic demand and keep inflation comfortably within the 0 to 3 per cent target band.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------|--------------------------------|---------------------------------------------|------|------|------|------|
| | current prices billion NZ\$ | Percentage changes, volume (1991/92 prices) | | | | |
| Private consumption | 59.2 | 2.8 | 1.8 | 2.5 | 3.3 | 2.5 |
| Government consumption | 13.7 | 5.2 | -1.0 | 8.5 | -2.0 | 0.8 |
| Gross fixed capital formation | 20.1 | 3.8 | -2.0 | 8.5 | 5.3 | 4.5 |
| Final domestic demand | 93.0 | 3.4 | 0.5 | 4.7 | 2.9 | 2.7 |
| Stockbuilding ^{a,b} | 0.9 | -0.1 | -0.7 | 1.1 | -0.1 | 0.0 |
| Total domestic demand | 93.9 | 3.3 | -0.2 | 5.8 | 2.8 | 2.7 |
| Exports of goods and services | 27.7 | 3.0 | 1.6 | 6.3 | 8.5 | 6.5 |
| Imports of goods and services | 26.9 | 4.2 | 2.7 | 11.8 | 4.1 | 5.4 |
| Net exports ^a | 0.8 | -0.4 | -0.4 | -2.1 | 1.3 | 0.2 |
| GDP (expenditure) at market prices | 94.7 | 2.9 | -0.6 | 3.9 | 4.2 | 3.0 |
| GDP deflator | — | 0.0 | 1.7 | 0.0 | 2.7 | 2.3 |
| <i>Memorandum items</i> | | | | | | |
| GDP (production) | — | 2.0 | -0.2 | 3.5 | 4.2 | 3.0 |
| Private consumption deflator | — | 1.0 | 1.9 | 1.2 | 2.3 | 2.3 |
| Unemployment rate | — | 6.6 | 7.5 | 6.8 | 6.1 | 6.0 |
| Current account balance ^c | — | -6.7 | -5.0 | -7.9 | -6.4 | -6.0 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Including statistical discrepancy.

c) As a percentage of GDP.

Source: OECD.

The budget has remained in surplus

Given the sharp turnaround in economic conditions, the new government is predicting an improved, albeit still small surplus in the current fiscal year, gradually rising to 1½ per cent of GDP over the next two years. Its Budget Policy Statement foresees some easing in longer-term fiscal policy objectives compared with the previous government's plans. In particular, the expenditure target is 35 per cent of GDP (previously 30 per cent) and that for net debt is 20 per cent of GDP (15 per cent), but the goal of running budget surpluses over the business cycle (to enable ongoing contributions to a proposed Superannuation Fund) is maintained.

Output growth should pick up momentum...

Favourable economic conditions are expected to keep real GDP growth above its potential rate of about 2½ per cent over the next two years. Consumption should increase at a healthy pace in 2000, supported by rising wages and employment, but domestic demand should slow thereafter, owing to sharp interest-rate increases. Meanwhile, net exports will probably improve sharply, bolstered by strong growth in export markets, a recovery in commodity prices and favourable relative unit labour costs. With output moving above estimated potential this year, inflation is

likely to pick up, but the headline rate should begin to drop in 2001, as the impact of the oil price shock recedes.

New Zealand's large current account deficit, while narrowing somewhat, will still add to the country's already substantial foreign liabilities, potentially placing downward pressure on the exchange rate and raising the risk premium on interest rates. In addition, should inflationary pressures generate faster-than-expected wage increases, this might necessitate additional monetary tightening, consequently weakening growth.

... but the large external deficit could see a rise in the risk premium

Norway

Output growth has rebounded since mid-1999, reflecting an easier macroeconomic policy stance and a pick-up in exports. Stronger world demand and the solid wealth position of households are projected to boost mainland output in 2000 and 2001, thereby stretching productive capacity. The current account surplus could climb above 10 per cent of GDP, reflecting not only the steep oil price hike but also the expected sizeable rise in oil production.

With already very limited slack in the economy at the start of the recovery, overheating risks are substantial. Labour supply will be reduced by the phased introduction of a fifth holiday week, the strong rise in childcare cash benefits and the postponement of measures to contain early retirement. With fiscal policy being neutral at best, the case for further monetary policy restraint is strong.

The growth pause has ended...

The slowdown in 1998-99, which was caused by a profit squeeze due to excessive wage rises, a tight policy stance and lower investment in the oil sector, has ended. Since mid-1999, activity has picked up, reflecting stronger world demand, the impact of lower interest rates on household spending and the tailing-off of the investment drop. In the fourth quarter, mainland GDP was 1.5 per cent higher than a year earlier, compared to no growth in the second quarter. Despite the rebound during the year, mainland output growth decelerated substantially on a year-on-year basis, from 3.3 per cent in 1998 to 0.8 per cent in 1999, the slowest pace in the 1990s. However, the unemployment rate edged up only marginally, to 3.8 per cent in the first quarter of 2000, and bottlenecks have persisted in some sectors.

... and inflation has picked up

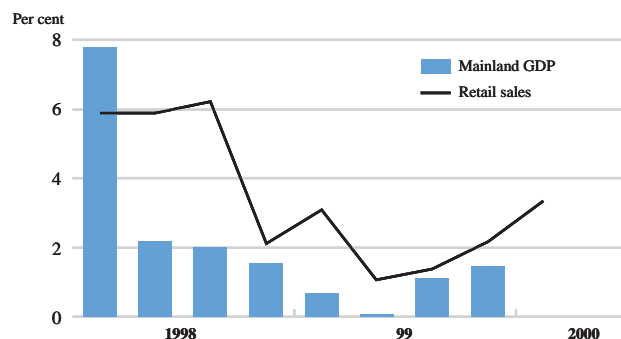
Stronger output growth since mid-1999 has been accompanied by some acceleration in consumer price inflation, to close to 3 per cent in early 2000. Apart from the steep rise in the oil price and special factors such as the energy tax increase, this acceleration reflects the tight product and labour market conditions in the sheltered sector. House prices have also continued to rise rapidly, especially in the Oslo area where prices for flats increased by a quarter in the twelve months to February 2000.

Tightening is taking place through monetary policy

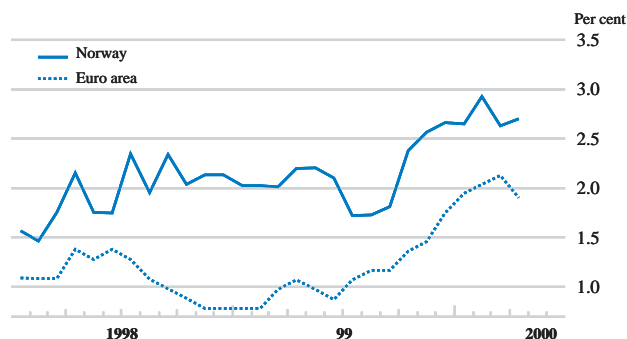
With monetary policy aiming to achieve low inflation as the fundamental precondition for exchange rate stability, the underlying inflationary pressures led to a rise in the key deposit rate by a quarter percentage point to 5.75 per cent in April. A further monetary tightening is projected in the course of 2000. The rising demand pressures have not

Norway

Activity rebounds in the second half of 1999¹



Inflation² is well above the euro area average



1. Year-on-year percentage changes.

2. Harmonised consumer price index, year-on-year percentage changes.

Sources: Statistics Norway and Eurostat.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion NOK | Percentage changes, volume (1990 prices) | | | | |
| Private consumption | 490.4 | 3.6 | 3.3 | 2.4 | 2.9 | 2.8 |
| Government consumption | 206.8 | 1.9 | 3.8 | 2.7 | 2.2 | 2.0 |
| Gross fixed capital formation | 216.2 | 13.9 | 5.8 | -5.6 | -5.8 | 2.1 |
| Final domestic demand | 913.3 | 5.7 | 4.0 | 0.4 | 0.6 | 2.5 |
| Stockbuilding ^a | 15.8 | 0.6 | 1.4 | -1.3 | -0.2 | 0.0 |
| Total domestic demand | 929.2 | 6.3 | 5.5 | -1.0 | 0.4 | 2.5 |
| Exports of goods and services | 414.5 | 6.1 | 0.3 | 1.7 | 7.4 | 4.3 |
| Imports of goods and services | 327.1 | 11.3 | 9.3 | -3.1 | 1.1 | 4.0 |
| Net exports ^a | 87.4 | -1.0 | -3.3 | 2.0 | 3.0 | 0.6 |
| GDP at market prices | 1 016.6 | 4.7 | 2.0 | 0.9 | 3.4 | 2.8 |
| GDP deflator | – | 3.0 | -0.8 | 6.5 | 12.2 | 0.9 |
| <i>Memorandum items</i> | | | | | | |
| Mainland GDP at market prices ^b | – | 4.2 | 3.3 | 0.8 | 1.8 | 2.5 |
| Mainland GDP deflator ^b | – | 3.0 | 3.9 | 2.8 | 2.9 | 2.1 |
| Exports of non-manufactures (incl. energy) | – | 2.7 | -2.8 | -0.7 | 11.2 | 3.8 |
| Private consumption deflator | – | 2.5 | 2.7 | 2.2 | 2.7 | 2.6 |
| Unemployment rate | – | 4.0 | 3.2 | 3.2 | 3.5 | 3.6 |
| Household saving ratio ^c | – | 4.8 | 6.6 | 6.7 | 6.6 | 6.4 |
| General government financial balance ^d | – | 7.9 | 3.6 | 4.9 | 10.7 | 11.6 |
| Current account balance ^d | – | 5.1 | -1.5 | 3.6 | 14.2 | 13.9 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) GDP excluding oil and shipping.

c) As a percentage of disposable income.

d) As a percentage of GDP.

Source: OECD.

led to a reassessment of the fiscal policy stance and, excluding oil revenues, the government budget will remain in deficit. In the Revised National Budget sent to Parliament in May, the government announced that it will stick to a neutral stance for 2000, and cut expenditures to compensate for budget overruns. Including oil revenues, however, the budget surplus will rise steeply, to more than 10 per cent of GDP.

Buoyed by stronger world demand and the robust wealth position of households, economic growth is projected to pick up further. The contraction in oil investment to a more normal level will dampen activity in 2000, but growth slight above the potential rate of about 2¼ per cent is expected in 2001. Employment should start to rise again in 2001 while unemployment is projected to stabilise at the current low level. The feed-through of the oil price rise and tight conditions in the sheltered sector could lead to some further upward drift in consumer price inflation. However, in 2000, negotiated wage increases are likely to decelerate but will remain higher than those of the main trading partners, raising doubts on the viability of the "Solidarity Alternative" approach as regards wage-setting.

Further recovery in 2000 and 2001 is expected

At the moment, there are still considerable uncertainties on wage developments and the scarcity of labour could lead to higher than projected wage rises. There is the risk that the wage agreement for manufacturing will be outpaced by other sectors. Moreover, higher oil revenues could undermine budgetary discipline further, placing the burden of cooling off the economy squarely on the monetary authorities.

Can overheating be avoided?

Poland

The Polish economy rebounded strongly in 1999, turning the page on the effects of the Russian crisis. Lower interest rates, combined with sustained real wage growth, led to a strong upswing of private consumption. Gross capital formation was robust, with continued inflows of foreign direct investment. Inflation, however, edged up higher, the sizeable current account deficit widened further, and the budget deficit increased. These developments triggered a monetary tightening and an adjustment in fiscal policy.

With more restrictive economic policies, domestic demand expansion should slow down to more sustainable rates in the second half of 2000 and in 2001. This should help reduce inflation and stabilise the external deficit, though at a high level. The policy settings are therefore broadly appropriate but, given the increased exposure to international financial markets, policy slippages, as happened last year, could be potentially costly. In particular, based on recent trends, end-of-year inflation targets seem unlikely to be attained. Hence, extra efforts would be warranted to avoid new misjudgements in implementing policies.

GDP rebounded strongly in 1999...

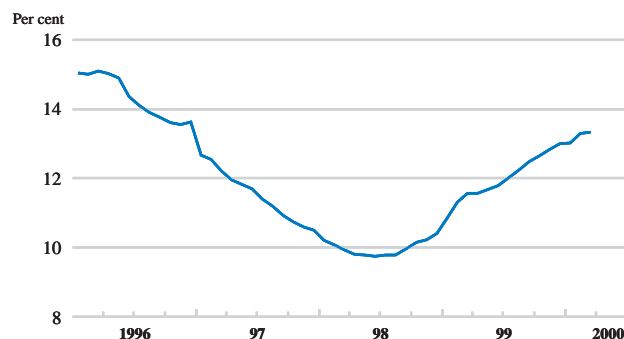
After the slowdown caused by the contagion of the Russian crisis, the Polish economy rebounded strongly in 1999. For the whole of last year, real GDP grew by about 4 per cent on average, accelerating in the fourth quarter (to close to 7 per cent at annual rate). Low interest rates, combined with strong increases in real disposable income, helped boost domestic demand, in particular private consumption which, in the fourth quarter, was up 5½ per cent over the year earlier. Gross capital formation was also very robust, with an expansion of close to 10 per cent in the fourth quarter, helped by foreign direct investment inflows, which reached close to 5 per cent of GDP during the year.

... leading to higher inflation and a renewed deterioration in the external deficit

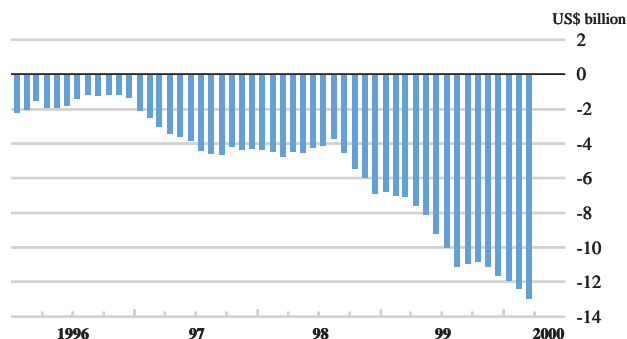
The rapid recovery of the economy, in a context of higher energy prices, led, however, to inflationary tensions and to a widening of the current account deficit. After having reached a low point of 6 per cent in March 1999, 12-month consumer price inflation crawled to slightly above 10 per cent in the first quarter of 2000. The current account deficit widened sharply in 1999 to 7½ per cent of GDP, and this trend continued in early 2000, in part due to higher oil prices. The unemployment rate also increased rapidly, reaching nearly 14 per cent of the labour force in February 2000, owing to the dishoarding of labour by restructuring firms.

Poland

Unemployment is picking up¹



Current account balance still deteriorating²



1. Registered unemployment.

2. Cumulated over 12 months.

Sources: Central Statistical Office and OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Zł | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 243.2 | 6.9 | 4.7 | 5.0 | 4.6 | 4.0 |
| Government consumption | 63.4 | 3.1 | 1.6 | 4.5 | 2.1 | 2.0 |
| Gross fixed capital formation | 80.4 | 21.8 | 14.2 | 6.9 | 9.5 | 9.0 |
| Final domestic demand | 387.1 | 9.4 | 6.4 | 5.4 | 5.4 | 5.1 |
| Stockbuilding ^{a,b} | 4.4 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |
| Total domestic demand | 391.5 | 9.4 | 6.4 | 5.4 | 5.5 | 5.0 |
| Exports of goods and services | 94.2 | 12.2 | 14.3 | -0.7 | 7.5 | 9.0 |
| Imports of goods and services | 100.2 | 21.4 | 18.5 | 4.0 | 8.0 | 8.5 |
| Net exports ^a | -6.0 | -2.7 | -1.8 | -1.6 | -0.7 | -0.4 |
| GDP at market prices | 385.4 | 6.8 | 4.8 | 4.0 | 5.0 | 4.8 |
| GDP deflator | - | 14.0 | 11.7 | 6.9 | 9.6 | 6.5 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | - | 14.7 | 11.5 | 7.3 | 9.6 | 6.5 |
| Industrial production | - | 11.5 | 4.9 | 4.5 | 6.0 | 6.5 |
| Unemployment rate | - | 11.5 | 10.0 | 12.0 | 13.1 | 13.1 |
| General government financial balance ^c | - | -3.0 | -2.5 | -3.5 | -3.0 | -2.6 |
| Current account balance ^c | - | -4.0 | -4.4 | -7.6 | -8.0 | -7.4 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Including statistical discrepancy.

c) As a percentage of GDP.

Source: OECD.

In response to higher inflation, the Monetary Policy Council of the National Bank of Poland has raised its intervention rate from 13 to 17½ per cent in several steps since September 1999. Furthermore, in mid-April 2000, the authorities allowed the zloty to float freely. This decision, which had been expected for some time, allows the formulation of policy to focus mainly on its inflation objective. Notwithstanding these various actions, inflation seems unlikely to come down sufficiently fast to reach the target range of 5.4-6.8 per cent set by the authorities for end-2000. Monetary policy is therefore likely to remain restrictive for some time. Fiscal policy was also tightened in the context of the 2000 budget, after sizeable slippages in the financial situation of the social insurance body (ZUS) last year. The authorities aim at cutting the general government deficit by 1 percentage point of GDP to 2½ per cent. To achieve this goal, value-added tax and excise taxes were increased toward the levels in the European Union, and tax administration was toughened. The stance of macroeconomic policy is therefore more restrictive overall in 2000 than last year.

The stance of monetary and fiscal policies has become less supportive in 2000...

Against this background, real GDP growth is expected to decelerate in the second half of 2000 and in 2001, largely reflecting a slowdown in domestic demand, in particular private consumption. Higher interest rates and joblessness should curtail borrowing by households. Increased indirect taxes are likely to raise inflation temporarily, cutting real wage earnings. On the other hand, the foreign balance should make a less negative contribution to output growth, and the current account deficit should stop widening. With the economic expansion gathering speed in western Europe, and the zloty free to float, exports should begin to edge higher, ending the recent disappointing trend. Imports are projected to decelerate in line with the slowdown in

... leading to a slowdown of growth and lower inflation

domestic demand. Overall, the Polish economy should gradually settle into a slower, but more sustainable, pace of economic expansion, with GDP growth averaging close to 5 per cent this year and next, and consumer price inflation returning to the one-digit zone and losing speed gradually. The prospects for job creation and unemployment, however, remain bleak, as large groups of school-leavers enter the labour market.

*Financial market volatility
remains a potential risk*

The main risk to the projection stems from a possible shift in market sentiment. At present, market participants are generally reassured by the generally sound policy record of the authorities and the large foreign exchange reserves. Nevertheless, the widening of the current account imbalance and the opening of domestic capital markets to non-residents, could lead to temporary market volatility, including on the foreign exchange market. Such a shift in market sentiment could result in a lower exchange rate and higher inflation and, possibly, increased interest rates and slower real output growth.

Portugal

Economic activity picked up towards the end of 1999, boosted by a recovery in exports and supported by strong investment and consumer spending. Unemployment has continued to edge down and inflation has remained stable. Output growth is expected to reach around 3½ per cent in 2000 and 2001, as booming exports more than offset a gradual deceleration of domestic demand. The current account deficit is projected to widen to 10 per cent of GDP in 2000, as imports accelerate and the terms of trade deteriorate. Consumer price inflation is likely to pick up in the sheltered sectors, the labour market remaining tight.

Preventing the intensification of price and wage pressures calls for more ambitious targets for fiscal consolidation and pressing ahead with structural reforms. Strong revenue growth has allowed a further narrowing in the budget deficit in spite of recurrent spending overruns. But if the structural causes of such overruns are not addressed, the fiscal targets for 2000 and 2001 are unlikely to be met without new budget measures, especially since interest rates are expected to rise further.

The economy has entered its seventh year of expansion, with all aggregate demand components growing strongly. Consumer and investment spending have remained buoyant, supported by rising disposable income and the rapid expansion of domestic credit. After a pause in early 1999, exports recovered from mid-year, leading to a firming in activity. Real output growth is estimated at 3.1 per cent for 1999 as a whole. Employment growth has picked up, especially in the services sector and the unemployment rate has continued to edge down, falling to a low of 4 per cent in early 2000. Consumer price inflation has remained broadly stable at around 2 per cent. Rapidly increasing service prices were offset by lower energy prices up to April 2000, as the rise in international oil prices was not passed on to domestic consumers until then. On the external side, the current account deficit is estimated to have reached close to 9 per cent of GDP in 1999, as strong import growth led to a widening trade gap.

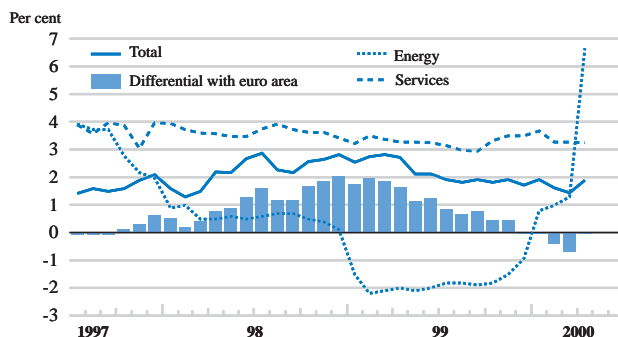
Output growth has accelerated, but inflation has remained moderate

The budget deficit reached an estimated 1.9 per cent of GDP in 1999, slightly better than targeted. As in previous years, significant spending overruns, especially in the health care sector, were more than offset by buoyant tax revenues deriving from improved tax collection and strong domestic demand. Public debt servicing costs also

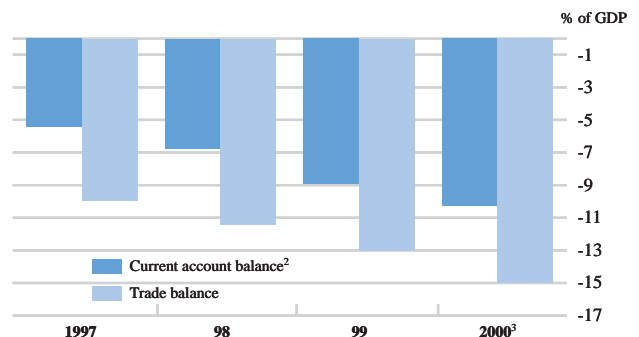
The budget deficit has continued to narrow

Portugal

Inflation remains moderate¹



The current account deficit widens



1. Harmonised index of consumer price. Year-on-year percentage change.

2. The current account balance is presented under the new methodology.

3. Estimate.

Sources: Banco de Portugal; Eurostat.

declined slightly, as older high-yielding long-term debt was repaid. The new Stability and Growth Programme calls for a cut in the budget deficit to 1.5 per cent in 2000 and 1.1 per cent in 2001, leading to a balanced budget in 2004. The authorities expect that current receipts will increase faster than GDP, mostly as a result of measures to curb tax evasion and avoidance, while current spending will slow. Given the expected rise in interest rates and the likelihood of diminishing returns in the fight against tax evasion, the deficit targets for 2000 and 2001 will probably not be met without new budget measures especially if the authorities fail to control the rapid increase in the public sector wage bill and overspending in the health and social security sectors.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------|-------------------------------|------------------------------------------|------|------|-------|-------|
| | current prices billion Esc | Percentage changes, volume (1990 prices) | | | | |
| Private consumption | 10 896.5 | 3.0 | 5.2 | 4.7 | 3.8 | 3.5 |
| Government consumption | 3 045.5 | 2.5 | 3.3 | 3.4 | 3.0 | 2.8 |
| Gross fixed capital formation | 3 996.2 | 11.3 | 9.5 | 6.5 | 6.3 | 6.0 |
| Final domestic demand | 17 938.2 | 5.1 | 6.1 | 5.1 | 4.4 | 4.2 |
| Stockbuilding ^a | 83.3 | 0.1 | 0.5 | 0.1 | 0.0 | 0.0 |
| Total domestic demand | 18 021.5 | 5.2 | 6.5 | 5.1 | 4.4 | 4.1 |
| Exports of goods and services | 5 191.5 | 8.4 | 9.3 | 5.0 | 9.0 | 8.9 |
| Imports of goods and services | 6 427.6 | 10.4 | 13.3 | 8.5 | 9.0 | 8.7 |
| Net exports ^a | -1 236.1 | -2.1 | -3.5 | -3.0 | -1.7 | -1.6 |
| GDP at market prices | 16 785.3 | 3.7 | 3.9 | 3.0 | 3.6 | 3.4 |
| GDP at market prices in billion € | 83.7 | | | | | |
| GDP deflator | – | 2.0 | 4.3 | 2.6 | 2.4 | 2.9 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 2.0 | 2.8 | 2.3 | 2.5 | 2.6 |
| Industrial production ^b | – | 2.6 | 5.7 | 2.0 | 4.5 | 3.5 |
| Unemployment rate | – | 6.8 | 5.0 | 4.4 | 4.1 | 4.0 |
| Household saving ratio ^c | – | 10.4 | 10.6 | 9.5 | 8.7 | 8.2 |
| Current account balance ^d | – | -5.4 | -6.8 | -8.9 | -10.3 | -10.5 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Industrial production index.

c) As a percentage of disposable income.

d) As a percentage of GDP.

Source: OECD.

Activity should remain strong but inflation is likely to pick up

Output growth is projected to pick up to 3½ per cent in 2000 and 2001, as foreign demand continues to strengthen. Interest-sensitive sectors, such as residential construction and consumption of durable goods are likely to slow under the assumption of increasing euro-area interest rates. Overall, however, domestic demand growth should remain healthy, buoyed by rising disposable incomes. Unemployment is expected to stabilise at 4 per cent throughout the projection period, as job losses in construction and the textile industry are more than offset by an increase in employment in other sectors, especially services. Consumer price inflation is likely to rise, reflecting the higher domestic price of oil products

and an intensification of wage pressures as the labour market remains tight. The current-account deficit should reach more than 10 per cent of GDP in 2000, in part as a result of terms of trade losses.

The main domestic uncertainty attaching to the projections concerns the behaviour of wages and prices as the economy continues to operate close to potential: if wages rise faster than projected, there would be both growing inflationary pressures in domestically-oriented sectors and an erosion of competitiveness, bringing a further widening in the external imbalance and lower employment growth.

Uncertainties principally attach to wage and price inflation

Spain

Activity continued to expand strongly in the second half of 1999 despite some deceleration in domestic demand, due to the recovery in exports. Consumer price inflation has risen to 3 per cent in early 2000, and wages have started to accelerate somewhat. Exports are projected to boost economic activity in 2000, while employment will continue to surge.

In the context of rapid growth and in order to reduce overheating risks, the fiscal stance should be tightened. Further reforms in product markets are needed to enhance competition and lower underlying inflation. In addition, job protection legislation should become less stringent, and the wage bargaining process be reformed to eliminate indexation of wages to inflation and to better reflect productivity developments.

Exports have accelerated, but domestic demand has slowed down

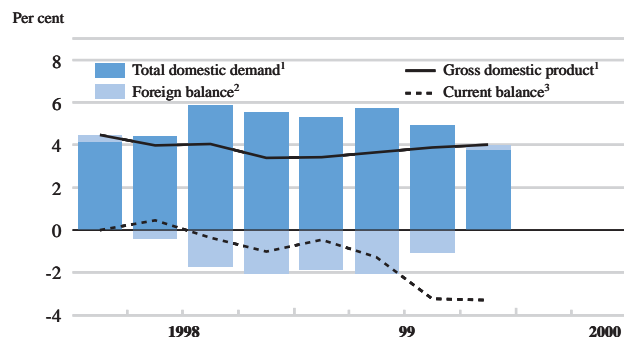
The economy continued its strong growth performance, with accelerating exports compensating for the slight deceleration of domestic demand in 1999. Private consumption growth, which has been supported by brisk job creation and by personal income tax cuts, appears to be slowing but remains strong. Construction and machinery investment also slowed at the end of 1999 from the very high growth rates realised in previous months. But euro depreciation and the recovery in continental Europe have boosted exports so that, despite strong imports, GDP growth has remained vigorous. The current account balance has, however, deteriorated reflecting a terms of trade loss. Job creation has remained buoyant, although its extent may be overstated in the Labour Force Survey statistics. Unemployment has declined further, but at a slower pace, since a pick-up in labour force participation has partly offset employment gains.

Oil prices have pushed up headline inflation

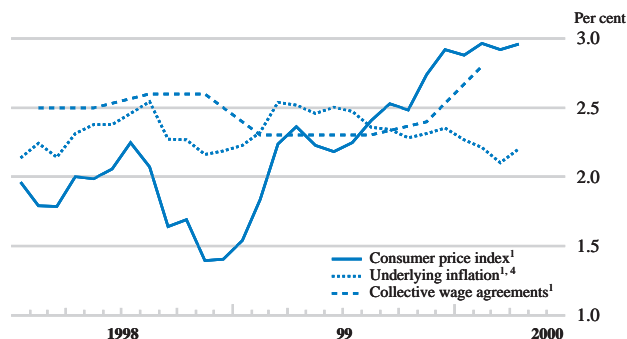
Consumer price inflation hit 3 per cent in early 2000, pushed up by the oil price hike and the euro depreciation, although underlying inflation has drifted down to close to 2 per cent in April 2000. The inflation differential with the euro area average has remained close to 1 percentage point. So far, wage increases have remained subdued, with virtually no real gains in 1999, but recent wage agreements have shown some acceleration, partly as a reaction to higher than expected inflation last year.

Spain

Stronger net exports have supported output growth



Headline inflation has drifted up



1. Year-on-year percentage changes.
2. Contribution to GDP growth.
3. As a percentage of GDP.
4. Excluding non-processed food and energy.

Sources: Ministry of Economy and Finance and National Institute of Statistics.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------------------|--------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion Ptas | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 45 978.1 | 2.9 | 4.1 | 4.4 | 3.7 | 3.5 |
| Government consumption | 13 867.5 | 2.7 | 2.0 | 1.8 | 1.2 | 1.2 |
| Gross fixed capital formation | 16 674.8 | 5.0 | 9.2 | 8.3 | 7.8 | 7.4 |
| Final domestic demand | 76 520.4 | 3.3 | 4.9 | 4.9 | 4.3 | 4.1 |
| Stockbuilding ^a | 211.8 | -0.1 | 0.1 | 0.1 | -0.1 | 0.1 |
| Total domestic demand | 76 732.2 | 3.2 | 5.0 | 4.9 | 4.1 | 4.2 |
| Exports of goods and services | 18 442.1 | 15.1 | 7.1 | 8.5 | 14.5 | 12.1 |
| Imports of goods and services | 18 061.0 | 12.8 | 11.1 | 12.6 | 13.4 | 12.5 |
| Net exports ^a | 381.1 | 0.6 | -1.0 | -1.2 | 0.2 | -0.3 |
| GDP at market prices | 77 113.4 | 3.8 | 4.0 | 3.7 | 4.3 | 3.9 |
| GDP at market prices in billion € | 463.5 | | | | | |
| GDP deflator | – | 2.1 | 2.3 | 3.1 | 2.9 | 2.9 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | – | 2.5 | 2.0 | 2.8 | 3.1 | 2.8 |
| Industrial production | – | 6.1 | 5.4 | 3.2 | 4.0 | 3.4 |
| Unemployment rate | – | 20.8 | 18.8 | 15.9 | 14.1 | 12.9 |
| Household saving ratio ^b | – | 11.4 | 11.1 | 10.2 | 10.0 | 10.0 |
| General government financial balance ^c | – | -3.2 | -2.6 | -1.1 | -0.5 | -0.1 |
| Current account balance ^c | – | 0.4 | -0.2 | -2.1 | -3.2 | -3.2 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of disposable income.

c) As a percentage of GDP.

Source: OECD.

The fiscal stance remains neutral and monetary conditions relaxed

Largely reflecting the favourable macroeconomic context, the general government budget deficit fell to 1.1 per cent of GDP in 1999, below the initial target of 1.8 per cent. Booming tax receipts, lower interest payments and hiring restrictions for civil servants contributed to the better than expected outcome. The hiring restrictions will continue in 2000, although it could become more difficult to enforce them since there are increasing signs of labour shortages in some parts of the public sector. Other budgetary measures, such as the freezing of excise taxes in 2000, higher investment incentives for R&D and enhanced active labour market policies, will tend to loosen the fiscal stance. In addition, pensions have been increased to compensate for higher than expected inflation. Overall, the fiscal stance will remain broadly neutral in 2000. Despite recent rises in short-term interest rates, monetary conditions still appear easy in the light of the advanced cyclical position of the Spanish economy. Overall macroeconomic policies can thus be judged as accommodative for an economy growing above potential and at high levels of capacity utilisation.

Exports will continue to boost activity, and the economy risks overheating

Exports are projected to lift GDP growth to close to 4 per cent in 2000 and 2001. However, higher import prices should more than outweigh net export growth, pushing the current account deficit to above 3 per cent of GDP. Private consumption is expected to grow less than in 1999 since the effect of the income tax reform will vanish and employment creation will be more moderate. With higher interest rates, private investment is also likely to decelerate, especially in construction, although it should remain robust. As a result, domestic demand is projected to edge down to 4 per cent. Inflation will be influenced by the recent evolution of oil prices in 2000, and the consumption deflator could rise by 3 per cent on average, before edging

down to 2¾ per cent in 2001. Real wages should pick up in line with a better performance of labour productivity. The main risk concerns price and cost developments. A sharper increase in wages following the rise in inflation could lead to losses in cost competitiveness. Furthermore, consumption and investment could slow by less than projected. In the context of a high level of consumer confidence and increasing pressure on capacity, stronger than expected domestic demand would add to overheating risks.

Sweden

Economic growth was strong in 1999 and is likely to gain further momentum this year together with a pick-up in export market growth. Demand stimuli from expansionary fiscal policies and increasing household wealth are expected to outweigh the impact of a higher exchange rate and a modest monetary tightening. With GDP expected to rise by almost 4½ per cent this year, output is likely to exceed potential by a significant margin. In 2001 GDP growth is projected to moderate to some 3 per cent, as capacity constraints emerge, leading to higher inflation and loss of market shares.

As in 1999, fiscal policy in 2000 is expected to add further stimulus to domestic demand. The spring budget for 2001 largely complies with previously set expenditure ceilings and tax-cutting decisions have been postponed to the autumn. Notwithstanding the comfortable fiscal surplus, any further tax cuts should be offset by lower public spending. Otherwise monetary policy could come under strain, reinforcing the need for higher interest rates to prevent a significant worsening of inflationary pressures.

The economy expanded vigorously in 1999, underpinned by rapid growth in private consumption and investment but also reflecting surprisingly subdued levels of imports. Despite some moderation in the second half, employment rose by more than 2 per cent for the year as a whole, and unemployment fell by almost 1 percentage point to 5.5 per cent at year-end. Private-sector wage increases have remained broadly stable at a level just above the average of the European Union (EU); and inflation is still lower than in the rest of the EU, largely reflecting the more than 10 per cent appreciation of the kroner vis-à-vis the euro since the beginning of 1999. Inflation expectations remain low, and, following the recent announcement of a government bond buyback programme, the long-term interest rate even dropped below German levels.

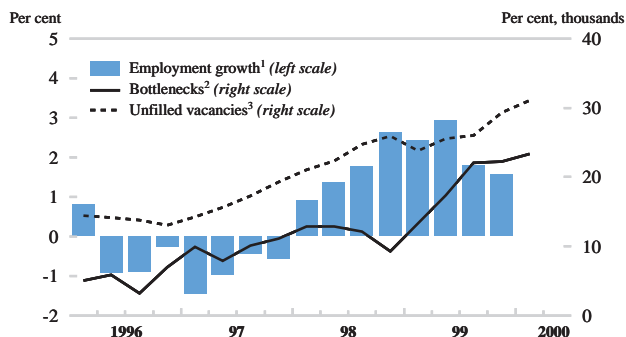
Growth was strong and broadly based in 1999...

The buoyant growth in domestic demand in 1999 reflected stimulative monetary conditions and rising public expenditure. As a result, consumer confidence strengthened, and house prices gained further momentum. Additional stimulus to private consumption may have emanated from the booming stock prices, which in the first quarter of this year were up by almost 80 per cent over year-earlier levels. Underlying

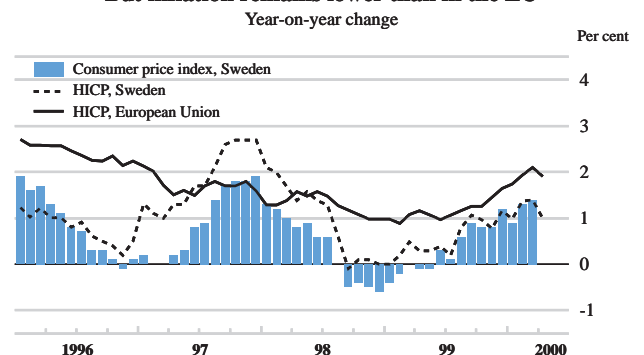
... and is projected to accelerate further...

Sweden

Labour market bottlenecks are spreading



But inflation remains lower than in the EU



1. Year-on-year percentage change.

2. Production restricted by shortage of skilled labour. Percentage balance of opinions.

3. Thousands.

Source: OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|-------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion SKr | Percentage changes, volume (1995 prices) | | | | |
| Private consumption | 884.1 | 1.7 | 2.4 | 4.1 | 5.0 | 4.3 |
| Government consumption | 476.1 | -1.0 | 2.2 | 1.8 | -0.5 | 1.6 |
| Gross fixed capital formation | 276.3 | -2.2 | 9.4 | 8.1 | 7.0 | 7.4 |
| Final domestic demand | 1 636.5 | 0.3 | 3.5 | 4.2 | 3.9 | 4.2 |
| Stockbuilding ^a | 2.7 | 0.5 | 0.3 | -0.5 | -0.2 | 0.1 |
| Total domestic demand | 1 639.1 | 0.8 | 3.9 | 3.6 | 3.6 | 4.3 |
| Exports of goods and services | 685.9 | 13.0 | 7.3 | 5.2 | 9.0 | 5.0 |
| Imports of goods and services | 568.7 | 11.8 | 10.4 | 5.0 | 7.5 | 8.0 |
| Net exports ^a | 117.2 | 1.3 | -0.5 | 0.5 | 1.3 | -0.8 |
| GDP at market prices | 1 756.4 | 2.0 | 3.0 | 3.8 | 4.4 | 3.0 |
| GDP deflator | — | 1.2 | 1.3 | 0.5 | 1.0 | 2.3 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 2.2 | 1.0 | 0.7 | 1.1 | 2.2 |
| Industrial production | — | 6.5 | 4.6 | 2.4 | 7.0 | 4.0 |
| Unemployment rate ^b | — | 8.0 | 6.5 | 5.6 | 4.8 | 4.3 |
| Household saving ratio ^c | — | 2.0 | 2.4 | 1.6 | 1.0 | 0.2 |
| General government financial balance ^{d,e} | — | -1.7 | 1.9 | 1.9 | 2.4 | 3.2 |
| Current account balance ^d | — | 3.1 | 2.9 | 2.5 | 2.8 | 2.1 |

Note: National accounts are based on chain linked data. This introduces a discrepancy in the identity between real demand components and the GDP. See "Sources and Methods" for further details.

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) Based on monthly Labour Force Surveys.

c) As a percentage of disposable income.

d) As a percentage of GDP.

e) Maastricht definition.

Source: OECD.

demand conditions are even more favourable this year, despite the recent policy-controlled interest rate increases. A surge in export market growth and tax cuts of SKr 12 billion (0.7 per cent of GDP) should combine to generate a further acceleration in real disposable incomes and ultimately in private domestic spending.

... with fiscal policy still
expansionary...

The general government financial surplus should increase significantly this year, benefiting from strong cyclical gains in revenues. However, due to the tax cuts, the cyclically-adjusted surplus is expected to shrink from 2.1 per cent of GDP in 1999 to 1½ per cent of GDP this year. The announced spring budget for 2001, which is taken as the basis for OECD projections, keeps expenditures just within the previously set ceilings, allowing the cyclically-adjusted surplus to rise by nearly ½ percentage point to 2 per cent of GDP next year. This rise largely stems from the favourable effects of earlier changes in labour market policies and practices on structural unemployment, and the actual balance rises to over 3 per cent of GDP. However, a decision on whether to cut taxes is to be taken in the autumn.

... adding to the risk of
overheating

With GDP growth projected at almost 4½ per cent this year, a significant positive output gap is expected to emerge, and unemployment is expected to stay below its sustainable level. Skilled labour shortages have spread, even if they are still well below earlier peak levels. In addition, the number of new and unfilled vacancies has increased considerably. There is a risk that such tensions could intensify during the

projection period, contributing to accelerating wage inflation in 2001, when the next private-sector wage round is to take place.

Against this background, monetary policy is expected to be tightened. The short-term interest is assumed to increase by 2 percentage points to 5¾ per cent by the end of next year, implying a widening of the differential *vis-à-vis* the euro countries by ½ percentage point. As a result of this, and also reflecting emerging capacity constraints which are leading to market share losses by Swedish producers at home and abroad, GDP growth is expected to slow to 3 per cent next year. However, even though the slowdown may not be sharp enough to prevent the output gap from widening, the pickup in inflation is not projected to be so severe as to push it much beyond the middle of the Central Bank's target range of 1 to 3 per cent. While the current account is likely to remain in a comfortable surplus, a deterioration of ¾ percentage point of GDP is expected over the projection horizon.

As a result, monetary policy is expected to tighten...

Considerable uncertainty surrounds the degree of any overheating, particularly in 2001. Potential output may be higher than it is assessed to be in the Secretariat's projection. On the other hand, a fall in the kroner or an easing of fiscal policy could increase demand pressures even further.

... although uncertainty remains

Switzerland

The economy recovered vigorously in the second half of 1999 from anaemic growth in the preceding four quarters, led by surging exports and supported by robust household consumption. A broad range of indicators suggest brisk activity will continue in 2000, underpinned by strong export market growth and an overall favourable economic climate. The unemployment rate may bottom out at about 1¾ per cent next year, while inflation is likely to remain below the National Bank's 2 per cent ceiling.

With the economic recovery at an early stage, and inflation low, monetary policy settings should take account of the existing slack in the economy. Fiscal policy should continue to aim at the elimination of the federal budget deficit by 2001 and planned legislation to balance general government finances over the business cycle should be implemented. Stronger efforts should be made to increase competition in the sheltered sectors of the economy, in order to raise total factor productivity and make room for higher economic growth.

A broad-based economic upswing is under way, led by dynamic growth of exports

Real GDP grew at an annual rate of 3¼ per cent in the second half of 1999, led by two-digit growth of goods and services exports and supported by robust household consumption and fixed investment. A novel feature of the recovery is the long-awaited pick-up of construction investment, which had acted as a drag on economic growth during most of the 1990s. The latest indicators point to a continuation of buoyant domestic and foreign demand in 2000, with the KOF/ETH Institute's forward-looking cyclical indicator at its highest level since the late 1980s.

Unemployment has fallen further, while core inflation remains on target

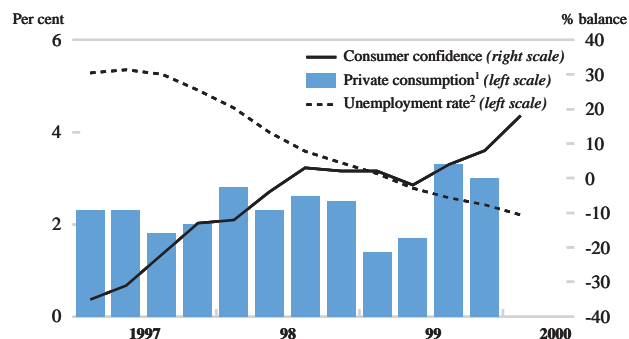
Employment growth accelerated in late 1999 after two quarters of near stagnation. While the rate of registered unemployment fell to 2 per cent of the labour force in the spring of 2000, broader measures – which also include job-seekers participating in labour market programmes – suggest substantially higher labour market slack. Although headline inflation has picked up somewhat, twelve-monthly non-energy inflation remains below 1 per cent, broadly in line with producer price inflation for domestically-produced goods.

Monetary conditions are tightening...

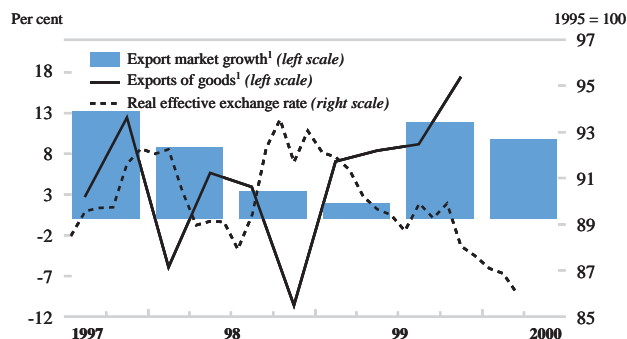
The Swiss National Bank (SNB) abandoned targeting of the monetary base, which had become unstable, and introduced inflation targeting in late 1999, with the three-month Swiss franc Libor rate as the main policy instrument. In view of

Switzerland

Recovering household confidence



Improving external environment



1. Seasonally adjusted in volume terms. Percentage changes over the previous period, at annual rates.

2. As a percentage of labour force.

Sources: KOF/ETH; OECD.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------|------------------------------|------------------------------------------|------|------|------|------|
| | current prices billion SF | Percentage changes, volume (1990 prices) | | | | |
| Private consumption | 219.8 | 1.3 | 2.3 | 2.2 | 2.2 | 2.2 |
| Government consumption | 56.6 | 0.6 | -0.2 | 0.3 | 0.7 | -0.2 |
| Gross fixed capital formation | 73.9 | 1.5 | 4.4 | 3.7 | 4.8 | 5.4 |
| Final domestic demand | 350.3 | 1.2 | 2.4 | 2.3 | 2.7 | 2.7 |
| Stockbuilding ^a | 0.5 | 0.1 | 1.7 | -0.1 | 0.1 | 0.0 |
| Total domestic demand | 350.8 | 1.3 | 4.1 | 2.1 | 2.7 | 2.6 |
| Exports of goods and services | 131.5 | 9.0 | 4.6 | 4.4 | 7.7 | 7.2 |
| Imports of goods and services | 116.4 | 8.1 | 9.4 | 5.3 | 7.3 | 7.0 |
| Net exports ^a | 15.0 | 0.4 | -2.0 | -0.5 | 0.0 | 0.0 |
| GDP at market prices | 365.8 | 1.7 | 2.1 | 1.7 | 2.8 | 2.6 |
| GDP deflator | — | -0.1 | 0.2 | 0.7 | 1.4 | 1.7 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 0.6 | -0.3 | 0.4 | 1.6 | 1.8 |
| Industrial production | — | 4.7 | 3.5 | 2.0 | 2.5 | 3.2 |
| Unemployment rate | — | 5.2 | 3.9 | 2.7 | 2.0 | 1.8 |
| Current account balance ^b | — | 10.1 | 9.3 | 11.3 | 12.1 | 12.4 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of GDP.

Source: OECD.

the possible inflationary consequences of the current upswing, the SNB raised its Libor target range from an initial 1¼-2¼ per cent to 2½-3½ per cent in two steps in February and March 2000, while announcing its intention to keep the actual rate near the centre of the range. The projections below assume some further monetary tightening, broadly in line with moves of the European Central Bank and consistent with the constant exchange rate assumption.

The financial deficit of the Confederation amounted to ¾ per cent of GDP in 1999 and is budgeted to fall to ½ per cent in 2000, with the general government deficit projected at 1¼ per cent of GDP. Given the Confederation's better-than-budgeted outcome for 1999 and a more favourable economic outlook than at budget time, the federal deficit may turn out significantly lower. This makes the achievement of federal budget balance by 2001 highly probable.

... while fiscal consolidation is on track

The economic upswing is projected to be broad-based. Household spending is likely to remain robust given improving real disposable incomes and high consumer confidence, underpinned by favourable developments in the labour market. Exports are being boosted by accelerating export market growth and gains in price competitiveness and this is projected to feed into higher business investment. Construction activity will be supported by large public projects (railways, alpine tunnels). But because of high import penetration, GDP growth may not exceed 2¾ per cent over the next two years. The unemployment rate is unlikely to fall much further, given the expected cyclical pick-up of the labour force and cuts in labour market programmes. The output gap is expected to close in 2001, which is consistent with inflation below the SNB's 2 per cent ceiling.

The recovery from a decade of subdued economic growth may close the output gap

*The exchange rate remains
the major uncertainty*

Changing sentiment in foreign exchange markets about the value of the Swiss franc and the consequent implications for the economy's international competitiveness remain a major uncertainty in the projections. A weaker franc could boost exports by more than projected, while an appreciating exchange rate would entail a dampening impact on the exposed sector of the economy.

Turkey

Turkey suffered a severe recession in 1999, the negative repercussions of the global financial crisis being compounded by the effects of the August and November earthquakes. These adverse factors are now being unwound. Market confidence has increased due to the tough anti-inflation programme agreed with the International Monetary Fund, generating a large decline in real interest rates. Together with post-earthquake reconstruction and more favourable external conditions, this should make for a recovery in output over the next two years, even though its pace will be tempered by the short-term costs of the transition to a low inflation regime.

Confidence in the disinflation strategy depends on a sharp fiscal tightening, designed to stabilise public debt. The progress made in structural reform of the banking, agriculture, social security, and government enterprise sectors is an essential element in effective spending control, and needs to be sustained if a lasting cure to chronic inflation is to be found.

Real GDP declined by 5 per cent in 1999, in response to a series of negative shocks. Extremely high real interest rates in the aftermath of the global financial crisis continued to encourage financial investments in government paper to the detriment of real investment and consumption. The overall output loss from the earthquakes, which hit the industrial heartland, may have amounted to ½ to 1 percentage point of GDP, while tourism receipts collapsed. Despite economic weakness, consumer price inflation increased from mid-1999 onwards, peaking at about 70 per cent in February 2000 before falling back.

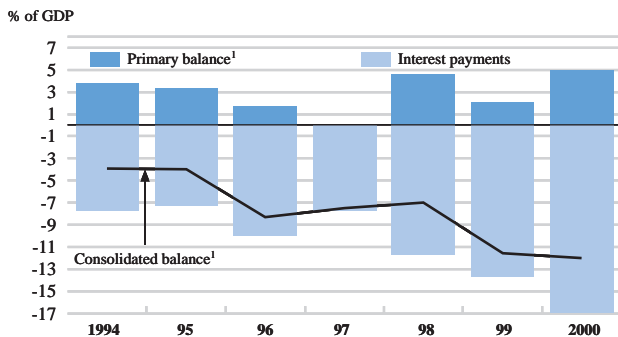
The 1999 recession was severe

Market confidence has been boosted by agreement on an ambitious programme with the International Monetary Fund (IMF), which came into effect this year and seeks to achieve single digit inflation by 2002. Monetary, price, and incomes policies are providing a nominal anchor for inflation expectations, with the rate of exchange rate crawl, public sector prices, rents, the minimum wage (earned by a large part of the labour force) and civil servants' wages all being indexed to targeted inflation. Following the IMF agreement, domestic interest rates declined sharply from around 90 per cent in November 1999 to under 40 per cent at the turn of the year, reflecting both a downward revision of inflation expectations and a sharp decline in risk premia.

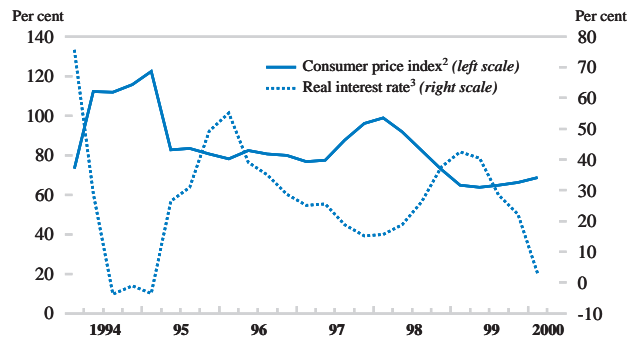
Markets have reacted favourably to the IMF programme

Turkey

The primary balance tightens



Real interest rates have fallen



1. Government definition excluding privatisation receipts. Official target for 2000.
 2. Year-on-year percentage changes.
 3. Short-term interest rate deflated by wholesale price inflation; as of January 2000, a forward-looking framework for inflation expectations is adopted.
 Sources: State Planning Organisation; OECD.

The programme requires a sharp fiscal tightening

The 2000 budget incorporates a fiscal correction of some 6½ per cent of GDP relative to baseline (the latter reflecting unchanged policies plus the costs of the earthquake), with the primary surplus-to-GDP ratio scheduled to rise to 5 per cent (4 per cent on the IMF definition). Even so, the consolidated deficit will rise to 12 per cent of GDP this year, given that interest payments will amount to 17 per cent of GDP. The positive budgetary impact of recent interest rate declines will not be felt until 2001. With the accelerated privatisation programme expected to raise \$7.5 billion, the debt/GDP ratio should nevertheless stabilise after surging from 44 to 58 per cent in 1999. Structural reforms have laid the groundwork for better expenditure control, with significant actions having been taken in the fields of social security, agricultural support and state-owned banks.

Demand, output and prices

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------------------|-------------------------------|------------------------------------------|------|-------|------|------|
| | current prices trillion TL | Percentage changes, volume (1987 prices) | | | | |
| Private consumption | 9 938 | 8.4 | 0.6 | -3.1 | 3.0 | 4.5 |
| Government consumption | 1 709 | 4.1 | 7.8 | 6.5 | 4.3 | 4.0 |
| Gross fixed capital formation | 3 706 | 14.8 | -3.9 | -16.0 | 10.6 | 8.1 |
| Final domestic demand | 15 353 | 9.9 | -0.2 | -6.0 | 5.0 | 5.4 |
| Stockbuilding ^a | - 80 | -0.9 | 0.9 | 2.1 | 0.0 | 0.0 |
| Total domestic demand | 15 274 | 9.0 | 0.6 | -4.0 | 4.9 | 5.3 |
| Exports of goods and services | 3 182 | 19.1 | 12.0 | -7.0 | 10.0 | 4.5 |
| Imports of goods and services | 4 111 | 22.4 | 2.3 | -3.7 | 11.5 | 8.5 |
| Net exports ^a | - 928 | -1.9 | 2.6 | -0.9 | -1.0 | -1.7 |
| Statistical discrepancy ^a | 427 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| GDP at market prices | 14 772 | 7.5 | 3.1 | -5.0 | 4.2 | 3.9 |
| GDP deflator | — | 81.5 | 75.7 | 56.0 | 52.0 | 21.0 |
| <i>Memorandum items</i> | | | | | | |
| Private consumption deflator | — | 82.1 | 83.0 | 60.7 | 53.8 | 20.2 |
| Unemployment rate | — | 6.4 | 6.3 | 7.3 | 7.2 | 7.2 |
| Current account balance ^b | — | -1.3 | 1.1 | -0.9 | -2.3 | -2.1 |

a) Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.

b) As a percentage of GDP.

Source: OECD.

Though growth will be sustained by lower real interest rates as disinflation proceeds

Inflation is projected to decline steadily, although contracted increases in some wage and price sectors, as well as the overhang from high inflation in the early months of the year, imply that the 25 per cent end-year target for consumer price inflation may not be reached until early 2001. Single-digit inflation should be achievable in the course of 2002. Output growth should gather momentum as lower interest rates and reconstruction (expected to add 1 percentage point to 2000 growth) spur investment. Exports of goods and services should recover with accelerating global activity, including a reinvigorated “shuttle trade” with Russia, and a recovery in tourism. However, export market share losses and stronger import penetration are projected given the expected real exchange rate appreciation. The real incomes of workers whose wages have been indexed are likely to fall in 2000, but the effects of lower interest rates will be positive, maintaining consumption growth. GDP growth could thus be around 4 per cent both this year and next. With import growth strong,

the current account deficit is expected to widen to about 2¼ per cent of GDP this year, though narrowing somewhat in 2001.

The main risks relate to the implementation of the disinflation programme. Progress in reducing inflation expectations depends on the pace of structural and budget reform being maintained.

*Political commitment to
the programme is essential*

III. DEVELOPMENTS IN SELECTED NON-MEMBER ECONOMIES

Economic prospects in most of the non-member economies have improved over the past six months. Recoveries in most of dynamic Asia have been stronger than expected while economic growth in China is no longer slowing and could pick up moderately over the next two years. Activity in Russia has been led by industry and has received an additional boost from stronger export prices, while progress in macroeconomic stabilisation and fiscal consolidation is encouraging. Growth in much of the South America region, particularly in Brazil, also appear to be gaining momentum.

These positive trends are likely to continue in the near future. Overall, downside risks have eased noticeably but have not entirely disappeared. The possibility of a “hard landing” of the US economy poses probably the greatest external risk, while several non-member economies remain vulnerable to financial problems in banks and corporations.

Dynamic Asia and China

Economic recoveries in dynamic Asia have continued to gain momentum. They have been strongest in Malaysia, Thailand, Singapore, and, more recently, Hong Kong, China. The main exception is Indonesia, where growth has revived but remains considerably weaker and more fragile than elsewhere in the region. The surge in activity during 1999 was led by strong export growth and expansionary fiscal policy, and was further boosted by inventory restocking – which also led to a marked acceleration in imports.

Economic recoveries in dynamic Asia are gaining momentum

Underlying conditions favour continuation of an economic expansion that will become increasingly reliant on private domestic demand. Private consumption is recovering and should gain further momentum as employment growth picks up in response to the rebound in output. Judging by the strength of regional currencies and equity markets, confidence has improved substantially. Although measured inflation has increased moderately with the rise in oil prices, core inflation remains quite low. This should allow monetary policy to continue to support growth, and monetary conditions could ease further if bank and corporate financial positions improve enough to alleviate present credit supply constraints. These factors provide a solid foundation for a recovery in business investment, although depressed property prices and high if declining excess capacity may delay an investment surge until next year. Exports should remain strong given the rapid projected growth in world trade. But slower export growth and rising investment are likely to lead to a significant decline in current account balances – although in most cases they will stay in surplus.

Conditions favour continued growth based on private demand

Significant if gradual progress is being made in dealing with the financial problems of the banking and corporate sectors. In Thailand, where the government has relied heavily on market led restructuring, non-performing loans (NPL) have fallen significantly, although they were still nearly forty percent of total bank loans at the end of 1999. Progress is also being made in working out corporate sector problem loans and in lowering debt-equity ratios, but much more remains to be done. Financial

Financial problems are easing gradually

restructuring is further along in Malaysia, due in part to the assumption of more than one-third of NPL by the government's bank restructuring agency, Danaharta. In Indonesia financial restructuring is at a much earlier stage and remains an important constraint on economic recovery. Banking sector reform there has been slowed by problems surrounding the bank restructuring agency and only a small fraction of the external debt of the corporate sector has been restructured. The costs of financial restructuring and efforts to cushion the social consequences of the prior downturns have led to substantial increases in budget deficit and debt levels in the crisis countries that will require significant fiscal consolidation over the next several years.

*Downside risks have declined
but have not disappeared*

Overall, downside risks have declined considerably but have not disappeared altogether. Given generally favourable fundamentals and provided financial restructuring remains on track, the rise in oil prices is likely to have only a modest negative impact on real growth for the region. However recoveries, which during 1999 were financed in large part by trade credit and other external sources, will become more vulnerable to setbacks in the financial restructuring process as growth becomes more dependent on private domestic spending. The greatest external risk appears to be posed by a possible "hard landing" of the United States economy, particularly if it were accompanied by sharply rising US interest rates. The repercussions on interest rates and exports of dynamic Asia could significantly set back, although probably not abort, their recoveries.

*The economic slowdown in
China has ended...*

In China, the growth slowdown ended in the second half of 1999, helped by a recovery in consumption and in net merchandise trade. A number of signs suggest that growth may be rebounding moderately. Consumption has started to pick up recently, as indicated by rising retail sales. The revival reflects rising real income growth, due in part to increased welfare payments and a pay hike for civil servants. Reported enterprise profits rose in 1999 for the first time since 1996. Investment by non-state enterprises has also begun to recover. Price deflation has been moderating since mid-1999. After declining in 1998 and the first half of 1999, China's exports have been rising strongly since the second half of 1999, helped by strong global, and particularly regional, demand growth.

*... with real GDP growth
expected to pick up modestly...*

Real GDP growth is expected to pick up modestly in 2000-2001, to around 7½ to 8 per cent, supported by a further acceleration in consumption, expansionary fiscal policy, and continued growth in exports. Real interest rates should fall as price deflation comes to an end. In addition to increased government expenditure allocated for social security programmes, the government will issue 100 billion yuan (about \$12 billion) in extra-budgetary bonds to fund infrastructure projects mainly in under-developed western regions; and to finance technical upgrading of the state-owned enterprises (SOE).

*... and the balance of payments
remaining favourable*

Provided external demand remains strong, exports will maintain their growth momentum. However, imports are also likely to continue to grow rapidly, fuelled by government infrastructure spending and increasing investment by enterprises. Robust growth of exports, most of which are processed goods using imported materials, will also boost imports. The current account surplus is expected to narrow over the projection period, but should remain positive. Expectations that China will soon join the World Trade Organization (WTO) are likely to raise foreign direct investment inflows, which declined last year.

*Structural reforms there will
continue...*

In the coming years, the government is expected to intensify its efforts to reform China's ailing SOE sector, the weak financial sector and nascent social security system. SOE performance improved last year as a result of: substantial reductions in excess production capacity and in surplus labour in key sectors; debt write offs and

Table III.1. Projections for selected Asian economies^a

| | 1998 | 1999 | 2000 | 2001 |
|------------------------------------|-------|------|------|------|
| China | | | | |
| Real GDP growth | 7.8 | 7.1 | 7.7 | 7.9 |
| Domestic demand growth | 7.9 | 7.6 | 7.8 | 8.2 |
| Inflation | -2.5 | -2.9 | -1.0 | 0.5 |
| Current account balance (US\$ bn) | 29.3 | 13.5 | 10.7 | 7.4 |
| Current account balance (% of GDP) | 3.1 | 1.4 | 1.0 | 0.6 |
| Hong Kong, China | | | | |
| Real GDP Growth | -5.1 | 2.9 | 5.2 | 5.5 |
| Domestic demand growth | -8.5 | -2.2 | 5.9 | 6.1 |
| Inflation | 2.6 | -3.3 | -0.5 | 1.5 |
| Current account balance (US\$ bn) | 0.8 | 7.0 | 5.8 | 4.6 |
| Current account balance (% of GDP) | 0.5 | 4.2 | 3.3 | 2.5 |
| Indonesia | | | | |
| Real GDP growth | -13.2 | -0.5 | 3.0 | 4.2 |
| Domestic demand growth | -17.2 | -3.0 | 2.8 | 6.2 |
| Inflation | 60.0 | 20.0 | 2.6 | 5.0 |
| Current account balance (US\$ bn) | 4.0 | 6.5 | 8.0 | 4.5 |
| Current account balance (% of GDP) | 4.6 | 5.0 | 5.7 | 3.0 |
| Malaysia | | | | |
| Real GDP growth | -7.5 | 5.1 | 6.2 | 6.0 |
| Domestic demand growth | -25.2 | 2.1 | 8.2 | 8.2 |
| Inflation | 5.3 | 0.0 | 2.5 | 3.5 |
| Current account balance (US\$ bn) | 9.6 | 12.6 | 11.7 | 9.0 |
| Current account balance (% of GDP) | 13.8 | 16.6 | 14.3 | 10.0 |
| Philippines | | | | |
| Real GDP growth | -0.5 | 3.0 | 3.5 | 3.7 |
| Domestic demand growth | -7.5 | -1.7 | 5.5 | 5.5 |
| Inflation | 9.4 | 7.0 | 5.0 | 5.0 |
| Current account balance (US\$ bn) | 1.4 | 7.2 | 5.7 | 3.3 |
| Current account balance (% of GDP) | 2.1 | 9.7 | 6.1 | 3.9 |
| Thailand | | | | |
| Real GDP growth | -10.0 | 4.2 | 5.5 | 6.1 |
| Domestic demand growth | -26.2 | 5.0 | 7.8 | 8.0 |
| Inflation | 8.1 | 0.0 | 2.0 | 3.5 |
| Current account balance (US\$ bn) | 14.2 | 11.2 | 8.9 | 6.9 |
| Current account balance (% of GDP) | 12.5 | 8.6 | 6.5 | 4.6 |

a) The figures given for GDP and inflation are percentage changes from the previous period. Inflation refers to the Consumer Price Index except in China, where the retail price index is used. Current account estimates for Hong Kong, China correspond to net exports of goods and services on a national accounts basis and therefore exclude investment income and transfers.

Source: Figures for 1999 are preliminary figures from national sources or OECD estimates. Figures for 2000 and 2001 are OECD projections.

debt-equity swaps for large SOEs; the steady decline in interest rates; the anti-smuggling campaign; and the exit of many of the worst performing SOE. This year, the authorities will continue to accelerate the reform of large and medium-sized SOE with a view to achieving the goal of returning the majority to profitability by 2001. The downsizing and restructuring of the SOE sector is also likely to accelerate following the government's announcement, in September 1999, that the state will withdraw from most industries except for those deemed strategically essential to the economy. China's prospective entry into the WTO will provide additional impetus for the reforms as both SOE and banks need to prepare themselves for greater foreign competition.

Over the longer term, China's macroeconomic performance will depend greatly on the success of ongoing structural reforms as well as on sustained growth of the non-state sector. Despite the progress that has been made so far, the SOE sector continues to be plagued by a range of problems; and the performance of non-state enterprises

... but reasonably fast progress is needed

has also deteriorated substantially. At the same time, reforms need to show results at a reasonably fast pace so that fiscal stimulus does not have to be unduly prolonged. Otherwise, given government debt levels that are rising rapidly (although, at less than 20 per cent of GDP, the debt is still low by international standards), the large burdens that are likely to be entailed by the resolution of bank non-performing loans and the need to establish a comprehensive social security system, fiscal sustainability could become a serious constraint on real growth and the reform process.

Russian Federation and Central and Eastern Europe

The Russian economy continues to show signs of recovery and industrial expansion

The Russian economy continues to show signs of recovery and industrial expansion. Many export-oriented and import-substituting sectors have taken advantage of a weaker rouble and, since the second half of 1999, stronger prices for oil and some other key exports. Although much of the growth in 1999 can be interpreted as a recovery from the particularly dismal year of 1998, preliminary data show an additional pick up since late 1999 and early 2000, a trend that is also confirmed in business surveys. Industrial output was reportedly up by 10 per cent year on year in the first quarter.

Domestic demand and investment are recovering gradually, but questions remain

While still depressed, real incomes and domestic demand have experienced some limited recovery since the fourth quarter of 1999, and may now be contributing to the upward trend in output. The food and light industries showed particularly strong growth in the latter half of 1999, while retail trade volume has also increased. The recovery in investment has lagged behind that of output, although newly-revised official estimates show a partial recovery in fixed capital investment during 1999, the vast majority of which came in the second half of the year. The new-found profitability of a number of industrial firms may be related not only to the weaker rouble and strong export prices, but also to severely repressed domestic prices for energy and transportation. This latter factor continues to raise questions about the quality and sustainability of current industrial growth.

Trends in macroeconomic stabilisation have been encouraging, and the current account position has strengthened

Trends in macroeconomic stabilisation have been encouraging. Following the very high inflation of the second half of 1998 and early 1999, monthly consumer price increases have averaged less than 2 per cent during the year between March 1999 and March 2000. Although low absolute levels of foreign reserves and substantial foreign debt servicing requirements indicate continued fragility, Russian gross gold and currency reserves have begun to increase, moving from roughly \$11 in the first three quarters of 1999 to over \$16 billion by April 2000. This is paralleled by a major strengthening of the Russian current account position, due primarily to a strong contraction of imports after the depreciation of the rouble. The current account surplus moved from \$2 billion in 1998 to \$25 billion in 1999.

Targets for federal budgetary consolidation have been met

Higher export taxes and a greater share of value-added tax revenue helped to boost federal tax collection and budgetary (cash) revenue well beyond the targets set in the 1999 budget law. Despite exceeding budgetary expenditure targets, the federal government succeeded in meeting its target for a primary budgetary surplus of 2 per cent of GDP in 1999, with an overall federal deficit of 1.7 per cent. Budgetary trends have remained positive in early 2000, and the federal government actually ran a budgetary surplus in the first quarter of the year. The budgetary situation at the regional

and local levels of government remains more difficult. In 1999, the share of tax revenue accruing to consolidated regional budgets (as opposed to the federal budget) declined by 0.5 per cent of GDP, while the reliance on various forms of money surrogates remained significant at 35 per cent of all tax revenue.

The general outlook for the Russian economy now appears more favourable than in the recent past. The new momentum in industrial output should contribute to another year of at least moderate GDP growth while incomes, domestic demand and investment should also continue a gradual recovery. Although the revival of demand will lead to some import growth in 2000, stronger average prices for a number of Russian exports should have the effect of strengthening the current account still further in 2000 relative to 1999. As the Russian authorities are reluctant to allow nominal appreciation of the currency, and opportunities for sterilising foreign exchange market interventions are still limited by the weakness of financial markets, a stronger current account could have the effect of pushing money supply and inflation somewhat beyond official targets. Russia is making progress in improving relations with foreign creditors, as witnessed in the important agreement on debt restructuring with the London Club in February 2000. The resolution of political uncertainty after the parliamentary elections of late 1999 and the presidential elections of March 2000, along with the economic recovery, provide a valuable opportunity for the Russian government to make progress on key structural reforms. Medium and long-term prospects continue to depend on these reforms.

The general outlook for the Russian economy appears more favourable

The authorities in the Slovak Republic have consolidated efforts to reduce severe imbalances in the fiscal account and balance of payments. The State budget deficit came in a little below its target of 2 per cent of GDP, although the general government deficit was almost double this due to the deficits on extra-budgetary welfare funds. Weak domestic demand combined with significant export growth, in particular to the European Union (EU), led to a dramatic reduction in the current account deficit. Inflation increased as the government has liberalised controlled prices, although underlying inflationary pressures remain weak.

A major internal and external adjustment has occurred in the Slovak Republic...

Table III.2. Projections for Russia and the Slovak Republic^a

| | 1998 | 1999 | 2000 | 2001 |
|-----------------------------------------------------|-------|------|------|------|
| Russia | | | | |
| Real GDP growth | -4.9 | 3.2 | 4.0 | 3.0 |
| Inflation | 84.4 | 36.7 | 20.0 | 20.0 |
| Unemployment (ILO definition) | 13.3 | 12.0 | 11.0 | 11.5 |
| Consolidated fiscal balance (% of GDP) ^b | -5.6 | -2.0 | -1.5 | -1.5 |
| Current account (US\$ bn) | 2.4 | 25.0 | 35.0 | 16.0 |
| Current account balance (% of GDP) | 0.5 | 14.0 | 15.4 | 5.7 |
| Slovak Republic | | | | |
| Real GDP growth | 4.4 | 1.9 | 2.0 | 3.0 |
| Inflation | 5.6 | 14.2 | 10.0 | 8.0 |
| Unemployment (registered) | 15.6 | 19.2 | 18.5 | 16.0 |
| Consolidated fiscal balance (% of GDP) ^b | -4.8 | -3.6 | -4.5 | -4.0 |
| Current account (US\$ bn) | -2.0 | -1.1 | -1.1 | -1.2 |
| Current account balance (% of GDP) | -10.1 | -5.6 | -5.5 | -5.0 |

a) The figures given for GDP are percentage changes from previous year. Inflation refers to end-of-year consumer price index.

b) For Russia, it includes federal, regional and local budgets. In the Slovak Republic, it includes central and local governments and public funds.

Source: Figures for 1998 are final figures from national sources, figures for 1999 are preliminary estimates from national sources or OECD estimates, and figures for 2000 and 2001 are OECD projections.

... where progress has been made in restructuring the banking sector

Following earlier austerity packages, growth weakened as public consumption and investment fell, and unemployment rose to record levels. Even so, GDP growth for the year was nearly 2 per cent. The government will come under sustained fiscal pressure during 2000-2001 as it continues with structural reforms needed to promote sustainable growth. These relate in particular to the enterprise sector and welfare provision. Significant progress was made in the banking sector. The main state-owned commercial banks have been recapitalised and a large tranche of non-performing loans has been transferred to state-owned consolidation agencies. The government intends to sell majority stakes in the three large commercial banks during 2000. However, it will need considerable political commitment to drive through the necessary reforms that remain.

The outlook is rather varied in other transition countries

In other transition countries adjustment is also under way, notably in the three Baltic States where there are signs that the hangover from the Russian exchange rate crisis of August 1998 is coming to an end, even though they are not all recovering at the same speed. Given the limited monetary policy options available under fixed exchange rate arrangements, these countries had to tighten fiscal policy. As a result, domestic demand is only expected to recover slowly. Growth in the EU will give an added impetus to trade reorientation catalysed by the crisis in Russia. The situation in South East Europe is mixed. The Balkans have had to contend with the political instability associated with the conflict in the former Yugoslavia, while resources expected under the Stability Pact for South East Europe have not yet begun to flow on the hoped-for scale.

South America

Recovery in South America is underway

The recovery in the South America region that started in late 1999 is gaining momentum. With the exception of Argentina, where the situation remains fragile, and Ecuador, where the financial crisis is still unsolved and uncertainty regarding the viability of the dollarisation plan is high, most countries are recovering strongly. Fiscal adjustment undertaken in many of them and a renewed focus on labour market and other structural reforms have contributed to a significant improvement of market sentiment towards the region. Output in the region is projected to recover in 2000, led by export growth in the first half of the year and by domestic demand in the second, and could accelerate in 2001. Growth in 2000 is likely to be moderate (around 2½ per cent), due to the need for continued fiscal tightening in most countries and to international upward pressures on interest rates. The largest downside risk for the region is related to a negative reaction of international capital markets to monetary tightening in the United States possibly combined with a weakening of its economy.

In Brazil, growth is rebounding...

In Brazil, rising car sales and banking cash operations point to some recovery of domestic demand. Consumer confidence has been rising steadily since November last year. At the same time, consumer price inflation has remained moderate at around 7 to 8 per cent. The appreciation of the currency since the trough in October 1999 has contributed to alleviating inflationary pressures. The trade balance moved to a surplus of \$26 million in the first quarter of 2000 compared to a deficit of \$816 million for the same period last year.

A cautious monetary policy has also helped control inflationary pressures. Official interest rates declined by ½ percentage point to 18½ per cent at the end of March, the first adjustment since September 1999. Nevertheless some monetary easing is coming from other measures, like the recent lowering of commercial bank reserve requirements which is expected to increase consumer lending. Budget programme targets were met in 1999 and progress in fiscal reform continues, but the consolidated budget remains a major concern. Congress has recently passed two key laws: a Fiscal Responsibility Law, intended to improve fiscal discipline in public spending at the state level, and a Stabilisation Fund Law, designed to increase flexibility and facilitate spending cuts in the federal budget.

... under sustained macroeconomic stabilisation

Supported by a favourable external environment, the Brazilian economy is expected to grow by over 3 per cent in 2000, underpinned by both domestic and external factors. Rising employment, recovering real incomes and some easing of monetary conditions should stimulate private consumption in the second half of the year. Both private consumption and investment are projected to support a 4 per cent growth of GDP in 2001. After the large 1999 adjustment, fiscal policy will be less of a drag on growth this year and next; at the same time, lower interest payments and faster growth will allow for a halving of the fiscal deficit. Strong exports are expected to result in trade surpluses in 2000 and 2001. However, this will be making only a small offsetting contribution to the large deficit in the investment income balance, so that the current account deficit is likely to remain above 3 per cent of GDP.

An overall positive outlook is predicted there...

Risks are mainly on the downside. Concerning external factors, a negative reaction to tighter monetary policy in the United States and Europe, leading to sharp rises in international interest rates, could halt the incipient recovery and raise new doubts about the sustainability of public finances. On the domestic side, a relaxation of fiscal discipline and failure to undertake medium and long-term reforms, particularly that of the social security system, would damage market confidence and result in higher interest rates. Inflation, already near the top of the officially targeted band, might be under pressure from rising oil prices, increases in administered prices and the 11 per cent rise in the minimum wage in April. Accelerating inflation would call for a tightening of monetary policy that would weaken growth.

... but there are downside risks associated with external monetary conditions

In Argentina, industrial activity is finally showing some signs of recovery, confined at this stage to export-oriented sectors and to the automobile sector – the latter helped by the introduction of temporary fiscal incentives for car replacement. Domestic demand is still sluggish, with retail sales still falling in the first two months of the year and business and consumer confidence remaining weak. The rise in fuel prices puts some upward pressure on prices in an otherwise deflationary situation. The trade deficit is narrowing helped by high oil prices and strong wheat exports together with sluggish imports.

The Argentine economy is recovering only slowly...

The new government, which took office in December 1999, successfully passed through Congress the 2000 budget that included a tax-increase package. It has also recently passed a modest labour market reform, now waiting the vote of the Senate, and has prepared a comprehensive programme of other structural reforms. This programme includes changes in the financing arrangements for the provinces, intended to enforce fiscal discipline, measures to strengthen the social security accounts, improvements in public administration, and measures to enhance competition in sectors like energy and telecommunications. To support the overall economic strategy, a new agreement with the International Monetary Fund was reached in March providing a three-year standby loan of \$7.2 billion. Debt financing in international markets

... with the new government undertaking structural reforms...

Table III.3. Projections for Brazil and Argentina

| | 1998 | 1999 | 2000 | 2001 |
|----------------------------------------|-------|-------|-------|-------|
| Brazil | | | | |
| Real GDP growth | -0.1 | 0.8 | 3.2 | 4.1 |
| Inflation ^a | 3.5 | 4.3 | 7.5 | 5.5 |
| Fiscal balance (% of GDP) ^b | -8.0 | -10.0 | -5.0 | -4.0 |
| Primary fiscal balance (% of GDP) | 0.0 | 3.0 | 3.3 | 3.5 |
| Current account balance (US\$ bn) | -33.6 | -24.4 | -21.2 | -21.1 |
| Current account balance (% of GDP) | -4.3 | -4.4 | -3.5 | -3.3 |
| Argentina | | | | |
| Real GDP growth | 3.9 | -3.0 | 2.6 | 3.5 |
| Inflation ^a | 0.7 | -1.2 | 1.0 | 2.0 |
| Fiscal balance (% of GDP) ^c | -1.4 | -2.6 | -1.5 | -1.0 |
| Current account balance (US\$ bn) | -14.5 | -12.8 | -13.2 | -14.1 |
| Current account balance (% of GDP) | -4.8 | -4.5 | -4.4 | -4.5 |

a) Consumer Price Index average annual growth rate.

b) General government.

c) Central government, excluding privatisation receipts.

Source: Figures for 1999 are preliminary figures from national sources or OECD estimates. Figures for 2000 and 2001 are OECD projections.

is proceeding smoothly, despite sizeable financing needs, but interest rate spreads remain high.

... which are a key condition underlying the outlook

In 2000, improved market sentiment and favourable external demand environment should provide support for recovery. However, only moderate growth is projected, since the decline in the country risk premium that might come from the structural reforms will be partly offset by rising international interest rates. The rise in taxes is also likely to restrain private consumption. In 2001, lower public financing needs would allow further declines in domestic interest rates. This and improved competitiveness from the implementation of structural reforms should underpin a 3½ per cent growth of GDP. The key assumption for this outlook is the gradual decline of domestic interest rates, which is conditional upon both a timely passage of the reforms currently under discussion and on the government's commitment to the fiscal targets. In spite of the depressed domestic demand, the large current account deficit remains a major concern.

IV. REGULATORY REFORM IN NETWORK INDUSTRIES: PAST EXPERIENCE AND CURRENT ISSUES

Introduction

At different speeds, and starting at different times in the past 20 years, OECD countries have been reforming product market regulations, improving regulatory techniques and adapting them to changing market and technological conditions. Reforms concerned both inherently competitive industries (such as road freight and retail distribution) and so-called network industries, in which non-competitive and competitive segments co-exist.¹ Entry and prices in previously restricted markets have been liberalised. The role of the state as an owner of enterprises selling goods and services in the market has been reduced. New regulations have been designed to promote competition and ensure that traditional public interest goals can be met within an increasingly competitive framework. The objectives of regulatory reforms were to lower costs, enhance consumer welfare, and give greater incentives to producers to innovate.

Regulatory reform was widespread in the past two decades...

This chapter summarises the main lessons to be drawn from recent experience building on a substantial body of analytical work.² Focusing on industries with fixed network elements, it describes how and which reforms have been pursued in Member countries, the extent to which objectives have been met, and what new challenges governments face in a more liberalised market.

... and some lessons can be learned concerning network industries

Evolving regulation: trends and outcomes

Regulatory reforms have had three, often concurrent, dimensions: liberalisation, state retrenchment and new regulatory design. In network industries, liberalisation and state retrenchment were mainly concerned with liberalising access to markets that had previously been restricted by legal and regulatory barriers, and putting into

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1. In this chapter, network industries are defined as those industries in which a fixed infrastructure is needed to deliver the goods or services to end users, *e.g.* telephone or electricity cables and wires, railtrack, and airport runways.
 2. A fuller discussion of trends, outcomes and issues in regulatory reform can be found in Gonenc *et al.* (2000). Regulatory reform in retail distribution and road freight has been analysed in Boylaud (2000). Detailed analyses of the patterns and effects of regulatory reform in the telecommunications, electricity and air travel industries of OECD countries can be found in Boylaud and Nicoletti (2000), Steiner (2000) and Gonenc and Nicoletti (2000), respectively.

Box IV.1. The OECD International Regulation Database

The OECD International Regulation Database is a comprehensive and internationally-comparable set of information about the state of regulation and market structures in OECD countries. For each Member country, it contains around 1000 observations, both quantitative and qualitative. The areas covered are economy-wide regulations concerning product markets (state control of business enterprises, legal and administrative barriers to entrepreneurship, barriers to international trade and investment, competition policies) and industry-specific regulations and market structures (in telecommunications, electricity supply,

transportation and retail distribution). The database provides a “snapshot” of regulatory and market environments in 1998, as well as (for some industries) a time-series of regulations and market structures covering the past 15 years. The main sources of information are the responses of OECD countries to an *ad hoc* questionnaire, OECD Secretariat expertise and data published by the OECD and other international organisations. The data collected were extensively checked by OECD and government experts. The database will be made publicly available on the OECD website (www.oecd.org) in summer 2000.

the private sector activities that had been run directly by the government. This section provides a summary description of the OECD-wide evolution of these two dimensions of regulatory reform over time, partly drawing on data contained in the OECD International Regulation Database (see Box IV.1).³ Issues of new regulatory design, which are more difficult to summarise and require a more detailed discussion, are addressed in the next section.

Markets have been liberalised, especially in air travel and telecommunications...

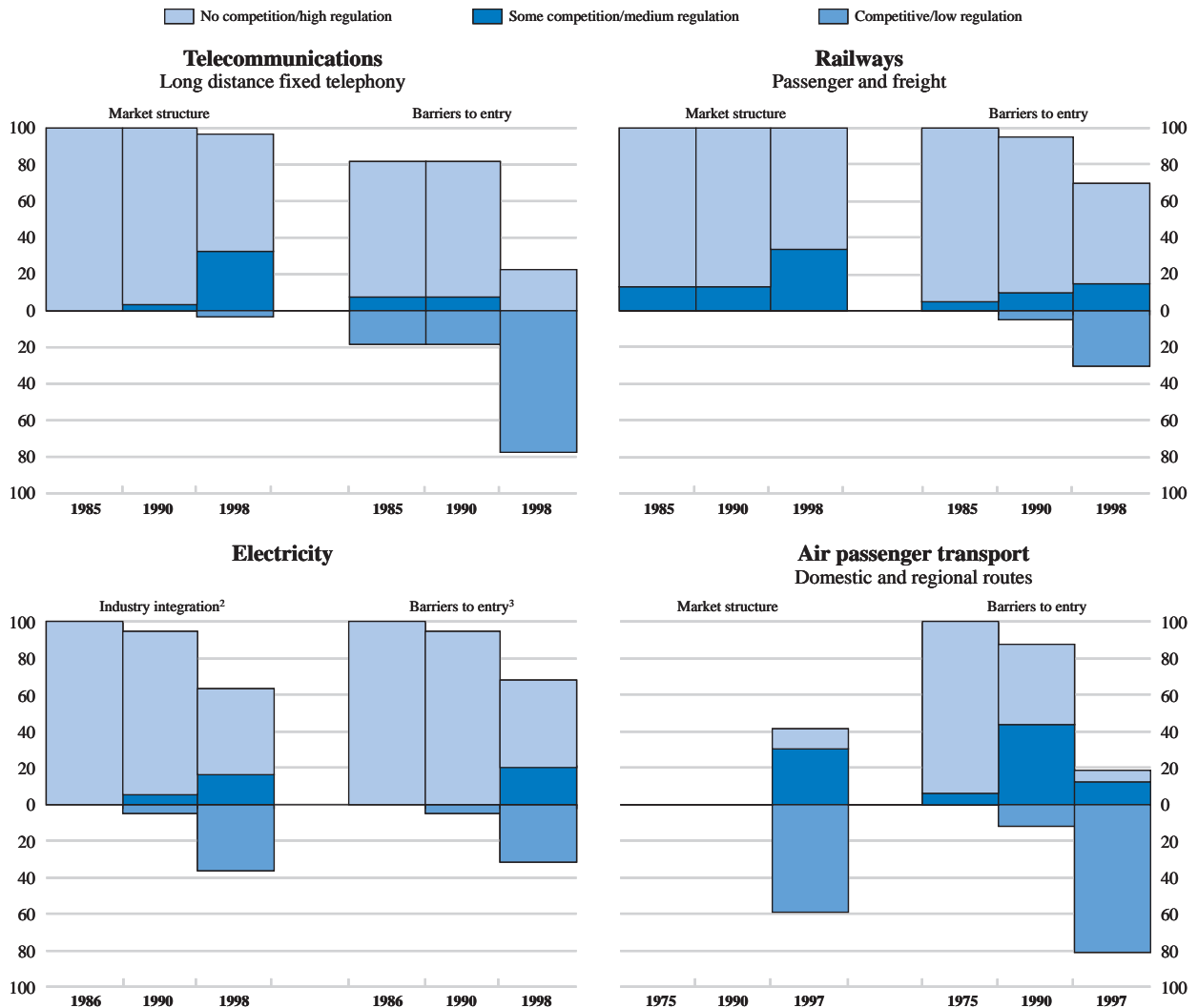
Figure IV.1 shows how barriers to entry and market (or industry) structures have changed in air travel, telecommunications, electricity supply and railways. These are industries in which non-competitive segments (such as fixed network infrastructures) coexist with potentially competitive upstream or downstream segments (*i.e.* the provision of inputs or final services). Liberalisation of access to the competitive segments of the industry is an essential element of reforms aimed at minimising the regulatory burden. The most striking regulatory changes occurred in the air travel and telecommunications industries. Over the nineties, legal monopolies (as well as fare restrictions) on domestic and regional air routes were lifted in most of the OECD area,⁴ and entry in (domestic and international) long distance telecommunications was widely liberalised. By 1998, access to local and mobile telecommunications had also been freed (or limited only by spectrum) in most OECD countries. Overall, competitive pressures increased in these industries, but the role of incumbents remains significant. This role is largely unchallenged in international air routes (outside regional agreements), which remain dominated by highly restrictive bilateral air service agreements, and local fixed telephony, where access to the local loop (*i.e.* the connection between handsets and the local exchange) is still problematic. Changes in the railways and electricity supply industries have been less widespread. In electricity, liberalisation of the generation segment has been matched in some countries by a reorganisation of the industry structure involving the vertical separation of some of its segments (*e.g.* generation and transmission). In railways, limited

3. Time-series data on regulations are very scarce. Therefore, only very simple indicators can be constructed to follow the evolution of regulation in OECD countries over time. The dynamic indicators shown in this section are based on OECD (1992), Boylaud and Nicoletti (2000), Steiner (2000), Gonenc and Nicoletti (2000), European Conference of Ministers of Transport (1998), World Bank (1996) and the OECD International Regulation Database (see Nicoletti *et al.*, 1999).

4. Regional markets are markets formed by groupings of OECD countries, such as the European Union or North America. By 1998 only five OECD countries continued to restrict entry in the domestic market.

Figure IV.1. Liberalisation of network industries across OECD countries

Percentage of OECD countries falling in each category¹



1. Country coverage changes across sectors and indicators, ranging from 15 countries in railways to 28 countries in telecommunications. To compare OECD-wide regulation over time, countries which joined the OECD after 1975 were excluded.
 2. High regulation = vertical integration; medium regulation = limited vertical separation; and low regulation = vertical separation.
 3. In electricity generation.
 Source: Gonenc et al. (2000).

entry liberalisation (especially of the freight service) has not yet changed substantially the traditionally concentrated market structure.

Historically, state ownership of business enterprises was used to further public policy objectives in competitive economic activities and as a substitute for (or a complement to) arm's length regulation in activities thought to be characterised by market failures. Privatisations were generally motivated by two main factors. First, the role that the government can usefully play in the business sector was reassessed and it was concluded that the scope for public enterprises was narrower than previously

... and the public enterprise sector has been downsized

thought.⁵ Second, it was felt that managerial incentives would be enhanced by privatisation, including by severing the link between managers and politicians and thereby lowering the deadweight costs associated with influence-seeking activities.⁶ According to some estimates, the OECD public enterprise sector is currently less than half the size it was at the beginning of the 1980s.⁷ Widespread privatisation policies, which were often preceded and supplemented by the corporatisation of public enterprises, left only a few countries with a significant share of state enterprises (see OECD, 1999). Figure IV.2 suggests that, over the nineties, privatisations increasingly concerned industries with fixed network elements. Among these, public ownership was significantly reduced in air passenger transport and telecommunications, while ownership changes in electricity and railways were very limited.

Liberalisation generally enhanced efficiency and quality, and reduced prices...

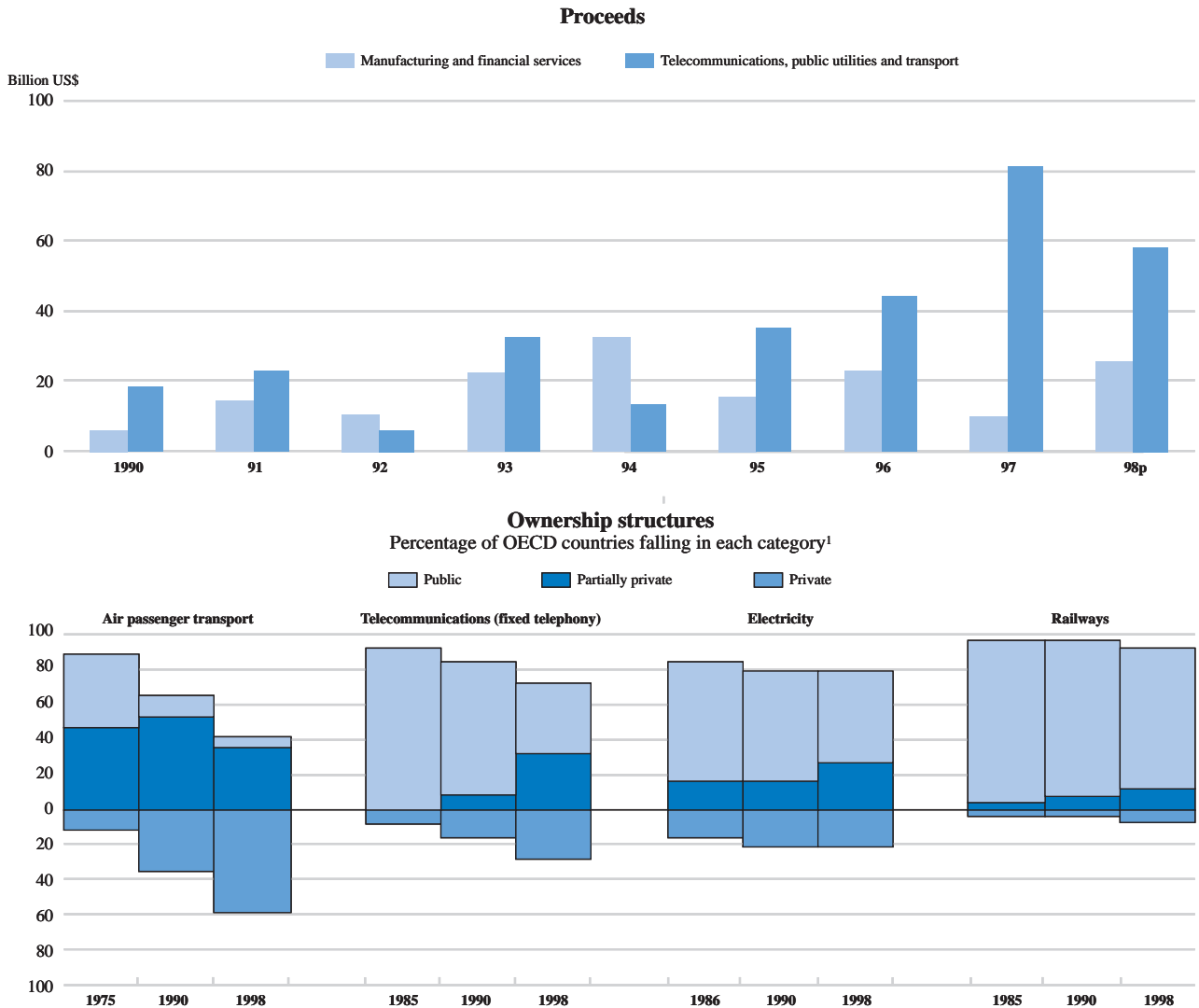
The available empirical evidence on the effects of liberalisation and privatisation suggests that liberalisation has been, on the whole, beneficial for efficiency and consumer welfare in reforming countries. As part of the OECD programme on regulatory reform, a recent review of empirical studies looking at the effects of liberalisation and increased market competition on the performance of network industries suggests that productive efficiency and quality of service tend to increase and prices tend to decline after reform (Gonenc *et al.*, 2000). There is also some evidence that the industry-level effects of reforms tend to translate into improved macroeconomic performance, such as higher growth and employment. However, the beneficial effects of reforms have been sometimes bedevilled by: regulatory flaws in the access by competitors to fixed networks (*e.g.* to airports); the failure to curb the use of market power by incumbents in the competitive segments of the industries; and the difficulty of addressing the complex technical issues arising after basic entry liberalisation has been implemented (such as in electricity supply).

... as did privatisation, when it was coupled with adequate reforms

The evidence also suggests that, on balance, privatisation has improved the performance of enterprises in network industries (Gonenc *et al.*, 2000). However, disentangling the effects of changes in ownership from those implied by stronger market pressures in the competitive segments of these industries is a difficult task since privatisation and liberalisation often go hand-in-hand. Furthermore, the outcomes of privatisations are also affected by the ability to replace direct control of the firm with effective arm's length regulation and by other external factors, such as the legal and corporate governance environment in which privatisations take place.

-
5. In the past two decades, property rights and public choice analyses have confined the scope for public enterprises to those (relatively rare) situations in which *a)* the unobservable quality characteristics of a product are significant and cannot be monitored (*ex post*) at arm's length; *b)* product or process innovation is not essential; and *c)* competition and consumer choice are weak and reputation is unimportant (Hart *et al.*, 1997).
 6. The influence of ownership structure on managerial incentives is stressed by Shleifer (1998). The implications of privatisations for the ability of pressure groups to influence managerial decisions are illustrated by Boycko *et al.* (1996). Foster (1992) describes the pressures exerted on the management of former public enterprises in the United Kingdom; OECD (1994) describes the channels of political influence over state holdings in Italy.
 7. Megginson and Netter (1999) cite various data sources suggesting that the overall share of the public enterprise sector in GDP in the OECD area may have declined from around 10 per cent to below 5 per cent since the end of the 1970s.

Figure IV.2. Privatisation across OECD countries



Note: 1998p = provisional data.

1. Country coverage changes across sectors and indicators, ranging from 17 countries in air passenger transport to 26 countries in railways. To compare OECD-wide regulation over time, countries which joined the OECD after 1975 were excluded.

Sources: Gonenc *et al.* (2000); OECD; World Bank and SBC Warburg.

Improving regulation where it remains necessary

Regulatory reform is not merely concerned with eliminating restrictions where they are no longer necessary but also, and more importantly, with enhancing regulatory quality in areas where regulation is unavoidable (OECD, 1997). Network industries usually have a component that is non-competitive. For example, the local loop in telecommunications, electricity transmission and distribution, and rail track, are all characterised by economies of scale which give rise to a natural monopoly. The

Regulation is still needed in many industries but its quality can be improved

presence of natural monopoly characteristics often means that competition cannot be relied upon to provide the socially optimal outcome and some form of government intervention in these industries may be desirable.

Many network industries also imply social benefits that cannot be fully appropriated by the industry (so-called “network externalities”). These arise when consumer demand for the product or service increases with network size, since there are benefits to being connected to a larger network (*e.g.* telecommunications, banking automated teller machine networks). Despite network externalities competition can still be viable; markets that exhibit network externalities can sustain more than one firm.⁸ However, in the presence of these externalities, an unregulated industry may tend to settle on a network size that is smaller than would be socially efficient. The social costs associated with non-interconnecting networks may be quite high and mandating interconnection is often justified on these grounds. In addition, the presence of network effects provides incentives for firms to engage in anti-competitive behaviour.⁹ This is why network interconnection and access issues are so important with regard to competition policy (Economides and White, 1994).

New policy approaches stress the role of incentives, the need to avoid distortions, and the importance of structural measures and institutional design

In the past two decades, several factors have changed the public policy approach towards the regulation of network industries. Developments in technology and the expansion of demand induced a reassessment of the borders between the competitive and non-competitive segments of these industries and improvements in regulatory techniques made it easier to target regulation at the non-competitive segments only. As restrictions to entry in competitive segments were lifted, rules had to be set to make access to the non-competitive segments by a plurality of service providers possible, non-discriminatory and efficient. Where liberalisation was matched by the separation of vertically-integrated monopolies into several independent entities (so-called “unbundling”), markets had to be created *ex novo* to replace transactions that were previously taking place within the firm. Where (non-economic) public interest objectives were ensured within a regulated non-competitive environment, ways had to be found to make these objectives consistent with competition. Finally, where firms had been privatised or activities had been contracted out, regulation through public ownership had to be replaced by effective arm’s length regulation. The general trend in regulatory design has been towards: *i*) an increased reliance on incentives, above all those spurred by market forces, and the avoidance of potentially distorting mechanisms, notably for pricing access to integrated networks; *ii*) a preference for structural over behavioural regulation, such as measures aimed at separating vertically or horizontally formerly integrated utilities; *iii*) a reassessment of the scope for and the funding of non-economic objectives; and *iv*) attention to the economic implications of the design of regulatory mechanisms and institutions.

8. Industries that have network externalities but no scale economies on the cost side (*e.g.* faxes and mobile telecommunications, and banking automated teller machines networks) are typically characterised by relatively competitive market structures.

9. For example, switching costs and lock-in effects serve to increase firms’ market power (Farrell and Shapiro, 1988 and 1989). Also see Salop and Scheffman (1983) for an analysis of the strategic effects of raising the costs of competitors.

Entry and pricing policies

OECD governments have become increasingly aware that, by focusing on incentives, regulation can be made more effective while, at the same time, its burden can be reduced. Therefore, new regulatory approaches aim at increasing the amount of (market-wide and firm-specific) information available to the regulator and encouraging regulated firms to adopt low-cost and innovative production techniques. Two key aspects of incentive regulation are policies regarding entry into segments of the industry where competition is feasible and the design of new pricing rules in the segments of the industry where market power remains significant.

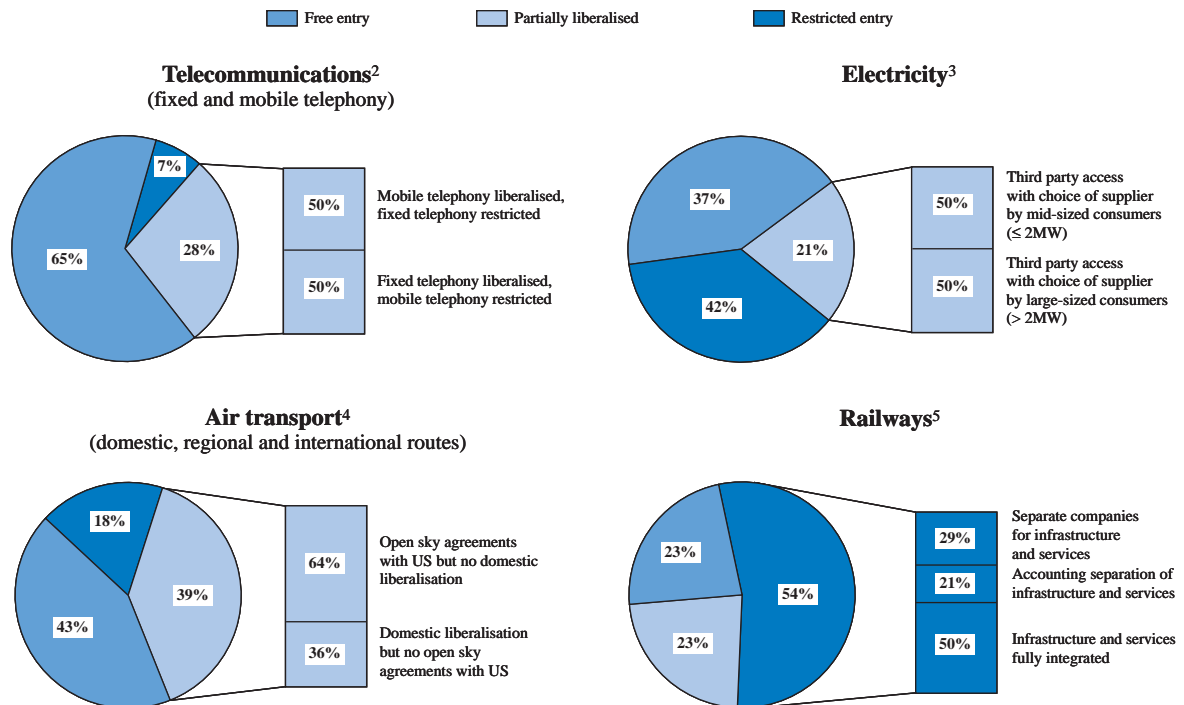
Attention to incentives can enhance regulatory effectiveness and minimise the regulatory burden

Entry policies often entail complete liberalisation of activities that are potentially competitive (e.g. the provision of telecommunications services). The introduction of competition in these activities enhances regulatory efficiency because it reveals to the regulator cost and demand patterns of both competitive and non-competitive activities, which constitute useful information for regulating more effectively incumbent firms. In addition, as competition eventually takes root, entry minimises the regulatory burden by circumscribing the area over which regulation is required. Figure IV.3 provides details on the extent and the features of OECD-wide

Market incentives are spurred by entry liberalisation...

Figure IV.3. Access to networks, 1998

Percentage of OECD countries falling in each category¹



1. Country coverage changes across sectors and indicators, ranging from 19 countries in electricity to 29 countries in telecommunications.

2. Mobile telephony is liberalised when entry is only limited by spectrum and restricted when a legal duopoly exists.

3. Free entry means full consumer choice of supplier and third party access (TPA); restricted entry means no choice and no TPA.

4. 1996. Free entry means that either domestic or regional routes are liberalised and open sky agreements with US exist; restricted entry means that there is no domestic liberalisation and no open sky agreements.

5. Partially liberalised means that there is free entry in some parts of the network in either the passenger or the freight service.

Source: OECD International Regulation Database.

entry liberalisation in four network industries. It suggests that, although reliance on market forces has increased significantly, competitive access to the fixed network is now widely possible only in telecommunications.¹⁰ It should be noted, however, that entry into the local loop is still virtually absent in most countries (OECD, 1999a).

... and ex ante competition can sometimes be established in non-competitive markets

In areas where competition is not viable (such as in the provision of infrastructures with natural monopoly characteristics), a competitive element can sometimes be introduced by auctioning off the right to operate in the non-competitive components of the industry. The use of auctions for new capacity can benefit consumers and also reveal information regarding the incremental costs of non-competitive activities, provided that auctions require firms to bid to supply the new capacity at the lowest price.¹¹ Ensuring that new capacity remains integrated with the existing network can then be addressed through appropriate interconnection policies.

Pricing rules can provide incentives for efficient resource allocation while keeping market power in check

Well-designed pricing rules are fundamental for ensuring efficient outcomes in regulated network industries. Where the market power of incumbents is significant, retail price regulations should prevent them from setting prices above costs at the expense of consumers, while at the same time preserving sufficient incentives for cost minimisation and efficient investment. Where vertically-integrated incumbents compete with new entrants in liberalised markets, the charges for accessing the incumbent's network should be reflective of the costs actually incurred in providing access. Where networks are congested, charges should also reflect demand patterns (such as in peak-load pricing), so that capacity is allocated to the most efficient users at peak times.

Price-cap regulation may enhance productive efficiency to the benefit of consumers...

Price-cap regulation (Box IV.2) is the most widespread pricing rule in both telecommunications and rail transport in the OECD area (Figure IV.4).¹² By contrast, the electricity industry is still governed primarily by cost-based regulation (such as rate-of-return regulation), perhaps because this industry supplies a homogeneous product; therefore cost information is easier to obtain and costs are easier to allocate than in telecommunications and railways, which provide several joint services (such as local, long-distance, mobile communications or freight and passenger transportation). Unlike cost-based regulation, price-cap regulation does not require detailed and continuous information about costs and demands. Instead, the aim of price-cap regulation is to provide adequate incentives for the company to reveal costs and to introduce lower cost techniques. Indeed, the main argument in favour of price-cap regulation is that it is less vulnerable than rate-of-return regulation to inefficiencies related to over-capitalisation since the firm has the incentive to minimise all of its costs.¹³ Part of this expected increase in efficiency can then be passed on to consumers.

10. The figure reports the situation for mobile and (domestic and international) long-distance communications. As of 1998, the situation in local communications mirrors the latter.

11. Otherwise auctions fail to dissipate monopoly rents and only succeed in redistributing them from firms to the state and, eventually, taxpayers with no direct benefit to end-users and overall efficiency (see, for instance, Heimler, 2000).

12. Regulation of interconnection or access charges is prevalently cost-based. Only in Italy, Norway, and the United Kingdom are the prices of electricity transmission regulated through price caps. Prices for mobile telephony tend to be unregulated. For details on price regulation in telecommunications see Boylaud and Nicoletti (2000). Price caps are also increasingly used to control the market power of airport operators.

13. This is because under price cap regulation the firm is allowed to keep the excess profits it can earn in between review periods for the setting of the price caps (but must also absorb any losses) (Beesley and Littlechild, 1989). In rate-of-return regulation, prices are usually set annually such that the regulated firm is allowed to cover its production costs plus some fair rate of return on its investment. Therefore, the firm has little incentive to reduce its costs and has an incentive to overcapitalise, creating productive inefficiencies (Averch and Johnson, 1962).

Box IV.2. Price-cap regulation

With price-cap regulation the regulator sets a cap, including an adjustment factor X , for a specified period, that the firm can charge for a defined basket of goods and services.¹ Over longer intervals, the adjustment factors and the baskets are reviewed and possibly changed. For the pre-specified period, however, the company can make any changes it wishes to prices, provided that the change in the average price of the specified basket of goods and services is below or equal to the price cap.² Thus, the firm has an incentive to reduce costs and part of these cost reductions can be passed on to consumers *via* the adjustment factor X . Price-cap regulation is not, however, a panacea for all regulatory problems. This is because, regardless of the form of price regulation, asymmetric information inevitably leads to regulators being poorly informed relative to those they regulate and provides incentives for strategic behaviour on the part of regulated firms.

An important issue in price cap regulation is the determination of the caps and the frequency with which they are adjusted, especially the value of X . The shorter the interval between the setting of the price caps, the closer RPI- X is to rate-of-return regulation, see Acton and Vogelsang (1989). This is because, when reviewing the value of X , the regulator's perception of the scope for performance improvements is influenced by how well the incumbent has done in the recent past as indicated by its rate of profit. Since at the end of the day the regulator uses the rate of return as a benchmark when setting the cap, the firm may still have an incentive to inflate or distort its costs. A further problem arises when excessive profitability leads to unanticipated changes in the value of X since these changes may weaken

the incentives that price cap regulation is supposed to instil and be detrimental for both investment and entry in the industry. Price-cap regulation also subjects firms to greater risks and, therefore, may raise their cost of capital (Alexander and Timothy, 1996). By shifting some of the risk to the public, rate-of-return regulation can lower the risk premium demanded by the regulated firm.

Another issue is that, as in rate-of-return regulation, an inappropriate design of price caps may fail to prevent cross-subsidisation, which is allocatively inefficient and may be used anti-competitively. This may happen when firms are selling some goods or services in potentially competitive markets: the incumbent firm can bundle competitive services with monopoly services and has an incentive to set prices (within allowances permitted by the cap) to the detriment of competition. It is important, therefore, to determine a suitable composition of the basket of goods and services that are subject to the price cap. For instance, by placing sub-caps on the non-competitive activities, price regulation may be used to prevent anti-competitive cross-subsidisation. It may be easier, however, to remove incentives for cross-subsidisation by separating non-competitive activities from those that are competitive.

1. It is also possible to have sub-caps on individual services within the overall basket.
2. Most countries use the retail price index (RPI) minus X . However, some countries (*e.g.* Australia) use the consumer price index (CPI) as the representative index instead of the retail price index.

Although in principle price-cap regulation provides better incentives for productive efficiency, its merits relative to rate-of-return regulation depend on how it is applied in practice (see Box IV.2).¹⁴ An alternative to either rate-of-return or price-cap regulation is some intermediate form of regulation such as profit-sharing, which permits the sharing of risks and rewards between owners and consumers. This retains the incentives to minimise costs provided by price cap regulation while, at the same time, minimising the risk of unanticipated changes in the regulatory contract which may have adverse consequences on the incentives of regulated firms (see below).

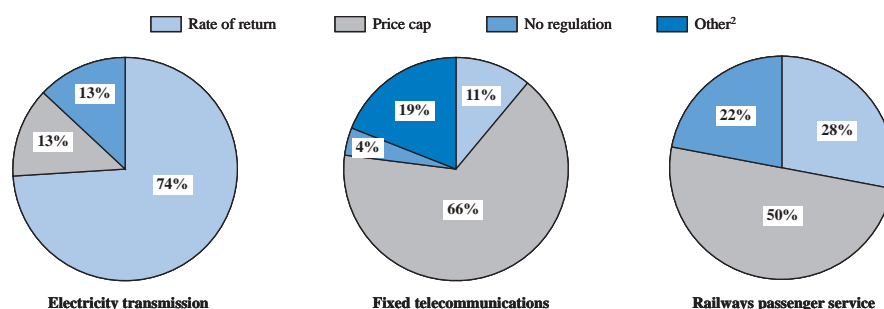
Interconnection or access charges, which determine the price at which entrants will be granted access to the network of a vertically-integrated incumbent, play a crucial role in the success or failure of entry in competitive services. Given the market power of incumbents, access charges will generally have to be regulated.¹⁵ The regulator's dilemma is to find rules for setting access charges at a level that will only allow entry of competitors that are at least as efficient as the incumbent in supplying

... but its actual outcomes depend on how it is applied in practice

Access pricing has a crucial bearing on the outcomes of entry liberalisation and competitively neutral rules are to be sought

14. Where quality is difficult to observe rate-of-return regulation may be preferable since it weakens the incentives of the regulated firm to reduce costs at the expense of product quality.
15. This kind of regulation can take many forms. The approach taken in New Zealand is one of "light-handed" regulation, in which access charges are freely negotiated between operators and the terms of these agreements are made public. This approach relies on competition authorities to discipline the market power of incumbents, in conjunction with the threat of more intrusive regulatory interventions (or "standard" regulation) when anti-competitive behaviour is observed (OECD, 1999b).

Figure IV.4. Price regulation, 1998

Percentage of OECD countries falling in each category¹

1. Country coverage changes across sectors and indicators, ranging from 18 countries in electricity to 27 countries in telecommunications.

2. Including discretionary tariff approval.

Sources: OECD International Regulation Database; OECD (2000).

competitive products. Charges that are too high relative to the costs incurred by the incumbent in providing access will deter entry into competitive markets, prevent competitors that are potentially more efficient from surviving and encourage potentially wasteful investment in alternative networks.¹⁶ Setting charges below the pertinent costs of the incumbent (which effectively amounts to a subsidy to entrants) also distorts the competitive process by inducing entry of competitors that provide products in competitive markets less efficiently than the incumbent (so-called “inefficient entry”).

Congestion pricing can improve the allocation of scarce capacity

Congestion pricing is a useful regulatory mechanism for improving the allocation of a given amount of scarce network capacity and encourage the creation of new capacity to meet long-run trends in demand.¹⁷ For instance, OECD governments have sometimes attempted to promote congestion pricing in airport use, in order to remedy the absence of a market mechanism for airport slots (*i.e.* landing or take-off rights in a given time period). In some countries peak-load charging was implemented, adjusting landing and take-off charges to variable demand levels at different times of the day. In a handful of OECD airports, free pricing in a (more or less organised) market for slots is allowed. The two mechanisms apply the same principle, even if slot pricing is potentially more effective than peak-load charging in equilibrating supply and demand and allocating capacity to their most efficient users.¹⁸

16. When access/interconnection tariffs are set above costs, new entry may lead to a duplication of the network which is not cost efficient (so-called “inefficient bypass”). Since final retail prices will reflect access charges, this can also result in entry into competitive activities of competitors that are less efficient than the incumbent in providing the competitive products. For example, large business users may build alternative facilities so as to bypass the network and avoid access charges, while at the same time providing themselves with the competitive products. This entry is inefficient if it would not have occurred with prices reflecting underlying costs.

17. Congestion appears either when the property rights are not well defined, or when mutual trading and contracting is excluded.

18. The important difference between the two approaches is that peak-load charging is akin to a spot contract and slot pricing is equivalent to a long-term contract for the right to land at a specific time and location. Typically, peak-load charging fails to change the existing allocation of slots among airlines (deriving from their “grandfather rights”), may imply very sharp fluctuations in airport charges for fully equilibrating supply and demand and may lead to welfare losses if charges are not set at the market clearing levels. On the other hand, slot-pricing is beneficial only if appropriate (*ex ante* or *ex post*) regulatory safeguards against the concentrated appropriation of slots by individual airlines are in place and a sufficient amount of slots is put on the market.

Structural measures

Privatisation of public monopolies may often be a prior and necessary condition for unleashing market forces. It can also enhance the incentives of the incumbents' management and provide a better environment for entry liberalisation. In a market that features a state-owned incumbent the incentives of the government to engage in behaviour that favours the incumbent at the expense of other firms in the industry is high, particularly if the state-owned enterprise is ailing. This, in turn, may deter entry since potential entrants may be concerned about "unfair" competition. Privatisation may also make it easier to unbundle horizontally or vertically some of the activities owned by the former state monopoly. Their separate sale to different private investors may enhance competitive developments and facilitate the regulator's task by providing benchmarks against which to evaluate the performance of regulated firms.¹⁹

Privatisation may be a prerequisite for unleashing market incentives...

The experience of OECD countries shows, however, that privatisation needs to be accompanied by reforms that adjust the regulatory environment to the operation of the former public enterprise as a private business. These include: *i*) ring-fencing the non-competitive segments (e.g. through vertical separation) and exposing to competition the competitive segments of its activities; *ii*) equipping the regulator with the powers and the resources needed to stimulate cost efficiency, keeping market power under control and monitoring the quality of the products provided by the privatised firm;²⁰ and *iii*) ensuring that market regulation is consistent with the objective of making the corporate governance framework as efficient as possible.

... provided the market and regulatory environment is friendly to competition

Vertical separation of the ownership of competitive activities from the non-competitive component (supported by restrictions preventing re-integration into competitive activities) alleviates the regulatory burden and reduces the incentives of network owners to restrict access to rival firms in the upstream or downstream (potentially competitive) markets.²¹ Especially when reliable information on costs and demand are difficult to obtain from the regulated firm, vertical separation reduces the opportunities and incentives for shifting costs and profits around within the firm for strategic purposes aimed at both rival firms and the regulator.²² Weaker forms of separation, including accounting separation and 'functional' separation, do not overcome the incentives of the incumbent to "play games" with the regulator and restrict competition in the competitive activities, as it remains possible to strategically re-allocate costs and engage in other anti-competitive behaviour.²³ However, it is often the case that there are economies of scope between the various components

Vertical separation alleviates the regulatory burden by making entry easier and preventing anti-competitive behaviour

19. In some cases, such as in the airport industry, coupling congestion pricing with privatisation may lead to a closer relationship between the expansion of fixed infrastructures and demand developments, reducing the distortions related to congestion phenomena.

20. In many OECD countries this has involved taking away regulatory powers from the incumbent and/or the creation of new (horizontal or sector-specific) regulatory authorities having a statutory independence from the government.

21. A vertically integrated structure is less of a problem if competition can substitute for regulation. For example, to the extent that there is competition from air and road transport, vertical integration in the rail industry may not be an over-arching concern, unless the rail industry is immune to such competition (e.g. because of subsidies).

22. For example, vertical separation avoids the regulatory headache of allocating costs that are common to several activities in a vertically-integrated industry, and requires information only on the costs of providing access to the network facility. Where sufficient competition exists in the potentially competitive segments of the industry, vertically separating them from the non-competitive network segment may make it feasible to completely deregulate final prices while only regulating the price of the non-competitive component.

23. Hilmer (1993) argues that the failure to make a full separation of ownership and control, despite liberalisation and privatisation, is the major reason why infrastructure reform in the United Kingdom (e.g. in the gas industry) has not produced all the expected welfare gains.

Table IV.1. Vertical separation in the electricity industry and in rail transport, 1998

| | Electricity | | Rail transport |
|----------------|-----------------------------------------------------|-----------------------------|------------------------------------|
| | Vertical integration (generation through supply) | Generation and transmission | Infrastructure and services |
| United States | Integrated | Accounting separation | Integrated ^a |
| Japan | Mixed | Integrated | Integrated |
| Germany | Unbundled | Accounting separation | Accounting separation ^a |
| France | Integrated | Integrated | Separate companies ^b |
| Italy | Integrated | Integrated | Accounting separation ^c |
| United Kingdom | Unbundled | Separate companies | Separate companies |
| Canada | Integrated | Integrated | Integrated |
| Australia | Mixed | Separate companies | Different state regimes |
| Austria | .. | .. | Accounting separation |
| Belgium | Integrated | Integrated | Accounting separation |
| Czech Republic | .. | .. | Accounting separation ^c |
| Denmark | Integrated | Accounting separation | Separate companies |
| Finland | Unbundled | Separate companies | Separate companies |
| Greece | Integrated | Integrated | .. |
| Hungary | .. | .. | Accounting separation |
| Ireland | Mixed | Accounting separation | Integrated |
| Korea | .. | .. | Integrated |
| Netherlands | Mixed | Integrated | Separate companies ^d |
| New Zealand | Mixed | Separate companies | Integrated |
| Norway | Unbundled | Separate companies | Separate companies |
| Poland | .. | .. | Accounting separation |
| Portugal | Mixed | Accounting separation | Separate companies |
| Spain | Mixed | Accounting separation | Accounting separation ^c |
| Sweden | Mixed | Separate companies | Separate companies |
| Switzerland | .. | .. | Accounting separation ^c |
| Turkey | .. | .. | Integrated |

a) Open access provisions.

b) Infrastructure independent, but managed and maintained by service operator.

c) Infrastructure a separate division of service operator.

d) Infrastructure subsidiary of service operator.

Source: European Conference of Ministers of Transport, 1998; and OECD International Regulation Database.

of network industries (such as economies of co-ordination in rail transport), which argue in favour of vertical integration. At the end of the day, therefore, the benefits of vertical integration need to be weighed against their costs.²⁴ An increasing number of OECD countries is implementing some form of vertical separation in network industries (Table IV.1), but many use accounting separation as the regulatory instrument.

Horizontal separation may also enhance competitive developments and facilitate the task of the regulator

Horizontal separation, *i.e.* the breakup of similar activities formerly operated by the same firm, can also be instrumental in enhancing competitive developments and facilitating the task of the regulator. For instance, in many countries, the introduction of competition in the generation segment of the electricity supply industry can be made more effective by the (at least partial) breakup, and subsequent sale to different investors, of the generation potential belonging to the former state monopolies. In the absence of breakup, new entrants are unlikely to challenge the competitive position of the incumbent after lib-

24. The loss in economies of scope is mitigated when vertical contractual arrangements (between separate companies) can be used to reap the benefits of vertical integration. This may depend, in part, on the nature of the legal system. A legal system that is accommodating to the needs of long-term contracts is a factor in favour of separation; and a weak or imperfect legal system will be a factor in favour of integration. See Biggar (2000) for a discussion of when regulated companies should be vertically separated.

eralisation. Horizontal breakup may also be a prerequisite for applying the methods of yardstick regulation, which uses the performance of other firms as a benchmark by which to compare the performance of the regulated firm, thereby enhancing the information available to the regulator.²⁵ For instance, the monitoring of cost-efficiency of electricity distribution and airport companies can be greatly facilitated by the existence of several independent companies operating at the local level.²⁶

Non-economic objectives

Network industries such as telecommunications, energy and rail are often required by governments to undertake non-commercial activities that fall into two broad categories: obligations to provide the basic service to all who request it at a uniform and/or “affordable” price (“universal service” or “carrier of last resort” obligations), and community service obligations (e.g. the provision of public telephone boxes) or special concessions to consumers who are deemed to be in need of some form of support (e.g. low user and lifeline tariffs, or the supply of special apparatus for the disabled). In industries where the risks for public health and the environment are perceived to be highest, such as in transportation and energy supply, non-economic objectives also include safety and environmental sustainability.

Non-economic objectives have remained a continuing public policy concern, but meeting them in a competitive environment raises issues about regulatory design and the choice of the most effective policy instruments. In some countries, concern over the threat to universal and other public service or social obligations sometimes encouraged by incumbents, is a central factor impeding market liberalisation. However, there is growing empirical evidence, at least in telecommunications, that these obligations are not threatened by competitive entry. This is either because removing such obligations does not always imply a significant burden on consumers, especially in mature industries where penetration rates are already high, or because the relatively low costs they imply for incumbents do not always jeopardise their ability to compete. Where burdens are more significant, they can be financed in ways that are consistent with market competition.

Public service and social obligations imply that prices are not sufficient to cover some marginal costs. Historically, these obligations have been funded through the use of cross-subsidies. However, funding social and universal service obligations through distortions in the tariff structure is often at odds with efficient pricing and the promotion of competition, and can encourage entry by competitors that are less efficient than the incumbent.²⁷ In light of this, most OECD countries have undertaken a re-balancing of the tariff structures of fixed telephony (and, much less frequently, energy supplies) to make them more reflective of underlying costs. In this way costs and prices of

Non-economic objectives have remained a continuing public policy concern...

... but fears that competition will threaten them are often unjustified

The maintenance of public service obligations need not stand in the way of greater competition and cost-based pricing

25. Benchmarks may include the costs of specific inputs, the rate of return earned and cost of capital faced by firms with similar technologies or capital needs. In some cases, the regulator may also use the performance of similar firms in other countries.

26. The wholesale privatisation of British Airport Authority has been criticised for missing the opportunity to introduce airport competition in the London metropolitan area and make yardstick regulation possible (see, Vickers and Yarrow, 1988; and Starkie and Thompson, 1985).

27. Inefficient entry occurs due to the possibilities for “cream-skimming” that arise from product prices that are above costs due to distortions in the tariff structure. Cross-subsidies can flow from competitive to non-competitive activities (e.g. prices for long-distance telephony subsidising the cost of local access) or can arise from uniform tariff structures even though there may be significant differences in costs of supply (e.g. geographically uniform electricity transmission charges).

Table IV.2. Funding public service obligations in telecommunications, 1999

| | Funding mechanisms |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia | The costs of the public service obligations (PSO) must be shared among carriers so that no one carrier is disadvantaged. To this end, the costs of the PSO are shared in proportion to carriers' shares of "eligible revenue". After obtaining the consent of participating carriers, the Minister may specify another cost-sharing mechanism. |
| Canada | Carriers are required to contribute to the PSO requirement through a Portable Contribution Subsidy. The Subsidy is an explicit toll levied on all long-distance traffic carried on the local telephone network. The funds are distributed to all local carriers based on subsidy requirements per residential Network Access Services or equivalent by rate band. |
| Denmark | If it is proven that a deficit exists in the provision of universal service, the regulator will collect a contribution from fixed voice telephony service providers on the basis of turnover. |
| Finland | There is no specific universal scheme and as such universal service costs are not borne by other market participants. Incumbent must meet all universal service costs. |
| France | A national universal service fund was established in 1997. Net cost of overall geographic supply will be compensated by interconnection surcharges until 31 December 2000 at the latest. |
| Japan | Designated carriers must bear the cost of the PSO provision which are funded by geographically uniform access charges and by long-distance charges. Funding of the PSO is to be reviewed in 2000. |
| New Zealand | Kiwi Share Obligation is met by TCNZ through surcharges on its interconnection rates. Public disclosure of Kiwi Share costs are required from January 2000. |
| Norway | The incumbent operator bears PSO costs based on its licence requirement. |
| Poland | Establishment of a PSO fund is predicted in the draft of new telecommunication law. |
| Spain | Telefonica has been designated the dominant operator required to fund universal service until the end of 2005. |
| Sweden | There is no specific universal scheme and as such universal service costs are not borne by other market players. Incumbent must meet all universal service costs. |
| Switzerland | Universal service licence granted on a periodic basis by tender. If a need for funding is noted, the granting authorities (ComCom/OFCOM) can impose a fee on companies with a licence. |
| United Kingdom | BT is responsible for the provision of the universal service obligation but the cost of the obligation is not re-imbursed. Kingston Telecom is also responsible for the provision of universal service. |
| United States | Each telecommunications carrier that provides interstate or intrastate telecommunications services must contribute, on an equitable and non-discriminatory basis, to the provision of universal service. |
| European Union | The European Commission permits, but does not require, the establishment of cost-sharing arrangements to finance PSO. It reports that nine Member States (from a total of 15) have decided either that the costs of the PSO do not constitute an unfair burden on the provider or that the costs of establishing a fund are not justified. The rebalancing taking place in Europe, to the extent that it has reduced constraints on cost recovery, may have reduced the burden on incumbents. |

Sources: OECD (2000); Productivity Commission (1999).

competitive services can be lowered and the potential for the introduction of innovative services can be raised, for the benefit of consumers. Where the burden of social obligations is significant, the re-balancing process raises two related issues: how to fund any compensation for incumbents with continued obligations but no access to cross-subsidisation and how to offset any undesired effect on income distribution.

Cost-effective and competitively neutral mechanisms for funding public service obligations can be found...

Incumbents may need to be compensated because not reimbursing them for the cost of social obligations puts the universal service provider at a disadvantage in a competitive regime. A wide variety of funding mechanisms has been adopted in the telecommunications industry across OECD countries (Table IV.2). A common way of funding obligations is through interconnection tariffs, (e.g. Canada, France, New Zealand) but this can run counter to the objective of promoting competition.²⁸ Alternatively, these

28. For example, public service obligations funded through interconnection fees can result in access charges that not only deter entry but also prevent more efficient existing competitors from surviving (Baumol, 1999). Furthermore, contributions through access charges or geographically uniform tariffs can lead to inefficient bypass (Vogelsang and Mitchell, 1997).

costs are shared amongst carriers in proportion to their share of “eligible revenue” so that no one carrier is disadvantaged (*e.g.* the United States, Australia).²⁹

If the concern is about the impact of tariff re-balancing on low-income households, alternatives to cross-subsidies include direct cash transfers to consumers or direct subsidies to operators serving remote rural areas at prices below costs or meeting other social obligations. The latter approach is increasingly being considered as a way to fund public service obligations in air and rail transport services.³⁰ While the fiscal burden would be greater, it helps make the cost of meeting such obligations more transparent. Regulators can use auctions in which firms bid to supply public service obligations at the lowest cost to minimise the subsidy to be provided by the government.

... and undesired redistributive effects can be addressed through fiscal measures

Economic analysis and practical experience show that desirable safety and environment targets in sensitive industries such as transportation and energy may not be attained through market mechanisms alone. However, the combination of market incentives introduced by reforms, the increasing use of economic instruments (*e.g.* “green” taxes, tradable emission rights) and enhanced regulation may help to reach those targets more effectively. For instance, contrary to widely publicised warnings about deterioration of safety under competition, air transport reforms generally seem to have been accompanied with a clear improvement in safety performance. However, in drawing policy conclusions from these experiences the respective roles of long-term technological trends, market incentives introduced by reforms, and the impact of enhanced safety regulations must be distinguished.

Evidence from the airline industry suggests that safety standards can be maintained in a liberalised environment...

In the areas considered in this chapter, less progress has been made on the environment side (*e.g.* control of engine gas emissions, noise emissions and traffic congestion), where an increased use of incentive regulation could help limit distortions. For instance, economic instruments could usefully supplement, or sometimes replace, command-and-control regulations such as international, regional or national standards concerning noise and gas emissions. Although fuel taxes are often high (except in North America), they are rarely based on (and in proportion to) external effects, and are frequently applied at different rates in different transportation modes, failing to bridge the gap between the social and private costs of transportation across modes and introducing distortions in the modal distribution of transport output. In particular, in-flight gas emissions are unregulated and aircraft fuel is exempt from tax in most countries.³¹ As environment concerns, including climate change, put upward pressure on energy costs to other transport modes, the non-taxation of aircraft fuel becomes an increasingly important distortion. Another potential economic instrument relates to noise pollution. Governments could impose airport-specific variable noise taxes, and authorise tradable noise emission permits for different periods of the day.³²

... and more use of incentive regulation could help to reach environmental targets

29. While this approach is more efficient than funding through cross-subsidies in the tariff structure or through interconnection charges, it only partially overcomes the funding problem. The problem arises since contributions are generally based on revenues and not profits. For example, if the incumbent were to break-even before contributing to the fund then it would operate at a loss after contributing to the fund since contributions are based on revenues. However, the problem with using profits as the basis for contributions is that profits are inherently difficult to measure.

30. The US “Essential Air Service” program for small communities utilises this approach. The European Union has adopted and recommends a similar policy for funding public service obligations in regional air transport.

31. Sweden is an exception, having introduced an airport fuel tax in 1989.

32. Tradable noise permits in specific airports and periods of the day may facilitate a more flexible allocation of available noise tolerance – to the airlines valuing them most. These permits may give positive incentives to noise-reducing airlines, by permitting them to commercialise their “noise savings”.

Regulatory mechanisms and institutions

The potential for regulatory capture and excessive regulatory discretion must be considered

Regulators have the power to generate and redistribute rents across various interest groups, for instance, by creating or preserving monopoly positions or by maintaining cross-subsidies in the tariff structure. Therefore, regulated firms or the beneficiaries of regulation (such as user groups) have a strong incentive to attempt to “capture” the regulator so that the industry is regulated in their own interests. There is also a risk that an excessive use of discretionary power by regulators may distort investment incentives in the industry by introducing too much uncertainty about the regulatory provisions firms will have to face in the future. Therefore, the possibility of regulatory capture and the effects of excessive regulatory uncertainty both need to be taken into account in designing regulatory mechanisms and institutions.

Table IV.3. Synopsis of regulatory institutions in telecommunications, 1999

Number of countries in each category

| Institutions | Role | | Competencies | | | | | | |
|-------------------------------------------------------------------------|------|----|-------------------------------------------|-------------------------|---------|-----------------------------------------------|--------------------|---------|-----------------|
| | | | Regulatory responsibilities for licensing | | | Interconnection | | Pricing | Service quality |
| | Yes | No | Issuance | Oversight of provisions | Mergers | Approval of charges set by dominant operators | Dispute resolution | | |
| Ministry department | 19 | 10 | 14 | 8 | 4 | 5 | 4 | 11 | 4 |
| Competition authority | 22 | 7 | 0 | 1 | 21 | 1 | 1 | 3 | 1 |
| Sectoral regulator | 25 | 4 | 16 | 20 | 6 | 18 | 24 | 16 | 23 |
| of which: | | | | | | | | | |
| – Head appointed by president or prime minister (vs. sectoral minister) | 15 | 12 | | | | | | | |
| – Decision cannot be overturned by executive branch | 20 | 7 | | | | | | | |
| – Funded by industry fees (vs. general government budget) | 17 | 10 | | | | | | | |

Source: Gonenc *et al.* (2000).

“Independence” of regulators can reduce the potential for capture...

Many OECD countries have aimed at limiting the potential for regulatory capture by attempting to create regulatory institutions that are “independent” of the executive branch of government (see Table IV.3 for a summary description of telecommunications regulation in the OECD). Making the regulator’s status less dependent on political power limits the risk that private sector lobbies may use their political influence to affect regulatory decisions.³³ However, it does not eliminate the danger of capture by the regulated industry. Though complete independence may not be attainable in practice, desirable requirements include: *i*) providing the regulator with a legal mandate (covering also the cases and procedures for overruling its decisions); *ii*) ensuring that it is structurally separated and autonomous from the government; *iii*) defining a multi-party process for its appointment (*e.g.* involving both

33. This risk is particularly high in the case of public utilities, whose list of customers is practically identical to the voters’ list (OECD, 1999b). Another line of argument not developed here is that politicians grant agencies independence especially when this can help shift the blame for politically difficult policy decisions onto agencies (Fiorina, 1982).

executive and legislative bodies); *iv*) protecting it from arbitrary removal (*e.g.* through fixed terms); *v*) defining its professional standards and adequate remuneration levels; and *vi*) designing a reliable source of funding (*e.g.* industry fees).³⁴

While the “independence” principle is widespread, institutional design differs across the OECD. The main patterns are several sector-specific regulators, as in the United States (at the federal level) and in most European countries, or an all-purpose regulator that cuts across several regulated industries, as in Australia and many US states.³⁵ Both types of institutional settings have merits and shortcomings. Multiple industry-specific regulators may provide a better information base for regulation, but may be more easily captured by the industries they regulate and may generate regulatory inconsistencies across industries, possibly distorting investment incentives (Helm, 1994).³⁶ All-purpose regulators may have less information, but they may also ensure regulatory consistency and cost-effectiveness, and be less prone to capture.³⁷

Too much discretion for regulators also increases the “regulatory risk” faced by regulated firms, with potentially adverse effects on regulatory outcomes. For instance, re-setting price caps in between review periods or disallowing capital investments from the base for rate-of-return regulation can sometimes be justified *ex post* on economic or distributive grounds, but the risk of such regulatory moves can have undesired consequences for the investment of the regulated firms. Possible safeguards against excessive discretion of regulators include statutory or legal requirements ensuring that firms can finance their regulated activities, *ex ante* provisions for profit sharing between price-capped firms and customers (Baron, 1995),³⁸ the possibility for regulated firms to seek the judgement of competition authorities and/or of courts, and increasing the openness of regulatory decision making and of corporate reporting.

Regulatory mechanisms should incorporate a degree of pre-commitment so as to reduce the risk to firms that investment will be made unprofitable by subsequent regulatory decision while also, possibly, pre-empting political pressures arising as regulatory outcomes become known. Precommitment and constraints to regulatory discretion should not prejudice, however, the effectiveness of regulatory enforcement and the ability of the regulator to adjust regulation to changing technological and market conditions.

... but there is no agreement on the best institutional setting

Regulatory mechanisms should also be designed to limit regulatory risk...

... though a balance between precommitment and flexibility should be sought

34. OECD (2000) discusses requirements for regulatory independence in the telecommunications industry. See also Smith (1997).

35. New Zealand is the only country that relies exclusively on the application of the general competition law.

36. Asymmetries are reduced because separation of regulators increases the total amount of information collected, limits the amount of private information that each regulator can use (Laffont and Martimort, 1999) and make it possible to compare the behaviour of different regulators (Neven *et al.*, 1993). A more direct way to reduce information asymmetries is to increase the transparency of regulation and the regulatory reform process for the public.

37. Because all-purpose regulators mediate interests of several industries at once, capture by any single industry may be more resource intensive than with an industry-specific regulator. Moreover, decision-making bodies in all-purpose regulatory institutions are less likely to have the kind of in-depth knowledge of the industry that would make them particularly valuable later on as employees or lobbyists for the regulated firms (OECD, 1999b)

38. Such provisions may sometimes help to reduce political pressures to rescind the price cap system in the event of unexpectedly high rates of return. They have been used in the United States in designing price cap policies for access charges to local telephone networks.

Conclusions

Regulatory reform has been implemented across the OECD area for more than two decades, with the focus increasingly put on network industries. By and large, reforms seem to have increased productive efficiency and consumer choice while at the same time lowering prices. In certain industries reforms have entailed the elimination of regulatory controls, but in others regulation remains necessary and reform has aimed to improve its quality and effectiveness. Governments have often relied on a learning-by-doing process to find innovative and effective ways to deal with these issues. Learning is set to remain important with the agenda for regulatory reform advancing continuously in response to developments in technology, consumer demand and market structure. Comparing approaches and outcomes of regulatory reform across countries is an important input to this learning process.

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V. RECENT GROWTH TRENDS IN OECD COUNTRIES

Introduction

This chapter assesses trends in growth rates in the OECD countries over the past decade

Recent growth trends in some OECD countries have attracted widespread attention. In particular, the conjunction of a number of developments in the United States has contributed to an impression that something fundamental may have changed. These include: strong non-inflationary growth, coupled with high labour utilisation; the spread of information and communication technology (ICT); and microeconomic evidence of continued restructuring of production processes. A sustained pick-up in economic growth is also evident in a few other OECD countries and raises the question as to whether (and how) more rapid growth could spread more widely in the near future. This chapter sheds some light on these issues by examining output and productivity growth over the 1990-98 period, and attempts to identify the role played by traditional growth determinants as well as new forces largely related to ICT.¹

It should be stressed at the outset that international comparisons of growth patterns are constrained by a number of measurement issues. First, despite major efforts by national statistical offices and international organisations, data problems still limit the possibility of comparing growth performance across countries and over time.² Second, output is notoriously difficult to measure in the service sector, which is a heavy user of ICT and where quality aspects of output are important. Finally, changes in trends are difficult to disentangle from cyclical developments at the best of times but particularly so when the focus is on the most recent observations. Moreover, countries differed a lot in business cycle conditions over the 1990s. To control for these problems, frequent use is made in this chapter of cyclically-adjusted series.³

The first section of the chapter examines cross-country patterns of trend GDP and GDP per capita growth and their main determinants across the OECD area over the

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1. The chapter draws on the more comprehensive analysis of recent growth trends in Scarpetta *et al.* (2000) and on material produced by the Directorate for Science, Technology and Industry (DSTI).
 2. Comparability problems have always affected international analyses of growth performances but are particularly relevant at present because of the different pace and comprehensiveness with which different countries have adopted new measurement techniques in their national accounts (see Box I.3 in OECD, 1999a).
 3. Trend series of output, employment and labour productivity have been estimated using an extended version of the Hodrick-Prescott filter (Hodrick and Prescott, 1997). The extended version of the H-P filter tries to overcome the well-known in-sample phase shift problem by extending actual data out of the sample using the observed average growth rate over the 1980-98 period. However, if past growth rates are not reasonable proxies for future growth patterns, this extension may lead to a bias at the end of the filtered series. For the majority of countries, the bias does not appear to be serious: the use of an alternative method of extending the data – using the projections in the OECD Medium Term Reference Scenario, (MTRS) – provided broadly similar results. There are, however, a few exceptions. In the case of Germany, France and Canada the use of OECD MTRS projections yields a somewhat higher trend growth rate over the 1990s; by contrast, they lead to a lower trend growth rate in output in Japan.

past two decades. The second section focuses on labour productivity, labour utilisation and the evolution of human capital. The third section takes a preliminary look at the role that ICT has played as a driver of growth in OECD countries over the past decade both directly, reflecting growth in the ICT-producing industry, and indirectly *via* the use of ICT as an input to production in other sectors. The fourth section examines multi-factor productivity growth in an attempt to identify significant shifts in the rate of technological progress and, thus, in growth potential. The final section offers some concluding remarks and outlines policy issues arising from observed growth trends.

Growth rates in GDP and GDP per capita

In a few countries, the long-run slowdown in growth performance appears to have been reversed in the 1990s

For the OECD area as a whole, both actual and trend GDP growth were lower in the 1990s compared with the previous two decades, continuing the well-documented long-run slowdown in growth rates (Table V.1). However, the trend was reversed in the United States and in several smaller OECD countries (most notably Australia, Ireland, the Netherlands and Norway, see Appendix, Table V.5).⁴ As demographic changes are generally slow, trend growth rates in GDP per capita – which are more relevant from a national living standard perspective – presented broadly the same picture (Table V.1).⁵ These different growth patterns are reflected in a widening of GDP growth disparities in the 1990s as compared with the 1980s (Appendix, Table V.5).

Differences in income per capita remain wide...

Reflecting these growth trends, data for 1998 show the United States at the top of the OECD income distribution followed by Norway and Switzerland with GDP per capita about 15-20 percentage points below the US level (Figure V.1). The bulk

Table V.1. Growth performance in OECD countries

Average annual rates of change

| | Actual growth of GDP | | | | Trend growth of GDP | | Trend growth of GDP per capita | |
|-----------------------------|----------------------|---------|---------|------|---------------------|---------|--------------------------------|---------|
| | 1970-80 | 1980-90 | 1990-98 | 1999 | 1980-90 | 1990-98 | 1980-90 | 1990-98 |
| United States | 3.2 | 3.2 | 3.0 | 4.2 | 2.9 | 3.1 | 2.0 | 2.2 |
| Japan | 4.4 | 4.0 | 1.4 | 0.3 | 3.8 | 1.9 | 3.3 | 1.6 |
| European Union ^a | 3.0 | 2.4 | 1.7 | 2.3 | 2.3 | 1.8 | 2.0 | 1.5 |
| OECD total ^{a, b} | 3.4 | 3.0 | 2.3 | 2.7 | 2.8 | 2.4 | 2.1 | 1.8 |

a) Growth rate for EU15 and OECD total is computed as a weighted average of country growth rates, using country GDP levels expressed in 1993 EKS PPPs as weights.

b) Excluding Czech Republic, Hungary, Korea and Poland.

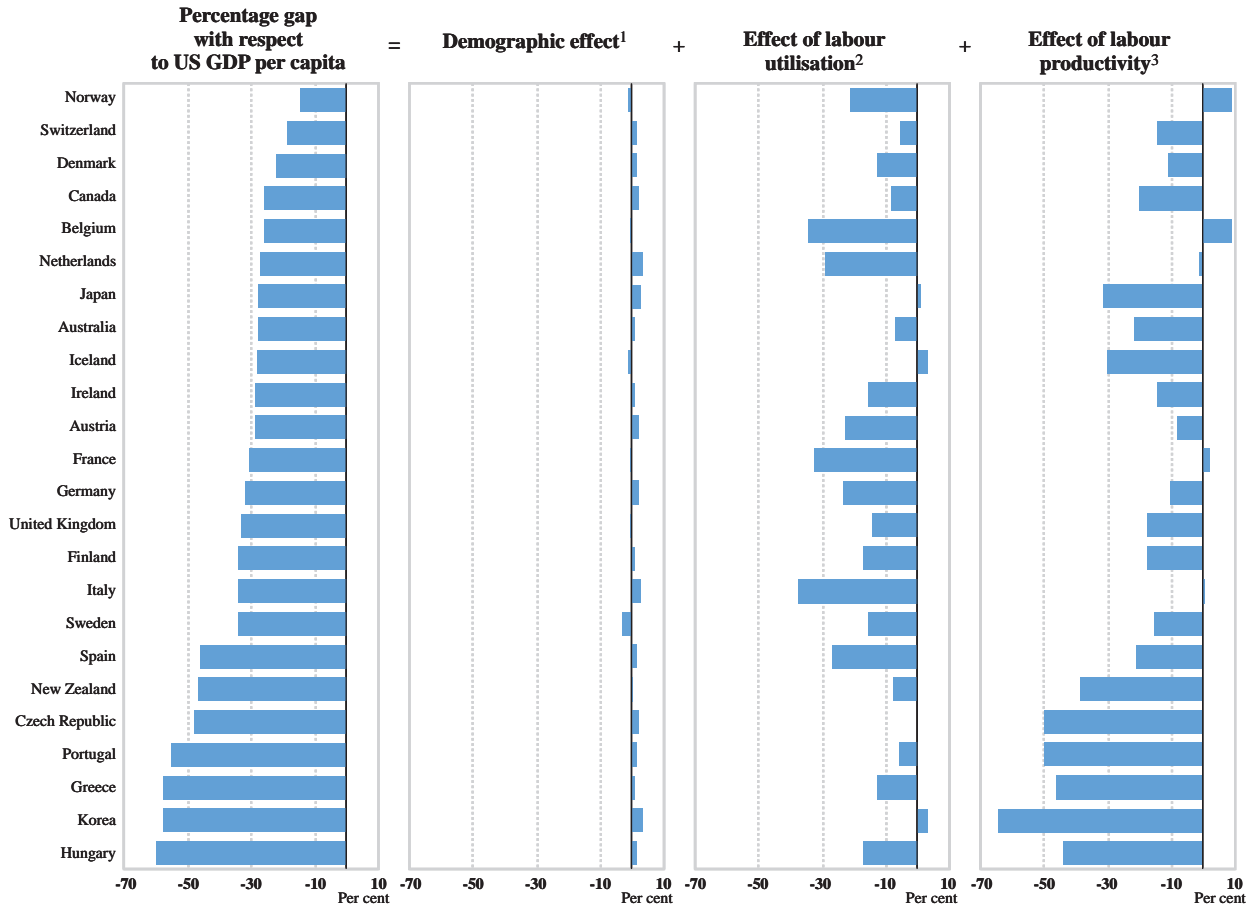
Source: OECD.

4. Denmark also figures in the Appendix Table with an acceleration in trend GDP growth. However, the data used in this chapter do not include the latest (May 2000) revisions of the Danish National Accounts. These revisions suggest a somewhat slower GDP growth rate in the 1990s.

5. Strictly speaking, per-capita GNP growth would be an even better measure, but in practice there is little difference between the two concepts in trend growth rates terms. There are, however, a few exceptions, including Switzerland and Ireland: for the former actual annual growth rate of GNP was 0.2 percentage point higher than the GDP growth rate (0.5 per cent); for Ireland, it was 0.6 percentage point lower than the GDP annual growth rate (6.1 per cent).

Figure V.1. Differentials in GDP per capita and their determinants, 1998

Percentage point differences in PPP-based GDP per capita with respect to the United States



1. Based on the ratio of working age population (15-64 years) to total population.
2. Based on employment rates and average hours worked.
3. GDP per hour worked.

Source: OECD.

of the OECD, including all the other major economies, lag behind per capita GDP in the United States by 25-35 percentage points.

In the 1950s and 1960s many OECD countries grew rapidly towards the much higher US income levels, partly through imported US technologies and knowledge but also, in some cases, as a result of post-war reconstruction. The process of convergence slowed in the 1970s and 1980s and, considering both levels and growth rates, there are now only a few countries (*e.g.* Ireland, Korea) that seem still engaged in a process of catching-up. Strong US growth in the 1990s meant that the gap between its per-capita income levels and those of most other OECD countries started to widen again over the decade.

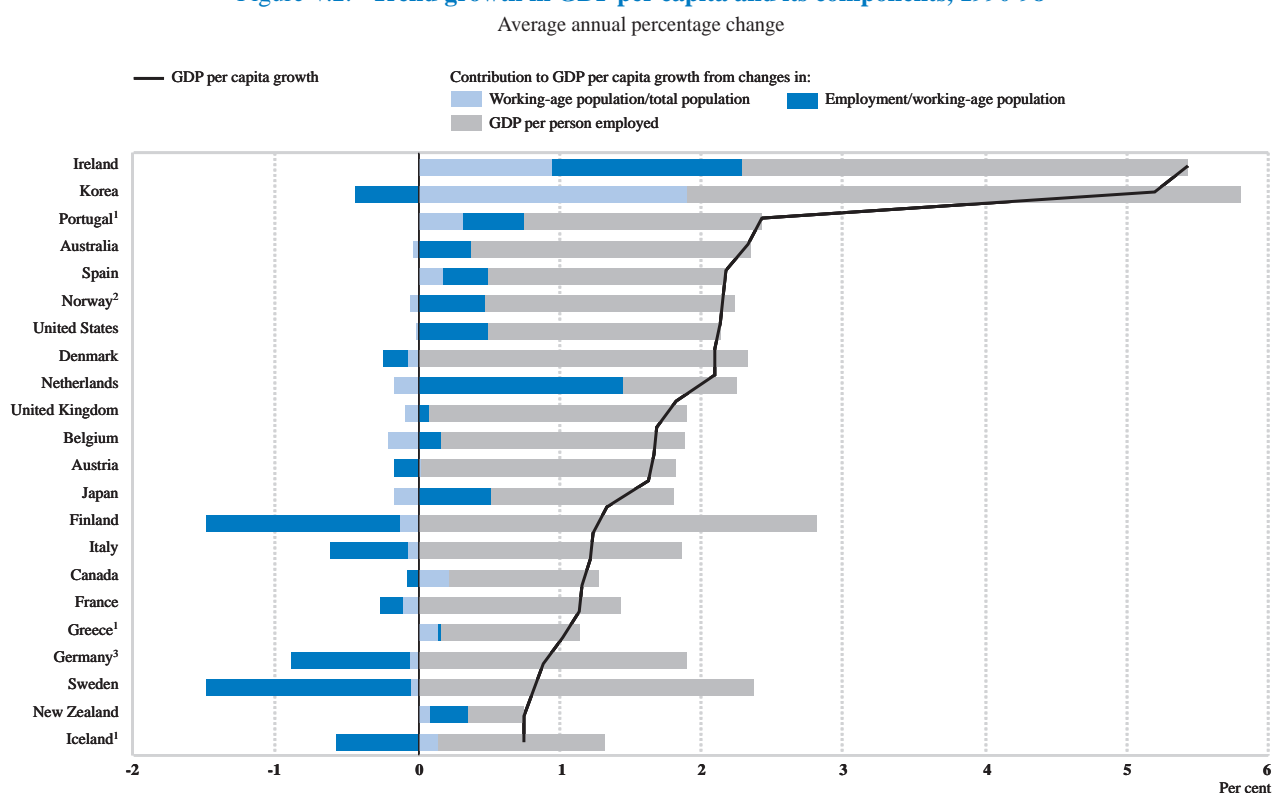
... and convergence in income per capita has generally come to a halt

Decomposition of growth in GDP per capita: demographics, labour productivity and labour utilisation

Decomposition of growth in GDP per capita shows that...

A useful way of viewing growth in GDP per capita is to break it down into three major components, comprising growth rates of: *i*) the ratio of persons of working age (15-64 years) to the total population; *ii*) the ratio of employed persons to the working-age population (the “employment rate”); and *iii*) labour productivity (Figure V.2).

Figure V.2. **Trend growth in GDP per capita and its components, 1990-98**



1. 1990-97.

2. Mainland only.

3. 1991-98.

Source: OECD.

... demographic changes play only a small role in growth of GDP per capita

For the vast majority of OECD countries, demographic trends were a relatively minor component of growth in GDP per capita over the 1990s. The only countries where demographic change made a positive and significant contribution to growth in GDP per capita were Korea and Ireland, the latter having experienced a reversal in traditional migration flows in the 1990s (OECD, 1999c). However, in some OECD countries, demographic trends have begun (in this accounting sense) to act as a slight drag on growth in GDP per capita. This tendency is set to strengthen in the future due to a more rapid increase in the share of older persons in total population (OECD, 1998).

Rising labour productivity, defined as GDP per person employed, accounted for at least half of GDP per capita growth in most OECD countries over the 1990s. Compared with the previous decade, it picked up in a number of countries, including the United States, Australia, Norway, Portugal – where it was associated with stable or rising employment rates – and in Germany, Finland, Sweden – where it was associated with declines in employment rates (see Appendix, Table V.5).

By comparison, labour productivity plays a major role...

Since hours worked fell in most countries over the 1990s, especially in Continental Europe, labour productivity growth was higher on a hourly basis than when measured on a head-count basis. Declines in hours worked reflect both shorter statutory (or collectively agreed) working weeks as well as, especially in a number of European countries, a substantial increase in part-time work. Strong growth in part-time work has generally been associated with growing female labour-force participation (OECD, 1999b).

The 1990s witnessed striking differences in the evolution of employment rates: amongst the major economies, increases in the United States and Japan contrast sharply with declines in Germany, France and Italy. Even stronger contrasts are found amongst some smaller countries; strong upward trends in employment rates in Ireland and the Netherlands compare with declines in Finland and Sweden.

... together with changes in employment rates

Labour utilisation is also an important factor in accounting for differences in the level of GDP per capita across countries. This is illustrated in Figure V.1 above, which suggests large disparities in labour utilisation (employment rates combined with hours worked), whereas differences in the age composition of the population play a very minor role. A number of countries (*e.g.* the United States, Japan) have high employment rates and higher than average hours worked, while most of the Nordic countries have even higher employment rates, but this is offset by lower hours worked. By contrast, low employment rates in some countries (*e.g.* Germany, France, Italy, Austria, Belgium and Spain), combined with relatively low hours explain more than 20 percentage points of the gap between their per-capita income and that of the United States.

This decomposition is also reflected in comparisons of GDP per capita levels across countries

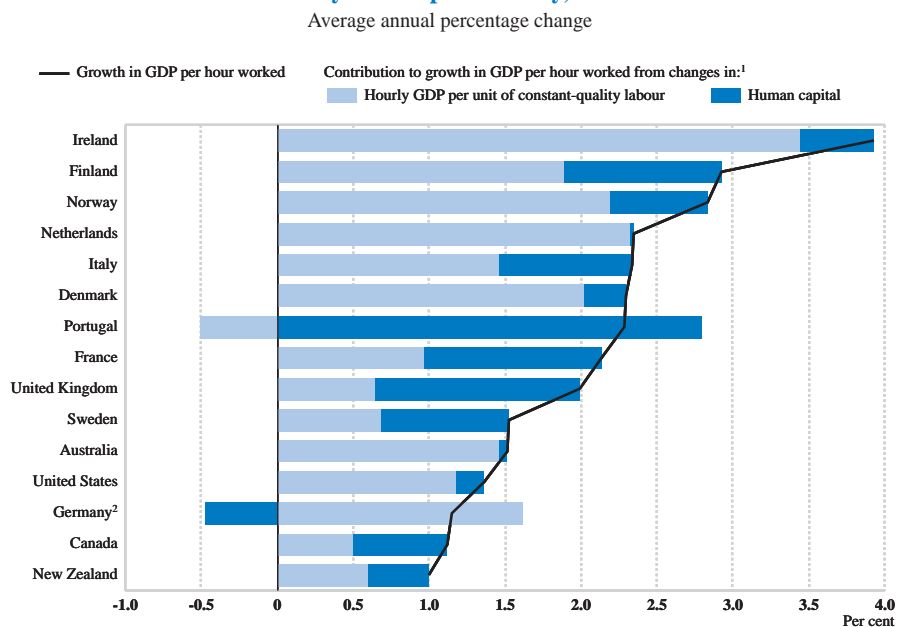
The contributions of labour productivity and labour utilisation to GDP per capita are inter-related: non-employed people of working age generally have lower education levels – and thus potential productivity – than those in employment. Convergence towards the US level of labour utilisation might therefore be associated with a drop in relative productivity in countries with low labour utilisation. Nevertheless, even if labour productivity at the margin is only half the average productivity level, rising labour utilisation in these countries would still substantially raise GDP per capita.

The role of skills and labour utilisation in labour productivity growth

Growth in GDP per person employed is partly attributable to increases in the average level of skills, or “human capital”, of those in employment. This is illustrated in Figure V.3, which identifies the impact of changes in the average human capital of workers on growth in trend GDP per hour worked. The human-capital adjustment is based on a measure of labour input which sums groups of workers with different levels of formal education, each weighted by their relative wage. The rationale behind this measure is first that education attainment accounts for a good proportion of human capital embodied in workers; and second, that relative wages

Growth in labour productivity can partly be explained by the up-skilling of employment...

Figure V.3. Effects of human capital on growth of hourly labour productivity, 1985-96



1. This is based on a simple quantitative decomposition: growth in GDP per hour worked = (labour productivity adjusted for hours and human capital) + (growth in human capital). Changes in human capital are proxied by changes in the education composition of employment, see main text.

2. Before 1991, data refers to Western Germany.

Source: OECD.

between different levels of education provide a reasonable quantitative proxy for the relative productivity of workers with different levels of education.⁶ Given the secular increase in educational attainment in OECD countries, it is not surprising that for most countries human capital made a positive contribution to growth in GDP per person employed,⁷ and as a corollary, “quality” adjusted growth rates in productivity are typically lower than those based on standard calculations. In terms of magnitude, the data suggest that rising levels of human capital provided a significant contribution to trend growth of GDP per hours worked, although not as large as the contribution from productivity growth within each education group of the workforce (*i.e.* growth in hourly GDP per constant-quality labour).

6. Data availability constrains the country coverage and the time period (1985-96). The calculation is made separately for men and women to account for the markedly different wage patterns between the sexes. In principle, other factors that potentially determine human capital could be taken into account in the measure, such as years of work experience; however, a lack of comparable data across countries prevented a more refined measure in this instance. It should be stressed that the assumption that wages reflect relative labour productivities is commonly made but, strictly speaking, only holds where firms operate under constant returns to scale in competitive input and product markets, and maximise their profits by equating compensation with each worker’s contribution to output. The Bureau of Labor Statistics (BLS, 1993) discusses how deviations from these conditions affect the relationship between the contribution to output and compensation.

7. The result for Germany reflects the discrete fall in the average education level of the workforce because of the unification with the Eastern Länder.

Skill upgrading amongst workers is particularly marked in Europe, where it has been accompanied by sluggish employment growth, productivity gains having been achieved in part by dismissing or not employing workers with low skills.⁸ By contrast in the United States, Australia, Denmark and the Netherlands, skill upgrading has played a relatively modest role in GDP growth per employed person. Improving labour-market conditions have widened the employment base in these countries, especially in the 1990s, allowing low-skilled workers to get a foothold into employment.

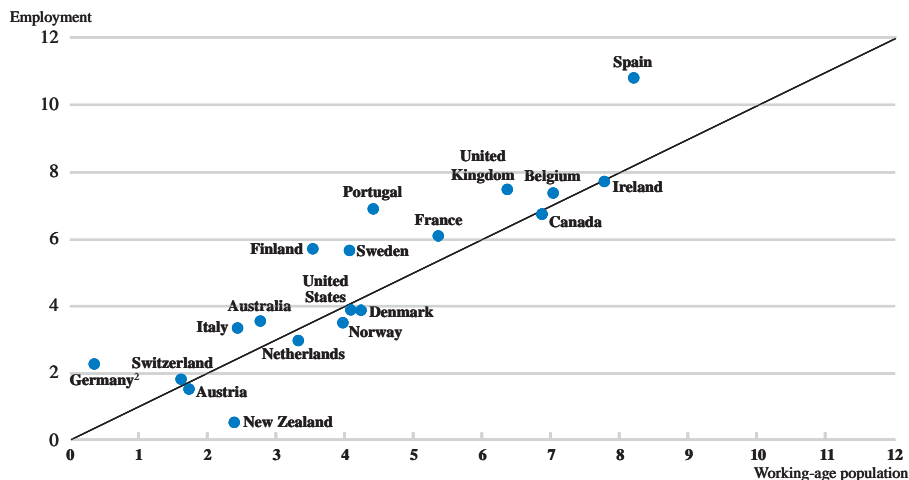
... but in some countries this partially reflects the exclusion of the low skilled from employment...

In order to shed further light on this, Figure V.4 plots changes in the share of persons with upper-secondary education or above in employment against changes in their share in the total working-age population. While up-skilling among the employed is largely associated with a generalised improvement in the educational level of the working age population, there has been a general tendency for employment changes to be biased towards the better educated (most countries are located above the diagonal in Figure V.4). However, this is not a generalised phenomenon: countries which maintained favourable labour-market conditions or experienced significant improvements have had a more balanced relative employment performance (they tend to be located at or below the diagonal in Figure V.4).

... as shown by the higher degree of up-skilling in employment with respect to the total working-age population

Figure V.4. **Human capital growth in total working-age population and in employment, 1989-96**

Percentage point change of the share of individuals with higher educational levels¹ in total



1. Higher education levels refer to ISCED codes 5, 6 and 7.

2. 1991-96.

Source: Calculations based on data from OECD, *Education at a Glance*, various issues.

8. From the discussion in the previous paragraph, skill upgrading should be interpreted as a shift in the composition of the workforce towards better educated workers, and not as an improvement of individual workers' human capital.

The role of sectoral shifts in aggregate labour productivity growth

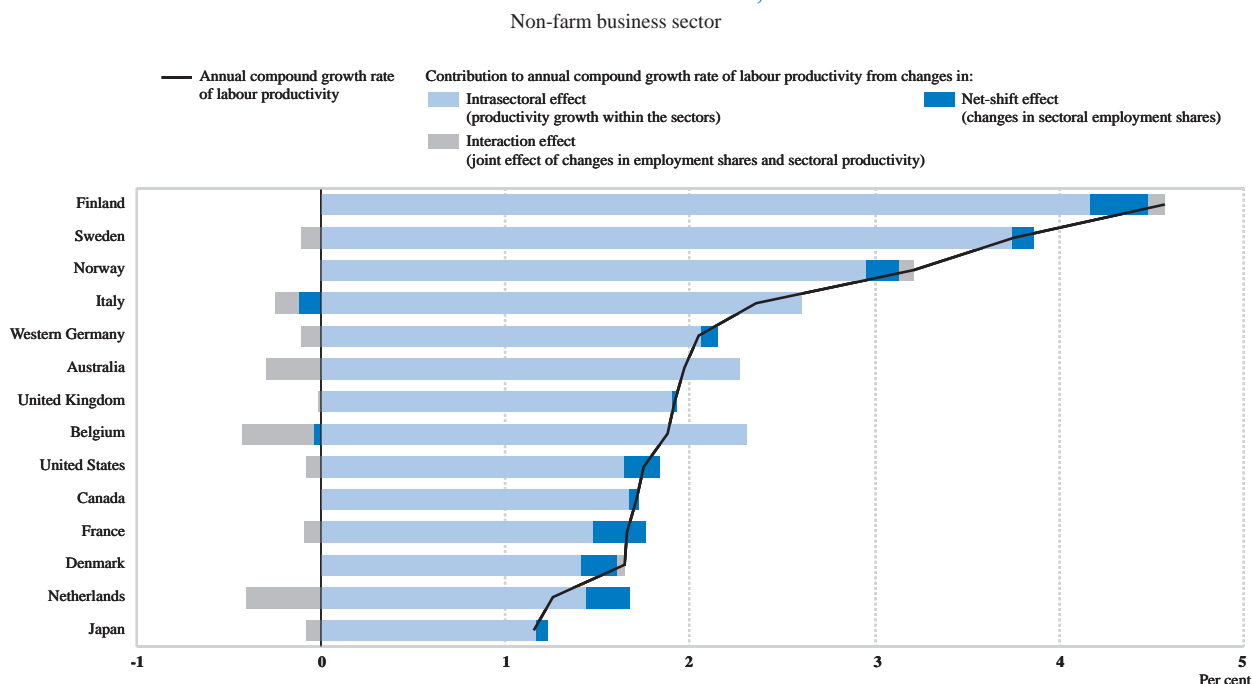
Sectoral shifts play a minor role in explaining labour productivity trends in individual countries...

... although the small size of service sectors in some of them suggests that there is scope for further structural change

In the past, shifts in employment from less to more productive sectors were often a significant factor in explaining long-run growth trends and cross-country differences in labour productivity. However, evidence for the 1990s suggests that the most important contribution to overall productivity growth patterns came from productivity changes within industries, rather than as a result of significant shifts of employment across industries. This is illustrated in Figure V.5, which shows a decomposition of labour productivity growth into a within-industry effect, a between-industry effect and an interaction effect.⁹ The within-industry labour productivity growth accounted for most of the overall productivity growth over the 1990s, although the rather broad industries used in the decomposition may have some bearing on the result.¹⁰

The evidence that productivity growth is largely a matter of improved performance within industries is perhaps not surprising for the countries examined in Figure V.5, where shares of services sectors in overall value added have stabilised at around 70 per cent. However, other OECD economies, including Ireland as well as some low-income countries, have much smaller service sectors, suggesting that there may be further scope for structural change at this broad level. In addition, there is

Figure V.5. Breakdown of compound growth rate of labour productivity into intra and inter sectoral effects, 1990-97



Source: OECD.

9. A negative contribution from the interaction effect occurs when industries with growing relative productivity decline in size or when industries with falling productivity grow in size. The data are from the OECD ISDB-STAN database (2-digit ISIC for services and a 3-4 digit ISIC for manufacturing).

10. The evidence of a strong within-industry contribution is, however, confirmed by firm-level studies. For a recent summary of firm-level data on productivity see Bartelsman and Doms (2000).

likely to be scope for further structural change and improved resource allocation across the industries considered in Figure V.5. This is particularly the case for those service sectors that cover a broad range of activities (*e.g.* business services).

The role of information and communication technology

Much of the current discussion about growth focuses on the role of information and communication technology (ICT). There are three main channels through which ICT can affect potential growth rates: *i*) an acceleration of productivity in the ICT-producing sectors themselves, and a growing size of ICT-producing sectors in the economy; *ii*) capital deepening across the economy, driven by rapid investment in ICT equipment, and resulting in a boost to labour productivity; and *iii*) widespread spillover effects on productivity arising from the IC technology. This section focuses on the first two contributions of ICT, while the third is discussed in the next section in the broader context of the analysis of multi-factor productivity trends.

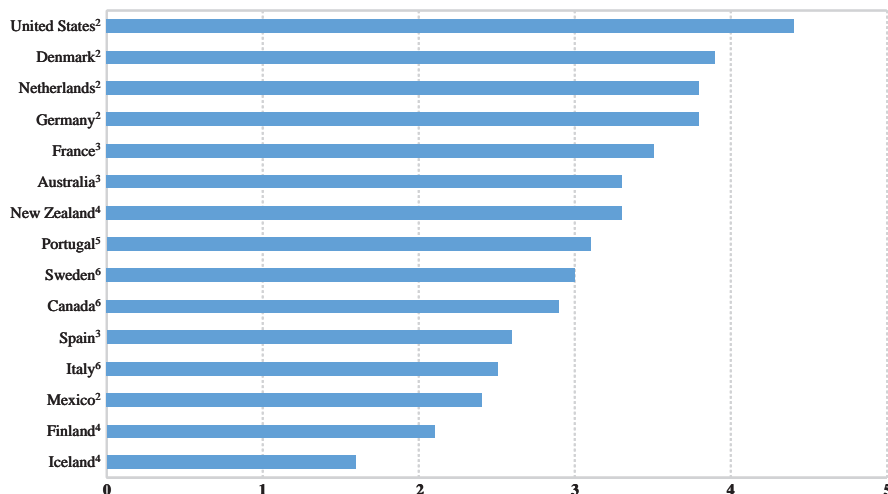
ICT has the potential to affect output and productivity growth

The ICT-producing sector

The contribution made by output of the ICT sector itself to aggregate output is still small in most OECD countries (Figure V.6). Internationally-comparable data compiled by the OECD on value added originating in the three principal segments of

The ICT-producing sector is still relatively small...

— Figure V.6. Share of value added of ICT industries¹ in total GDP, mid-1990s —
Per cent of GDP



1. Defined as ISIC Rev.2 classes 3825 (Office and computing equipment), 3832 (Radio, TV and communication equipment) and 72 (Communication services).

2. 1996.

3. 1997.

4. 1995.

5. 1993.

6. 1994.

Source: OECD (2000), *OECD Information Technology Outlook*, Paris.

Box V.1. Computer production and spending: accounting for price and volume developments

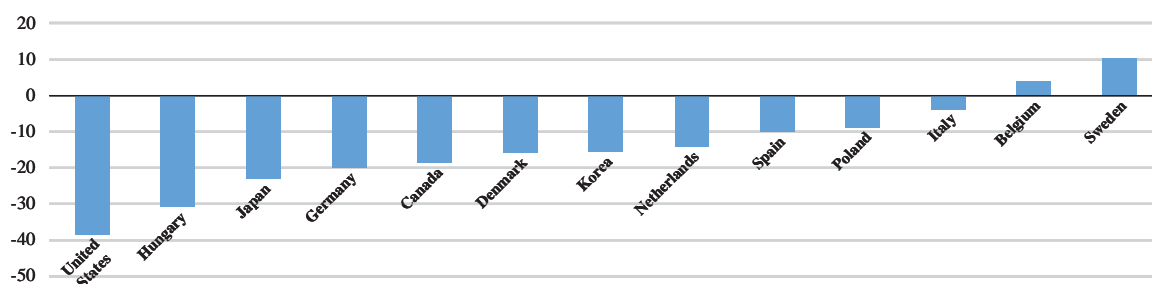
The rapid pace of technological advance in the computer industry complicates the statistician's task of how to divide nominal changes into volume and price developments. The ability of a "standard" personal computer to process, store and send information has risen dramatically in the past 10-15 years. Over the 1990s the standard microprocessor speed has increased 16-fold, and both the standard storage capacity and the transmission speed have risen more than 200 times. With all these quality changes in the basic personal computer, it is difficult to equate one unit today with one unit a decade ago or with an even more distant relative. There had been striking developments also in the price/quality characteristics of telecommunications equipment.

Different methods are applied to measure price and quantity developments in computer production and spending (see also Schreyer, 2000). They range from no effort to adjust for quality changes, over judgmental approaches to more complete quality adjustments with "hedonic" and similar methods. When no adjustment is made, the price index computed from the price per computer unit, and the quantity index is based on the number of units produced or sold. The "hedonic" method unbundles the market price of the computer

into its most important technical characteristics, and prices each characteristic separately, using a regression analysis approach. The "hedonic" price index is the average price of all the characteristics, and the quantity index is based on nominal values deflated by this price index. The large discrepancies in producer price developments in the office, accounting and computing equipment sectors across countries are likely to reflect to a large extent different methodologies. Thus, the sharp measured drop in prices of such goods in the United States reflects the use of "hedonic" methods. By contrast, the modest fall or even increases in producer prices of office, accounting and computing equipment in many European countries may be due to the predominant "conventional" methods in deriving price indices. This suggests that quantities produced, and productivity trends, in the office, accounting and computing equipment sector are under-estimated in these countries. If computer prices are upward biased, a downward bias enters volume measures, such as real investment or consumption. The extent to which overall GDP measures are affected depends on the importance of a country's ICT industry, and on its propensity to import ICT equipment.

Producer prices of office, accounting and computing equipment

1999, 3rd quarter, as a percentage change from 1995 average



Note: With the exception of the United States, the data come from OECD, *Indicators of Industrial Activity*. Data for the United States are weighted averages of producer prices for electronic computers, and office and store machines and equipment.

Sources: OECD, *Indicators of Industrial Activity*; US Department of Labor.

the ICT sector (but excluding software) show that it did not reach 5 per cent of GDP in the mid-1990s in any of the countries for which data are available. Higher contributions in some countries have been obtained using more comprehensive data (including *inter alia* software): for example, more than 7 per cent of GDP in the United States and Japan is estimated to have originated in the broadly-defined ICT sector. However, in most continental European countries, the ICT sector remains small even on an extended definition.

... though it has made a marked contribution to labour productivity growth in the United States

The ICT-producing industry experienced a major surge in productivity in the United States, especially in the latter part of the 1990s. Notwithstanding the small share of ICT in total value added, this within-sector acceleration is estimated to have raised labour productivity growth in the US business sector as a whole by 0.2 to 0.3 percentage point in the 1995-99 period.¹¹ Furthermore, there is some preliminary evidence of accelerating productivity in the ICT-producing sector in other countries. In assessing this evidence, it should be stressed that some countries may be underestimating quality improvements in ICT goods (see Box V.1). Bearing this in mind, industrial statistics confirm that labour productivity in the two sectors most heavily engaged in the production of ICT equipment (office, accounting and computing equipment; and radio, television and communications) typically rose significantly faster than in the manufacturing sector at large, especially in the latter part of the 1990s (Table V.2).

Table V.2. Labour productivity in manufacturing and two ICT sectors in third quarter 1999

1995 = 100

| | Office, accounting and computing equipment | Radio, television and communications equipment | Manufacturing |
|----------------|--------------------------------------------|------------------------------------------------|---------------|
| United States | 460 | 172 | 125 |
| Japan | .. | 112 | 104 |
| Germany | 186 | 129 | 117 |
| France | .. | 128 | 115 |
| United Kingdom | 160 | .. | 103 |
| Canada | 97 | 141 | 105 |
| Austria | 116 | 134 | 130 |
| Denmark | 99 | 151 | 109 |
| Finland | 127 | 193 | 119 |
| Korea | 454 | 322 | 150 |
| Mexico | 117 | 144 | 119 |
| Portugal | .. | 195 | 122 |

Source: OECD (1999), *Indicators of Industrial Activity*, No. 4.

ICT investment and capital deepening

The second channel through which ICT affects output and labour productivity is through capital deepening. Technological progress has manifested itself, in part, through falling prices of ICT equipment (especially when adjusted for quality). When appropriate adjustment is made for quality improvements, annual declines in prices of IT equipment have typically exceeded 10 per cent. The falling prices have not only induced substitutions from other assets to ICT equipment, but also increased the overall level of investment, *i.e.* generating capital deepening.

Falling ICT prices induce substitution into ICT investment and capital deepening

ICT has certainly had an impact on investment patterns across OECD countries. In the major seven countries, the share of IT capital goods in total investment expenditure rose steadily over the 1990s, and accounted for up to 13 per cent of total non-residential gross fixed capital formation by 1996, the latest year for which internationally comparable figures are available (Table V.3). The share of communication equipment also rose, though less rapidly, and accounted for around 5 per cent of total

ICT makes up a rapidly increasing share of investment

11. See Gordon (1999); Oliner and Sichel (2000); Council of Economic Advisors (2000).

Table V.3. The evolution of investment in ICT, G7 countries

| | Canada | France | Western Germany | Italy | Japan | United Kingdom | United States |
|------------------------------------------------------------------------|--------|--------|-----------------|-------|-------|----------------|---------------|
| Share in non-residential Gross Fixed Capital Formation: | | | | | | | |
| IT equipment | | | | | | | |
| 1985 | 6.9 | 6.1 | 3.4 | 3.4 | 3.4 | 5.2 | 6.3 |
| 1990 | 7.3 | 5.0 | 3.5 | 4.1 | 3.8 | 7.5 | 8.7 |
| 1996 | 10.1 | 6.0 | 6.1 | 4.2 | 4.6 | 11.7 | 13.4 |
| Communication equipment | | | | | | | |
| 1985 | 4.2 | 4.0 | 3.7 | 2.4 | 0.8 | 5.2 | 5.8 |
| 1990 | 5.3 | 3.8 | 3.7 | 3.6 | 1.5 | 5.8 | 7.0 |
| 1996 | 6.1 | 4.9 | 4.8 | 5.4 | 3.5 | 6.6 | 6.5 |
| Average annual rate of growth of constant price expenditure on: | | | | | | | |
| IT equipment | | | | | | | |
| 1985-90 | 17.2 | 16.2 | 18.8 | 20.8 | 23.6 | 25.5 | 19.6 |
| 1990-96 | 17.6 | 11.0 | 18.6 | 12.9 | 14.5 | 17.6 | 23.8 |
| Communication equipment | | | | | | | |
| 1985-90 | 20.6 | 19.0 | 18.4 | 25.6 | 34.7 | 20.3 | 16.7 |
| 1990-96 | 4.3 | 2.1 | 3.4 | 9.2 | 15.0 | 2.2 | 5.1 |
| Price deflator:^a | | | | | | | |
| IT equipment | | | | | | | |
| 1985-90 | -9.4 | -10.2 | -10.3 | -8.1 | -12.0 | -6.7 | -10.4 |
| 1990-96 | -11.1 | -9.2 | -10.7 | -9.1 | -12.5 | -9.1 | -11.5 |
| Communication equipment | | | | | | | |
| 1985-90 | 1.3 | 0.5 | 0.4 | 2.7 | -1.3 | 4.0 | 0.3 |
| 1990-96 | -0.7 | 1.2 | -0.4 | 1.3 | -2.2 | 1.2 | -1.1 |

a) Figures refer to "harmonised" deflator indices based on the assumption that the differences between price changes for ICT capital goods and non-ICT capital goods are the same across countries.

Source: Schreyer (2000).

non-residential investment. Moreover, volumes of IT capital investment rose at annual rates ranging from 11 per cent in France to 24 per cent in the United States in the 1990-96 period. Recent evidence for the United States points to an acceleration in IT investment to a growth rate of about 38 per cent annually in the 1996-99 period.

This has resulted in a higher, though still small, contribution of ICT capital to output growth...

Strong investment in ICT has made a rising contribution to overall output growth. During the 1980s, ICT capital (hardware) accounted for only about 0.1-0.2 percentage point per year of business-sector output growth (Figure V.7).¹² The growth contribution from ICT was still relatively small since the already high rate of growth of ICT capital applied to a small base. In the first half of the 1990s, the contribution of ICT capital to output growth increased in most countries, and particularly so in the United States where it reached 0.4 percentage point per year, and accounted for about 14 per cent of total output growth.

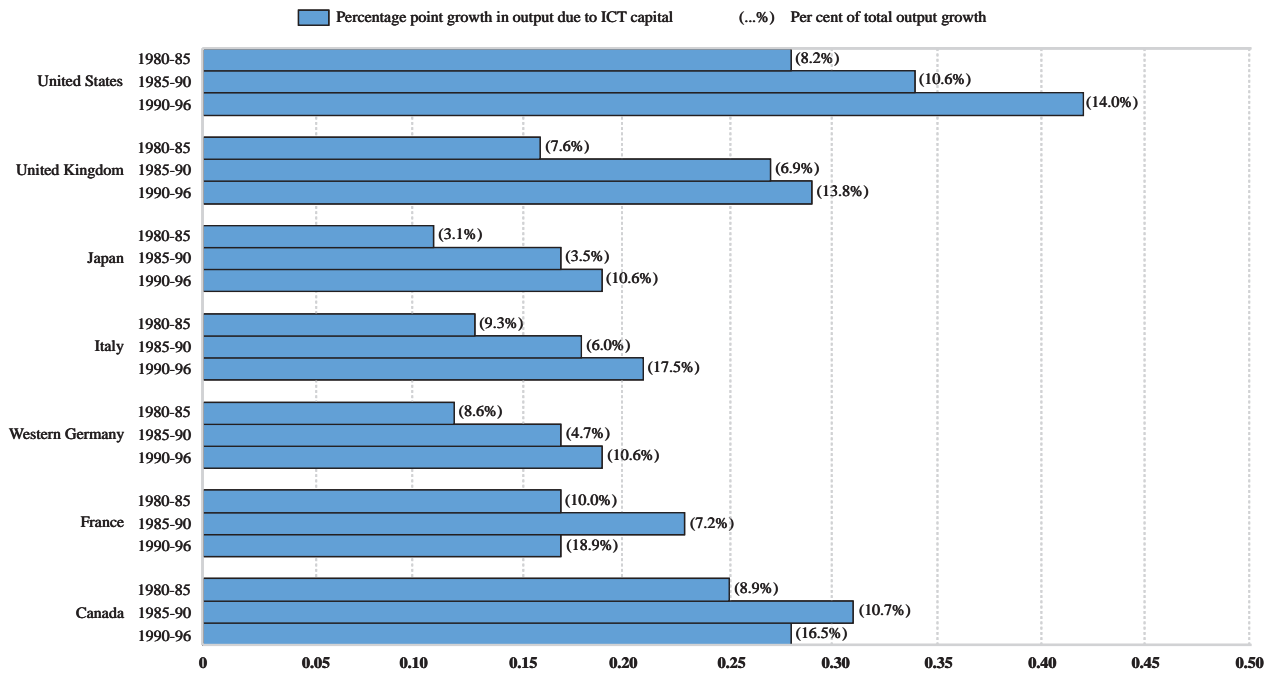
... which, however, has further increased in the most recent years, at least in the United States

More recent evidence for the United States (Oliner and Sichel, 2000) suggests that the contribution of ICT to output growth surged in the second half of the 1990s due to a strong acceleration in the rate of growth of ICT capital: in particular, the growth rate of hardware and communication equipment doubled in the 1996-99 period as compared to the first half of the decade. The overall contribution of ICT capital (including software) to output growth was about 1.1 percentage point, almost double that recorded in the early 1990s.

12. The output share of the ICT sector across the G7 countries averaged only 1 to 3 per cent.

Figure V.7. The contribution of ICT capital to output growth

Total industries, based on harmonised ICT price index



Source: Schreyer (2000).

Multi-factor productivity growth

In addition to the effects that ICT has on output and labour productivity via the production and use of capital goods, ICT equipment can generate spillover or “network” effects in the economy. For example, the economic benefits of improved business-to-business communication through the Internet do not all arise directly from quality improvements in the stock of individual computers but also from different – and cheaper – ways of organising production and sales (*i.e.* some gains are “disembodied”). These network effects and other disembodied aspects of technological change can, in theory, be detected in estimates of multi-factor productivity (MFP) growth. This concept represents the residual output growth once the direct contribution of changes in the quantity and quality of capital and labour are accounted for. In practice, however, such a clear definition of multi-factor productivity is difficult to apply for at least two reasons: *i*) quality and compositional changes in the capital stock are not fully grasped by the asset decomposition used in this chapter and are captured by the productivity residual; and *ii*) for countries outside the G-7, available data do not allow the assessment of the direct or indirect effects of ICT (nor other compositional/quality changes in capital) but, again, these are captured by the productivity residual.

Measures of multi-factor productivity highlight different elements of technological progress

Table V.4. Estimates of Multi-Factor Productivity growth rates in the G7 countries, 1980-98

Average annual growth rates
(based on trend series time-varying factor shares)

| | | 1980-90 | 1990-98 ^a | 1995-98 ^b | 1990-96 |
|----------------------|-------------------------------------------------|---------|----------------------|----------------------|---------|
| United States | MFP growth | 0.8 | 1.0 | 1.0 | 1.0 |
| | with control for human capital | 0.8 | 0.8 | 1.0 | 0.9 |
| | ... and composition/quality of physical capital | 0.6 | .. | .. | 0.8 |
| Japan | MFP growth | 2.0 | 1.6 | 1.6 | 1.5 |
| | with control for human capital | .. | .. | .. | .. |
| | ... and composition/quality of physical capital | .. | .. | .. | .. |
| Germany ^c | MFP growth | 1.6 | 1.4 | 1.5 | 1.4 |
| | with control for human capital | 1.6 | 1.9 | 1.3 | 2.0 |
| | ... and composition/quality of physical capital | 1.5 | .. | .. | .. |
| France | MFP growth | 2.1 | 1.1 | 1.1 | 1.1 |
| | with control for human capital | 1.9 | 0.7 | 1.0 | 0.5 |
| | ... and composition/quality of physical capital | 1.5 | .. | .. | 0.4 |
| Italy | MFP growth | 1.5 | 1.2 | 1.0 | 1.2 |
| | with control for human capital | 1.4 | 0.6 | 0.7 | 0.5 |
| | ... and composition/quality of physical capital | 1.3 | .. | .. | 0.4 |
| United Kingdom | MFP growth | .. | 1.3 | 1.4 | 1.3 |
| | with control for human capital | .. | 0.5 | 1.2 | 0.5 |
| | ... and composition/quality of physical capital | .. | .. | .. | 0.3 |
| Canada | MFP growth | 0.4 | 0.8 | 0.8 | 0.8 |
| | with control for human capital | 0.4 | 0.8 | 0.8 | 0.8 |
| | ... and composition/quality of physical capital | 0.2 | .. | .. | 0.4 |

Note: For each country, the first line shows estimated MFP growth rate without control for composition/quality changes in labour and capital; the second controls for changes in the composition of labour; while the third also controls for composition/quality changes in physical capital.

a) 1991 for Germany.

b) 1997 for Italy and United States, 1996 for United Kingdom.

c) Western Germany before 1991.

Source: OECD.

Following these arguments, Table V.4 presents different measures of multi-factor productivity growth in the business sector of the major seven countries over the past two decades. The first measure is computed as the residual after allowing for aggregate hours worked and gross capital stock as inputs (*i.e.* not adjusted for changes in the quality of labour and capital inputs). This is the broadest measure of productivity growth that incorporates the effects of progress in human capital as well as embodied (in physical capital) and disembodied technological progress.¹³ The second measure corrects for the general rise in education levels by using a quality-adjusted measure of labour input. Finally, the third measure of the residual also takes into account changes in the “quality” and composition of the capital stock input (obtained aggregating over six types of assets). This measure can be considered as a proxy for the truly disembodied technological progress, although the decomposition of capital assets is still very limited and thus does not capture shifts occurring at a finer level of disaggregation.¹⁴ For the smaller countries, only the first two measures of MFP could be calculated (see Appendix, Table V.6).

13. For countries that use hedonic (or similar) price indices for certain investment goods (*e.g.* ICT), this measure of MFP growth rate does not incorporate technological progress embodied in them (as the capital stock is augmented by the improvements in quality of ICT goods). Bassanini *et al.* (2000) try to identify this component of broad MFP growth by considering the differences in growth rates of hedonic and non-hedonic price indexes of ICT. For the United States, the additional (embodied) part of MFP growth would be about 0.2 percentage point in the 1980-90 period and about 0.3 percentage point in the 1990-96 period.

Comparisons of the different MFP estimates in Table V.4 indicate significant variation among the major seven countries. The United States and Canada recorded a recovery in MFP growth that reversed a longstanding downward trend.¹⁵ Conversely, all measures of MFP growth rates decreased significantly in France and Italy. The correction for changes in the composition of labour and capital inputs tends to reduce measured MFP insofar as part of the productivity growth is assigned to improvements in the quality of factors used in the production process (*i.e.* embodied in inputs).

Only in a few smaller countries did MFP growth unambiguously and significantly increase in the 1990s compared with the previous decade. Thus, Australia, Denmark, Finland, New Zealand, Norway and Sweden all experienced increases in average growth rates of MFP of at least 0.5 percentage point (in most cases from relatively low rates in the 1980s).

It should be stressed that trend series as estimated in this chapter could underestimate the potential pick-up in output and productivity that might have occurred in the most recent years. According to a very recent study (Jorgenson and Stiroh, 2000), the acceleration of MFP in the ICT industry in the second half of the 1990s was sufficiently strong to positively affect the economy-wide MFP growth rate in the United States. Two additional studies (Whelan, 2000; Oliner and Sichel, 2000) also relate the growing utilisation of computer hardware and software to faster aggregate MFP growth in the United States. Their estimates suggest an almost doubling in labour productivity growth in the 1996-99 period as compared with the first part of the decade: the use of information technology and the production of computers accounted for about two-thirds of this acceleration.

Available data do not allow a clear identification of spillover effects (*i.e.* a boost to disembodied technological progress) in ICT-using sectors, partly reflecting measurement difficulties. In particular, there are serious problems associated with the recording of output in some of the industries using ICT most intensively. For example, measurement of the output of banks and financial institutions, which are heavy users of information technology, is generally regarded as poor, and any productivity-raising effects of computers in these sectors could go largely unrecorded in national accounts.

In addition, it is difficult to assess the impact of innovative ICT-based businesses and markets, most of which are at an early stage of development. For example, any productivity gains from business reorganisation to take advantage of Internet and other networks are likely to become clearly visible only after a certain threshold in network use has been passed. However, there is anecdotal evidence that Internet – which became available for business only in the mid-1990s – is now producing significant changes in several parts of the economy, especially in business-to-business transactions. Businesses are taking greater advantage of better real-time information systems, rationalising costly precautionary inventory stocks and the distribution of

MFP growth varied significantly across the major seven countries

Recent evidence for the United States suggests a significant pick-up in productivity, driven by the ICT industry and by greater utilisation of ICT equipment in other sectors...

... although measurement of output in sectors using ICT equipment remains problematic...

... and the “network” effects (due to the spread of e.g. Internet, e-commerce) may only start to materialise now

14. A number of assumptions were also made in computing capital stocks by six different assets; in deriving user costs expressions; and in aggregating across assets. For example, particular effort was made to derive a set of internationally harmonised price indices (based on hedonic adjustments) for investment in the asset type “information and communication technology” (see Schreyer, 2000 for more details).

15. Germany also had somewhat higher MFP growth rates based on labour-quality-adjusted measures in the 1990s compared with the 1980s, although reversion to the mean can be observed in the most recent years. It should be stressed, however, that quality adjusted measures for Germany are somewhat less reliable because reunification implied a slump in input quality at the beginning of the 1990s that was subsequently recovered, without changes of equal magnitude on output.

their products. Businesses have also started to reduce costs by integrating their suppliers more closely in the design and manufacturing of products, while also using the web to outsource tasks previously carried out internally. With greater information exchange between customers and producers, companies are likely to reduce labour hoarding required to meet unanticipated increases in product demand. As regards business-to-consumer transactions, electronic commerce is still in its infancy and unlikely to have had much effect on aggregate productivity to date, but fast expansion in the future could have major effects on distribution efficiency and work to strengthen competition, with beneficial effects on productivity as well as on consumer choices (see Chapter VI of this Outlook).

Concluding remarks

There were wide disparities in growth rates across the OECD countries in the 1990s...

This chapter provides evidence of wide disparities in growth performance across the OECD countries in the 1990s, even after abstracting from cyclical influences. These disparities are driven by persistently higher than average trend growth rates in some catch-up countries (*e.g.* Korea and Ireland) but also by high growth rates in some relatively affluent countries, such as the United States, Australia, the Netherlands, and Norway and low growth rates in much of Continental Europe as well as Japan. Disparities in trend GDP growth have widened in the 1990s as compared with the 1980s, largely because of growing differences in labour utilisation.

... which could have been partially driven by the spread of ICT in some countries

In the particular case of the United States, faster growth of output and labour productivity in the 1990s was associated with significant technological change, as estimated by faster growth rates of multi-factor productivity – especially in the most recent years. Evidence is accumulating that most of the productivity acceleration results from the spread of information and communication technology. Steeply rising productivity in the ICT-producing industry itself made a significant contribution to the speed-up of labour and multi-factor productivity at the macro level in the 1990s. Moreover, ICT capital deepening in other industries made a contribution to aggregate output and productivity growth, rising in the most recent years. In addition, some scattered evidence suggests a rapid growth in “network” aspects of ICT in the United States *via* the penetration of Internet and e-commerce, although its impact on MFP growth is yet to be unequivocally demonstrated and is complicated by measurement problems. Some of these trends are likely to continue and could signal a move towards relatively higher potential growth rates for some time to come.

There is also evidence of a speed-up in ICT investment and a growing role of the ICT-producing industry in other OECD countries, though generally starting from a lower level than in the United States. Likewise, ICT-related networks have spread in most countries, rendering possible substantial changes in the way businesses operate and potentially creating new opportunities for growth.

... but also by the capacity of others to mobilise labour and capital inputs, which ultimately depend on product and labour market reforms

Differing speeds of adjustment to new technologies provide only part of the picture in explaining growth performance across OECD countries. Macroeconomic conditions have some importance; countries with higher growth trends over the past decade also experienced buoyant cyclical conditions, low inflation and improving public finances. Microeconomic “framework” conditions also play an important role: a significant increase in MFP growth has occurred in most countries with a record of

structural reforms and a higher employment content of growth than in the past. Structural changes seem to have permitted higher utilisation of labour as well as a more productive use of factor inputs (or greater factor productivity if quality changes in factor inputs are taken into account).

The development of ICT also indicates specific areas for policy action. Thus, exploiting IC technologies to their full is likely to call for identifying new business opportunities, starting new enterprises, changing the organisation of existing ones, etc. This suggests that framework conditions that allow a flexible reallocation of resources within economies may become even more important than in the past.

APPENDIX

Table V.5. Growth performance in OECD countries

Average annual rates of change

| | Actual growth of GDP | | | | Actual growth of GDP per capita | | | | Trend growth of GDP per capita | | Trend growth of GDP per person employed | |
|---------------------|----------------------|---------|-----------------------|------|---------------------------------|---------|-----------------------|------|--------------------------------|---------|-----------------------------------------|---------|
| | 1970-80 | 1980-90 | 1990 ^a -98 | 1999 | 1970-80 | 1980-90 | 1990 ^a -98 | 1999 | 1980-90 | 1990-98 | 1980-90 | 1990-98 |
| United States | 3.2 | 3.2 | 3.0 | 4.2 | 2.1 | 2.3 | 2.0 | 3.2 | 2.0 | 2.2 | 1.1 | 1.7 |
| Japan | 4.4 | 4.0 | 1.4 | 0.3 | 3.3 | 3.4 | 1.1 | 0.1 | 3.3 | 1.6 | 2.6 | 1.3 |
| Germany | 2.7 | 2.2 | 1.4 | 1.5 | 2.6 | 2.0 | 1.0 | 1.4 | 1.9 | 0.9 | 1.6 | 1.9 |
| France | 3.3 | 2.4 | 1.4 | 2.9 | 2.7 | 1.8 | 0.9 | 2.5 | 1.6 | 1.2 | 1.9 | 1.4 |
| Italy | 3.6 | 2.2 | 1.3 | 1.4 | 3.1 | 2.2 | 1.2 | 1.3 | 2.3 | 1.3 | 2.2 | 1.9 |
| United Kingdom | 1.9 | 2.7 | 2.0 | 2.1 | 1.8 | 2.5 | 1.7 | 1.7 | 2.2 | 1.8 | 1.9 | 1.8 |
| Canada | 4.3 | 2.8 | 2.2 | 4.2 | 2.8 | 1.6 | 1.1 | 3.4 | 1.5 | 1.2 | 1.0 | 1.1 |
| Australia | 3.3 | 3.3 | 3.5 | 4.4 | 1.9 | 1.7 | 2.3 | 3.1 | 1.6 | 2.4 | 1.2 | 2.0 |
| Austria | 3.7 | 2.3 | 1.9 | 2.2 | 3.5 | 2.1 | 1.3 | 2.1 | 2.1 | 1.7 | 2.0 | 1.8 |
| Belgium | 3.4 | 2.0 | 1.8 | 2.5 | 3.2 | 1.9 | 1.5 | 2.3 | 1.9 | 1.7 | 1.8 | 1.7 |
| Czech Republic | .. | .. | 0.4 | -0.2 | .. | .. | 0.4 | -0.1 | .. | .. | .. | .. |
| Denmark | 2.2 | 1.9 | 2.3 | 1.6 | 1.8 | 1.9 | 1.9 | 1.2 | 2.0 | 2.1 | 1.5 | 2.4 |
| Finland | 3.4 | 3.1 | 1.5 | 3.5 | 3.1 | 2.6 | 1.0 | 3.2 | 2.2 | 1.3 | 2.4 | 2.9 |
| Greece | 4.7 | 1.6 | 2.0 | 3.2 | 3.7 | 1.1 | 1.4 | 2.9 | 1.3 | 1.3 | 0.9 | 1.0 |
| Hungary | .. | .. | -0.2 | 4.5 | .. | .. | 0.1 | 4.9 | .. | .. | .. | .. |
| Iceland | 6.3 | 2.7 | 2.2 | 4.4 | 5.2 | 1.6 | 1.3 | 3.3 | 1.7 | 0.8 | 1.3 | 1.2 |
| Ireland | 4.7 | 3.6 | 6.3 | 8.7 | 3.3 | 3.3 | 5.5 | 7.4 | 3.0 | 5.6 | 3.5 | 3.2 |
| Korea | 7.6 | 8.9 | 5.2 | 10.7 | 5.8 | 7.6 | 4.1 | 9.7 | 7.2 | 5.3 | 5.6 | 4.0 |
| Luxembourg | 2.6 | 4.5 | 5.3 | 4.9 | 1.9 | 3.9 | 3.9 | 3.6 | 4.0 | 4.0 | 2.8 | 2.4 |
| Mexico | 6.6 | 1.8 | 3.0 | 3.7 | 3.4 | 0.0 | 1.3 | 1.4 | 0.3 | 1.2 | .. | -0.2 |
| Netherlands | 2.9 | 2.2 | 2.6 | 3.6 | 2.1 | 1.6 | 2.0 | 3.0 | 1.6 | 2.1 | 1.1 | 0.8 |
| New Zealand | 1.6 | 2.4 | 2.2 | 3.9 | 0.5 | 1.7 | 0.7 | 3.4 | 1.2 | 0.8 | 1.6 | 0.4 |
| Norway ^b | 4.2 | 1.5 | 3.1 | 0.8 | 3.6 | 1.1 | 2.6 | 0.2 | 1.4 | 2.2 | 2.1 | 2.5 |
| Poland | .. | .. | 3.5 | 4.0 | .. | .. | 3.4 | 4.0 | .. | .. | .. | .. |
| Portugal | 4.7 | 2.9 | 2.4 | 3.0 | 3.4 | 2.9 | 2.3 | 2.7 | 2.9 | 2.5 | 1.6 | 1.7 |
| Spain | 3.5 | 3.0 | 2.1 | 3.7 | 2.4 | 2.6 | 1.9 | 3.6 | 2.3 | 2.2 | 2.4 | 1.7 |
| Sweden | 1.9 | 2.1 | 1.1 | 3.8 | 1.6 | 1.8 | 0.6 | 3.7 | 1.5 | 0.9 | 1.6 | 2.4 |
| Switzerland | 1.9 | 2.1 | 0.5 | 1.7 | 1.7 | 1.5 | -0.3 | 1.5 | 1.6 | 0.1 | 0.4 | 0.4 |
| Turkey | 4.1 | 5.2 | 4.2 | -5.0 | 1.8 | 2.8 | 2.4 | -6.6 | 2.0 | 2.3 | 2.8 | 2.6 |

Coefficients of variation of trend series^c

| | GDP | | GDP per capita | | GDP per person employed | | GDP per hours worked | |
|----------------------|---------|---------|----------------|---------|-------------------------|---------|----------------------|---------|
| | 1980-90 | 1990-98 | 1980-90 | 1990-98 | 1980-90 | 1990-98 | 1980-90 | 1990-98 |
| OECD ^d | 0.47 | 0.54 | 0.56 | 0.66 | | | | |
| European Union | 0.28 | 0.58 | 0.31 | 0.61 | 0.33 | 0.33 | 0.28 | 0.32 |
| OECD 24 ^e | 0.28 | 0.51 | 0.32 | 0.61 | 0.40 | 0.41 | 0.35 | 0.40 |

a) 1991 for Czech Republic and Germany.

b) Mainland only.

c) Calculated as the ratio of the standardised deviation to the mean of trend growth rates across countries.

d) Excluding Czech Republic, Hungary and Poland.

e) Excluding Czech Republic, Hungary, Korea, Mexico and Poland.

Source: OECD.

Table V.6. Estimates of Multi-Factor Productivity growth rates, smaller countries, 1980-98

Average annual growth rates
(based on trend series time-varying factor shares)

| | | 1980 ^a -90 | 1990-98 ^b |
|---------------------|--------------------------------|-----------------------|----------------------|
| Australia | MFP growth | 0.9 | 2.1 |
| | with control for human capital | 0.9 | 2.0 |
| Belgium | MFP growth | 1.4 | 1.0 |
| | with control for human capital | .. | .. |
| Denmark | MFP growth | 1.0 | 1.8 |
| | with control for human capital | 0.9 | 1.9 |
| Finland | MFP growth | 2.4 | 3.2 |
| | with control for human capital | 2.2 | 2.8 |
| Greece | MFP growth | 0.6 | 0.3 |
| | with control for human capital | .. | .. |
| Ireland | MFP growth | 3.9 | 3.9 |
| | with control for human capital | 3.8 | 3.6 |
| Netherlands | MFP growth | 2.2 | 1.7 |
| | with control for human capital | 2.2 | 1.7 |
| New Zealand | MFP growth | 0.7 | 1.1 |
| | with control for human capital | 0.6 | 1.2 |
| Norway ^c | MFP growth | 1.1 | 2.1 |
| | with control for human capital | 0.9 | 1.9 |
| Portugal | MFP growth | 1.9 | 2.2 |
| | with control for human capital | 1.9 | .. |
| Spain | MFP growth | 2.2 | 0.6 |
| | with control for human capital | .. | .. |
| Sweden | MFP growth | 0.8 | 1.3 |
| | with control for human capital | 0.6 | 1.0 |
| Switzerland | MFP growth | .. | 0.2 |
| | with control for human capital | .. | 0.2 |

Note: For each country, the first line shows estimated MFP growth rate without control for composition/quality changes in labour and capital; the second does control for changes in the composition of labour.

a) 1984 for Denmark, 1986 for New Zealand and Portugal.

b) 1997 for Australia, Belgium, Norway and Spain; 1996 for Finland, Greece, Ireland, New Zealand and Sweden; 1995 for Switzerland; 1992 for Portugal.

c) Mainland only.

Source: OECD.

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VI. E-COMMERCE: IMPACTS AND POLICY CHALLENGES

Introduction¹

In 1991, the Internet had less than 3 million users around the world and its application to e-commerce was non-existent. By 1999, an estimated 250 million users accessed the Internet and approximately one quarter of them made purchases online from electronic commerce sites, worth approximately \$110 billion. If the expansion in e-commerce continues at this rapid pace, as is expected, then in four to five years from now, e-commerce transactions between businesses (B2B) and between businesses and consumers (B2C) will account for about 5 per cent of inter-company transactions and retail sales respectively. Looking forward, the potential for e-commerce transactions to gain a sizeable share of consumer and business purchases appears to be large, although it is difficult to quantify.

Electronic commerce is a relatively recent application of the Internet...

The prospect that e-commerce transactions may gain a sizeable share of overall commerce is only one dimension of why the Internet is generating such interest. The open structure of the Internet and low cost of using it permit the interconnection of new and existing information and communication technologies, and offers businesses and consumers an innovative and powerful information system and another form of communication. This makes it possible for buyers and sellers to come together in more efficient ways and is creating new marketplaces and opportunities for the reorganisation of economic processes. It is also changing the way products are customised, distributed and exchanged and how businesses and consumers search and consume products.

... creating new marketplaces and opportunities for the reorganisation of business processes...

In the decades to come, exploiting the full potential of these developments could have profound impacts in individual sectors of the economy as well as for macroeconomic performance and economic policies. At the aggregate level, productivity and economic growth could rise, at least for some time, as a result of more efficient management of supply and distribution, lower transaction costs, low barriers to entry and improved access to information.² Moreover, even if the impact of e-commerce on GDP is small and uncertain it could enhance welfare because, for example, of saved time, greater convenience and access to a wider selection of goods and services more finely tuned to individual needs. Nonetheless, to fully exploit the opportunities much remains to be done to ameliorate user and consumer trust, improve access to the Internet infrastructure and services, and to create a stable, predictable

... with potential impacts on growth and welfare and implications for economic policies

1. This chapter has benefited extensively from the guidance and comments received from the Directorates for Science, Technology and Industry and Financial, Fiscal and Enterprise Affairs.

2. See the previous chapter of this Outlook for an analysis of economic growth performance in OECD countries.

regulatory environment.³ Assessing the potential outcomes and economic impacts of e-commerce, the forces underlying its expansion, and the possible implications for structural and macroeconomic policy management is the focus of this chapter.⁴ Given, however, the recent advent of the Internet and the fact that only scattered empirical information is available it needs to be stressed that the policy consequences of e-commerce can at this stage only be speculated about and are in many respects distant.

Defining and measuring e-commerce

The term e-commerce has no widely accepted definition...

The term e-commerce has no widely accepted definition. In a loose sense it means doing business over the Internet, selling goods and services which are delivered offline as well as products which can be “digitised” and delivered online, such as computer software.⁵ Trades can be among businesses or between businesses and consumers. But the Internet also encompasses a wider spectrum of potential commercial activities and information exchanges. For instance, it offers firms, individuals and governments an electronic infrastructure which enables the creation of virtual auction markets for goods and services where previously they did not exist. EBay.com, for example, was among the first successful sites to provide a framework where consumers can trade a wide diversity of goods and services with each other (consumer to consumer, C2C) and, at least in principle, with businesses (consumer to business, C2B). Likewise, in some countries, including Australia, the United Kingdom and the United States, governments are beginning to reorganise the management of public procurement systems – equivalent to some 10 per cent of GDP – over the Internet, opening the prospect of sizeable B2G transactions. The technology is also being used by governments for the transmission or receipt of information (G2B, G2C) to improve the convenience and lower the cost of payment systems and tax compliance (C2G), and by businesses to manage after sales service and to develop direct consumer marketing. This chapter, however, focuses mostly on two parts of the e-economy: B2B and B2C, where most development and progress to date has taken place and which is in this chapter, collectively referred to as e-commerce (Figure VI.1).

... and few internationally comparable statistics are published...

It is difficult to measure how widespread e-commerce is. Two often-cited indicators that can be compared internationally are the numbers of Internet hosts and secure servers.⁶ These indicators show e-commerce expanding at a very brisk pace. In March 2000 there were 66 810 secure servers in the OECD area, up 97 per cent compared with a year earlier and Internet hosts have increased at exponential rates (Figure VI.2). Other indicators of Internet usage, such as the number of web users, web sites and new domain name

3. These issues and others were raised at the Ottawa OECD Ministerial on Electronic Commerce held in 1998. The Ministerial Conference agreed on an action plan to address obstacles to the future development of e-commerce and ways to maximise the benefits of e-commerce. For more details see the OECD Internet site http://www.oecd.org/subject/e_commerce/.

4. More detailed discussion on some of these issues can be found in OECD publications specific to e-commerce such as OECD, 1999a, OECD, 1999b and OECD, 2000a.

5. “Digitised” means the physical form of a good or service can be coded using digital technology and thereby distributed over the Internet.

6. Internet hosts are defined as any computer system with an Internet Protocol address connected to the network. The data do not provide a full count of users because surveys do not capture all computer systems connected to the Internet (e.g. computers behind firewalls) and thus provide an indicator of the minimum size of the Internet. Secure servers allow users to encrypt information on, for instance, credit card data which facilitates e-commerce. A count of secure servers, therefore, gives a reasonable measure of the distribution of e-commerce activities across countries.

Figure VI.1. E-commerce and broader Internet applications

| | Government | Business | Consumer |
|------------|----------------------------|------------------------------|-----------------------------|
| Government | G2G e.g. co-ordination | G2B e.g. information | G2C e.g. information |
| Business | B2G e.g. procurement | B2B e.g. e-commerce | B2C e.g. e-commerce |
| Consumer | C2G e.g. tax compliance | C2B e.g. price comparison | C2C e.g. auction markets |

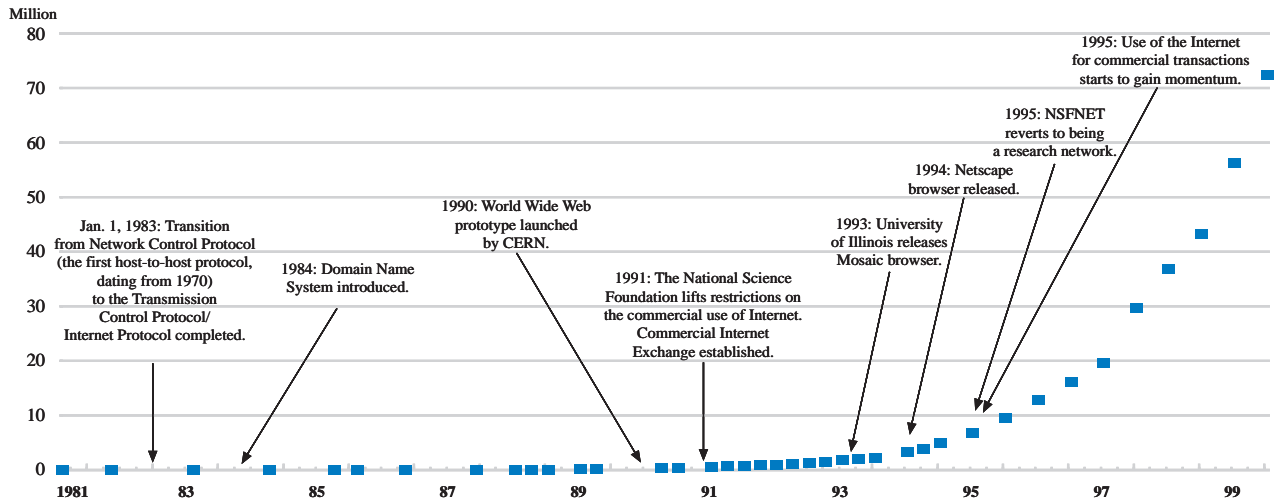
Source: OECD.

registrations also imply rapid growth (Thompson, 1999). But disparity across countries and regions is wide. Over 90 per cent of Internet hosts are in OECD countries, and relative to population, English speaking and Nordic countries generally have the highest density of secure servers and Internet hosts (Table VI.1).

Even more difficult to measure is the value of e-commerce transactions.⁷ Few statistical agencies systematically measure electronic transactions, although a number of countries intend, or are in the process of developing indicators related to electronic

... but available indicators suggest e-commerce is likely to continue to develop quickly

Figure VI.2. Number of Internet hosts



Source: OECD (www.oecd.org/dsti/sti/it/index.htm); Internet Software Consortium (www.isc.org); CERN (public.web.cern.ch/public/); NSF (www.nsf.gov); Hobbes' Internet TimeLine v.5.0 (www.isoc.org/zakon/internet/history/hit.html).

7. One of the most comprehensive surveys on e-commerce is conducted by the University of Texas Centre for Research in Electronic Commerce. It divides the Internet economy into four parts: the Internet infrastructure; Internet applications; Internet intermediaries; and Internet commerce. Nonetheless, it remains very difficult to isolate e-commerce transactions and avoid double counting since many companies are engaged in more than one of these areas.

Table VI.1. Number of Internet hosts and secure servers
in OECD countries

| | Secure servers March 2000 | | Internet hosts September 1999 | |
|----------------|------------------------------|----------------------------|----------------------------------|-----------------------------|
| | Number | Per million inhabitants | Number (thousands) | Per thousand inhabitants |
| United States | 47 056 | 170 | 44 230 | 160 |
| Japan | 1 946 | 15 | 2 373 | 19 |
| Germany | 2 835 | 34 | 1 676 | 20 |
| France | 1 058 | 18 | 778 | 13 |
| Italy | 619 | 11 | 534 | 9 |
| United Kingdom | 3 243 | 55 | 2 073 | 35 |
| Canada | 2 689 | 87 | 2 346 | 76 |
| Australia | 2 227 | 119 | 1 037 | 55 |
| Austria | 344 | 42 | 229 | 28 |
| Belgium | 240 | 24 | 302 | 30 |
| Czech Republic | 133 | 13 | 108 | 11 |
| Denmark | 210 | 40 | 317 | 60 |
| Finland | 281 | 54 | 634 | 123 |
| Greece | 69 | 6 | 70 | 7 |
| Hungary | 49 | 5 | 116 | 11 |
| Iceland | 54 | 194 | 27 | 97 |
| Ireland | 177 | 48 | 52 | 14 |
| Korea | 154 | 3 | 318 | 7 |
| Luxembourg | 37 | 87 | 21 | 49 |
| Mexico | 127 | 1 | 200 | 2 |
| Netherlands | 462 | 29 | 817 | 52 |
| New Zealand | 355 | 93 | 241 | 63 |
| Norway | 219 | 49 | 391 | 88 |
| Poland | 119 | 3 | 155 | 4 |
| Portugal | 89 | 9 | 65 | 7 |
| Spain | 619 | 16 | 382 | 10 |
| Sweden | 631 | 71 | 615 | 69 |
| Switzerland | 672 | 92 | 315 | 43 |
| Turkey | 96 | 1 | 79 | 1 |
| OECD | 66 810 | 60 | 60 502 | 54 |

Source: OECD (www.oecd.org/dsti/it/cm/), Netcraft (www.netcraft.com) and Telcordia Technologies (www.netsizer.com).

business processes.⁸ A number of consulting groups, however, have published estimates of e-commerce transactions. These vary widely, due to diverse definitions and scope.⁹ Nonetheless, taken together they all reveal extremely rapid growth – doubling the value of transactions every 12 to 18 months – from virtually zero¹⁰ in

8. A major problem compiling statistics on e-commerce transactions is to keep the business register up to date. As the majority of companies enabling e-commerce did not exist several years ago, they are mostly small sized and many do not survive. But progress is being made. The US Census Bureau of Economic Analysis, now publishes the estimated dollar value of Internet retail sales. Other national statistical agencies which conduct or are about to conduct surveys on Internet transactions include Australia, Canada, France, and the Nordic countries. For a more detailed discussion on the problems defining and measuring electronic commerce see Colecchia, Pattinson and Atrostic (2000, forthcoming).

9. Disparities among consulting firm estimates of e-commerce in part reflect the diverse needs of their customers. It is also difficult to reconcile their estimates, since transaction values are based on surveys for which the questions and answers are not usually made available to the public; sample sizes vary considerably across surveys and little information is available on the respondents.

10. Electronic Data Interchange (EDI) developed earlier. An EDI is a standard for processing and transmitting information between computers over private communication networks called value-added networks (VANs). It requires expensive and complex custom software, dedicated communication links and in many cases strictly compatible equipment. The main users are large businesses and their first-tier suppliers. The EDI standard is now less used because of their relatively high costs, compared with the more Flexible Transmission Control Protocol/Internet Protocol (TCP/IP) based Internet systems.

Table VI.2. Consultant estimates of world-wide e-commerce

Billions \$

| | 1999 | 2003 | Average annual growth |
|-----------------------------|-------|-------|-----------------------|
| e-Marketer | 98 | 1 244 | 89 |
| IDC | 111 | 1 317 | 85 |
| ActivMedia | 95 | 1 324 | 93 |
| Forrester Low ^a | 70 | 1 800 | 125 |
| Forrester High ^a | 170 | 3 200 | 108 |
| Boston Consulting Group | 1 000 | 4 600 | 46 |

a) Includes Internet-based EDI.

Source: Cited in *e-Marketer* (2000) and Boston Consulting Group (1999b).

the middle of the 1990s and all anticipate continued rapid growth over the immediate future (Table VI.2). The most conservative estimates expect fivefold growth over the next three to four years and the most optimistic prognoses more than a tenfold increase.

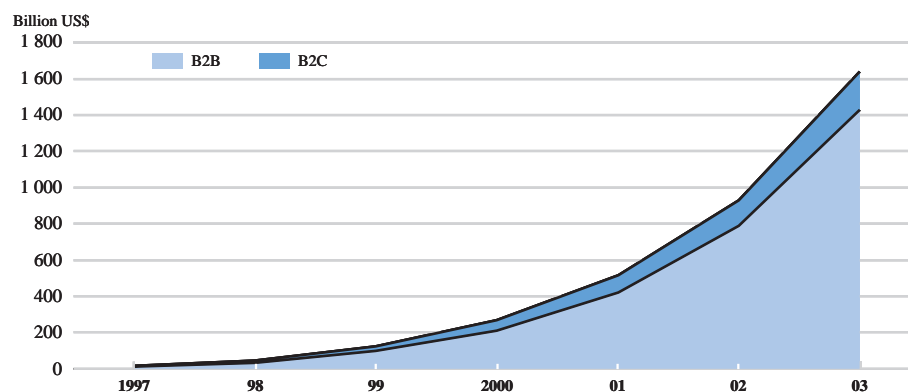
The largest share of e-commerce takes place between businesses (at present, they account for 70 to 85 per cent of all electronic sales) and B2B e-commerce is expected to experience more rapid progression than B2C over the next few years (Figure VI.3). Part of the progression in B2B sales is linked to the rapid migration of supply chain management from relatively expensive closed EDI networks towards the Internet. But it is also being driven by the potential for businesses to disintermediate and deal directly with suppliers and thereby lower purchasing and inventory costs and the ability to use the technology to promote a more efficient and effective customer service.

Despite the extremely rapid growth in B2C e-commerce sales, they still account for a very small share of overall transactions (Table VI.3). In the United States, where most Internet transactions take place – and largely among US residents – sales in the final quarter of 1999 were equivalent to about $\frac{2}{3}$ of a per cent of retail sales.¹¹ In Europe, B2C penetration is just 0.2 per cent of retail sales, although in some countries including Sweden, the Netherlands and the United Kingdom it is similar to the

About three quarters of electronic sales are between businesses, B2B, and these are likely to grow more rapidly than e-commerce between businesses and consumers, B2C

B2B and B2C sales still account for less than 1 per cent of intermediate business purchases and private consumption respectively

Figure VI.3. Recent and projected values of B2B and B2C e-commerce



Source: Internet Commerce Market Model v6.1, IDC (2000).

11. This number excludes online travel services, financial brokers and dealers, and ticket sales agencies. For more information see <http://www.census.gov/mrts/www/current.html>.

Table VI.3. B2C e-commerce in selected OECD countries

| | Value of transactions – 1999, \$US million | Value of transactions – growth rate (1999/98) | Penetration rate, per cent of retail sales | Number of buyers, thousand, end 1998 | Number of buyers, as a per cent of Internet users | Number of buyers, as a per cent of working age population |
|----------------|--------------------------------------------|-----------------------------------------------|--------------------------------------------|--------------------------------------|---------------------------------------------------|-----------------------------------------------------------|
| United States | 24 170 | 195 | 0.48 | 19 666 | 39 | 11.1 |
| Japan | 1 648 | 334 | 0.06 | .. | .. | .. |
| Germany | 1 199 | 200 | 0.30 | 1 370 | 13 | 2.4 |
| France | 345 | 215 | 0.14 | 310 | 8 | 0.8 |
| Italy | 194 | 145 | 0.09 | 360 | 12 | 0.9 |
| United Kingdom | 1 040 | 280 | 0.37 | 970 | 11 | 2.5 |
| Canada | 774 | 166 | 0.26 | 811 | 12 | 4.0 |
| Australia | .. | .. | .. | 803 | 13 | 6.4 |
| Austria | 96 | 210 | 0.23 | 120 | 13 | 2.2 |
| Belgium | 82 | 420 | 0.16 | 90 | 11 | 1.3 |
| Denmark | 46 | 220 | 0.20 | 90 | 8 | 2.5 |
| Finland | 51 | 160 | 0.22 | 160 | 10 | 4.7 |
| Greece | .. | .. | .. | 30 | 11 | 0.4 |
| Ireland | .. | .. | .. | 40 | 13 | 1.6 |
| Netherlands | 182 | 210 | 0.34 | 320 | 13 | 3.0 |
| Norway | 61 | 200 | 0.26 | 100 | 10 | 3.5 |
| Portugal | 70 | 185 | 0.06 | 50 | 11 | 0.7 |
| Spain | 70 | 185 | 0.06 | 220 | 11 | 0.9 |
| Sweden | 232 | 170 | 0.68 | 260 | 10 | 4.6 |
| Switzerland | 127 | 110 | 0.29 | 130 | 12 | 2.7 |

Source: OECD; Boston Consulting Group; Warburg Dillon Read; Retail Council of Canada; MITI (Japan); and Australian Bureau of Statistics.

rate of penetration in the United States. Not included in these statistics are offline sales where the Internet has been used as an information source (*e.g.* for price comparisons) and influenced purchases. This can be especially important for expensive items such as cars.¹² The relatively low penetration of B2C e-commerce reflects the still limited number of Internet users for commercial purposes. Apart from the United States, only about 10 per cent of Internet users make purchases over the Internet and these are typically small value transactions.¹³

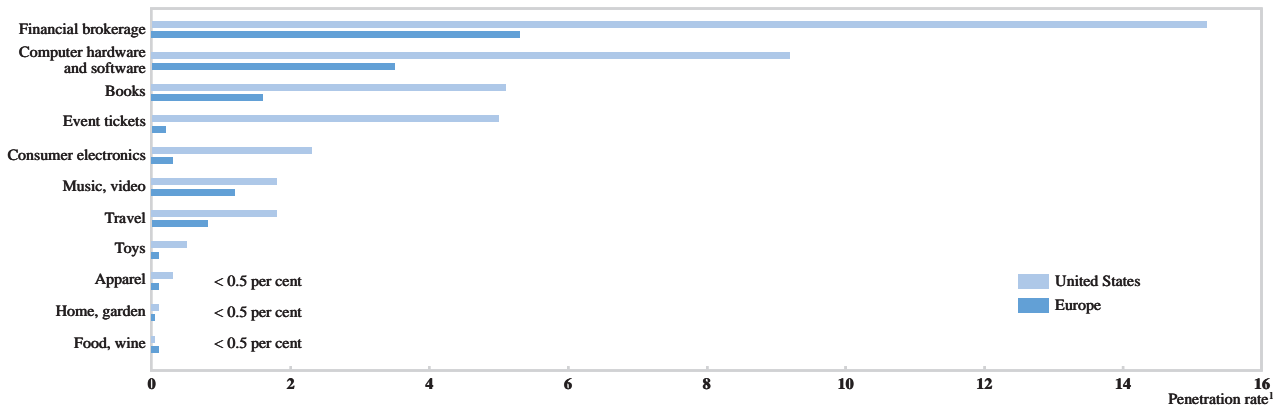
However, in some sectors such as computer software and hardware, e-commerce has achieved a relatively high level of penetration

In certain sectors, however, e-commerce sales have achieved quite a significant level of penetration with, for example, the Internet accounting for over one quarter of share trades in the United States. More generally, a study by the Boston Consulting Group on B2C e-commerce (1999*a*) found that the Internet in the United States and Europe accounts for more than 2 per cent of equity brokerage services and sales of computer hardware and software, books, music and videos (Figure VI.4). Moreover, goods and services that can be “digitised” and delivered over the Internet, such as financial and investment services are growing the most rapidly and have a large potential to gain a sizeable share of the overall market. In contrast, the main sectors for B2B transactions are motor vehicles, shipping, chemicals, industrial and high

12. A study in 1998 by Cyber Dialogue, an Internet consultancy firm, estimated the value of US offline orders influenced by the Internet at approximately \$50 billion, equivalent to double that year’s estimated value of online purchases. Another estimate claims that although 2.7 per cent of new car sales in the United States in 1999 took place on the Internet, as many as 40 per cent involved the Internet to compare prices, to look at the latest models and gather information.

13. In Australia, for example, two thirds of the number of B2C transactions are purchases worth less than \$300, Australian Bureau of Statistics (2000).

Figure VI.4. E-commerce penetration by product, 1999



1. As a per cent of sales.

Source: Boston Consulting Group (1999a).

technology equipment, with an increasing number of companies in these sectors integrating their supply chain through the Internet.

Income, education and age are the main factors determining the profile of Internet users and B2C e-commerce buyers. In the United States, for instance, the rate of Internet use among university graduates is about three times the level of those with a high school diploma or less, and over half the population with annual household incomes above \$50 000 access the Internet compared with less than 20 per cent for those with annual incomes of \$20 000 or less (Figure VI.5). These broad patterns of usage are repeated among other OECD countries which collect statistics on the profile of Internet users. Two notable differences, however, are the age profile of Internet users and the proportion of users which make online purchases.¹⁴ In the United States almost half the number of Internet users in 1998 made an online purchase over the past six months, compared with 13 per cent of Australian adults accessing the Internet in the 12 months to November 1999 and 11 per cent of European users during the first quarter of 1998 (International Data Corporation, 1999). However, in those countries where data are available, the number of household Internet users who make online purchases as a proportion of all users is rising quickly.

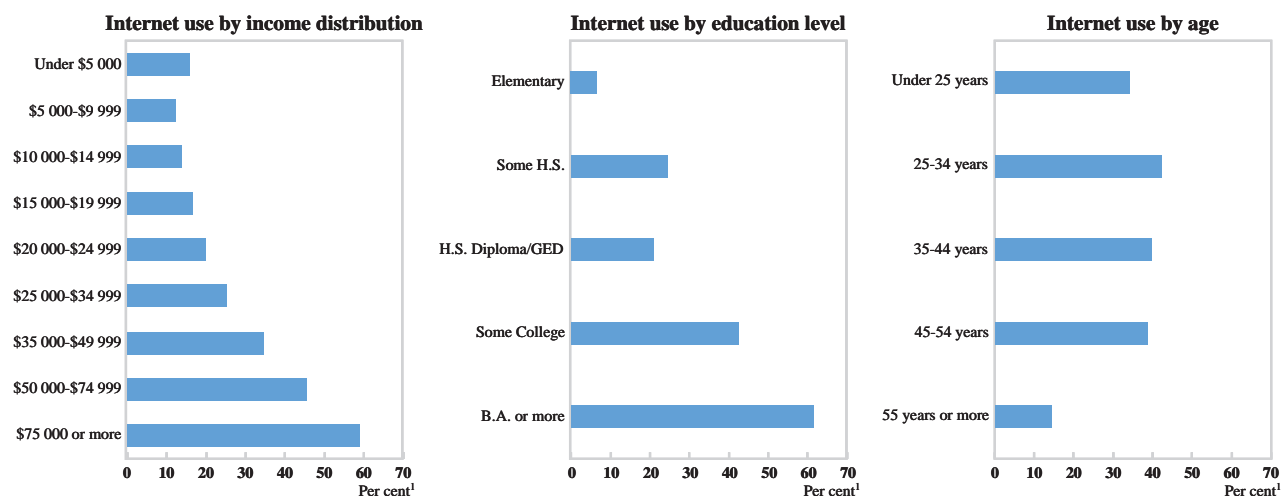
B2C e-commerce buyers are concentrated among young, high income and well educated individuals

Business use of the Internet reveals a dichotomy, with usage substantially higher among large firms than small firms and also differing widely according to the sector in which firms are engaged. Finance, legal and other service industries have higher Internet penetration rates than those in manufacturing and mining, and in Japan, for example, Internet penetration among firms with more than 300 employees has reached 80 per cent, but is only 20 per cent in firms with less than six employees.

Business use of the Internet also reveals a dichotomy between large and small firms and between service and manufacturing industries

14. In the US, middle aged persons have the highest usage rates, while in other countries, youths are the most active and fastest growing group of users. This difference may reflect the fact that US data classified by age include users below the age of 25, while in other countries it covers young adults, but excludes children below 18 years of age.

Figure VI.5. Profile of the US Internet user, 1998



1. As a per cent of the population.

Source: US Department of Commerce (1999a).

The main uses of the Internet by firms include accessing commercial databases or services, advertising, ordering goods and services, monitoring prices and email applications.

Framework conditions for the development of e-commerce

Technological innovations and their diffusion, as well as regulatory reforms, notably in the telecommunications sector have stimulated e-commerce

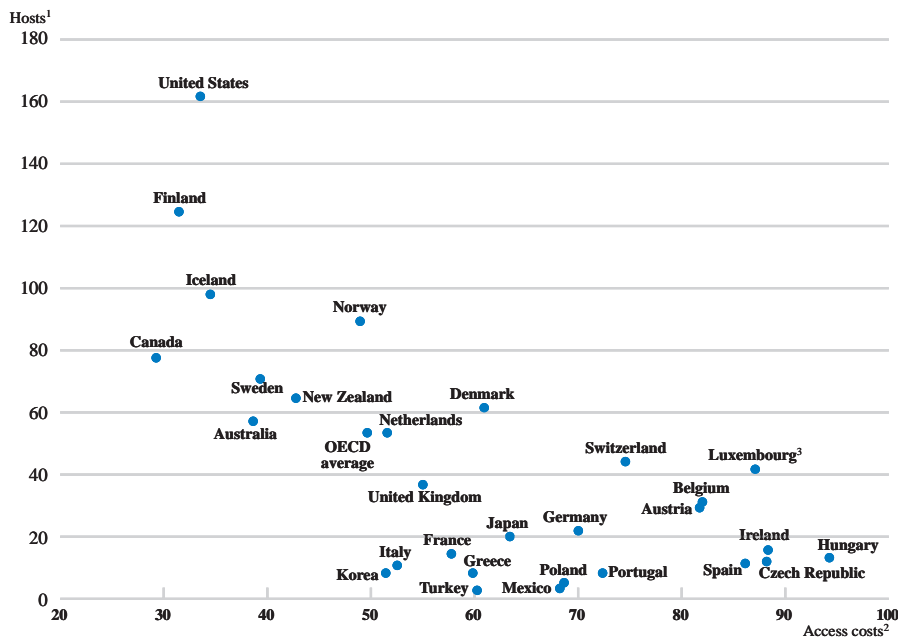
The rapid growth in both the number of people who use the Internet and its commercial applications has been stimulated by technological innovations and their diffusion. Together with economic and regulatory reforms, notably in the telecommunications sector, these technological advances have lowered the cost and improved the quality of accessing the Internet. Productivity gains in the production of computers – the main device currently used to access the Internet – have led to sharply lower computer prices. In 1999 the US price index for computers adjusted for quality had fallen by over 90 per cent, compared with the beginning of the decade.¹⁵ Cheaper computers have stimulated their diffusion into households. Over the past decade, the percentage of households with computers in OECD countries where the data are available has more than doubled to reach approximately 40 per cent in 1998 and the pace of diffusion has increased in recent years. Indeed, Internet usage by households follows the diffusion of computers, although not proportionately across countries. In Italy, for instance, 18 per cent of households have access to a personal computer yet less than 5 per cent have access to the Internet, compared with 42 and 26 per cent respectively in the United States.

15. Not all OECD countries use so-called hedonic price indices to adjust computer prices for quality improvements (see box in previous chapter of this Outlook), but similar falls in adjusted prices are likely given that computers are internationally traded.

The level and structure of Internet usage costs have also been important factors

Aside from the diffusion of computer hardware, differences across countries in the number of Internet users relative to population is also linked to telephone access costs. While usage costs have dropped, in part linked to the liberalisation of fixed telecommunication networks, in some OECD countries access to the Internet has lagged due to the high local communication charges – one of the most significant costs for engaging in e-commerce for consumers and small business (Figure VI.6). Access costs typically comprise 3 components: fixed and usage telecommunication charges and the fees of an Internet service provider (ISP). The total cost on average in OECD countries has fallen from \$92 for 40 hours at peak rates in 1999 to \$76 by March 2000.¹⁶ But among OECD countries there is quite a wide range of prices and price disparity has increased. Usage costs in the United States, Canada, Mexico, Finland and Australia are about half the OECD average and some 3 times lower than in Belgium, the Czech Republic, Hungary and Poland, the most expensive countries for 40 hours of peak access. Those countries with more expensive Internet communication costs also tend to have a pricing structure where the local call charge comprises a relatively large proportion of the overall cost. On average, local telephone tariffs currently account for about two thirds of the total monthly cost for 40 peak hours of Internet access, whereas in the four most expensive OECD countries it

Figure VI.6. Access costs and usage of the Internet



1. Number of Internet hosts per thousand inhabitants, July 1999.
2. Average cost of accessing the Internet for 20 hours per month at off-peak times, 1995-2000, in US\$ PPP.
3. Data on hosts for Luxembourg are from mid-1999.

Sources: OECD (www.oecd.org/dsti/sti/it/cm) and Telcordia Technologies (www.netsizer.com).

16. The OECD monitors Internet access prices in Member countries for the largest telecommunication operator for 20, 30 and 40 hours of access per month at peak and off-peak rates in US dollars converted from national currencies using both exchange rates and purchasing power parities (PPP). The figures quoted in the text are in US PPP dollars. Each price series has fallen over the past two years by varying degrees reflecting the pricing structure for telephone use. For example, countries with unmeasured local calls become relatively cheaper as the number of access hours increases or if peak rates are considered.

accounts for about 75 per cent. Price structures, however, are evolving with ISPs in some countries now offering users a set number of hours of access per month, with local communication costs already included in the subscription price, or alternatively ISP providers are remunerated from the telecommunication operator and offer their services at no direct charge to users.

Innovative Internet access devices and telecommunication network liberalisation will foster further changes in Internet access pricing

Pricing Internet access is likely to continue to change, as new and faster access devices penetrate the market and once the “local loop” – one of the main obstacles to cheaper access – of telecommunication networks is liberalised.¹⁷ The advantage for Internet shoppers in countries with unmetered local calls is that they have the opportunity to browse and purchase without being concerned by per minute charges. On the other hand, not charging for the duration of connection to the network could create network congestion problems and reduce the utility of e-commerce.¹⁸ B2B commerce, in contrast, principally relies on high speed leased lines, which is key to making the Internet attractive to use. As for households, the cost of access varies substantially and is typically higher in countries where incumbent telecom firms continue to dominate. For instance, on a route where competition is not permitted at both ends, a leased line can be sold for 14 times the best available price in liberalised markets, where prices are plunging sharply (OECD, 1999b).

Future expansion of e-commerce will depend on, inter alia, the extent of investment outlays to increase network capacity and the speed of data transmission

Two major factors likely to influence the future expansion of e-commerce are the extent to which IT companies invest in network capacity and the speed of data transmission. Both are important in order to ensure greater utility from the Internet and largely depend on the level and nature of investment outlays. In aggregate terms, investment in information and communication technologies (ICT) has risen strongly in virtually all OECD countries and is believed to be one of the main drivers underpinning the remarkable performance of the US economy (see the previous chapter in this Outlook). This is, inter alia, generating a rapid increase in high capacity, broad bandwidth (e.g. optic fibre, wireless and digital subscriber line technologies) at relatively low prices per unit of capacity and will enable web-site stores to enhance their attractiveness and give household users much faster access than the dial-up modem in use today.¹⁹

Countries which liberalised their telecommunication markets earlier have higher capital spending on the Internet

The relative level of capital spending on communication infrastructure and Internet application software development generally tends to be higher in those countries which liberalised their telecommunication markets earlier (United States, United Kingdom, Japan, Finland, Sweden and Australia).²⁰ Most of these countries have among the highest private line capacity and tend to have the greatest number of e-commerce sites. Five OECD countries maintain a monopoly over the provision of fixed network telecommunication services, but all are on the path towards liberalisation, which itself generally has a strong positive effect on the productivity and the

17. The “local loop” is the last link between the telephone network and the home or office connection. In the past, the major local telecommunication operator had a monopoly on the “local loop”. In 1998 the European Union decided to liberalise the provision of local voice telephony services and reform access regulations to the “local loop” infrastructure. So far implementation of the Directive has been slow, although a number of countries plan to do so before the end of the year 2000.

18. Such problems are more likely to occur when telecommunication operators are in a non-competitive and strictly regulated environment.

19. For example, a conventional copper line telephone dial-up would require about an hour to download a 3.5 minute video file, whereas cable or a Digital Subscriber Line connection would require less than 30 seconds.

20. For more detail on the liberalisation and market structure of telecommunication markets in OECD countries see Boylaud and Nicoletti (2000) and OECD (1999b).

quality of services and a strong negative effect on prices (see Boylaud and Nicoletti, 2000). More generally, there is convincing evidence that competition is favourable for the diffusion of innovation (Romer, 1990).

Despite the phenomenal growth in the Internet for commercial purposes there are a number of legal and technical obstacles which could hinder the full potential of e-commerce from being reaped. For example, the virtual environment of electronic markets makes it more difficult to determine who the contracting parties are, where an electronic commerce operator is established and whether that operator is complying with all relevant legal obligations and regulatory regimes. This can create legal and regulatory uncertainty about which jurisdiction will be competent and about the applicable law in disputed cases and thus makes it difficult for e-commerce companies to adapt their sites to conform with national rules. For example, regulations on advertising outlaw the use of English in France, advertising to children in Denmark and comparative advertising in Germany, yet the content on the Internet is essentially borderless. It is not yet clear how countries will apply such rules to the Internet.

A number of technical and legal obstacles to the development of e-commerce remain

Regarding technical problems, consumers have concerns over privacy, consumer protection, security of credit card purchases, order fulfilment and delivery. And the absence of commercial codes and legal recognition covering areas such as the acceptance of electronic signatures and documents, contract enforcement and greater certainty *vis-à-vis* liability for damages that may arise as a result of electronic transactions, will limit the take-up of e-commerce, particularly in the B2B sphere.²¹ These concerns are magnified when trading across borders. In addition, there are a number of issues concerning the governance of the Internet itself. The increase in electronic commerce will expand the number of Internet addresses required and accelerate the need for further reform of the Domain Name System (DNS). It will be important that such addresses are easy to acquire and reliable, with mechanisms for dispute resolution and structured such that there is scope for expansion. Reform of the DNS and the Internet Protocol (IP) Numbering System may also prove important for exercising regulatory oversight, law enforcement, consumer protection, taxation compliance, protection of intellectual property rights and protection of minors.²²

There are also concerns over privacy, consumer protection, the reliability of payment systems and the modernisation of commercial codes

Economic impacts and prospective policy challenges of e-commerce

If in the decades to come e-commerce continues to grow at a rapid pace, it could have significant effects on the structure and functioning of economies at the firm, sector and aggregate level. The impacts of these changes are diverse and likely to impinge on prices, the composition of trade, labour markets and taxation revenues. Adapting policy frameworks and institutions to these changes and ensuring that the full potential benefits of e-commerce are reaped will pose a number of challenges for structural policy. Moreover, the sheer scale of structural shifts is likely to have

E-commerce poses a number of challenges for policy

21. In the United States, legislation is currently before the Congress (the e-sign bill) which would recognise nation-wide digital signatures as legally binding. And in November 1999 the European Union adopted a directive recognising e-signatures.

22. The DNS and IP Numbering System are like the “signposts” on the “Information highways” and enable the networks to function.

interlinkages with macroeconomic policy and economic performance, which could modify how policymakers interpret conjunctural developments and may even impact on the ability to conduct and effectively implement macroeconomic policy. This section provides an overview of these issues, which given the still nascent development of e-commerce are necessarily speculative.

Impact on prices

Efficiency is widely expected to improve

Electronic commerce is widely expected to improve efficiency due to reduced transaction and search costs, increased competition and more streamlined business processes. Greater efficiency may manifest itself in a number of ways, including lower prices, finer albeit more frequent price modifications and a narrower dispersion of prices for identical products. Lower search costs may possibly also lead to Internet consumers being more sensitive to price changes. So far, however, the available empirical evidence is mixed. Some of the first studies found that prices of goods sold through the Internet were on average higher than their equivalent purchased through traditional retailers.²³ A more recent study, however, (Brynjolfsson and Smith, 1999) found prices for books and CDs on average to be about 10 per cent lower on the Internet compared with traditional retailers in the United States.²⁴ These studies and others (*e.g.* Clemons, Hann and Hitt, 1998 focussing on airline tickets) also find that price dispersion is no lower online and that prices tend to change more frequently reflecting lower menu costs – the costs a retailer incurs when changing a posted price – in Internet markets. Evidence on demand sensitivity to price is also mixed, with some work suggesting a low (Degeratu, Rangaswamy and Wu, 1998) and others a high price elasticity of demand (Goolsbee, 1998).

Taken together, these findings provide limited support to the prediction that at least B2C e-commerce raises competitive pressures and improves economic efficiency. Part of the reason is that certain reductions in cost are offset by higher overheads elsewhere. For example, distribution switches from high density channels (warehouses to shopping centres) to lower density routes (factories to residential areas). Some of these additional costs, however, may also reflect added benefits to consumers, such as less time spent in shopping centres. Thus higher prices need not be associated with lower efficiency. Another explanation is that e-commerce retailers may have a better view of their clients' preferences,²⁵ that makes more direct marketing and mass customisation of products possible and could also lead to more finely differentiated and sophisticated price discrimination for products. If prices are based on understanding individual consumer valuation, there is no reason to expect prices to gravitate to a single value across retailers or customers. Moreover, a diversity of prices for broadly similar goods does

23. See for example, Bailey (1998) for books, CDs and computer software, Lee (1997) for used cars and Goldman Sachs (1997) for a basket of 30 products. For a review of the available empirical literature see Smith, Bailey and Brynjolfsson (1999).

24. The early results of higher prices on the Internet than traditional retailers for identical products could be linked to limited competition during the first development years of B2C e-commerce. On the other hand, the lower prices for some consumer goods now found on the Internet may reflect the intense competition between B2C firms to establish market share and brand name recognition. The large and rapidly growing volume of sales despite mounting losses among many B2C e-commerce retailers provides some support for this interpretation.

25. This may be obtained via "cookies", that is software which enables a website to monitor who is accessing their site and for how long. In combination with purchasing information it is possible to assemble a highly customised data base. Website monitoring results vary widely, however, depending on the tracking system used, and some sites have artificially boosted their visitor numbers and hence advertising revenue potential by using software programs that provide their website with spurious traffic.

Table VI.4. Potential cost savings from B2B e-commerce in US industries

As a per cent of total input costs

| Industry | Cost savings |
|--------------------------------------------|--------------|
| Aerospace machinings | 11 |
| Chemicals | 10 |
| Coal | 2 |
| Communications/Bandwith | 5-15 |
| Computing | 11-20 |
| Electronic components | 29-39 |
| Food ingredients | 3-5 |
| Forest products | 15-25 |
| Freight transport | 15-20 |
| Healthcare | 5 |
| Life science | 12-19 |
| Machining (metals) | 22 |
| Media and advertising | 10-15 |
| Maintenance, repair and operating services | 10 |
| Oil and gas | 5-15 |
| Paper | 10 |
| Steel | 11 |

Source: Goldman Sachs (2000).

not necessarily imply inefficiency. In this regard, the critical issue is whether price discrimination increases or decreases the size of the market.²⁶

The greatest possibilities for e-commerce to reduce prices exist for goods and services which can be digitised, thereby allowing substantial economies in production and delivery costs, and for B2B e-commerce and B2B exchanges where opportunities exist for efficiency gains via lower procurement and inventory costs and better supply chain management. Many companies claim that putting their supply chains online has led, or will lead, to major cost savings. According to a Goldman Sachs (2000) study these gains range between 2 and 40 per cent of total input costs depending on the industry and could lead to an economy-wide price reduction of almost 4 per cent, although such estimates depend on numerous assumptions and are inherently uncertain (Table VI.4).²⁷ Hence interpretation of these results requires considerable caution. Moreover, estimates of the impact of e-commerce on prices cannot adequately take into account other characteristics of e-commerce which businesses appreciate, such as increased information and choice.

The largest efficiency gains are in the B2B domain

Impact on competition and competition policy

Persistence of price dispersion across Internet markets and the absence of noticeable price reductions has led to concerns that the cost structure of some Internet markets could ultimately result in less competitive outcomes. The scope for non-competitive behaviour is perhaps strongest among “digital” and knowledge intensive products. For such products, once the first copy of, for example, a software application

Increasing economies of scale and potential “network” externalities could result in less competitive Internet markets...

26. For further details see Varian (1985).

27. The potential cost savings are likely to be higher in Europe and especially Japan given less competitive product markets, with higher distribution margins and average mark-ups (Oliveira Martins, Scarpetta and Pilat, 1996). In general, the longer the supply chain, the bigger the potential gains from B2B e-commerce, since the technology allows firms to reduce the number of intermediaries.

is produced, the cost of a second copy is close to zero. Such a cost structure implies increasing economies of scale. The challenge to firms is to find a way to price their output so as to sell to a broad enough audience and thereby recoup the high initial per unit cost of production. One way to do this is to differentiate the underlying good or service so as to appeal to different market segments. Information services, for instance, are sometimes differentiated by offering different levels of quality such as degree of convenience, more timely and frequent updates, access to technical support, broader coverage and more sophisticated user interfaces.²⁸ The risk, however, is that the scope to differentiate output is limited and leads to a situation whereby the firm with the largest production is able to undercut and ultimately force out of business its competitors.²⁹

Closely related to increasing economies of scale, the Internet also appears to be a prime example for the existence of “network” externalities; each additional user of the network increases its value to other users. In these circumstances, firms in network industries have a strong incentive to expand their customer base and a strategic interest to do so as early as possible. Start-up companies may find it difficult to enter due to the large marketing costs needed to develop visibility and a brand name. It is still too early to know how big these barriers are and whether the Internet will favour, or not, contestable e-commerce markets.³⁰ Low contestability could result in highly concentrated “winner-takes-all” scenarios which could hinder innovation and competition and may thus require the attention of policy.

... but in other parts of the economy the Internet offers the ability to reduce barriers to entry and make markets more contestable

On the other hand, the Internet offers the ability to reduce barriers to entry and make markets more contestable in other parts of the economy. The open and interoperable standards of the Internet, could limit opportunities to dominate markets, by expanding the size of the market. By exposing firms to global competition, the Internet might also expedite progress towards implementing product market reforms. As well, consumers could benefit from the development of more powerful “intelligent agents” which navigate the Internet and automate, for instance, price search and comparison across e-commerce sites. By reducing search costs and increasing the flow of information, the Internet might thus effectively shift power from producers to consumers and make it harder for firms to maintain higher prices.

Tax, trade and regulatory issues

E-commerce could result in the erosion of tax bases

The rapid growth and development of e-commerce begs a number of questions about taxation and tax policy. Concerns have been expressed that e-commerce could result in the erosion of tax bases. Consumption taxes are levied on the principle of taxation at the place of consumption and according to rates set in individual countries, or in individual states in the case of federal nations. E-commerce, however, has the potential to undermine the application of domestic and national tax rules. Under

28. For a more detailed discussion of market structure and behaviour for knowledge intensive products see Varian (1999).

29. Meijers (1999) showed that the cost structure of many sectors and notably software products is shifting to larger fixed costs and smaller marginal costs and consequently the average mark-up over marginal costs has gone up.

30. A contestable market is one in which competitive pressures from potential entrants exercise constraints on the behaviour of incumbent suppliers. Conditions for a market to be contestable include no significant entry or exit barriers, potential entrants have access to the same production technology as incumbents and there are no special costs that must be borne by an entrant that do not also fall on incumbent firms.

Value Added Tax (VAT) systems, for example, particularly in the case of business to consumer transactions, the supplier who is normally responsible for collecting consumption taxes may have limited means to prove the location of their customers. The supplier may also be beyond the fiscal jurisdiction of the fiscal authorities where consumption takes place. In practice, this issue appears more acute for products which can be digitised and delivered online. Regarding potential tax loss related to physical products traded across borders, but ordered over the Internet, many countries have a *de minimis* relief for low value transactions, whereby when below the value threshold these products legitimately fall outside the tax net. Emerging issues here are the need to minimise distortion to competition and to find the right balance between the cost of collection and the amount of foregone taxes. Given the present size of e-commerce, serious erosion of the tax base is not in prospect. In the future, however, it may become more of an issue for tax authorities. Global perspectives and solutions may be required if both businesses and government are to secure the degree of consistency and certainty that they seek.³¹

The technology which underlies e-commerce also opens up a number of opportunities that tax authorities should seize to improve the efficiency of tax administration and to enhance taxpayer service (examples of C2G and B2G Internet applications). The Internet technology has the potential to greatly improve communication between tax authorities and taxpayers and to enhance access to information for tax authorities, so helping them to encourage voluntary compliance with tax obligations. In particular, the Internet facilitates the electronic assessment, filing and collection of taxes. Overall, therefore, e-commerce should not only be seen as a threat to tax yields, but also a means to reduce the cost of complying with tax rules and enhance tax collection.

The Internet can also improve the efficiency of tax administration and enhance taxpayer service

Regarding trade, e-commerce, especially for digital products, blurs the notion of geographical boundaries such as place of supply or residence. Since trade policy – like tax policy – is based on such distinctions, governments may find it difficult to determine jurisdiction and tariff revenue rights. Moreover, the laws and regulations a consumer relies on for protection at home may not apply in the merchant's country. Indeed, in some quarters there are concerns that the scope for the Internet to transcend national boundaries could emasculate the ability of regulatory bodies to fulfil their objectives. There is thus a need to update regulatory frameworks and strengthen co-operation between regulatory bodies to achieve the goals of economic regulations, but without jeopardising the efficiencies likely to be associated with the growth of e-commerce.

E-commerce blurs the notion of geographical boundaries and makes it difficult to determine legal jurisdiction and tariff revenue rights

The World Trade Organisation (WTO) has begun to address some of these issues.³² The approach adopted has been to consider e-commerce as another medium for exchange and thus subject to the same rules and regulations as conventional transactions; the principle of equivalent treatment. Another potential barrier to the development of international e-commerce is the uncertain application of existing customs duties. B2C e-commerce shoppers are rarely informed about duties they are liable to pay and vendors find it difficult to provide information on the myriad of customs regulations across countries.³³ Often, therefore, the consumer is uncertain of

31. For more information and discussion on the issues involved, see the OECD web site: http://www.oecd.org/subject/e-commerce/ebooks/ecom2_1.pdf.

32. For more information on trade policy issues related to e-commerce see the WTO web site: <http://www.wto.org/wto/ecom/ecom.htm>.

33. A recent survey by Forrester, an Internet research consultancy, estimated that 85 per cent of online companies were incapable of shipping across borders. In fact most e-commerce transactions are within borders. According to a Boston Consulting Group report (1999a), exports beyond national borders account for 7 per cent of European online retailers' revenues.

the final cost and could encounter delivery delays as goods are held until customs clearance. The World Customs Organisation (WCO) has worked on these problems and has advocated procedures for simplified customs clearance, information technology requirements and guidelines for greater transparency.

Employment and labour market policy

New jobs in e-commerce firms should not be counted on to relieve existing labour market problems in some countries...

The development of e-commerce is likely to have both direct and indirect impacts on labour markets as well as the composition of employment. The widely expected rapid growth in e-commerce should boost the demand for jobs in e-businesses, but since the size of e-commerce in the short to medium term as a share of all activity is still likely to be small, these new jobs should not be counted on to relieve existing labour market problems in some countries.³⁴ The latter still needs to be addressed by appropriate policies *vis-à-vis* labour markets.

... but there could be sizeable shifts in the composition of employment

Although the direct employment consequences of e-commerce may not be large, it is likely to drive widespread changes in the labour market, shifting the composition of workers required to produce and deliver a product or service. For example, a retail sale via the Internet probably does not require the same intensity of sales staff, but it requires people with IT skills to develop and program software, operate and maintain computer servers and networks and people skilled in graphics design to keep the web site attractive and others to dispatch orders. In addition, firms will implement modifications to their production processes in order to exploit the potential of B2B and B2C commerce over the Internet. Certain jobs, especially those characterised by the transfer of information from one party to another such as travel agents, insurance and stock brokers are likely to be redefined and become less common. Faster rates of innovation and diffusion may also be associated with more turnover of jobs. In such an environment it is important that workers have the opportunity to learn new skills and that policies do not prevent the swift reallocation of labour to the changing needs of the economy. Otherwise, the new opportunities offered by the Internet may be missed or unnecessarily delayed.

Economic performance and macroeconomic policy

Investment in ICT in general and the Internet in particular have been the focus of recent debate on the links between investment, technological progress and growth

The role that investment in information and communication technology (ICT) in general and the Internet in particular is playing in OECD economies has been the focus of recent debate on the links between investment, technological progress and growth (see the preceding article in this Outlook). The wide diffusion of ICT forms part of a broader debate as to whether or not it represents a basic technological shift, with widespread implications across sectors and long-lasting effects on productivity growth (the so-called “new economy”).³⁵ At the firm or sectoral level, the potential for far reaching economic effects of ICT is partly seen as arising through increased use and development of the Internet.

34. One study for the United States estimated that only 120 thousand jobs have so far been created directly in e-commerce.

35. For recent evidence on the debate about the “new economy” and the effects of ICT on the US economy see, for example, Oliner and Sichel (2000), Council of Economic Advisors (2000), OECD (2000b) and Schreyer (2000).

A number of studies have attempted to quantify the impact of e-commerce at the macroeconomic level. A study by the Australian Government (Department of Communication, Information Technology and the Arts, 1999) estimated the net impact could be a 2.7 per cent increase in the level of national output. Goldman Sachs (2000) suggests that the rise of B2B e-commerce will in the long run increase the level of GDP by 5 per cent.³⁶ These studies, however, are based on a number of quite restrictive assumptions and their results should be interpreted with caution. In assessing the implications for macroeconomic policy it should as well be borne in mind that the Internet also boosts aggregate demand, as discussed in the chapter on the General Assessment of the Economic Situation.

Estimates of the impact of e-commerce at the macroeconomic level should be interpreted with caution

The development of the Internet and e-commerce could also modify the cyclicity of economies and how payments are made. This in turn may have implications for the setting and operation of monetary policy. The cyclical characteristics of economies may change to the extent that e-commerce facilitates more efficient stock management, leading to lower inventories as a ratio of sales and possibly also modifying the stockbuilding cycle. In addition, increased price competition in product markets may allow the economy to sustain more jobs without stoking inflation for a period of time and might also put greater pressure on companies to curb wage growth and modify the process generating inflation and thereby the cyclical responsiveness of inflation. There could also be changes affecting the operation of monetary policy. Friedman (1999) has argued that Internet related technologies could increase the speed of financial operations, which raises the issue as to how interest rates should be set and whether the short end of interest setting needs to become shorter *i.e.* time units smaller than a day. Some economists have even envisaged a world where technological developments emasculate altogether the monetary controls of central banks (King, 1999). This could occur if new technologies (and regulators) permitted real time pricing and exchange of goods across the Internet without the intercession of an independent monetary system administered by a central bank. In such an environment the government earns no seignorage and would no longer be able to provide liquidity support by printing money.

E-commerce may modify the appropriate setting and transmission of monetary policy

More likely to develop without supplanting central banks are electronic money systems, such as “stored-value” cards (SVC) and “network money”.³⁷ Electronic cash systems have so far failed to gain a large part of the payments system (Table VI.5), with most Internet purchases still made by credit card even though users are concerned about the potential for fraud and would prefer to use a more secure payment method. Part of the reason why electronic monies have shown limited appeal are the substantial costs to merchants of setting up the necessary facilities. There also appears to be a lack of acceptance on the part of the public, because of security and privacy concerns since most systems can keep track of what users buy. SVCs are likely to be substitutes for currency and “network” money for deposits. If providers of electronic monies manage to deal with safety and anonymity concerns the potential for their widespread introduction, especially network money would be considerably enhanced. In the event that electronic monies do start to gain

Electronic cash systems have so far failed to gain a large part of the payments system

36. E-commerce activities could also have effects on the boundary of market output and hence the size of GDP. For instance, electronic banking shifts market production to the household (reducing GDP) while online grocery shopping transfers activities into the market (increasing GDP).

37. SVCs are funds stored in electronic form and can be used to make payments at participating merchants and potentially to all other holders of such a card. Once the stored funds have been used, the card can be recharged. Network money refers to funds which are stored on electronic devices, such as a computer hard drive and transferred over communication networks such as the Internet.

Table VI.5. Use of stored value cards in selected European Union countries^a

| | Stored value cards (thousands) | | | Average value per (re)loading (ECU) ^b | | | Average value per purchase (ECU) ^b | | |
|-----------------------------|--------------------------------|--------|--------|--------------------------------------------------|-------|------|-----------------------------------------------|------|------|
| | 1995 | 1996 | 1997 | 1995 | 1996 | 1997 | 1995 | 1996 | 1997 |
| Austria | 17 | 3 101 | 3 400 | .. | 45.8 | 49.9 | .. | 15.0 | 13.2 |
| Belgium | 30 | 761 | 3 430 | 33.3 | 33.7 | 32.1 | 4.9 | 4.1 | 3.9 |
| Denmark | 295 | 390 | .. | 136.5 | 135.9 | .. | 1.2 | 1.3 | 1.3 |
| Finland ^c | 846 | 1 175 | 189 | 35.0 | 48.6 | 18.9 | 0.9 | 0.8 | 2.2 |
| Germany | .. | 22 000 | 35 000 | .. | 67.4 | .. | .. | 13.6 | 10.3 |
| Italy | .. | .. | 62 | .. | .. | .. | .. | .. | 6.8 |
| Portugal | 161 | 299 | 384 | 14.1 | 15.3 | 16.1 | 1.9 | 1.9 | 1.9 |
| Spain | .. | 1 344 | 3 502 | 0.0 | 15.2 | 16.0 | .. | 5.8 | 3.1 |
| United Kingdom | 0 | 25 | 113 | 0.0 | 29.7 | 29.5 | 0.0 | .. | .. |
| European Union ^d | 1 349 | 29 095 | 46 080 | 20.2 | 24.1 | 25.2 | 1.6 | 1.9 | 4.0 |

a) ".." signifies not available.

b) The average ECU/US\$ exchange rates are: 1995 = 0.765; 1996 = 0.7878; 1997 = 0.8824.

c) Figures for 1997 include only the new multipurpose card product that has replaced the previous respective products.

d) For those countries shown, where data available.

Source: ECB (1999), *The effects of technology on the EU banking systems*.

a sizeable share of the payments system, their close substitutability with other payment instruments raises issues about the definition of monetary aggregates their stability and the ability for central banks to control money supply. Moreover, seignorage revenues accruing to central banks could fall. Another concern with electronic money is the possibility that they will be used for money laundering.

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VII. RECENT LABOUR-MARKET PERFORMANCE AND STRUCTURAL REFORMS

The past three years have been marked by favourable conditions in labour markets in most Member countries. In the United States, employment has continued to expand at a fast rate, and the unemployment rate has fallen to its lowest level for a generation with only a modest rise in underlying inflation so far. In many European countries, job creation has been progressing at its fastest pace since the late-1980s boom. Canada and Australia have also recorded robust employment gains and falling unemployment rates. The most notable exception to these favourable developments is Japan, where the recession has driven joblessness to historical highs. The improving macroeconomic environment has been a major factor behind these developments, but structural reforms that have been implemented during the past decade have made an important contribution to better labour market performance. The first part of this chapter briefly reviews recent developments in labour markets in OECD countries, and the second part surveys structural reforms that have influenced them.

Conditions in labour markets of most Member countries have been favourable in recent years

Labour market trends since 1997

With the exceptions of Japan and Korea, the aggregate unemployment rate has declined notably in most OECD countries since 1997 (Table VII.1). In the United States, joblessness had already fallen strongly by 1997 as the economy recovered from the 1990-91 recession, but continued declines have taken the unemployment rate to its lowest since the 1960s. By contrast, the unemployment rate in the European Union (EU) started falling only in 1997. Although the unemployment rate has come down by 1½ percentage points, it still has some way to go to reach its 1990 level of just over 8 per cent, let alone the much lower levels of the 1960s and 1970s. The average for the European Union hides striking difference across the member countries. Italy has achieved only small reductions in its unemployment rate, while some of the other EU countries have seen major cuts in joblessness. Indeed, the unemployment rates in the United Kingdom, Denmark, Ireland and the Netherlands have fallen to their lowest levels since the 1970s.

Unemployment rates have fallen in most OECD countries in the past few years...

The reductions in unemployment in the United States and more recently in Europe have been driven by solid employment gains (Figure VII.1). In the United States continued increases in employment since 1997 have taken place against the background of surprisingly robust labour productivity growth at this mature stage of the expansion, which may reflect some fundamental changes in the economy.¹ In Europe, by contrast, the employment content of growth has risen compared to the 1980s, perhaps as a result of lower productivity workers becoming employed

... as employment has risen strongly...

1. See Chapter V, "Recent Growth Trends in OECD Countries".

Table VII.1. Unemployment rates and labour force participation rates

Per cent

| | Unemployment rate ^a | | | Labour force participation rate ^b | | |
|----------------|--------------------------------|------|------|----------------------------------------------|------|------|
| | 1990 | 1997 | 1999 | 1990 | 1997 | 1999 |
| United States | 5.6 | 4.9 | 4.2 | 76.5 | 77.4 | 77.2 |
| European Union | 8.1 | 10.6 | 9.2 | 67.3 | 67.9 | 69.0 |
| of which: | | | | | | |
| Germany | 4.8 | 9.9 | 8.7 | 68.4 | 71.0 | 71.2 |
| France | 9.0 | 12.3 | 11.3 | 66.0 | 67.1 | 67.8 |
| Italy | 9.0 | 11.7 | 11.4 | 59.8 | 57.7 | 59.6 |
| United Kingdom | 7.1 | 7.0 | 6.1 | 77.8 | 76.2 | 76.3 |
| Spain | 16.3 | 20.8 | 15.9 | 60.9 | 62.5 | 63.9 |
| Netherlands | 6.2 | 5.2 | 3.3 | 66.2 | 71.5 | 73.6 |
| Belgium | 6.7 | 9.4 | 9.0 | 58.7 | 62.6 | 64.6 |
| Sweden | 1.7 | 9.9 | 7.2 | 84.6 | 78.7 | 78.5 |
| Austria | .. | 4.4 | 3.7 | .. | 70.9 | 71.6 |
| Greece | 6.4 | 9.8 | .. | 59.1 | 60.8 | .. |
| Portugal | 4.6 | 6.8 | 4.5 | 70.9 | 69.8 | 70.6 |
| Denmark | 7.7 | 5.6 | 5.2 | 82.4 | 79.8 | 80.6 |
| Finland | 3.2 | 12.7 | 10.3 | 76.6 | 72.1 | 73.6 |
| Ireland | 13.4 | 9.9 | 5.8 | 60.2 | 62.7 | 66.3 |
| Luxembourg | 1.7 | 2.8 | 2.3 | 60.1 | 61.5 | 63.1 |
| Japan | 2.1 | 3.4 | 4.7 | 70.1 | 72.6 | 72.4 |
| Canada | 8.1 | 9.1 | 7.6 | 76.6 | 74.9 | 75.9 |
| Australia | 7.0 | 8.5 | 7.2 | 73.0 | 72.4 | 73.6 |
| Korea | 2.5 | 2.7 | 6.5 | 62.8 | 65.4 | 63.9 |
| New Zealand | 7.8 | 6.7 | 6.8 | 73.0 | 75.6 | 75.2 |
| Switzerland | .. | 4.2 | .. | 81.1 | 81.5 | 82.2 |

a) Standardised unemployment rates except for Korea.

b) For persons aged 15-64 years.

Source: OECD Employment Outlook, Paris, 2000.

(see below). However, employment gains have been unevenly distributed across member countries of the European Union. For example, employment levels in Germany were broadly unchanged in 1999 from 1997, whereas they rose by 18 per cent in Ireland over the same period.

... and participation rates have risen or remained unchanged

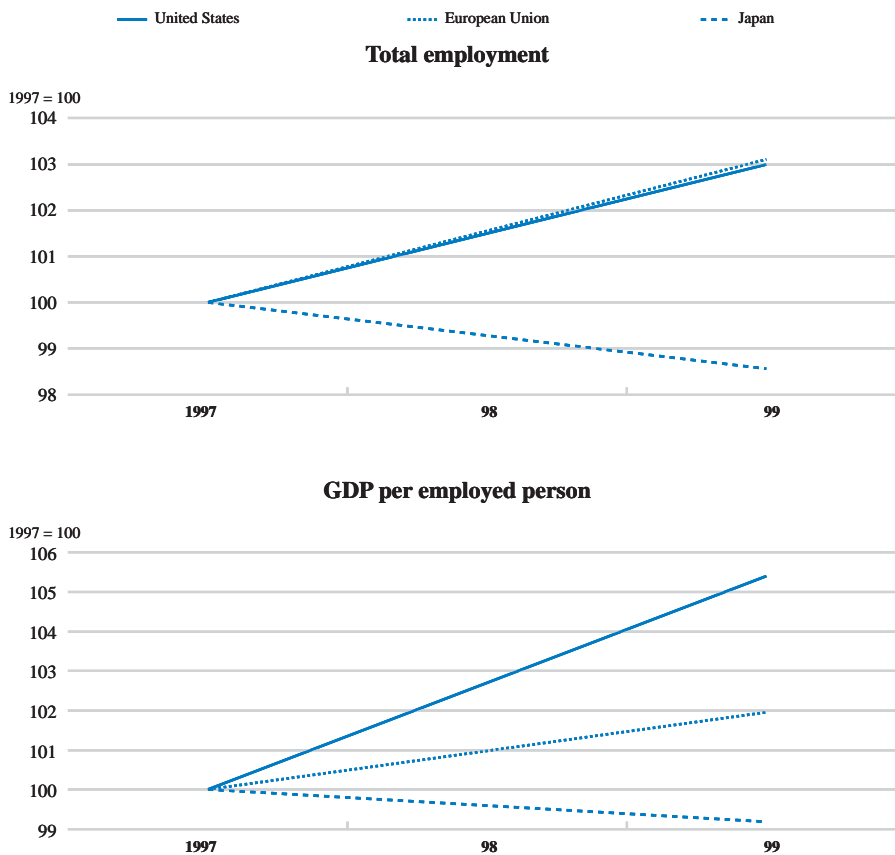
Labour-force participation rates have remained largely unchanged or risen somewhat in most Member countries over the past three years. In the United States, the record rates attained in 1997 have been maintained. In Japan, the long-term rise in participation rates also came to a halt in 1997, as the economy entered recession, and the persistent weakness since then has held down the rates. In most European Union countries, on the other hand, the share of the working-age population entering the labour market has continued to increase, though it still remains well below that in the United States and Japan (with the exception of the Nordic EU countries and the United Kingdom).

The situation for disadvantaged groups has generally improved with better aggregate performance...

Disadvantaged groups in the labour market have benefited from improved labour-market situations over the past three years, and in some cases their situation has improved more than for the labour market in the aggregate though their share in overall unemployment has not always fallen.

- *Long-term unemployed.* The share of the labour force that has been unemployed for more than six or 12 months has fallen in all the countries that have registered falling aggregate unemployment rates. However, measured as a

Figure VII.1. Employment and productivity



Source: OECD.

share of total unemployment, long-term unemployment has declined only modestly since 1997 in the majority of these countries (Figure VII.2). It has fallen notably (more than 5 percentage points) in Portugal, United Kingdom, Denmark, Netherlands and Norway, but increased significantly in Switzerland. It still remains very high in Italy and Belgium.

- *Young people.* With the exception of Belgium, Denmark and Switzerland, the unemployment rate for those under 25 years (Table VII.2) has fallen more than for the prime-aged labour force. In Spain, the youth unemployment rate has fallen by close to 10 percentage points since 1997; the reduction has been around 5 percentage points or more in Ireland, Sweden and Portugal. Notwithstanding the recent reductions in youth unemployment rates, they remain high in many European countries, notably in France, Italy and Spain. As the drop in youth unemployment has not been accompanied by reduced labour-force participation rates (except in the United Kingdom and Denmark), youth employment rates have increased significantly.
- *Older people.* Employment-to-population ratios for persons aged 55-64 have tended to rise modestly since 1997 (Figure VII.3). The increase has been most marked (over 3 percentage points) in the Netherlands, Ireland, Finland and Portugal, and, outside Europe, notable increases were recorded in

Figure VII.2. Incidence of long-term unemployment (12 months or more)

As a percentage of total unemployment

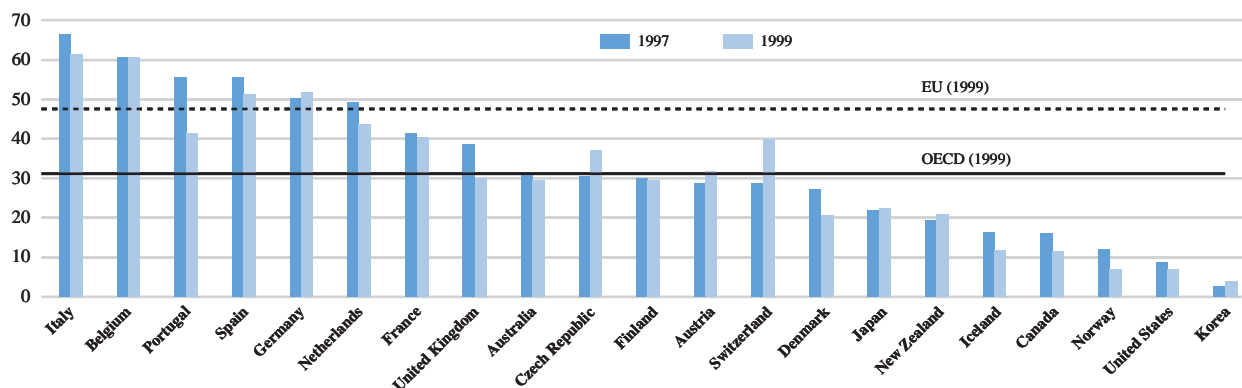
Source: OECD, *Employment Outlook*, Paris, 2000.

Table VII.2. Unemployment rates for young people and women

Per cent

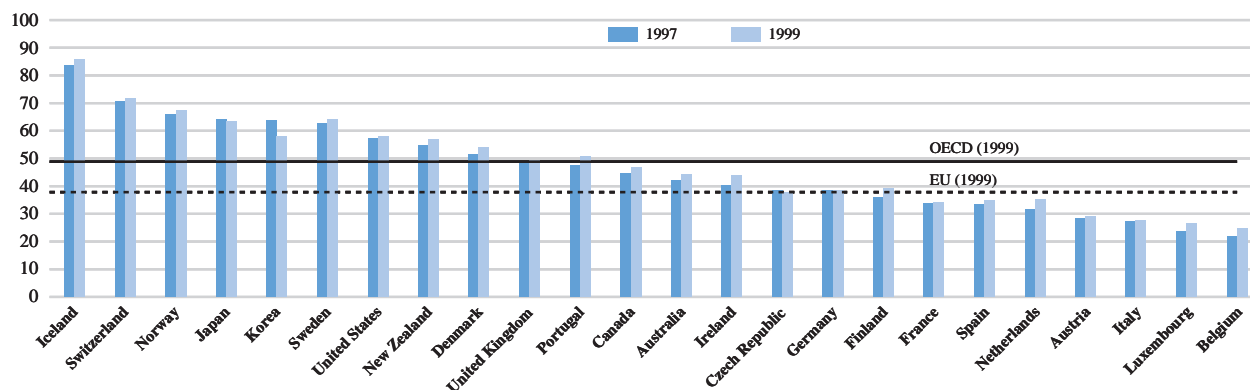
| | Young people ^a | | | Women | | |
|------------------|---------------------------|------|------|-------|------|------|
| | 1990 | 1997 | 1999 | 1990 | 1997 | 1999 |
| United States | 11.2 | 11.3 | 9.9 | 5.6 | 5.1 | 4.4 |
| European Union | 15.8 | 20.5 | 17.2 | 10.8 | 12.4 | 10.9 |
| <i>of which:</i> | | | | | | |
| Germany | 5.6 | 10.2 | 8.5 | 7.5 | 10.7 | 9.3 |
| France | 19.1 | 28.1 | 26.6 | 12.1 | 14.2 | 13.7 |
| Italy | 28.9 | 33.6 | 32.9 | 15.8 | 16.8 | 16.4 |
| United Kingdom | 10.1 | 13.5 | 12.3 | 6.5 | 5.8 | 5.1 |
| Spain | 30.1 | 37.1 | 28.5 | 24.4 | 28.4 | 23.2 |
| Netherlands | 11.1 | 9.7 | 7.4 | 10.9 | 7.2 | 4.9 |
| Belgium | 14.5 | 21.3 | 22.6 | 11.5 | 11.6 | 10.3 |
| Sweden | 4.5 | 22.5 | 14.2 | 1.8 | 9.9 | 6.7 |
| Austria | .. | 7.6 | 5.9 | .. | 5.3 | 4.8 |
| Greece | 23.3 | 31.0 | .. | 12.0 | 15.1 | .. |
| Portugal | 9.6 | 14.6 | 8.7 | 7.0 | 8.2 | 5.3 |
| Denmark | 11.5 | 8.1 | 10.0 | 9.0 | 6.5 | 5.9 |
| Finland | 9.4 | 25.3 | 21.5 | 2.7 | 13.1 | 10.8 |
| Ireland | 17.6 | 16.1 | 8.5 | 14.0 | 10.4 | 5.5 |
| Luxembourg | 3.7 | 7.3 | 6.8 | 2.5 | 3.7 | 3.3 |
| Japan | 4.3 | 6.6 | 9.3 | 2.3 | 3.6 | 4.7 |
| Canada | 12.4 | 16.2 | 14.0 | 8.1 | 8.9 | 7.3 |
| Australia | 13.2 | 15.9 | 13.9 | 7.2 | 8.1 | 7.2 |
| New Zealand | 14.1 | 13.1 | 13.7 | 7.3 | 6.7 | 6.6 |
| Korea | 7.0 | 7.7 | 14.2 | 1.9 | 2.4 | 5.3 |
| Switzerland | 3.2 | 6.0 | 5.6 | 2.6 | 4.0 | 3.6 |

a) For persons aged 15-24 years.

Source: OECD *Employment Outlook*, Paris, 2000.

Figure VII.3. Employment rates for people aged 55 to 64

As a percentage of population aged 55 to 64



Source: OECD, *Employment Outlook*, Paris, 2000.

Canada, Australia and New Zealand. However, the increase was only marginal in Germany and Italy, and employment-to-population ratios are still very low in several countries, with more than seven of every ten persons aged 55-64 not working in Italy, Austria and Belgium.

- *Women.* The percentage-point fall in the unemployment rate for women (see Table VII.2) has been similar to that in the total unemployment rate in most countries. In some European countries (notably Belgium) there has been a slight tendency for female unemployment rates to drop more than the total unemployment rate. In spite of recent reductions, the unemployment rate for women continues to be very high in a number of European countries, notably in Spain. With their labour force participation rate either stable or rising, the employment rate for women has risen in most Member countries since 1997.
- *Lower-skilled and less-educated persons.* In the United States, robust employment growth for adults in the lowest education category (less than a high school diploma) has reduced the unemployment rate of this group by 1½ percentage points since end-1997 (to 6 per cent in early 2000).² Lack of timely data makes it difficult to assess the labour market situation for the less educated in Europe. However, there are signs in a few countries that some improvements have taken place in the latter part of the 1990s. Thus, in France the trend decline in the share of the lowest educated in total employment in the private sector was arrested in the mid-1990s and a small increase has taken place since 1997.³
- *Regional labour market disparity.* High-unemployment regions in Spain and the United Kingdom have benefited from improvements in the national labour market (Table VII.3). However, the unemployment rate in the south of Italy has risen slightly since 1997, and the unemployment rate in the new regions in Germany has fallen less than in the old regions.

2. See Table A-5 in US Department of Labor, *Employment & Earnings*, various issues.

3. See A. Gubian, "Six ans d'allègement de cotisations employeurs sur les bas salaires", in *Bilan de la Politique de l'Emploi en 1998, Les Dossiers de la Dares*, Numéro 3-4/99, La documentation Française 2000, *OECD Economic Surveys 1999-2000 – France*, Paris (forthcoming).

Table VII.3. Regional unemployment rates^a in selected countries

Per cent

| | 1997 | 1998 | 1999 |
|-----------------------------|------|------|------|
| Germany | | | |
| Old Lander | 9.8 | 9.4 | 8.8 |
| New Lander | 18.1 | 18.2 | 17.6 |
| Italy | | | |
| North | 6.4 | 6.1 | 5.4 |
| Centre | 9.8 | 9.5 | 9.2 |
| South | 21.3 | 21.9 | 21.9 |
| United Kingdom ^b | | | |
| High unemployment regions | 8.8 | 7.9 | 7.6 |
| Low unemployment regions | 5.3 | 4.5 | 4.1 |
| Other regions | 6.8 | 6.4 | 6.2 |
| Belgium | | | |
| Flandres | 6.4 | 6.2 | .. |
| Bruxelles | 13.4 | 14.3 | .. |
| Wallonie | 12.4 | 13.5 | .. |
| Spain ^c | | | |
| South | 29.4 | 27.5 | 24.5 |
| East | 17.6 | 14.9 | 11.6 |
| North | 18.5 | 17.0 | 15.1 |
| Centre | 18.5 | 17.1 | 13.8 |

a) Survey-based unemployment rates except for Germany.

b) High unemployment regions: North-East, Wales, Scotland, Northern Ireland and London; low unemployment regions: East, South East and South West; other regions: North West, Yorkshire and Humber, East Midlands and West Midlands.

c) South: Andalucia, Canarias, Extremadura, Ceuta y Melilla; East: Aragon, Baleares, Cataluna, Comunidad Valenciana, Murcia; North: Asturias, Cantabria, Galicia, Navarra, Pais Vasco; Centre: Castilla-La Mancha, Castilla-Leon, Madrid, Rioja.

Source: OECD.

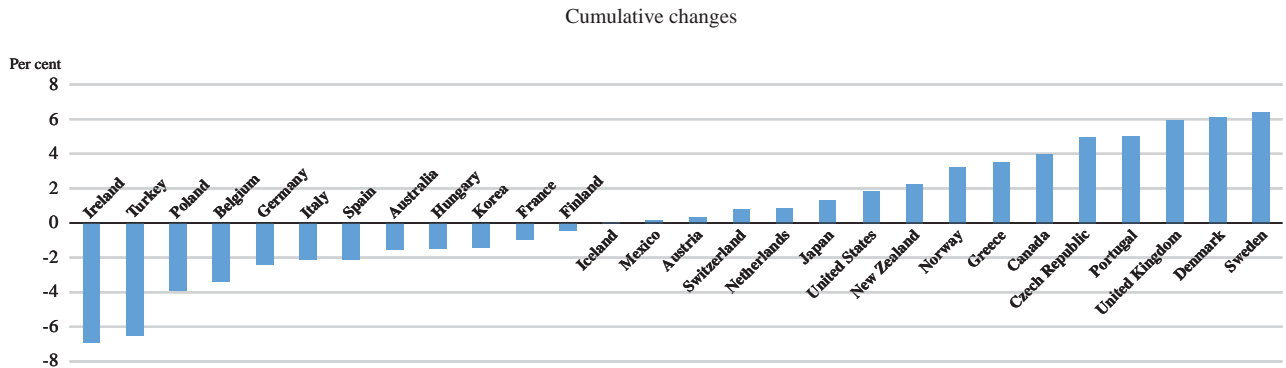
*... but disadvantaged groups
have been hard hit in Japan
and Korea*

The deterioration in labour market conditions in Japan and Korea since 1997 has affected all groups. Young people have been particularly hard hit, their unemployment rate rising more than twice as much as that for the prime-age labour force. The unemployment rate for those aged 55 to 64 has quadrupled in Korea, while the rise in Japan has been less than for the labour force as a whole. Common to both Japan and Korea is that the unemployment rate for women has risen less than the aggregate rate, but their participation rates have fallen in Korea while remaining stable in Japan. The incidence of long-term unemployment has risen only modestly in both countries.

*Real wage developments have
differed markedly across
Member countries*

Real labour cost developments have differed markedly across Member countries over the past three years. The growth in real wages and non-wage labour costs paid by employers has continued to be lower than the rate of growth of labour productivity in several European countries (Figure VII.4), including the large continental countries, and thus acted to encourage employment creation. This wage moderation has been most pronounced in Ireland, where labour productivity in the business sector has risen cumulatively by more than 6 per cent since 1996 while real labour costs per employee have only increased by 1 to 2 per cent. On the other side of the spectrum are a few European countries (Sweden, Denmark, United Kingdom and Portugal) where real compensation per employee has grown significantly faster than labour productivity growth over the past three years. Notwithstanding the starkly contrasting labour market performance in the United States and Japan over the past three years, labour costs in real terms in both countries have increased somewhat more than labour productivity in both countries.

Figure VII.4. Real wage growth minus labour productivity growth, 1996-99



Note: Real wages are defined as compensation per employee in the business sector divided by the business sector GDP price deflator; labour productivity is defined as GDP per employed person in the business sector.

Source: OECD.

The forces acting: policy reforms

The labour market developments discussed above have been influenced by government measures to encourage employment growth and reduce unemployment. In some cases, such policy reforms may swiftly show up in labour market performance. However, the experience with structural reforms indicates that it may take a long time before they translate into higher employment. For example, the beneficial effects of reforms aimed at increasing work incentives that are put in place when the economy is weak may only become apparent when economic conditions improve. Also, businesses may respond to lower employment costs implied by easier employment protection legislation only when demand picks up. For these reasons, the improvement of labour markets observed in the past three years may to some extent be rooted in measures that were implemented in the course of the 1990s and even earlier.

As reviewed in last year's report on implementing the *OECD Jobs Strategy*,⁴ progress in reforming both labour and product markets in the 1990s has been significant but uneven across countries, and differs across policy areas within individual countries. Given their high rates of unemployment, the need for reform has been most pressing in European countries. Selected features of reforms in some of these countries have involved reduction in labour costs for targeted groups, greater use of in-work financial support for low-wage earners, an adjustment of employment protection legislation for temporary and/or permanent workers, increased work incentives via more demanding entitlement conditions for unemployment benefits, and product market reforms.

A few European countries have taken measures to reduce labour costs for particular groups via cuts in employer social security contributions. These schemes have been used extensively in France (since 1993), Belgium (since 1993) and the Netherlands

Labour market improvements in the past three years partly reflect structural reforms pursued in the 1990s

In a number of European countries, employment growth has been stimulated by various policy reforms...

... cuts in payroll taxes on low earnings...

4. OECD, *Implementing the OECD Jobs Strategy – Assessing Performance and Policy*, Paris, 1999.

(since 1996). As discussed in *OECD Economic Outlook 66*,⁵ the schemes in France and the Netherlands in 1999 reduced total labour costs for minimum wage workers by 12-13 per cent. A large share of all employed persons was covered by these programmes in 1999: one-fourth in France, one-fifth in Belgium and one-sixth in the Netherlands. In the context of encouraging businesses to adopt a 35-hour working week, the French scheme was extended in the course of 1999 to cover workers earning up to 1.8 times the minimum wage and the rebate was increased. The United Kingdom reduced employer contribution rates on low earnings in 1999.

... and for other targeted groups...

Employer social security contributions have also been cut in Spain and Italy as an accompanying measure to other changes in labour market policy. To encourage the spread of new permanent contracts introduced in the 1997 Spanish reform (see below), employer social security contributions for workers on these contracts were temporarily reduced for two years (later extended to three years). The cuts varied from 20 to 60 per cent, reducing total labour costs for the average production worker by 5 to 14 per cent. In Italy, the 1997 reform reduced contribution rates for some categories of “atypical” work contracts by around two-thirds, implying the lowering of total labour costs for such contracts by more than 15 per cent.

... the introduction or expansion of in-work benefits or tax credits...

A few countries have attempted to encourage the employment of low-productivity workers by introducing or expanding in-work benefits or tax credits to top up low wages. The United Kingdom raised its in-work financial support with the introduction of the Working Families Tax Credit in 1999. The income threshold in the Irish Family Income Supplement scheme has been raised to strengthen employment incentives. An earned income tax credit and/or tax relief for childcare expenses have also been introduced or raised in Belgium, Finland, Italy and the Netherlands.

... an easing of regulations governing fixed-term contracts and temporary work agencies...

There has been a widespread easing of regulations governing fixed-term contracts and temporary work agencies in the course of the 1990s.⁶ For example, the number of permissible renewals as well as overall duration of fixed-term and temporary agency contracts were progressively extended in Germany and Belgium; restrictions on the use of fixed-term contracts were eased in Belgium and Sweden; and temporary work agencies were permitted in Spain and Sweden. The Italian (“*Pacchetto Treu*”) reform in 1997 permitted the opening of temporary work agencies, and allowed increased use of fixed-term work arrangements. Most of the employment growth since 1997 has involved such fixed-term contracts. More recently, the rules concerning the use of interim contracts for unskilled jobs have been simplified in Italy.⁷ The easing of regulations governing temporary work in many European countries is likely to have helped employment growth in the 1990s. However, the coexistence of strict employment protection legislation for permanent workers and minimal protection for temporary workers may not improve the functioning of the labour market in the longer run.⁸

... less-restrictive employment protection legislation for permanent workers...

While there has been little tendency to change employment protection legislation for regular workers in Europe, one of the few exceptions – the Spanish reform in 1997 – indicates the potential job-creation power of such changes. This reform introduced new permanent contracts with reduced severance payments for those

5. See Chapter V, “Making Work Pay” in *OECD Economic Outlook 66*, December 1999.

6. See e.g. Chapter 2 in *OECD Employment Outlook*, 1999.

7. See *OECD Economic Surveys 1999-2000 – Italy*, Paris, 2000.

8. See OECD, *Implementing the OECD Jobs Strategy – Assessing Performance and Policy*, Paris, 1999.

most exposed to unemployment or those with a weak employment record (youth, older workers, long-term unemployed) while the rules concerning fixed-term contracts were tightened somewhat. These new contracts have proven to be very popular with employers, with the cumulative number of persons with new subsidised contracts in 1998 and 1999 equal to 5½ per cent of all employed persons. There is little doubt that this has supported the overall employment gains in Spain, and, in particular, the strong job creation for young persons. However, it remains to be seen to what extent the popularity of these contracts is related to the temporary reduction in employer social security contributions rather than to the enhanced flexibility that such contracts offer. In Germany, the threshold for the size of companies that are exempt from employment protection legislation was raised from 5 to 10 employees, but this *de facto* easing of regulations was reversed in 1999.

Though the generosity and duration of unemployment benefits have not changed much over the 1990s, there has been a clear trend towards stricter eligibility criteria and tighter enforcement of such criteria in a large number of European countries. Some of the European countries that have been most successful in reducing unemployment in the 1990s have taken action in this area:⁹

... tougher eligibility criteria for unemployment benefits and stricter enforcement of such criteria,...

- In the United Kingdom, eligibility conditions for benefits have been progressively tightened. For example, stricter enforcement of eligibility criteria in 1994 led to a sharp increase in benefit sanctions, and a new comprehensive legal framework concerning eligibility requirements was introduced in 1996. The “New Deal” in 1998 stipulated compulsory contact with the public employment agency for some groups, with a refusal to accept recommended actions resulting in a withdrawal of benefits.
- In Denmark, the duration of the period in which job offers can be refused on grounds that they do not conform to previous occupation has been gradually reduced, the referral of unemployed persons to labour market programmes has been advanced, and its acceptance has been made compulsory. Much greater effort has been put into monitoring eligibility criteria, and ensuring that sanctions are applied when the criteria are not met.
- In the Netherlands, the authorities have raised the sanctions for rejecting suitable job or labour programme offers, and they have reportedly used such sanctions to encourage benefit recipients to find jobs.
- In Ireland, work availability and job search criteria were made specific in 1998. Young people have also been required to come to an interview at the public employment service after a certain length of unemployment, with a refusal of suggested interventions leading to a termination of benefits.

Tougher eligibility rules in these and other European countries have in particular acted to reduce measured youth unemployment and long-term unemployment

Widespread product market reforms in most European Member countries in the 1990s are also likely to have had beneficial effects on labour market performance. Competition in the European Union has increased in the course of the 1990s as a result of the single market programme and the establishment of a common currency among eleven of the 15 EU countries. Domestic competition in several countries has been spurred by

... and product market reforms aimed at enhancing competition

9. See Chapter 4, “Eligibility Criteria for Unemployment Benefits”, in *OECD Employment Outlook*, Paris, 2000, and *OECD Economic Surveys 1998-1999 – Ireland*, Paris, 1999.

tougher competition legislation and enforcement, and regulatory reforms, decided to a large extent at the EU level, have introduced or increased market discipline in several product markets, including parts of the old integrated network industries.

Reforms have also been implemented in the United States and other countries

The United States and some other non-European Member countries have also introduced reforms that have influenced recent labour market developments. The increased use of in-work tax credits for low-income earners in the United States has encouraged people with low earnings capacity to enter the labour market.¹⁰ Together with radical welfare reforms that have reduced work disincentives, the increased generosity of the Earned Income Tax Credit Programme has played an important role in increasing labour force participation rates of the target groups (*e.g.* lone parents with children). The overhaul of benefit systems in Canada in 1996 may have contributed to the strong growth in employment. In Australia reforms of the industrial relations system have continued, but the benefits are likely to be realised only gradually.

The reforms discussed above are clearly working towards reducing structural unemployment rates. Because some of the reforms have only been implemented recently, their full impact on structural unemployment rates will only materialise in coming years. Nevertheless, structural unemployment rates are still likely to remain high in many countries, notably in Europe, in the absence of additional reforms to better mobilise under-utilised labour resources. Continuing the process of product and labour market reforms is the surest way of increasing living standards in general and reducing the social cost related to high unemployment.

10. A simulation study indicates that the extension of the Earned Income Tax Credit in the mid-1990s increased labour market participation by 145 million hours on the assumption that entrants work 400 hours per year, which translates into an increase in the number of employed persons by around 360 thousand. The increase in total hours worked is much less since the tax credit implies disincentives for people already in work. See J.K. Scholz, "In-work benefits in the United States: The Earned Income Tax Credit", *Economic Journal*, 1996, 106, 156-169.

VIII. MONETARY POLICY IN A CHANGING FINANCIAL ENVIRONMENT

Introduction

Across the OECD area, many central banks are in the process of monetary policy tightening. Current high asset values are an additional and important part of the information set for policy decisions. In several countries, despite recent setbacks, equity market prices have reached heights that would have been considered most unlikely several years ago. More recently, real estate prices in some countries have also started to rise. The increase in asset values has brought forward the issue of how changing financial structures affect the impact of monetary policy on the real economy and therefore the way in which monetary policy should be implemented.¹

Financial structures have changed...

Monetary policy directly affects activity, and ultimately inflation, through its effect on interest rates and hence on the demand for goods by households and firms. However, monetary policy can also influence activity through its impact on the value of assets that, in turn, will influence the behaviour of households and firms; e.g. by changing wealth and, through an impact on balance sheets, borrowing costs. Recent financial market developments may have made these effects of monetary policy more important but at the same time less easy to predict. In particular, the size of financial markets has risen relative to real activity and readily tradable assets are becoming increasingly important relative to other financial assets.² Prices of such assets tend to be sensitive to shifts in market expectations about the future course of general economic developments and in particular interest rates. These developments have implications for the functioning of the economy and monetary policy.

... with potential effects for the functioning of monetary policy

Changes in financial markets and implications for balance sheets

The increase in financial market size and composition

Financial markets have witnessed substantial growth in size and scope over the past two decades. Between 1985 and 1998, the value of total credit and equity outstanding has risen significantly from around 150 per cent to about 250 per cent of the GDPs of the largest OECD economies (Table VIII.1)³. Though bank credit remains the dominant source of finance in most countries, there has been a shift in the form of

Financing has increased as a share of GDP, with a greater shift towards direct financing through capital markets

1. The importance of taking account of asset prices has been recently emphasised by Greenspan (1999).
2. The size of financial markets refers to the value of assets provided to ultimate borrowers (e.g. firms and households) by the original lenders (e.g. households); layers of intermediaries in-between are excluded.
3. Market capitalisation gives a distorted impression of the extent of financing through equity markets because the increase in stock market capitalisation could represent valuation effects (measures of expectations of future earnings) as well as larger capital issuance. In the United States, for example, market capitalisation has increased quite markedly, though net issuance was negative during 1994 to 1999, withdrawing approximately \$150 billion from the market.

Table VIII.1. Credit and equity intermediation

Values at end of the year, in per cent of GDP

| | Bank credit to the non-bank private sector | | | | Private sector domestic debt securities ^a | | | | Of which: | | Market capitalisation of equity markets ^b | | | |
|------------------------|--------------------------------------------|------|------|------|------------------------------------------------------|------|------|------|------------------------|-------------------|------------------------------------------------------|------|------|------|
| | | | | | | | | | Financial institutions | Corporate issuers | | | | |
| | 1985 | 1990 | 1995 | 1998 | 1985 | 1990 | 1995 | 1998 | 1998 | 1998 | 1985 | 1990 | 1995 | 1998 |
| United States | 68 | 70 | 64 | 69 | .. | 50 | 56 | 71 | 43 | 27 | 52 | 58 | 82 | 123 |
| Japan | 99 | 122 | 118 | 118 | .. | 33 | 30 | 40 | 22 | 18 | 58 | 125 | 72 | 57 |
| Germany | 93 | 98 | 103 | 118 | .. | 39 | 42 | 53 | 53 | ½ | 21 | 24 | 22 | 48 |
| France | 76 | 96 | 87 | 80 | .. | 41 | 39 | 33 | 27 | 6 | 12 | 29 | 32 | 65 |
| Italy | 51 | 56 | 58 | 60 | .. | 26 | 32 | 31 | 30 | 1 | 10 | 15 | 18 | 46 |
| United Kingdom | 47 | 116 | 116 | 120 | .. | 16 | 17 | 28 | 19 | 8 | 62 | 86 | 119 | 169 |
| Canada | 68 | 78 | 79 | 88 | .. | 9 | 9 | 14 | 6 | 8 | 41 | 47 | 61 | 94 |
| Belgium | 25 | 36 | 75 | 77 | .. | 49 | 52 | 46 | 34 | 12 | 21 | 36 | 35 | 93 |
| Netherlands | 61 | 80 | 94 | 107 | .. | 16 | 16 | 11 | 8 | 3 | 35 | 49 | 81 | 146 |
| Sweden | 87 | 129 | 103 | .. | .. | 55 | 57 | 50 | 43 | 7 | 31 | 47 | 67 | 121 |
| Switzerland | 141 | 168 | 168 | 167 | .. | 68 | 59 | 50 | 37 | 13 | 68 | 73 | 117 | 150 |
| G10 ^c | 75 | 88 | 84 | 86 | .. | 39 | 42 | 52 | 35 | 17 | 44 | 63 | 67 | 98 |
| G10-Japan ^c | 70 | 81 | 78 | 80 | .. | 41 | 45 | 54 | 37 | 17 | 41 | 49 | 66 | 106 |

a) Amounts outstanding by country of issuer.

b) Data refers only to listed shares.

c) Weighted by PPP-adjusted GDP.

Sources: IMF *International Financial Statistics*; BIS *International Banking and Financial Market Developments*, various issues; International Federation of Stock Exchanges; and OECD.

credit financing from bank loans to securities (including through the securitisation of loans, especially mortgages by banks). Reflecting these developments, financial wealth has been shifting out of bank deposits towards institutional investors and direct holdings of bonds and equities (Table VIII.2), with this shift most pronounced in the United States. Thus, the share of financial wealth that is both liquid and traded has increased considerably, both in relation to GDP and as a share of total financial assets (Vickers, 1999). As a result, a larger fraction of total wealth may now be more sensitive to market movements in general and vulnerable to abrupt shifts in valuations.

Developments in household and corporate balance sheets

Household balance sheets are stronger due to stock market valuation gains...

The increase in the overall amount of financing and its composition is reflected in the balance sheets of households and firms. For households in some of the largest OECD countries,⁴ their net wealth is equivalent to five-to-six times personal disposable income and has been rising somewhat over the 1990s, the striking exception being Japan (Figure VIII.1).⁵ The improving net wealth of the household sector is mainly due to increased financial wealth. In fact, in several countries wealth in financial assets now exceeds that in real-estate holdings.

4. A similar analysis for a larger number of OECD countries is contained in Mylonas *et al.* (2000).

5. In the case of Japan, the real estate and equity bubbles in the late 1980s increased net wealth considerably and helped fan an output boom. The subsequent collapse in these markets resulted in a prolonged recession.

Table VIII.2. Vehicles for savings

Financial assets as a per cent of GDP

| | All institutional investors | | | | Bank deposits | | | |
|------------------------|-----------------------------|------|------|------|---------------|------|------|------|
| | 1985 | 1990 | 1995 | 1997 | 1985 | 1990 | 1995 | 1997 |
| United States | 93 | 114 | 152 | 186 | 50 | 49 | 41 | 43 |
| Japan | .. | .. | 73 | 73 | 88 | 106 | 104 | 104 |
| Germany | 29 | 36 | 45 | 59 | 58 | 63 | 60 | 64 |
| France | 27 | 51 | 78 | 97 | 65 | 60 | 64 | 67 |
| Italy | .. | 13 | 32 | 54 | 62 | 59 | 55 | 48 |
| United Kingdom | 92 | 104 | 164 | 185 | 38 | 91 | 99 | 101 |
| Canada | 44 | 57 | 83 | 101 | 61 | 72 | 75 | 75 |
| Belgium | 26 | 41 | 60 | 76 | 33 | 38 | 75 | 82 |
| Netherlands | 94 | 109 | 139 | 164 | 66 | 74 | 75 | 77 |
| Sweden | .. | 80 | 103 | .. | 44 | 40 | 38 | 41 |
| Switzerland | .. | .. | 75 | 93 | 109 | 106 | 117 | 135 |
| G10 ^a | .. | .. | 110 | 134 | 60 | 67 | 63 | 64 |
| G10-Japan ^a | 73 | 86 | 117 | 145 | 54 | 58 | 55 | 56 |

Breakdown of institutional investors

| | Insurance companies ^b | | | | Pension funds ^c | | | | Investment companies and other ^d | | | |
|------------------------|----------------------------------|------|------|------|----------------------------|------|------|------|---------------------------------------------|------|------|------|
| | 1985 | 1990 | 1995 | 1997 | 1985 | 1990 | 1995 | 1997 | 1985 | 1990 | 1995 | 1997 |
| United States | 26 | 32 | 38 | 40 | 39 | 43 | 57 | 72 | 29 | 39 | 57 | 73 |
| Japan | .. | .. | 42 | 41 | .. | .. | .. | 16 | .. | 30 | 32 | 17 |
| Germany | 20 | 24 | 28 | 33 | 3 | 3 | 3 | 3 | 5 | 9 | 15 | 23 |
| France | 13 | 20 | 41 | 56 | .. | .. | .. | .. | 14 | 30 | 36 | 41 |
| Italy | .. | 6 | 11 | 14 | .. | 3 | 3 | 3 | .. | 4 | 18 | 38 |
| United Kingdom | 37 | 43 | 74 | 80 | 44 | 50 | 69 | 79 | 11 | 12 | 22 | 26 |
| Canada | 20 | 24 | 28 | 29 | 22 | 28 | 37 | 43 | 3 | 5 | 18 | 28 |
| Belgium | 21 | 26 | 30 | 34 | 2 | 2 | 4 | 5 | 3 | 13 | 27 | 37 |
| Netherlands | 29 | 37 | 52 | 61 | 65 | 72 | 85 | 101 | 0 | 0 | 2 | 2 |
| Sweden | .. | 32 | 47 | .. | .. | 2 | 2 | .. | .. | 46 | 54 | .. |
| Switzerland | .. | .. | 61 | 72 | .. | .. | .. | .. | .. | .. | 14 | 21 |
| G10 ^a | .. | .. | 38 | 42 | .. | .. | .. | 49 | .. | 27 | 39 | 47 |
| G10-Japan ^a | 24 | 29 | 38 | 42 | 33 | 34 | 44 | 56 | 21 | 27 | 40 | 53 |

a) Weighted by PPP-adjusted GDP.

b) Life and non-life insurance companies.

c) Autonomous and non-autonomous pension funds. Autonomous pension funds separate funds established for purposes of providing incomes on retirement for specific groups which are organised, and directed, by private or public employers or jointly by the employers and their employees. These funds engage in financial transactions on their own account. Non-autonomous pension funds are schemes in which employers maintain special reserves which are segregated from their other reserves even though such funds do not constitute separate institutional units from the employers. For Switzerland, these data exist only for even years.

d) Investment companies are a type of financial intermediary which obtains funds from investors and uses them to purchase financial assets. In return, the investors receive shares in the investment company, and thus indirectly own a proportion of the financial assets that the company itself owns. They include closed-end investment companies, managed investment companies, open-end investment companies or mutual funds and unit investment trusts. Other comprises trust accounts of trust banks excluding investment trusts, etc.

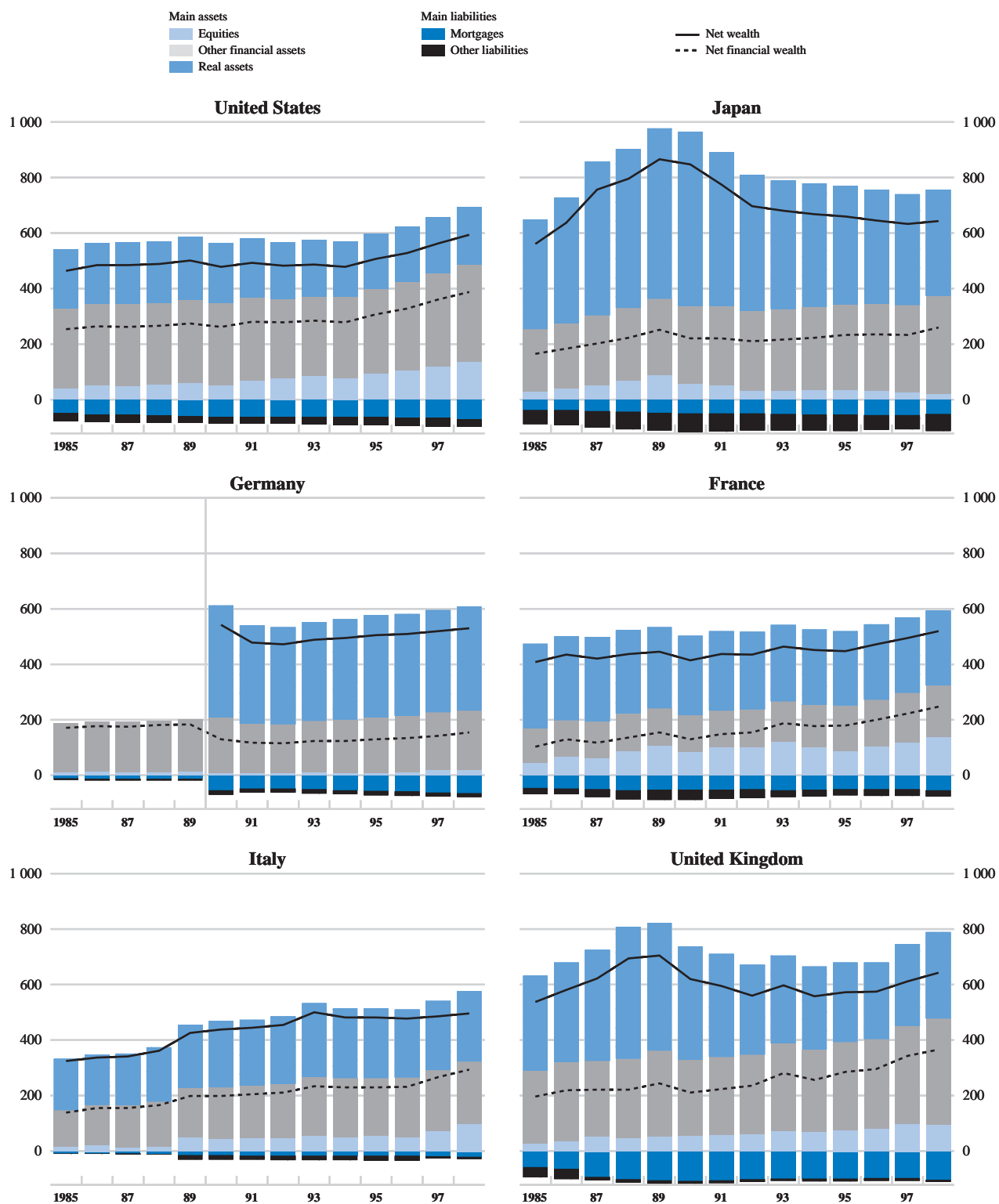
Sources: OECD *Institutional Investors, Statistical Yearbook*, 1998; BIS; IMF *International Financial Statistics*.

Household debt accounts for a significant share of disposable income (except in Italy), but it remains, nonetheless, small in relation to the value of assets. However, more recent indicators suggest that over the past year or so (not shown in Figure VIII.1) household borrowing may have risen more rapidly in some countries, and this appears to be partly due to enhanced facilities for borrowing. Examples are the increased ease and reduced cost with which equity can be withdrawn from real estate holding (e.g. through home-equity loans and cash-out refinancing) or with which borrowing for the purchase of shares can be undertaken on margin credit. The

... and these have more than matched households' increased debt levels

Figure VIII.1. Household assets and liabilities

Per cent of household disposable income



Source: See section at the end of the chapter.

pace at which this is occurring in both the United States and the United Kingdom in 1999 and 2000 is especially rapid. In the United States, though balance sheets are healthy on average, personal bankruptcies currently exceed the levels reached during the 1991 recession, though they have now declined from their 1998 peak.

The share of enterprise financial assets (excluding the value of own equity) in GDP has increased in all the countries covered here except Japan (Figure VIII.2). In the case of the United States, this has been accompanied by an increase in indebtedness that has risen to high levels as a share to GDP. Perhaps reflecting this trend, spreads between rates on corporate bonds and government securities have started to widen since 1997. Nevertheless, in all these countries, high asset values have provided firms with an increased buffer against adverse market developments. The corporate balance sheets in these OECD countries are also supported by net worth-to-market capitalisation ratios that have fallen dramatically due to rising stock market valuations. Firms' net worth as a per cent of GDP (shown for four of the countries covered here) has remained low in the United States, Japan and Germany, but not in France. However, for France, this may be due to stock market valuation gains from cross shareholdings.

Similarly, corporate balance sheets have improved

Implications of higher asset values for the functioning of the economy

These changes in the firms' and households' balance sheets may have implications for how a change in policy-controlled interest rates affects output and the central bank's ultimate objective, inflation. Monetary policy affects the economy directly through the influence of market interest rates on spending. But movements in policy interest rates can have additional effects through the changes induced in asset values and balance sheets.

Monetary policy can influence real activity in several ways

Wealth effects and the structure of household wealth holdings

When long-term interest rates rise in response to a tightening of policy, they will tend to lower asset values and, with them, household wealth. As a result of a (permanently) lower level of wealth, saving should increase in the household sector and thus lead to lower consumption. The growth in the size of household assets, not least as a result of the recent surge in stock markets, is likely to imply a significant rise in the strength of the wealth effect. Quite simply, a given percentage increase in the value of wealth, be it equity or real estate wealth, provides a bigger effect on consumption as the size of wealth expands compared with that of income.

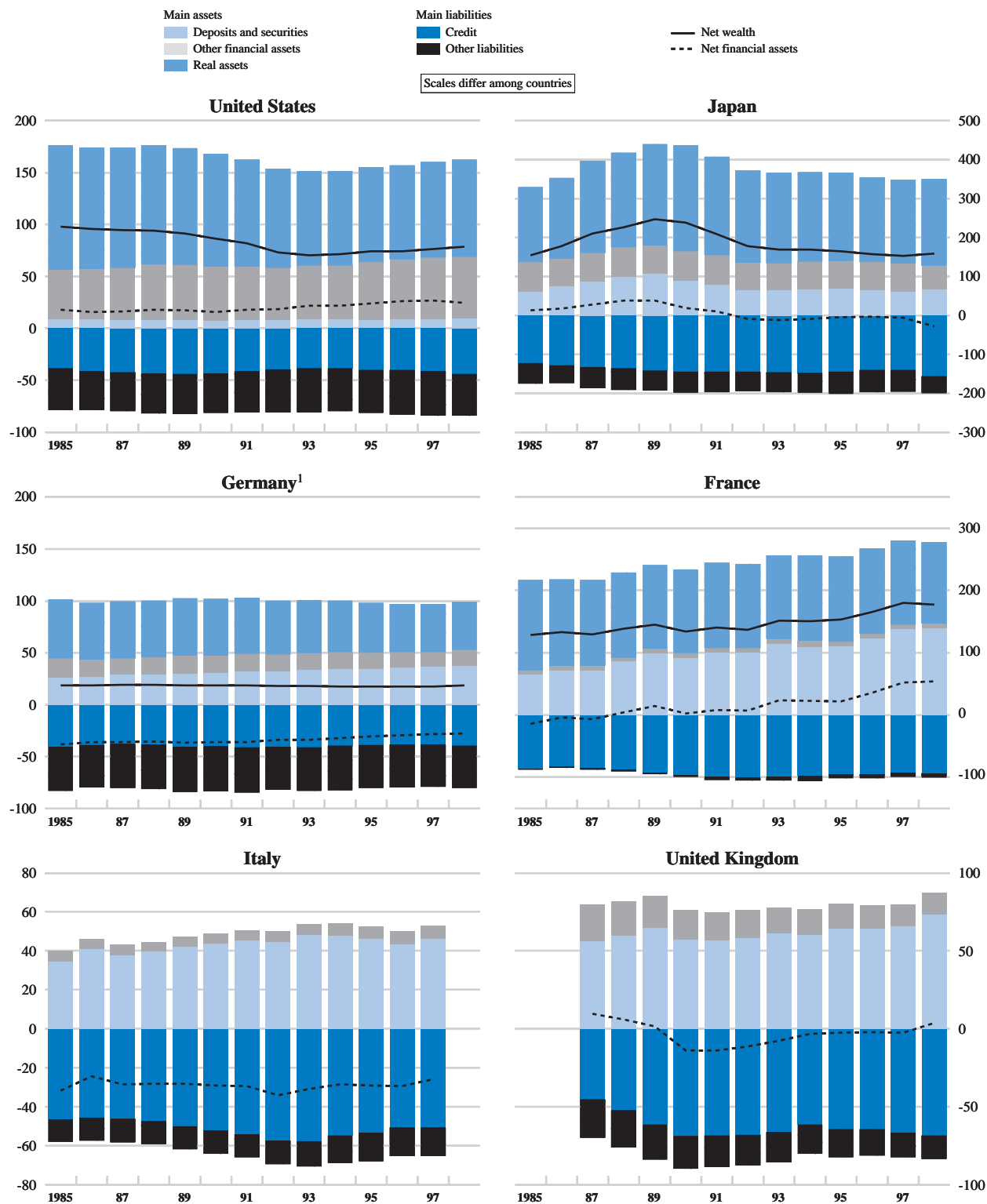
Higher household wealth potentially strengthens the impact of monetary policy...

The role of the wealth effect on consumption will also be strengthened by a broader pattern of asset holdings, the bulk of which has traditionally been in the hands of a narrow portion of the population. In the United States, the 1998 *Survey of Consumer Finances* indicates that half the households now own stock compared with one-third in 1989 and that equity holdings as a per cent of income for the median household have more than doubled to one quarter over the past decade. However, the distribution of stock holdings across different income categories of households has not changed significantly since 1989 (Starr-McClure, 1998; and Tracy *et al.*, 1999). In most other countries, the share of households holding equities is significantly smaller than in the United States (*e.g.* about 13 per cent in France for 1998 but even less in Japan and Germany).

... especially as the pattern of asset holdings has widened...

Figure VIII.2. Corporate sector balance sheet developments

Per cent of GDP



1. Comprises only enterprises in former West Germany.

Source: See section at the end of the chapter.

That being said, in the euro area anecdotal evidence suggests that share holding is spreading quickly, spurred on by privatisation as well as the burst of initial public offerings (IPOs) following the introduction of the euro. Change may come quickly in Japan, as well. There is likely to be at least a partial switch by households out of postal saving bank deposits to the equities market, following the coming to maturity of substantial time deposits at a time when interest rates are very low. The cross-country differences in the degree of equity holdings reflect in part structural conditions, *inter alia*, taxation systems, accounting standards and other regulations. For example, tax incentives for housing and pension savings in the United States and the prevalence of state-run pay-as-you-go pension systems in continental Europe have contributed significantly to the composition of their current financial structures. But these features may change as well, in the face of pressures from global competition and demographic change.

... and this is expected to continue, particularly in Europe and Japan

In contrast to the narrow distribution of holdings of equity, well over half the households in the majority of the OECD countries own their homes, suggesting a potential for much larger wealth effects resulting from increases in housing prices compared with equivalent increases in equity prices (Table VIII.3). Notable exceptions are Germany, Sweden, Switzerland and the Netherlands. Nevertheless, even in these countries, households' real property holdings are equivalent to two or more times their disposable income. Moreover, the unrealised equity of a home (defined as the value of the property, net of the mortgage) represents the bulk of net wealth for the median income household. For the United States, for example, it is near 90 per cent (Tracy *et al.*, 1999).

Large wealth effects can emerge from real property which represents the bulk of households' net wealth

Table VIII.3. Home ownership

Owner-occupation ratio in per cent

| | 1970 | 1980 | 1990 | 1995 |
|----------------|------|------|------|------|
| United States | 65 | 68 | 64 | 67 |
| Japan | 59 | 62 | 61 | .. |
| Germany | 36 | 40 | 38 | 41 |
| France | 45 | 51 | 54 | 54 |
| Italy | 50 | 59 | 67 | 67 |
| United Kingdom | 49 | 56 | 68 | 67 |
| Canada | 60 | 62 | 61 | .. |
| Belgium | 55 | 59 | 62 | 66 |
| Netherlands | 35 | 42 | 44 | 47 |
| Sweden | 35 | 41 | 42 | 43 |
| Switzerland | 28 | 30 | 31 | .. |

Sources: Oswald, A (1999), "The housing market and Europe's unemployment: a non-technical paper", *mimeo*, May; European Mortgage Federation; and *OECD Economic Surveys, Denmark* (1999).

Balance sheet effects

Households and non-financial firms

Monetary policy also influences activity through its impact on the health of households' and firms' balance sheets. Changes in the market value of assets, while the re-payment of existing liabilities remains unchanged, will influence the creditworthiness of potential borrowers and, thus, their ability to obtain the financing they desire.

Balance sheet effects are likely to be more constraining in Europe and Japan, than in the United States

Table VIII.4. Distribution of enterprises by size^a

Size distribution by number of employees in per cent

| | | Employment | | | | | Turnover/production ^b | | | | |
|--------------------------|------|------------------|-------|-------|----------------------|------|----------------------------------|-------|-------|----------------------|------|
| | | 0-9 ^c | 10-19 | 20-99 | 100-499 ^d | 500+ | 0-9 ^c | 10-19 | 20-99 | 100-499 ^d | 500+ |
| United States | 1995 | 11.8 | 7.7 | 18.4 | 14.6 | 47.5 | 10.8 | 6.1 | 17.0 | 13.1 | 53.0 |
| Japan | 1997 | 11.7 | 6.0 | 12.3 | 70.0 | | 7.1 | 6.8 | 23.2 | 63.0 | |
| Germany ^e | 1996 | 28.4 | 20.2 | 11.1 | 40.3 | | 13.4 | 17.9 | 23.4 | 45.3 | |
| France | 1997 | 19.9 | 8.3 | 21.4 | 19.1 | 31.3 | .. | .. | .. | .. | .. |
| Italy | 1995 | 47.0 | 10.7 | 17.0 | 10.3 | 15.1 | 29.2 | 10.4 | 21.7 | 15.2 | 23.5 |
| United Kingdom | 1997 | 28.8 | 7.2 | 12.7 | 12.6 | 38.7 | 12.8 | 5.6 | 16.0 | 21.6 | 44.1 |
| Canada | 1995 | 20.4 | 18.2 | 16.2 | 45.3 | | .. | .. | .. | .. | .. |
| Belgium | 1997 | 16.7 | 8.9 | 21.1 | 17.9 | 35.4 | 28.3 | 8.6 | 22.0 | 17.4 | 23.6 |
| Netherlands ^e | 1996 | 24.3 | 17.0 | 19.4 | 39.2 | | 17.6 | 21.6 | 24.3 | 36.5 | |
| Sweden | 1996 | 22.1 | 9.1 | 18.6 | 17.4 | 32.8 | 19.9 | 8.2 | 19.0 | 19.1 | 33.9 |
| Switzerland | 1995 | 29.0 | 10.0 | 20.6 | 16.8 | 23.5 | .. | .. | .. | .. | .. |

a) Does not comprise all sectors for Japan, Germany, Italy, United Kingdom, Belgium and the Netherlands.

b) Production for the United States, Japan and Germany, turnover for other countries.

c) 4-9 for Japan, 1-9 for Italy and Switzerland, 1-19 for Canada. France 0-9 includes unknown.

d) For Japan: more than 100.

e) Germany and the Netherlands: the breakdown is 0-9, 10-49, 50-249 and more than 250.

Sources: OECD database on SME Statistics, and Commission of the European Communities.

These effects are likely to be large to the extent that borrowers are dependent on financial institutions for which it is costly to ascertain borrowers' risk characteristics.⁶

The strength of balance sheet effects will be different across economies. They are generally less important in countries with better-developed and diversified financial markets which provide borrowers with alternative sources of funds. For households, in view of their small size and short track record with financial institutions as far as borrowing is concerned, balance sheet effects are more likely to be important. For firms, size may serve as an albeit imperfect proxy for the importance of this component of the balance sheet effect, since smaller firms are more likely to face financing constraints. It appears that countries in continental Europe and Japan have a greater share of small firms measured by employment (those with less than 100 employees) and the United States a greater share of large firms (those with more than 500 employees) (Table VIII.4). This would suggest that the balance sheet effect would be stronger in the former countries than in the latter ones. However, looking forward, a trend towards consolidation among firms would work to reduce financing constraints.

Strong balance sheets can provide buffers against a monetary policy tightening

Where they are important, balance sheet effects will tend to reinforce the business cycle, as borrowers' net worth and cash flow generally increase along with activity. Moreover, the impact of monetary policy will depend on the condition of the balance sheets. For example, a monetary policy tightening will work towards reducing the value of borrowers' collateral. If balance sheets are strong, as is the case in many OECD countries now, a monetary policy tightening may have to be more

6. Balance sheet effects can thus limit households' and firms' funding for consumer durables and investment goods to the extent that lenders are not satisfied with their creditworthiness; e.g. the value of the collateral on their balance sheets. In this situation, banks will either raise the lending premium or ration lending (Bernanke *et al.*, 1998; Bernanke and Gertler, 1999). Though there is general agreement that the balance sheet effect exists, its magnitude, at the aggregate level, remains an open question, and the micro data evidence is mixed (Gilchrist and Himmelberg, 1998).

significant since a reduction in collateral will be less constraining than when balance sheets are already weak.

However, a rise in the share of actively traded assets (including those denominated in a foreign currency), as has occurred in most countries, has increased the potential for significant and sudden shifts in the valuation of the balance sheet following changes in expectations for monetary policy or other developments. Price reversals may leave a larger number of borrowers in situations with an unwanted imbalance between assets and liabilities (unintended leverage), in some cases requiring a need for additional collateral. The larger the size of the gross asset and liability positions compared with the net asset position, the greater the potential impact of interest rate shifts or changes in other expectations on the health of the balance sheet. As monetary policy influences asset prices, these developments are likely to have increased the importance of the transmission of monetary policy through balance sheets.⁷

Assessing the prevalence of these effects is difficult, largely because of problems in ascertaining the balance sheet positions of various sectors, especially enterprises. Data are not very reliable in most countries and sometimes do not exist and/or are produced with long lags.⁸

Banks

The health of bank balance sheets can also influence their borrowing capabilities and, thus, their capacity to on-lend to households and firms. The transmission of monetary policy to activity in this manner is contentious. In the event, the major countries' bank balance sheets, capital adequacy and profitability are generally strong, with the exception of Japan where both capital and profitability ratios are currently low (Figure VIII.3). This suggests that in aggregate, changes in monetary policy are unlikely to have strong effects operating via bank balance sheets and associated restrictions on the supply of credit (Favero *et al.*, 1999 and de Bandt and Davis, 1999). Moreover, in countries where such balance sheet effects could be the strongest – where the loan market comprises many relatively small banks and there is a more bank-centred financial system – banks have other assets on their balance sheet with which to buffer a monetary policy contraction. In these countries, a significant inter-bank market is an additional source of funds for banks. The country that has the least amount of assets for buffer purposes appears to be Japan where banks have undergone exceptional difficulties due to the need to restructure.⁹ But even in the case of Japan, banks hold overseas assets that they can sell.

Looking forward, however, the pick-up in competition in European financial markets following the introduction of the euro is likely to reduce these buffers. But perhaps more importantly, these developments may provide alternative non-bank sources of finance to households and firms, as well as accelerate the pace of financial

Firms' balance sheets have become more liquid and thus more susceptible to sudden valuation changes

Healthy bank balance sheets likely limit the impact of monetary policy on bank lending...

... and additional competition may further weaken balance sheet effects

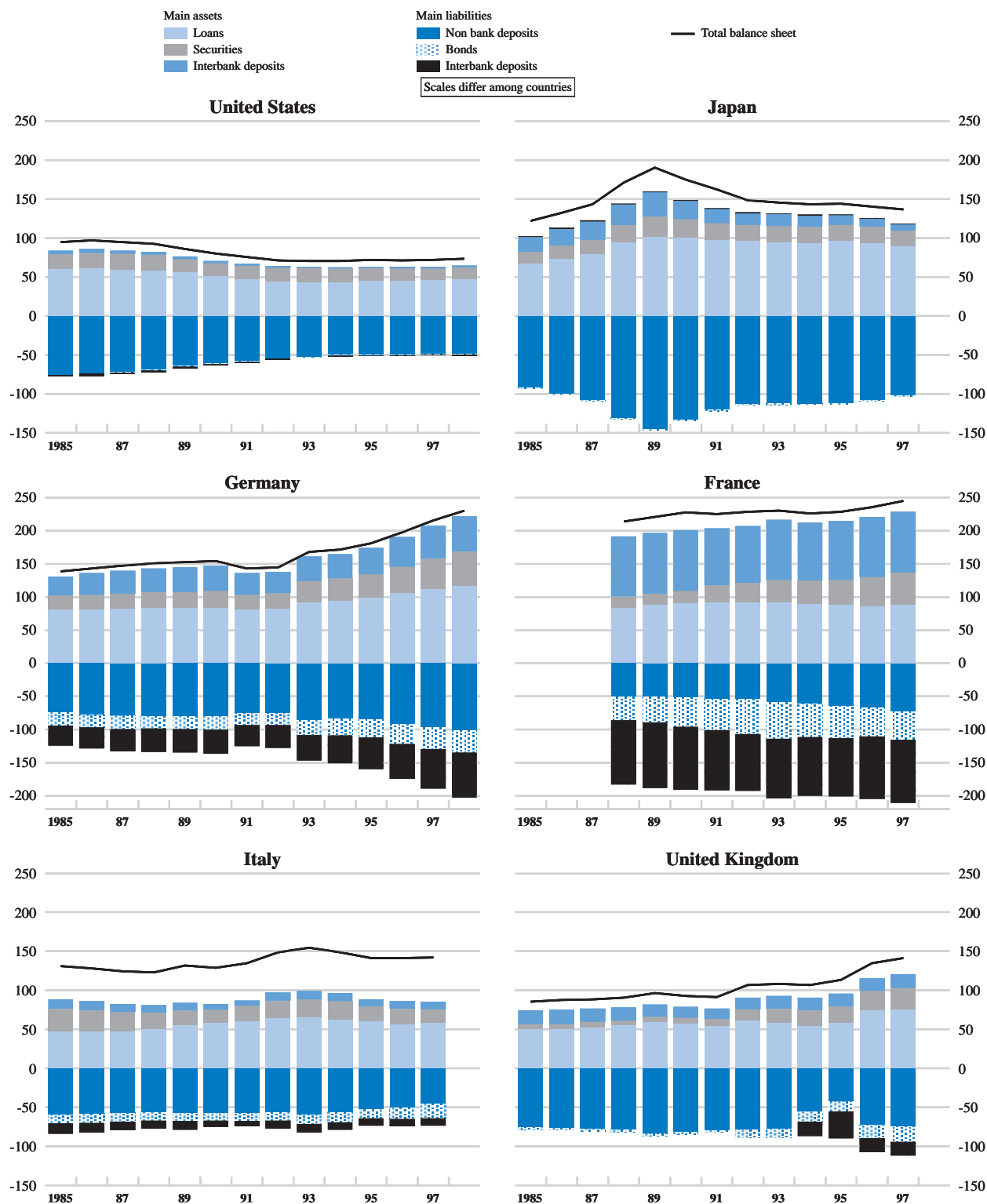
7. In the case of enterprises, an important new source of risk is off-balance sheet positions in derivatives markets.

8. Changes in national accounting standards are another source of data gaps. For enterprise accounts there are three main problems. First, except for a few cases, it is difficult to obtain market valuations for all the individual categories of the balance sheet. Second, balance sheet and net worth comparisons are often distorted by individual countries' accounting practices. Third, no account is made of off-balance sheet activity, where the degree of leverage is usually higher, or for implicit liabilities, such as under-funded pension schemes.

9. One of the reasons why Japanese banks have suffered from low capital adequacy is that regulations permitted them to hold 45 per cent of unrealised capital gains on equity holdings in tier II capital. Following the large and sustained stock market correction in the late 1980s and early 1990s, banks' balance sheets weakened markedly (Kato, Ui and Watanabe, 1999).

Figure VIII.3. Bank balance sheet developments

Per cent of GDP



Source: OECD, Bank Profitability, 1999.

sector consolidation. This could potentially increase the overall supply of finance to households and firms. The situation in Japan is changing rapidly as well, encouraged by the exceptional problems currently faced by banks. These have resulted in consolidation within the banking sector, and are providing incentives for the development of non-banking sources of borrowing

Sensitivity of asset prices to interest rate developments and other shocks

There are several developments that may have affected the way long-term interest rates, and asset prices more generally, are influenced by monetary policy. Market integration and the increased use of techniques that are designed to reduce risk for investors may be raising the sensitivity of asset values to monetary policy actions, while greater predictability of monetary policy may have strengthened the impact of policy moves.

Asset values may be more sensitive to monetary policy actions due to...

Increased asset market integration

The greater integration of capital markets is generally considered to be amplifying the sensitivity of asset prices to monetary policy and other interest rate movements, originating in other markets and regions. Bond and equity markets have become more integrated, and the ratio of gross foreign portfolio liabilities to GDP continues to rise in all major countries. For example in the United States and Germany it has risen by 30 per cent of GDP between 1985 and 1998. Reflecting these developments, prices in markets for both bonds and equities have become more correlated between the United States and Europe.

... asset market integration

The role for derivatives¹⁰

The greater use of derivatives has two important ramifications for the functioning of financial markets (BIS, 1995). First, they may have speeded up the transmission of monetary policy from short-term interest rates, which are most sensitive to monetary policy developments, to the price of assets in other markets. This has been achieved, in part, by raising asset price substitutability across financial markets (Cohen, 1995). For example, the use of an interest rate option contract, based on government securities, can be used to protect against a change in the interest rate on a corporate security. This practice increases the link between government and corporate securities markets. Second, the greater use of derivatives may help the financial market reaction to monetary policy be less abrupt because they are designed to insulate firms, at least temporarily, from unexpected changes in their revenues and/or their debt-servicing costs.

The greater use of derivatives is helping to speed up the transmission mechanism

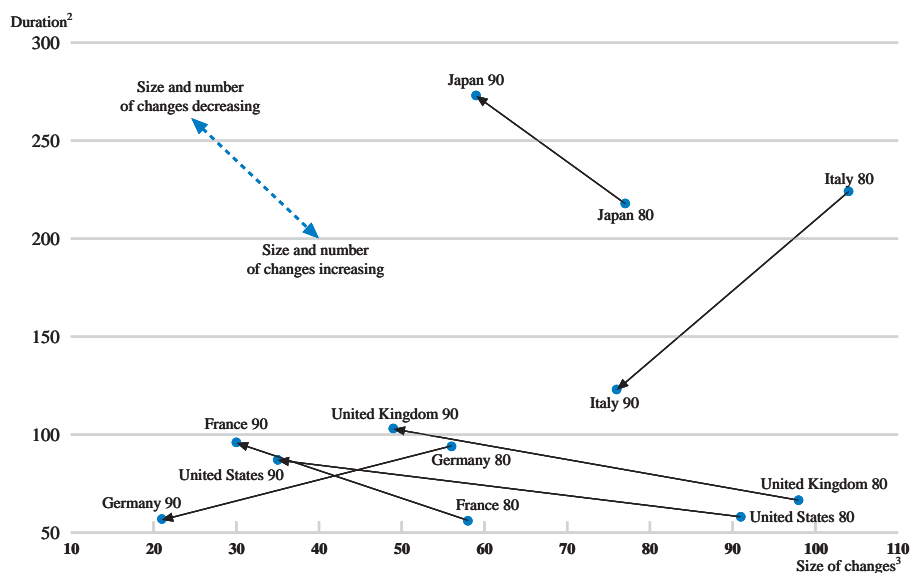
10. Derivatives are financial instruments that can provide market participants with a degree of insurance against asset price or interest rate changes. For example, investors that are holding securities that they need to sell at some point in the future can buy an option contract or a futures contract. The first gives them the right, but not the obligation, to sell the securities at a fixed price until a certain date. The second type of contract is an obligation to undertake the transaction at a pre-determined date in the future. In this sense, their position is hedged in both cases.

At the same time, monetary policy may have been strengthened by its increased predictability

Increased predictability of monetary policy

Markets have come to understand better the strategies followed by central banks and this may affect the sensitivity of long-term interest rates to movements in short-term ones. Many central banks, for some time now, have followed a gradualist policy strategy – moving rates in consecutive small steps in the same direction (Figure VIII.4). Reflecting this more systematic and predictable central bank behaviour, markets may now expect a small initial move to be followed by additional ones in the same direction. As a result, even a small move in short-term rates may generate, or even be anticipated by, a significant response from long-term rates.¹¹ In the event, it appears that the reaction of long-term to short-term rates has changed in the United States, and possibly Japan, but not to any marked extent in other major countries.¹²

Figure VIII.4. Policy rate changes during the 1980s and 1990s¹



1. The 1980s comprise 1980 up to and including 1988; and the 1990s, 1989 up to and including 1999.
2. Average duration, measured by the number of days, including weekends and bank holidays. A longer duration is equivalent to a smaller number of changes during the period under consideration.
3. Average absolute value of change in basis points.

Explanation: Movements in central bank policy rates usually follow a pattern of a series of small moves in the same direction, with few large moves or policy reversals. A simple measure of this pattern, often referred to as “gradualism”, consists of calculating the average size of policy rate moves (horizontal axis) and the number of days between subsequent moves (vertical axis).

Source: OECD.

11. A larger impact from short- to long-term interest rates, as a result of increased predictability of central bank action, is not inconsistent with a credible commitment to price stability over the medium term. The existence of a credible policy requires that short-term interest rates several years into the future are relatively unaffected by a monetary policy action. However, a policy rate move may increase long-term rates – which are an average of current and future expected short-term rates – due to expectations of higher short-term rates in the near future.
12. Regression analysis by the OECD suggests that the reaction of long-term rates to a 100 basis point increase in short-term rates has increased from 35 basis points in the 1980s to 60 to 70 basis points since 1992 in the case of the United States. These results control for the short-term interest rate, as well as for other possible determinants of the change in the long-term interest rate, *inter alia*, industrial production and inflation.

Implications for monetary policy

The previous sections argued that the significant development and growth of financial markets relative to GDP is likely to have changed the way monetary policy affects real activity, and ultimately inflation.¹³ The net impact on the potency of policy interest rate changes, however, is uncertain. Overall, monetary policy may be more powerful through its effect on asset values which reinforce the traditional direct impact of interest rates on demand. However, monetary policy may take longer to have an influence on the economy, as wealth and balance sheet effects take longer to play out.

In sum, financial market developments may be changing the manner in which monetary policy works

What seems critical at this current juncture is the pace at which monetary policy tightening, currently underway, should proceed. When the monetary policy authorities are confident in their knowledge of the amount of tightening that is needed, they can move quickly to the required higher level for interest rates. However, to the extent that there is more uncertainty on the effects of monetary policy changes, *inter alia*, due to the development of financial markets, it argues for implementing a more gradualist approach. Such uncertainty could increase the risk that a strong policy action might lead to undesirable outcomes. By following a gradualist strategy central banks sacrifice the speed with which their (inflation) target is obtained in order to avoid overshooting the target.¹⁴ In some cases, the degree of gradualism will be dictated by other considerations, such as central banks' anti-inflationary credibility. If it is poor, there is heightened risk that a gradual policy response would increase inflation expectations.

Uncertainty about their effects may justify a gradual monetary policy

Following a policy of gradualism can create tension between pre-emptive and reactive policy moves. An increasing risk of "falling behind the curve" suggests that a gradualist policy may need to be followed by more aggressive moves, if events appear to be turning out differently than expected. For example, if healthy balance sheets were to weaken the effects of higher interest rates, at the same time that wealth effects were stimulating consumption, monetary policy would face an increasing risk of "falling behind the curve".¹⁵

However, this strategy may create more tension between pre-emptive policy moves and reactive ones as there is the risk of "falling behind the curve"

These tensions raise the importance of the monetary authorities' credibility and transparency. If inflation expectations are well anchored, policy actions may be more effective and thus the size of any move to achieve a given objective is likely to be smaller. A credible commitment to low inflation thus provides some insurance against "falling behind the curve". Transparency reduces the risk that policy changes will destabilise markets, by allowing anticipations to adjust appropriately, thus helping to avoid disorderly swings in asset prices.

In this environment, the credibility and predictability of monetary policy can play a useful role

13. In addition, the functioning of economies may be more uncertain and prone to factors affecting spending, which subsequently often feed through to asset prices. For example, the United States has been hit by a large positive supply shock, and equity price increases are bringing forward to current demand extrapolation of future output gains.

14. Uncertainty about the length of the lag in the monetary transmission mechanism also suggests that central banks may prefer to move more gradually (Haldane, 1997; and Ha, 1999).

15. A more aggressive policy stance may also be required in other cases. First, if the economy is subject to persistent effects, such as from wage indexation, this could offset the initial bias towards gradualism (Shuetrim and Thompson, 1999). Second, in a low inflation environment, a rule that reacts more pre-emptively to deviations from the bank's targets may reduce the likelihood that the economy hits the zero bound for nominal interest rates – although, in practice, this has only been an issue for Japan (Reifschneider and Williams, 1999).

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SOURCES

Figure 1

United States: Federal Reserve Statistical Release, *Flow of Funds Account of the United States*, various issues.

Japan: Economic Planning Agency, *Annual Report on National Accounts*, 1999. 1998 values are from the Bank of Japan *Flow of Funds Accounts* (and are not strictly comparable with previous years). 1998 real assets are estimates based on increases in housing prices.

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Figure 2

United States: Federal Reserve Statistical Release, *Flow of Funds Accounts of the United States*, various issues.

Japan: Economic Planning Agency, *Annual Report on National Accounts*, 1999. 1998 values are from the Bank of Japan *Flow of Funds Accounts* (and are not strictly comparable with previous years). 1998 real assets are estimates based on increases in the private non-residential fixed capital formation deflator. Equities have been adjusted for cross-shareholdings according to estimates by Shuichi Uemura and Takeshi Kimura, "Japanese share prices", *BIS Conference Papers* Vol. 5, Basle, March 1998, pp. 139-176.

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Statistical Annex

This annex contains data on some main economic series which are intended to provide a background to the recent economic developments in the OECD area described in the main body of this report. Data for 1999-2001 are OECD estimates and projections. The data on some of the tables have been adjusted to internationally agreed concepts and definitions in order to make them more comparable as between countries, as well as consistent with historical data shown in other OECD publications. Regional totals and sub-totals are based on those countries in the table for which data are shown. Aggregate measures contained in the Annex, except the series for the euro area (see below), are computed on the basis of 1995 GDP weights expressed in 1995 purchasing power parities (see following page for weights). Aggregate measures for external trade and payments statistics, on the other hand, are based on current year exchange rate for values and base-year exchange rates for volumes.

Given the uneven progress in the transition of the European Union member countries to the new European System of Accounts (ESA95) (see Box I.2 in Chapter I “General Assessment of the Macroeconomic Situation” in *OECD Economic Outlook* 65), the publication of the three following Annex tables have been temporarily suspended. When data homogeneity and country coverage become comprehensive enough to arrive at reasonably consistent data series across countries the OECD will resume their publication.

- Annex Table 24. Capital income shares in the business sector
- Annex Table 25. Rates of return on capital in the business sector
- Annex Table 59. Productivity in the business sector

The OECD projection methods and underlying statistical concepts and sources are described in detail in “Sources and Methods: OECD Economic Outlook” which can be downloaded from the OECD Internet site (<http://www.oecd.org/eco/out/source.htm>). A supplementary document, the “OECD Economic Outlook Database Inventory”, can also be downloaded (<http://www.oecd.org/eco/data/eoinv.pdf>). The construction of macroeconomic series of the euro area are described in another supplementary document (<http://www.oecd.org/eco/data/euroset.htm>).

NOTE ON STATISTICAL TREATMENT OF GERMANY, THE CZECH REPUBLIC, HUNGARY AND POLAND

In this publication, data up to end-1990 are for western Germany only; unless, otherwise indicated, they are for the whole Germany from 1991 onwards. In tables showing percentage changes from previous year, data refer to the whole Germany from 1992 onwards. For technical reasons, data for the Czech Republic, Hungary and Poland are shown and included in aggregate measures for total OECD from 1993 onwards only. In tables showing percentage changes from previous year, data (for the Czech Republic, Hungary and Poland) are included from 1994 onwards.

Country classification

| <i>OECD</i> | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Seven major OECD countries | United States, Japan, Germany, France, Italy, United Kingdom and Canada. |
| Smaller OECD countries | Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, Greece, Hungary, Iceland, Ireland, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland and Turkey. |
| European Union | Germany, France, Italy, United Kingdom, Austria, Belgium, Denmark, Finland, Greece, Ireland, Luxembourg, Netherlands, Portugal, Spain and Sweden. |
| Euro area | Germany, France, Italy, Austria, Belgium, Finland, Ireland, Luxembourg, Netherlands, Portugal and Spain. |
| <i>Non-OECD</i> | |
| Africa and the Middle East | Africa and the following countries (Middle East): Bahrain, Cyprus, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen. |
| Dynamic Asian Economies (DAEs) | Chinese Taipei; Hong Kong, China; Indonesia; Malaysia; the Philippines; Singapore and Thailand. |
| Other Asia | Non-OECD Asia and Oceania, excluding China, the DAEs and the Middle East. |
| Latin America | Central and South America. |
| Central and Eastern Europe | Albania, Bulgaria, Romania, the Slovak Republic, the Newly Independent States of the former Soviet Union, and the Baltic States. |

Weighting scheme for aggregate measures

| <i>Per cent</i> | | | |
|--------------------------------|-------|----------------------------------|--------|
| United States | 35.27 | Ireland..... | 0.31 |
| Japan..... | 13.55 | Korea..... | 2.92 |
| Germany | 8.33 | Luxembourg..... | 0.07 |
| France | 5.72 | Mexico | 2.97 |
| Italy..... | 5.50 | Netherlands..... | 1.57 |
| United Kingdom..... | 5.19 | New Zealand..... | 0.29 |
| Canada..... | 3.25 | Norway..... | 0.48 |
| | | Poland | 1.28 |
| Total of above countries | 76.82 | Portugal..... | 0.63 |
| | | Spain | 2.84 |
| Australia | 1.82 | Sweden..... | 0.84 |
| Austria | 0.82 | Switzerland | 0.86 |
| Belgium | 1.05 | Turkey | 1.66 |
| Czech Republic | 0.61 | | |
| Denmark | 0.57 | Total of smaller countries | 23.18 |
| Finland..... | 0.46 | | |
| Greece..... | 0.64 | Total OECD | 100.00 |
| Hungary | 0.44 | <i>Memorandum item</i> | |
| Iceland | 0.03 | European Union | 34.55 |
| | | Euro area..... | 27.30 |

Note: Based on 1995 GDP and purchasing power parities (PPPs).

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Annex Table 1. Real GDP
Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | | |
|-----------------------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|--|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 | |
| <i>United States</i> | 2.4 | 4.3 | 7.3 | 3.8 | 3.4 | 3.4 | 4.2 | 3.5 | 1.8 | -0.5 | 3.1 | 2.7 | 4.0 | 2.7 | 3.6 | 4.2 | 4.3 | 4.2 | 4.9 | 3.0 | |
| <i>Japan</i> | 3.8 | 2.3 | 3.9 | 4.4 | 2.9 | 4.2 | 6.2 | 4.8 | 5.1 | 3.8 | 1.0 | 0.3 | 0.6 | 1.5 | 5.1 | 1.6 | -2.5 | 0.3 | 1.7 | 2.2 | |
| <i>Germany</i> | 1.9 | 1.8 | 2.8 | 2.0 | 2.3 | 1.5 | 3.7 | 3.6 | 5.7 | 5.0 | 2.2 | -1.1 | 2.3 | 1.7 | 0.8 | 1.5 | 2.2 | 1.5 | 2.9 | 3.0 | |
| <i>France</i> | 2.7 | 1.0 | 1.6 | 1.6 | 2.3 | 2.5 | 4.2 | 4.3 | 2.5 | 1.1 | 1.3 | -0.9 | 1.8 | 1.9 | 1.1 | 1.9 | 3.2 | 2.9 | 3.7 | 2.9 | |
| <i>Italy</i> | 3.2 | 1.2 | 2.8 | 3.0 | 2.5 | 3.0 | 3.9 | 2.9 | 2.0 | 1.4 | 0.8 | -0.9 | 2.2 | 2.9 | 1.1 | 1.8 | 1.5 | 1.4 | 2.9 | 3.1 | |
| <i>United Kingdom</i> | 1.4 | 3.7 | 2.4 | 3.8 | 4.2 | 4.4 | 5.2 | 2.1 | 0.6 | -1.5 | 0.1 | 2.3 | 4.4 | 2.8 | 2.6 | 3.5 | 2.2 | 2.1 | 2.9 | 2.3 | |
| <i>Canada</i> | 3.2 | 2.8 | 5.7 | 5.4 | 2.6 | 4.1 | 4.9 | 2.5 | 0.3 | -1.9 | 0.9 | 2.3 | 4.7 | 2.8 | 1.7 | 4.0 | 3.1 | 4.2 | 4.3 | 3.0 | |
| <i>Total of major countries</i> | 2.6 | 3.1 | 5.1 | 3.6 | 3.1 | 3.4 | 4.6 | 3.6 | 2.7 | 1.0 | 2.0 | 1.3 | 3.0 | 2.3 | 3.0 | 3.1 | 2.4 | 2.7 | 3.7 | 2.8 | |
| <i>Australia</i> | 2.9 | 0.0 | 6.9 | 5.1 | 2.1 | 4.9 | 4.5 | 4.4 | 1.5 | -0.9 | 2.6 | 3.8 | 5.0 | 4.4 | 4.0 | 3.9 | 5.1 | 4.4 | 3.9 | 3.7 | |
| <i>Austria</i> | 2.7 | 2.8 | 0.3 | 2.2 | 2.3 | 1.7 | 3.2 | 4.2 | 4.6 | 3.4 | 1.3 | 0.5 | 2.4 | 1.7 | 2.0 | 1.2 | 2.9 | 2.2 | 3.0 | 3.1 | |
| <i>Belgium</i> | 2.5 | 0.3 | 2.7 | 1.9 | 1.8 | 2.7 | 4.6 | 3.6 | 2.7 | 2.0 | 1.6 | -1.5 | 3.0 | 2.5 | 1.0 | 3.5 | 2.7 | 2.5 | 3.6 | 3.2 | |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.6 | 5.9 | 3.8 | 0.3 | -2.3 | -0.2 | 1.4 | 2.3 | |
| <i>Denmark</i> | 1.7 | 2.5 | 4.4 | 4.3 | 3.6 | 0.3 | 1.2 | 0.2 | 1.0 | 1.1 | 0.6 | 0.0 | 5.5 | 2.8 | 2.5 | 3.1 | 2.5 | 1.6 | 2.2 | 2.4 | |
| <i>Finland</i> | 3.0 | 2.7 | 3.0 | 3.4 | 2.4 | 4.1 | 4.9 | 5.1 | 0.0 | -6.3 | -3.3 | -1.1 | 4.0 | 3.8 | 4.0 | 6.3 | 5.0 | 3.5 | 5.4 | 4.8 | |
| <i>Greece</i> | 3.2 | 0.4 | 2.8 | 3.1 | 1.6 | -0.5 | 4.5 | 3.8 | .. | 3.1 | 0.7 | -1.6 | 2.0 | 2.1 | 2.4 | 3.4 | 3.7 | 3.2 | 3.8 | 3.9 | |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.9 | 1.5 | 1.3 | 4.6 | 4.9 | 4.5 | 5.2 | 5.0 | |
| <i>Iceland</i> | 5.1 | -2.2 | 4.1 | 3.3 | 6.3 | 8.4 | -0.1 | 0.3 | 1.2 | 1.2 | -4.1 | 0.7 | 3.6 | 1.0 | 5.5 | 5.3 | 4.7 | 4.4 | 3.7 | 2.7 | |
| <i>Ireland</i> | 4.3 | -0.2 | 4.4 | 3.1 | -0.4 | 4.7 | 5.2 | 5.8 | 8.5 | 1.9 | 3.3 | 2.6 | 5.8 | 9.5 | 7.7 | 10.7 | 8.9 | 8.7 | 9.9 | 8.0 | |
| <i>Korea</i> | 7.6 | 11.5 | 8.7 | 6.5 | 11.6 | 11.5 | 11.3 | 6.4 | 7.8 | 9.2 | 5.4 | 5.5 | 8.3 | 8.9 | 6.7 | 5.0 | -6.7 | 10.7 | 8.5 | 6.0 | |
| <i>Luxembourg</i> | 1.7 | 3.0 | 6.2 | 2.9 | 7.7 | 2.3 | 10.4 | 9.8 | 2.2 | 6.1 | 4.5 | 8.7 | 4.2 | 3.8 | 2.9 | 7.3 | 5.0 | 4.9 | 5.6 | 5.3 | |
| <i>Mexico</i> | 6.1 | -4.2 | 3.5 | 2.5 | -3.6 | -2.2 | 1.3 | 4.2 | 5.1 | 4.2 | 3.6 | 2.0 | 4.5 | -6.2 | 5.1 | 6.8 | 4.8 | 3.7 | 4.8 | 5.0 | |
| <i>Netherlands</i> | 2.0 | 1.7 | 3.3 | 3.1 | 2.8 | 1.4 | 2.6 | 4.7 | 4.1 | 2.3 | 2.0 | 0.8 | 3.2 | 2.3 | 3.0 | 3.8 | 3.7 | 3.6 | 4.3 | 4.0 | |
| <i>New Zealand</i> | 1.9 | 2.5 | 8.5 | 1.6 | 0.6 | 0.7 | 2.7 | -0.8 | 0.3 | -2.3 | 0.6 | 4.9 | 6.1 | 3.4 | 2.6 | 2.9 | -0.6 | 3.9 | 4.2 | 3.0 | |
| <i>Norway</i> | 3.9 | 3.5 | 5.9 | 5.2 | 3.6 | 2.0 | -0.1 | 0.9 | 2.0 | 3.1 | 3.3 | 2.7 | 5.5 | 3.8 | 4.9 | 4.7 | 2.0 | 0.9 | 3.4 | 2.8 | |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5.2 | 7.0 | 6.0 | 6.8 | 4.8 | 4.0 | 5.0 | 4.8 | |
| <i>Portugal</i> | 3.7 | -0.2 | -1.9 | 2.8 | 4.1 | 6.4 | 4.9 | 5.1 | 4.4 | 2.3 | 2.5 | -1.1 | 2.2 | 2.9 | 3.2 | 3.7 | 3.9 | 3.0 | 3.6 | 3.4 | |
| <i>Spain</i> | 2.4 | 2.2 | 1.5 | 2.6 | 3.2 | 5.6 | 5.2 | 4.7 | 3.7 | 2.3 | 0.7 | -1.2 | 2.3 | 2.7 | 2.3 | 3.8 | 4.0 | 3.7 | 4.3 | 3.9 | |
| <i>Sweden</i> | 1.8 | 1.6 | 4.5 | 2.0 | 2.4 | 3.0 | 1.7 | 2.7 | 1.6 | -1.1 | -1.6 | -2.4 | 4.1 | 3.7 | 1.1 | 2.0 | 3.0 | 3.8 | 4.4 | 3.0 | |
| <i>Switzerland</i> | 1.1 | 0.5 | 3.0 | 3.4 | 1.6 | 0.7 | 3.1 | 4.3 | 3.7 | -0.8 | -0.1 | -0.5 | 0.5 | 0.5 | 0.3 | 1.7 | 2.1 | 1.7 | 2.8 | 2.6 | |
| <i>Turkey</i> | 3.6 | 5.0 | 6.7 | 4.2 | 7.0 | 9.5 | 2.1 | 0.3 | 9.3 | 0.9 | 6.0 | 8.0 | -5.5 | 7.2 | 7.0 | 7.5 | 3.1 | -5.0 | 4.2 | 3.9 | |
| <i>Total of smaller countries</i> | 3.9 | 2.3 | 4.3 | 3.6 | 3.3 | 4.1 | 4.4 | 4.1 | 4.4 | 2.7 | 2.5 | 1.8 | 3.5 | 3.1 | 4.0 | 4.6 | 2.4 | 3.7 | 4.7 | 4.2 | |
| <i>Total OECD</i> | 2.9 | 3.0 | 4.9 | 3.6 | 3.1 | 3.5 | 4.5 | 3.7 | 3.0 | 1.3 | 2.1 | 1.4 | 3.1 | 2.5 | 3.2 | 3.4 | 2.4 | 3.0 | 4.0 | 3.1 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 2.4 | 1.8 | 2.4 | 2.6 | 2.8 | 2.9 | 4.1 | 3.6 | 3.0 | 1.8 | 1.1 | -0.4 | 2.7 | 2.4 | 1.6 | 2.5 | 2.7 | 2.3 | 3.4 | 3.1 | |
| <i>Euro area</i> | 2.5 | 1.5 | 2.3 | 2.3 | 2.4 | 2.6 | 4.0 | 3.9 | 3.6 | 2.4 | 1.4 | -0.8 | 2.3 | 2.2 | 1.4 | 2.3 | 2.7 | 2.3 | 3.5 | 3.3 | |

Source: OECD.

Annex Table 2. **Nominal GDP**
Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|--------------------|------|------|------|------|-------|-------|------|------|------|------|------|------|-------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 10.1 | 8.5 | 11.3 | 7.1 | 5.7 | 6.5 | 7.7 | 7.5 | 5.7 | 3.2 | 5.6 | 5.1 | 6.2 | 4.9 | 5.6 | 6.2 | 5.5 | 5.7 | 7.1 | 5.3 |
| Japan | 11.3 | 4.1 | 6.7 | 6.6 | 4.7 | 4.3 | 6.9 | 7.0 | 7.5 | 6.6 | 2.8 | 0.9 | 0.8 | 0.8 | 3.5 | 1.9 | -2.2 | -0.6 | 0.9 | 2.1 |
| Germany | 6.8 | 5.1 | 4.9 | 4.1 | 5.6 | 3.4 | 5.3 | 6.1 | 9.1 | 9.1 | 7.4 | 2.5 | 4.9 | 3.8 | 1.8 | 2.2 | 3.2 | 2.5 | 3.5 | 4.5 |
| France | 13.8 | 10.5 | 9.0 | 7.2 | 7.5 | 5.5 | 7.5 | 7.7 | 5.5 | 4.1 | 3.3 | 1.5 | 3.6 | 3.6 | 2.5 | 3.2 | 4.0 | 3.3 | 4.7 | 4.6 |
| Italy | 21.1 | 16.5 | 14.6 | 12.2 | 10.6 | 9.4 | 11.0 | 9.5 | 10.4 | 9.1 | 5.3 | 3.0 | 5.8 | 8.1 | 6.4 | 4.3 | 4.2 | 2.9 | 5.2 | 5.4 |
| United Kingdom | 15.7 | 9.3 | 7.2 | 9.6 | 7.4 | 9.9 | 11.5 | 9.7 | 8.3 | 5.1 | 4.1 | 5.1 | 6.0 | 5.4 | 5.9 | 6.5 | 5.4 | 5.0 | 6.0 | 5.5 |
| Canada | 13.2 | 8.3 | 9.3 | 8.0 | 5.5 | 9.0 | 9.6 | 7.3 | 3.3 | 0.8 | 2.2 | 3.8 | 5.9 | 5.2 | 3.3 | 4.8 | 2.5 | 6.0 | 7.3 | 5.3 |
| Total of major countries | 11.6 | 8.2 | 9.5 | 7.3 | 6.1 | 6.3 | 7.9 | 7.6 | 6.8 | 4.9 | 4.8 | 3.6 | 4.9 | 4.2 | 4.6 | 4.6 | 3.6 | 3.8 | 5.2 | 4.6 |
| Australia | 14.9 | 8.3 | 13.4 | 11.1 | 8.5 | 13.0 | 13.5 | 11.7 | 6.4 | 1.5 | 4.0 | 5.3 | 6.0 | 6.0 | 6.1 | 5.3 | 5.5 | 5.5 | 6.8 | 6.7 |
| Austria | 9.3 | 6.6 | 5.0 | 5.4 | 5.1 | 3.8 | 4.8 | 7.1 | 8.2 | 7.3 | 5.7 | 3.3 | 5.3 | 4.1 | 3.3 | 2.8 | 3.5 | 2.8 | 4.5 | 5.0 |
| Belgium | 9.9 | 5.9 | 8.0 | 6.6 | 4.8 | 4.1 | 7.0 | 8.8 | 5.8 | 4.8 | 5.3 | 2.2 | 4.9 | 4.3 | 2.2 | 4.9 | 4.3 | 3.5 | 4.4 | 4.5 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.9 | 16.8 | 13.8 | 6.8 | 8.4 | 2.2 | 5.6 | 6.8 |
| Denmark | 11.9 | 10.4 | 10.3 | 8.8 | 8.4 | 5.0 | 4.6 | 5.4 | 4.6 | 3.9 | 3.5 | 1.4 | 7.3 | 4.6 | 5.1 | 4.8 | 4.7 | 4.2 | 5.0 | 4.9 |
| Finland | 15.3 | 11.5 | 12.1 | 8.9 | 7.0 | 9.0 | 12.3 | 11.6 | 5.5 | -4.5 | -2.5 | 1.2 | 6.0 | 8.1 | 3.8 | 8.5 | 8.1 | 4.6 | 7.9 | 7.6 |
| Greece | 21.2 | 19.6 | 23.6 | 21.3 | 19.4 | 13.7 | 20.7 | 18.9 | 20.6 | 23.5 | 15.7 | 12.6 | 13.4 | 12.1 | 9.9 | 10.3 | 8.8 | 5.8 | 6.0 | 6.7 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 23.0 | 27.4 | 22.8 | 23.9 | 18.1 | 13.9 | 13.0 | 10.5 |
| Iceland | 48.9 | 72.4 | 30.6 | 35.6 | 33.3 | 29.5 | 22.8 | 20.1 | 18.2 | 9.1 | 0.2 | 3.5 | 5.7 | 3.8 | 7.7 | 8.9 | 10.7 | 8.7 | 9.2 | 8.9 |
| Ireland | 19.6 | 10.4 | 11.0 | 8.4 | 6.1 | 7.0 | 8.6 | 11.7 | 7.7 | 3.7 | 6.2 | 8.0 | 7.6 | 12.5 | 10.2 | 14.6 | 15.1 | 13.1 | 14.9 | 12.6 |
| Korea | 29.2 | 17.3 | 14.7 | 11.5 | 16.7 | 17.1 | 18.7 | 12.0 | 19.7 | 21.1 | 13.5 | 12.9 | 16.5 | 16.7 | 10.9 | 8.3 | -1.7 | 8.9 | 9.2 | 8.9 |
| Luxembourg | 9.6 | 10.0 | 10.9 | 6.0 | 8.5 | 5.2 | 11.1 | 14.6 | 7.5 | 8.6 | 7.2 | 9.3 | 9.2 | 4.1 | 4.6 | 10.8 | 6.6 | 6.2 | 7.6 | 7.0 |
| Mexico | 32.4 | 83.0 | 64.4 | 60.4 | 67.0 | 136.0 | 104.1 | 31.8 | 34.6 | 28.5 | 18.6 | 11.6 | 13.3 | 29.4 | 37.3 | 25.7 | 21.0 | 20.1 | 15.5 | 14.0 |
| Netherlands | 9.1 | 3.8 | 4.7 | 4.9 | 2.9 | 0.7 | 3.8 | 6.0 | 6.5 | 5.0 | 4.3 | 2.7 | 5.6 | 4.1 | 4.2 | 5.8 | 5.6 | 4.9 | 7.1 | 7.2 |
| New Zealand | 15.6 | 7.1 | 15.1 | 17.2 | 16.0 | 13.9 | 10.9 | 5.9 | 4.1 | -1.3 | 2.3 | 7.7 | 7.8 | 6.2 | 4.5 | 2.9 | 1.0 | 3.9 | 7.0 | 5.4 |
| Norway | 13.6 | 10.8 | 12.6 | 10.7 | 2.6 | 9.1 | 4.9 | 6.7 | 5.9 | 5.7 | 2.8 | 4.9 | 5.3 | 7.1 | 9.4 | 7.9 | 1.2 | 7.5 | 16.0 | 3.7 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 43.7 | 36.8 | 25.8 | 21.8 | 17.1 | 11.2 | 15.1 | 11.6 |
| Portugal | 23.1 | 24.4 | 22.3 | 25.2 | 25.4 | 17.1 | 17.3 | 18.2 | 17.7 | 14.8 | 12.8 | 5.5 | 8.7 | 8.1 | 6.1 | 5.8 | 8.4 | 5.6 | 6.0 | 6.4 |
| Spain | 18.9 | 14.2 | 13.3 | 10.5 | 14.6 | 11.8 | 11.1 | 12.2 | 11.3 | 9.5 | 7.6 | 3.1 | 6.3 | 7.7 | 5.9 | 6.1 | 6.3 | 7.0 | 7.3 | 7.0 |
| Sweden | 12.0 | 12.0 | 11.9 | 8.7 | 9.3 | 8.0 | 8.9 | 10.6 | 10.3 | 6.4 | -0.4 | 0.3 | 6.6 | 7.3 | 2.5 | 3.2 | 4.3 | 4.3 | 5.5 | 5.4 |
| Switzerland | 5.7 | 3.2 | 6.6 | 5.9 | 4.8 | 3.5 | 6.0 | 7.5 | 8.2 | 5.2 | 2.6 | 2.2 | 2.2 | 1.6 | 0.7 | 1.6 | 2.3 | 2.4 | 4.2 | 4.4 |
| Turkey | 42.4 | 32.5 | 58.2 | 59.5 | 45.5 | 46.3 | 72.9 | 75.9 | 72.9 | 60.3 | 73.5 | 81.3 | 95.2 | 100.7 | 90.3 | 95.2 | 81.1 | 48.2 | 58.4 | 25.7 |
| Total of smaller countries | 21.4 | 24.3 | 23.3 | 21.5 | 22.3 | 32.1 | 29.9 | 19.1 | 19.0 | 16.0 | 13.6 | 12.0 | 18.0 | 19.8 | 17.5 | 16.0 | 12.9 | 11.5 | 12.4 | 9.3 |
| Total OECD | 13.7 | 11.6 | 12.5 | 10.4 | 9.6 | 11.8 | 12.7 | 10.0 | 9.4 | 7.2 | 6.7 | 5.4 | 7.9 | 7.8 | 7.6 | 7.2 | 5.7 | 5.6 | 6.9 | 5.7 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| OECD less high inflation | | | | | | | | | | | | | | | | | | | | |
| countries ^a | 12.5 | 8.7 | 9.9 | 7.8 | 6.9 | 6.9 | 8.5 | 8.1 | 7.5 | 5.6 | 5.2 | 4.0 | 5.4 | 4.9 | 4.9 | 4.9 | 3.7 | 4.2 | 5.6 | 5.0 |
| European Union | 14.1 | 10.4 | 9.5 | 8.5 | 8.4 | 7.1 | 8.8 | 8.8 | 8.8 | 7.3 | 5.5 | 3.1 | 5.5 | 5.5 | 4.2 | 4.4 | 4.7 | 3.9 | 5.2 | 5.4 |
| Euro area | 12.6 | 9.7 | 8.9 | 7.5 | 7.8 | 5.9 | 7.7 | 8.2 | 8.4 | 7.2 | 5.7 | 2.6 | 5.1 | 5.1 | 3.4 | 3.8 | 4.4 | 3.6 | 5.0 | 5.3 |

a) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

Annex Table 3. Real private consumption expenditure
Percentage change from previous period

| | Average | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | | |
|-----------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------------|------|--|
| | 1972-82 | | | | | | | | | | | | | | | | | | 2000 | 2001 | |
| <i>United States</i> | 2.5 | 5.5 | 5.4 | 5.0 | 4.2 | 3.3 | 4.0 | 2.7 | 1.8 | -0.2 | 2.9 | 3.4 | 3.8 | 3.0 | 3.2 | 3.4 | 4.9 | 5.3 | 5.5 | 2.7 | |
| <i>Japan</i> | 3.8 | 3.3 | 2.6 | 3.3 | 3.5 | 4.2 | 5.3 | 4.8 | 4.4 | 2.5 | 2.1 | 1.2 | 1.9 | 2.1 | 2.9 | 0.5 | -0.5 | 1.2 | 1.3 | 2.1 | |
| <i>Germany</i> | 2.1 | 1.5 | 1.8 | 1.7 | 3.5 | 3.4 | 2.7 | 2.8 | 5.4 | 5.6 | 2.8 | 0.2 | 1.0 | 2.1 | 0.8 | 0.7 | 2.3 | 2.1 | 2.3 | 2.7 | |
| <i>France</i> | 2.8 | 0.1 | 0.8 | 1.5 | 3.3 | 2.6 | 2.3 | 3.3 | 2.5 | 0.8 | 0.7 | -0.1 | 0.6 | 1.6 | 1.3 | 0.1 | 3.4 | 2.3 | 3.1 | 3.3 | |
| <i>Italy</i> | 3.8 | 0.3 | 3.0 | 3.1 | 4.0 | 3.8 | 4.0 | 3.7 | 2.1 | 2.9 | 1.9 | -3.7 | 1.5 | 1.7 | 1.2 | 3.0 | 2.3 | 1.7 | 1.5 | 2.2 | |
| <i>United Kingdom</i> | 1.4 | 4.6 | 1.9 | 3.9 | 6.6 | 5.4 | 7.6 | 3.3 | 0.7 | -1.7 | 0.4 | 2.9 | 2.9 | 1.7 | 3.6 | 3.9 | 3.2 | 3.9 | 3.3 | 2.6 | |
| <i>Canada</i> | 3.2 | 2.9 | 4.5 | 5.2 | 4.0 | 4.1 | 4.4 | 3.6 | 1.3 | -1.4 | 1.8 | 1.8 | 3.1 | 2.1 | 2.5 | 4.2 | 2.8 | 3.2 | 3.6 | 2.8 | |
| <i>Total of major countries</i> | 2.8 | 3.7 | 3.8 | 3.9 | 4.1 | 3.6 | 4.3 | 3.3 | 2.6 | 1.0 | 2.3 | 1.8 | 2.7 | 2.4 | 2.6 | 2.4 | 3.1 | 3.6 | 3.7 | 2.6 | |
| <i>Australia</i> | 3.6 | 1.3 | 1.9 | 4.5 | 2.1 | 2.1 | 3.9 | 5.8 | 2.9 | 0.7 | 2.7 | 1.8 | 4.0 | 5.1 | 3.3 | 3.8 | 4.1 | 4.5 | 3.8 | 3.6 | |
| <i>Austria</i> | 2.7 | 5.0 | -1.3 | 1.9 | 2.2 | 2.9 | 3.3 | 3.7 | 3.8 | 2.8 | 3.0 | 0.7 | 1.8 | 2.9 | 3.2 | 0.1 | 1.5 | 2.4 | 2.5 | 2.6 | |
| <i>Belgium</i> | 3.0 | -1.0 | 1.1 | 2.2 | 3.1 | 1.8 | 3.7 | 3.9 | 3.2 | 3.0 | 2.2 | -1.0 | 2.0 | 0.7 | 0.6 | 2.2 | 3.8 | 2.0 | 2.8 | 2.5 | |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5.3 | 5.9 | 6.9 | 2.1 | -2.8 | 1.2 | 0.8 | 0.8 | |
| <i>Denmark</i> | 1.2 | 2.6 | 3.4 | 5.0 | 5.7 | -1.5 | -1.0 | -0.1 | 0.1 | 1.6 | 1.9 | 0.5 | 6.5 | 1.2 | 2.5 | 3.7 | 3.5 | 0.7 | 1.4 | 1.8 | |
| <i>Finland</i> | 2.6 | 3.1 | 3.1 | 3.7 | 4.0 | 5.2 | 5.1 | 4.6 | -0.6 | -3.8 | -4.4 | -3.1 | 2.6 | 4.4 | 4.2 | 3.5 | 4.6 | 2.9 | 3.4 | 3.3 | |
| <i>Greece</i> | 3.8 | 0.3 | 1.7 | 3.9 | 0.7 | 1.2 | 3.6 | 6.0 | 2.6 | 2.8 | 2.4 | -0.8 | 2.0 | 2.7 | 2.4 | 2.7 | 2.1 | 2.6 | 2.9 | 3.1 | |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.2 | -7.1 | -4.3 | 1.9 | 4.8 | 5.1 | 5.2 | 5.0 | |
| <i>Iceland</i> | 4.9 | -5.6 | 3.7 | 4.2 | 6.9 | 16.2 | -3.8 | -4.2 | 0.5 | 4.1 | -4.5 | -4.5 | 1.9 | 4.2 | 6.4 | 6.0 | 11.0 | 7.2 | 4.3 | 2.0 | |
| <i>Ireland</i> | 2.7 | 0.9 | 2.0 | 4.6 | 2.0 | 3.3 | 4.5 | 6.5 | 1.4 | 1.8 | 2.9 | 2.9 | 4.3 | 3.7 | 6.5 | 7.3 | 7.4 | 7.8 | 8.0 | 8.0 | |
| <i>Korea</i> | 6.1 | 9.2 | 7.9 | 6.4 | 8.1 | 8.1 | 9.0 | 10.8 | 8.0 | 8.0 | 5.5 | 5.6 | 8.2 | 9.6 | 7.1 | 3.5 | -11.4 | 10.3 | 7.7 | 6.4 | |
| <i>Luxembourg</i> | 3.2 | 0.5 | 1.4 | 2.7 | 5.7 | 4.6 | 4.6 | 5.1 | 5.7 | 6.3 | -0.9 | 1.7 | 2.4 | 2.4 | 4.4 | 3.8 | 2.3 | 3.0 | 2.8 | 3.1 | |
| <i>Mexico</i> | 5.3 | -5.4 | 3.3 | 3.3 | -2.6 | -2.7 | 1.8 | 7.3 | 6.4 | 4.7 | 4.7 | 1.5 | 4.6 | -9.5 | 2.2 | 6.5 | 5.4 | 4.3 | 5.2 | 5.0 | |
| <i>Netherlands</i> | 2.3 | 1.0 | 1.2 | 2.8 | 2.6 | 2.7 | 0.8 | 3.5 | 4.2 | 3.1 | 2.5 | 1.0 | 2.2 | 1.8 | 4.0 | 2.6 | 4.1 | 4.2 | 3.8 | 4.2 | |
| <i>New Zealand</i> | 1.4 | 1.4 | 5.7 | 0.5 | 4.0 | 2.4 | 2.3 | 0.8 | -0.3 | -1.9 | -0.1 | 2.3 | 5.6 | 4.6 | 4.3 | 2.8 | 1.8 | 2.5 | 3.3 | 2.5 | |
| <i>Norway</i> | 3.0 | 1.9 | 3.2 | 9.4 | 5.0 | -0.8 | -2.0 | -0.6 | 0.7 | 1.5 | 2.2 | 2.2 | 4.0 | 3.4 | 5.3 | 3.6 | 3.3 | 2.4 | 2.9 | 2.8 | |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.3 | 3.3 | 8.3 | 6.9 | 4.7 | 5.0 | 4.6 | 4.0 | |
| <i>Portugal</i> | 3.1 | -1.4 | -2.9 | 0.7 | 5.6 | 5.3 | 5.5 | 2.6 | 5.9 | 3.7 | 4.3 | 1.5 | 2.2 | 1.6 | 2.5 | 3.0 | 5.2 | 4.7 | 3.8 | 3.5 | |
| <i>Spain</i> | 2.3 | 0.3 | -0.2 | 3.5 | 3.3 | 5.8 | 4.9 | 5.7 | 3.6 | 2.9 | 2.2 | -2.2 | 0.9 | 1.6 | 2.0 | 2.9 | 4.1 | 4.4 | 3.7 | 3.5 | |
| <i>Sweden</i> | 1.2 | -2.0 | 1.5 | 2.7 | 4.4 | 4.5 | 2.4 | 1.1 | -0.4 | 0.9 | -1.4 | -3.1 | 1.8 | 0.6 | 1.4 | 1.7 | 2.4 | 4.1 | 5.0 | 4.3 | |
| <i>Switzerland</i> | 0.4 | 1.1 | 1.3 | 1.6 | 2.3 | 2.2 | 1.7 | 2.3 | 1.2 | 1.6 | 0.1 | -0.9 | 1.0 | 0.6 | 0.7 | 1.3 | 2.3 | 2.2 | 2.2 | 2.2 | |
| <i>Turkey</i> | 3.4 | 6.7 | 8.1 | -0.6 | 5.8 | -0.3 | 1.2 | -1.0 | 13.1 | 2.7 | 3.2 | 8.6 | -5.4 | 4.8 | 8.5 | 8.4 | 0.6 | -3.1 | 3.0 | 4.5 | |
| <i>Total of smaller countries</i> | 3.5 | 1.6 | 2.9 | 3.4 | 3.2 | 2.8 | 3.6 | 5.0 | 4.8 | 3.3 | 2.8 | 1.5 | 3.0 | 1.9 | 3.9 | 3.9 | 1.7 | 4.1 | 4.2 | 4.0 | |
| <i>Total OECD</i> | 3.0 | 3.3 | 3.6 | 3.8 | 3.9 | 3.5 | 4.1 | 3.6 | 3.1 | 1.5 | 2.4 | 1.7 | 2.7 | 2.3 | 2.9 | 2.8 | 2.8 | 3.7 | 3.8 | 2.9 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 2.5 | 1.3 | 1.5 | 2.6 | 4.0 | 3.7 | 3.8 | 3.5 | 2.9 | 2.3 | 1.7 | -0.3 | 1.6 | 1.8 | 1.9 | 2.0 | 3.0 | 2.8 | 2.8 | 2.9 | |
| <i>Euro area</i> | 2.7 | 0.8 | 1.4 | 2.2 | 3.4 | 3.5 | 3.2 | 3.6 | 3.5 | 3.0 | 1.9 | -0.9 | 1.2 | 1.9 | 1.5 | 1.5 | 3.0 | 2.5 | 2.6 | 3.0 | |

Source: OECD.

Annex Table 4. **Real public consumption expenditure**

Percentage change from previous period

| | Average | | | | | | | | | | | | | | | | | | | Projections | |
|----------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|-----|
| | 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| United States | 1.4 | 2.4 | 1.7 | 5.0 | 4.6 | 2.4 | 1.5 | 2.5 | 2.6 | 1.4 | 0.5 | -0.5 | 0.1 | 0.0 | 0.6 | 2.3 | 1.2 | 2.6 | 1.8 | 2.3 | |
| Japan | 4.5 | 2.5 | 2.3 | 0.3 | 5.1 | 1.6 | 2.3 | 2.0 | 1.5 | 2.0 | 2.0 | 2.4 | 2.4 | 3.3 | 1.9 | 1.5 | 1.5 | 1.3 | 0.3 | 0.6 | |
| Germany | 2.6 | 0.2 | 2.5 | 2.1 | 2.5 | 1.5 | 2.1 | -1.6 | 2.2 | 0.4 | 5.0 | 0.1 | 2.4 | 1.5 | 2.1 | -1.1 | 0.5 | 0.2 | 0.5 | 0.3 | |
| France | 3.4 | 2.3 | 2.9 | 2.1 | 2.4 | 2.2 | 3.1 | 1.7 | 2.5 | 2.6 | 3.6 | 4.2 | 0.6 | -0.1 | 2.2 | 2.1 | 0.3 | 2.6 | 1.8 | 1.4 | |
| Italy | 2.6 | 3.6 | 1.8 | 3.0 | 2.6 | 4.8 | 4.0 | 0.2 | 2.5 | 1.7 | 0.6 | -0.2 | -0.9 | -2.2 | 1.0 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | |
| United Kingdom | 1.7 | 2.1 | 1.0 | -0.1 | 1.6 | 0.0 | 0.0 | 0.8 | 2.5 | 2.9 | 0.5 | -0.8 | 1.4 | 1.6 | 1.7 | -1.4 | 0.7 | 4.4 | 3.8 | 3.2 | |
| Canada | 3.4 | 1.7 | 1.1 | 4.3 | 1.9 | 1.4 | 4.6 | 2.8 | 3.7 | 2.8 | 1.0 | 0.1 | -1.2 | -0.5 | -1.1 | -0.5 | 1.7 | 1.0 | 1.9 | 1.7 | |
| Total of major countries | 2.5 | 2.3 | 1.9 | 3.1 | 3.9 | 2.1 | 2.1 | 1.7 | 2.4 | 1.7 | 1.5 | 0.5 | 0.8 | 0.7 | 1.1 | 1.3 | 1.1 | 2.0 | 1.5 | 1.6 | |
| Australia | 3.9 | 5.8 | 5.4 | 6.0 | 4.4 | 1.4 | 2.6 | 2.4 | 3.5 | 2.5 | 1.0 | 0.5 | 3.9 | 3.6 | 2.2 | 2.0 | 2.8 | 5.0 | 2.5 | 3.4 | |
| Austria | 2.7 | 1.7 | 0.8 | 1.3 | 1.8 | 0.2 | 1.1 | 1.4 | 1.3 | 2.2 | 2.0 | 2.7 | 2.5 | 0.0 | 1.3 | -0.4 | 2.0 | 0.8 | 0.5 | 0.5 | |
| Belgium | 3.2 | 0.7 | 0.7 | 2.7 | 1.4 | 2.8 | -0.7 | 0.8 | -0.4 | 3.9 | 1.4 | -0.2 | 1.5 | 1.2 | 2.3 | 0.0 | 1.4 | 2.8 | 2.3 | 2.5 | |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -2.3 | -4.2 | -1.2 | 3.6 | 0.6 | -0.1 | 0.2 | 2.0 | |
| Denmark | 3.8 | 0.0 | -0.4 | 2.5 | 0.5 | 2.5 | 0.9 | -0.8 | -0.2 | 0.6 | 0.8 | 4.1 | 3.0 | 2.1 | 3.4 | 1.3 | 3.0 | 1.1 | 1.1 | 1.0 | |
| Finland | 4.6 | 3.7 | 2.7 | 4.5 | 3.1 | 4.3 | 2.3 | 2.2 | 4.0 | 2.1 | -2.4 | -4.2 | 0.3 | 2.0 | 2.5 | 4.1 | 1.5 | 0.3 | 0.5 | 0.6 | |
| Greece | 6.1 | 2.7 | 3.0 | 3.2 | -0.8 | 0.9 | 5.7 | 5.4 | 0.6 | -1.5 | -3.0 | 2.6 | -1.1 | 5.6 | 0.9 | 1.7 | 2.0 | 0.5 | 0.5 | 0.5 | |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -7.4 | -5.7 | -1.9 | 3.1 | 2.8 | 2.5 | 2.0 | 1.5 | |
| Iceland | 6.1 | 4.7 | 0.6 | 6.5 | 7.3 | 6.5 | 4.7 | 3.0 | 4.4 | 3.2 | -0.8 | 2.3 | 3.7 | 1.3 | 1.0 | 3.1 | 3.6 | 4.7 | 3.5 | 2.5 | |
| Ireland | 5.0 | -0.4 | -0.7 | 1.8 | 2.6 | -4.8 | -5.0 | -1.3 | 5.4 | 2.8 | 3.0 | -0.4 | 4.1 | 2.9 | 2.8 | 4.8 | 5.9 | 3.6 | 4.8 | 3.8 | |
| Korea | 4.9 | 2.9 | 1.3 | 4.8 | 8.4 | 6.1 | 8.0 | 8.5 | 3.6 | 7.2 | 5.9 | 4.6 | 1.9 | 0.8 | 8.2 | 1.5 | -0.4 | -0.6 | 1.5 | 1.0 | |
| Luxembourg | 2.6 | 1.9 | 2.2 | 2.0 | 2.7 | 4.7 | 4.9 | 3.9 | 3.1 | 3.9 | 1.5 | 3.7 | 2.0 | 2.2 | 4.4 | 2.1 | 2.8 | 3.3 | 3.3 | 3.0 | |
| Mexico | 7.6 | 2.8 | 6.5 | 1.0 | 1.4 | -5.7 | -0.5 | 2.2 | 3.3 | 5.4 | 1.9 | 2.4 | 2.9 | -1.3 | -0.7 | 2.9 | 2.2 | 1.0 | 4.0 | 3.0 | |
| Netherlands | 2.8 | 2.3 | 0.0 | 2.4 | 3.6 | 2.6 | 1.4 | 1.5 | 1.6 | 1.5 | 1.7 | 1.5 | 0.6 | 0.6 | -0.4 | 3.3 | 3.3 | 2.6 | 2.5 | 2.5 | |
| New Zealand | 2.8 | 2.6 | 2.2 | 1.5 | 2.1 | 0.1 | 1.7 | 0.6 | 4.0 | -1.9 | 3.1 | -0.5 | -1.0 | 2.9 | 2.7 | 5.2 | -1.0 | 8.5 | -2.0 | 0.8 | |
| Norway | 5.0 | 2.8 | 0.8 | 2.4 | 1.9 | 4.6 | -0.1 | 1.9 | 4.9 | 4.3 | 5.3 | 2.1 | 1.4 | 0.3 | 2.8 | 1.9 | 3.8 | 2.7 | 2.2 | 2.0 | |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.2 | 2.9 | 3.4 | 3.1 | 1.6 | 4.5 | 2.1 | 2.0 |
| Portugal | 7.8 | 3.8 | 0.2 | 6.4 | 7.2 | 3.8 | 8.1 | 6.6 | 5.4 | 10.3 | 1.1 | 0.9 | 2.1 | 2.2 | 2.0 | 2.5 | 3.3 | 3.4 | 3.0 | 2.8 | |
| Spain | 5.4 | 3.9 | 2.4 | 5.5 | 5.4 | 8.9 | 4.0 | 8.3 | 6.6 | 5.6 | 4.0 | 2.4 | -0.3 | 1.8 | 1.3 | 2.7 | 2.0 | 1.8 | 1.2 | 1.2 | |
| Sweden | 3.1 | 0.8 | 2.2 | 2.2 | 1.3 | 1.0 | 0.6 | 2.1 | 2.6 | 2.7 | -0.1 | 0.1 | -0.9 | -0.6 | 0.9 | -1.0 | 2.2 | 1.8 | -0.5 | 1.6 | |
| Switzerland | 1.8 | 3.8 | 1.7 | 3.4 | 3.4 | 1.7 | 4.5 | 5.4 | 5.4 | 3.5 | 0.7 | -0.1 | 2.0 | -0.1 | 2.0 | 0.6 | -0.2 | 0.3 | 0.7 | -0.2 | |
| Turkey | 5.9 | 16.6 | 1.9 | 14.1 | 9.2 | 9.4 | -1.1 | 0.8 | 8.0 | 3.7 | 3.6 | 8.6 | -5.5 | 6.8 | 8.6 | 4.1 | 7.8 | 6.5 | 4.3 | 4.0 | |
| Total of smaller countries | 5.0 | 4.0 | 2.5 | 4.4 | 4.2 | 2.9 | 2.5 | 3.9 | 3.8 | 4.2 | 2.4 | 2.4 | 0.8 | 1.3 | 2.6 | 2.3 | 2.2 | 2.2 | 2.0 | 2.0 | |
| Total OECD | 3.0 | 2.6 | 2.0 | 3.4 | 4.0 | 2.3 | 2.2 | 2.2 | 2.7 | 2.2 | 1.7 | 0.9 | 0.8 | 0.8 | 1.5 | 1.5 | 1.3 | 2.0 | 1.6 | 1.7 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| European Union | 3.1 | 2.0 | 1.9 | 2.4 | 2.6 | 2.6 | 2.4 | 1.2 | 2.6 | 2.3 | 2.4 | 1.0 | 0.9 | 0.7 | 1.7 | 0.5 | 1.1 | 1.8 | 1.5 | 1.3 | |
| Euro area | 3.1 | 1.9 | 2.1 | 2.6 | 2.7 | 2.9 | 2.7 | 0.9 | 2.6 | 2.1 | 3.0 | 1.3 | 1.0 | 0.4 | 1.8 | 0.9 | 1.0 | 1.4 | 1.2 | 1.0 | |

Source : OECD.

Annex Table 5. Real total gross fixed capital formation
Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|--------------------|-------|-------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | 1.2 | 9.0 | 15.8 | 6.4 | 3.1 | 1.1 | 2.7 | 2.7 | -0.4 | -5.6 | 5.5 | 5.7 | 7.3 | 5.3 | 8.3 | 7.5 | 10.6 | 8.2 | 8.3 | 4.4 |
| <i>Japan</i> | 2.2 | -1.1 | 4.3 | 5.0 | 4.8 | 9.1 | 11.5 | 8.2 | 8.5 | 3.3 | -1.5 | -2.0 | -0.8 | 1.7 | 11.1 | -0.8 | -7.4 | -1.0 | 1.3 | 2.1 |
| <i>Germany</i> | -0.7 | 3.1 | 0.1 | -0.5 | 3.3 | 1.8 | 4.4 | 6.3 | 8.5 | 6.0 | 4.5 | -4.5 | 4.0 | -0.7 | -1.1 | 0.5 | 1.4 | 2.3 | 2.8 | 3.4 |
| <i>France</i> | 1.0 | -3.0 | -1.1 | 2.9 | 4.4 | 5.7 | 8.9 | 7.7 | 3.1 | -1.6 | -1.7 | -6.5 | 1.5 | 2.1 | -0.1 | 0.0 | 6.6 | 7.1 | 5.6 | 3.5 |
| <i>Italy</i> | 0.9 | -1.1 | 3.4 | 0.4 | 2.3 | 4.2 | 6.7 | 4.2 | 4.0 | 1.0 | -1.4 | -10.9 | 0.1 | 6.0 | 3.6 | 1.2 | 4.1 | 4.4 | 5.5 | 4.9 |
| <i>United Kingdom</i> | -0.1 | 5.1 | 9.3 | 4.0 | 2.1 | 8.9 | 14.8 | 5.9 | -2.3 | -8.7 | -0.7 | 0.8 | 3.6 | 2.9 | 4.9 | 7.5 | 11.0 | 5.2 | 3.8 | 3.4 |
| <i>Canada</i> | 4.8 | 0.3 | 2.5 | 10.3 | 5.4 | 10.7 | 9.8 | 5.9 | -3.6 | -3.5 | -1.3 | -2.7 | 7.4 | -1.9 | 6.5 | 13.9 | 3.6 | 9.3 | 8.1 | 5.4 |
| <i>Total of major countries</i> | 1.3 | 4.4 | 9.0 | 4.8 | 3.5 | 4.1 | 6.3 | 4.9 | 2.4 | -2.2 | 2.4 | 0.5 | 4.3 | 3.4 | 6.5 | 4.5 | 5.4 | 5.4 | 5.8 | 3.8 |
| <i>Australia</i> | 2.4 | -8.5 | 11.0 | 12.5 | -2.1 | 4.7 | 9.0 | 10.4 | -7.5 | -8.6 | 3.2 | 4.8 | 11.7 | 3.3 | 5.5 | 11.3 | 6.7 | 5.7 | 3.9 | 4.5 |
| <i>Austria</i> | 0.4 | 0.4 | 0.1 | 6.9 | 2.4 | 4.4 | 6.8 | 6.3 | 6.6 | 6.3 | 0.1 | -2.0 | 8.4 | 1.2 | 2.1 | 0.8 | 6.8 | 2.8 | 3.7 | 4.6 |
| <i>Belgium</i> | 0.0 | -5.8 | 2.7 | 6.9 | 3.2 | 6.2 | 15.7 | 12.6 | 8.5 | -4.1 | 1.7 | -3.0 | -0.1 | 5.5 | 1.0 | 6.5 | 3.7 | 5.4 | 4.0 | 4.7 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 17.3 | 19.8 | 8.2 | -4.3 | -3.8 | -5.5 | 2.2 | 4.5 |
| <i>Denmark</i> | -3.3 | 1.9 | 12.9 | 12.6 | 17.1 | -3.8 | -6.6 | -0.8 | -2.1 | -3.3 | -2.0 | -4.0 | 7.6 | 11.6 | 4.0 | 8.0 | 6.7 | -0.7 | 1.2 | 1.6 |
| <i>Finland</i> | 1.7 | 3.7 | -2.1 | 2.2 | -0.4 | 4.9 | 9.8 | 13.0 | -4.6 | -18.6 | -16.7 | -16.6 | -2.7 | 10.6 | 8.4 | 11.9 | 7.8 | 4.8 | 6.6 | 6.2 |
| <i>Greece</i> | -1.0 | -1.3 | -5.7 | 5.2 | -6.2 | -5.1 | 8.9 | 7.1 | 5.0 | 4.8 | -3.2 | -3.5 | -2.8 | 4.2 | 8.4 | 13.1 | 8.1 | 7.1 | 6.2 | 7.9 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 12.5 | -4.3 | 6.7 | 9.2 | 13.3 | 6.6 | 8.3 | 10.0 |
| <i>Iceland</i> | 3.4 | -12.7 | 9.4 | 1.0 | -1.6 | 18.9 | -0.2 | -7.9 | 3.0 | 2.0 | -11.3 | -11.4 | -1.1 | -2.8 | 27.4 | 10.5 | 25.9 | -2.0 | 9.1 | 0.2 |
| <i>Ireland</i> | 4.8 | -9.3 | -2.5 | -7.7 | -2.8 | -1.1 | 5.2 | 10.1 | 13.4 | -6.2 | -1.8 | -3.5 | 12.0 | 13.5 | 16.2 | 17.4 | 16.8 | 11.6 | 11.0 | 11.3 |
| <i>Korea</i> | 13.2 | 17.3 | 10.0 | 4.3 | 10.6 | 17.0 | 13.7 | 15.9 | 28.2 | 13.3 | -0.7 | 6.3 | 10.7 | 11.9 | 7.3 | -2.2 | -21.2 | 4.1 | 12.5 | 5.8 |
| <i>Luxembourg</i> | 0.0 | -11.8 | 0.1 | -9.5 | 31.0 | 17.9 | 15.0 | 7.0 | 2.7 | 31.6 | -9.0 | 28.4 | -14.9 | 3.5 | -3.5 | 10.9 | 1.9 | 9.0 | 5.1 | 5.3 |
| <i>Mexico</i> | 6.9 | -28.3 | 6.4 | 7.9 | -11.8 | -0.6 | 5.8 | 5.8 | 13.1 | 11.0 | 10.8 | -2.5 | 8.4 | -29.0 | 16.4 | 21.0 | 10.3 | 5.8 | 6.9 | 9.8 |
| <i>Netherlands</i> | -1.1 | 2.5 | 5.8 | 7.0 | 6.9 | 0.9 | 4.5 | 4.9 | 1.6 | 0.2 | 0.6 | -2.8 | 2.2 | 5.0 | 6.3 | 5.9 | 5.2 | 5.7 | 5.3 | 5.0 |
| <i>New Zealand</i> | 0.8 | 0.2 | 11.5 | 4.0 | -1.8 | 0.1 | -2.2 | 4.8 | -1.2 | -18.6 | 1.4 | 14.8 | 16.7 | 12.2 | 7.0 | 3.8 | -2.0 | 8.5 | 5.3 | 4.5 |
| <i>Norway</i> | 3.5 | 5.4 | 1.0 | -4.0 | 7.6 | 0.3 | -1.8 | -6.9 | -10.8 | -0.4 | -3.1 | 4.3 | 4.5 | 3.4 | 9.9 | 13.9 | 5.8 | -5.6 | -5.8 | 2.1 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 9.2 | 16.6 | 19.7 | 21.8 | 14.2 | 6.9 | 9.5 | 9.0 |
| <i>Portugal</i> | 2.3 | -7.1 | -17.4 | -3.5 | 10.9 | 18.0 | 10.5 | 4.4 | 7.6 | 3.5 | 4.8 | -6.0 | 3.4 | 4.8 | 5.7 | 11.3 | 9.5 | 6.5 | 6.3 | 6.0 |
| <i>Spain</i> | 0.5 | -2.4 | -6.9 | 6.1 | 9.9 | 14.0 | 13.9 | 13.6 | 6.6 | 1.6 | -4.4 | -10.5 | 2.5 | 8.2 | 2.0 | 5.0 | 9.2 | 8.3 | 7.8 | 7.4 |
| <i>Sweden</i> | -0.2 | 1.1 | 7.2 | 5.2 | 0.3 | 8.2 | 6.6 | 11.3 | 1.3 | -8.9 | -10.8 | -17.2 | 6.1 | 9.4 | 5.0 | -2.2 | 9.4 | 8.1 | 7.0 | 7.4 |
| <i>Switzerland</i> | 0.4 | 3.9 | 4.7 | 2.8 | 5.4 | 4.0 | 8.1 | 5.3 | 3.8 | -2.9 | -6.6 | -2.7 | 6.5 | 1.8 | -2.4 | 1.5 | 4.4 | 3.7 | 4.8 | 5.4 |
| <i>Turkey</i> | 3.4 | 2.6 | 0.9 | 11.5 | 8.4 | 45.1 | -1.0 | 2.2 | 15.9 | 0.4 | 6.4 | 26.4 | -16.0 | 9.1 | 14.1 | 14.8 | -3.9 | -16.0 | 10.6 | 8.1 |
| <i>Total of smaller countries</i> | 3.9 | -2.5 | 3.2 | 6.3 | 3.5 | 9.7 | 8.0 | 8.6 | 8.5 | 2.0 | 0.6 | -0.1 | 5.2 | 3.3 | 8.0 | 8.7 | 3.4 | 3.7 | 6.9 | 6.6 |
| <i>Total OECD</i> | 1.9 | 2.9 | 7.8 | 5.1 | 3.5 | 5.3 | 6.7 | 5.7 | 3.7 | -1.3 | 2.0 | 0.4 | 4.5 | 3.4 | 6.9 | 5.5 | 4.9 | 5.0 | 6.0 | 4.5 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 0.3 | 0.4 | 1.5 | 2.6 | 3.9 | 5.4 | 8.5 | 7.0 | 4.1 | -0.3 | -0.3 | -5.8 | 2.6 | 3.5 | 2.3 | 3.2 | 5.9 | 5.0 | 4.8 | 4.4 |
| <i>Euro area</i> | 0.2 | -0.5 | 0.0 | 1.9 | 4.0 | 4.7 | 7.5 | 7.3 | 5.2 | 1.2 | 0.1 | -6.6 | 2.5 | 2.6 | 1.1 | 2.1 | 4.6 | 4.8 | 4.9 | 4.6 |

Source : OECD.

Annex Table 6. Real gross private non-residential fixed capital formation

Percentage change from previous period

| | Average 1972-82 | Percentage change from previous period | | | | | | | | | | | | | | | | | | Projections | |
|----------------------------|--------------------|----------------------------------------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|-------|------|------|-------|------|------|-------------|--|
| | | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| United States | 4.5 | -1.0 | 17.6 | 6.7 | -2.7 | -0.1 | 5.4 | 5.5 | 0.7 | -4.9 | 3.4 | 8.4 | 8.9 | 9.8 | 10.0 | 10.7 | 12.7 | 8.3 | 10.8 | 6.2 | |
| Japan | 3.2 | 1.7 | 11.7 | 12.1 | 4.5 | 5.9 | 14.7 | 14.5 | 10.9 | 6.3 | -5.6 | -10.2 | -5.3 | 5.2 | 11.3 | 9.0 | -7.6 | -5.6 | 4.2 | 5.5 | |
| Germany | 0.2 | 4.5 | -0.4 | 5.0 | 4.3 | 3.8 | 5.6 | 7.4 | 10.1 | 7.5 | 1.0 | -9.0 | 0.7 | 1.0 | -1.2 | 2.1 | 5.4 | 3.3 | 4.3 | 5.2 | |
| France | 1.5 | -2.4 | 0.6 | 4.4 | 6.6 | 7.5 | 9.5 | 8.3 | 5.4 | -1.2 | -2.4 | -7.9 | 0.6 | 3.1 | -0.3 | 1.3 | 9.0 | 8.2 | 6.5 | 4.2 | |
| Italy | 1.3 | -5.8 | 5.7 | 0.6 | 5.8 | 7.7 | 11.0 | 5.3 | 5.6 | 0.2 | -1.2 | -14.7 | 4.0 | 10.7 | 5.0 | 2.4 | 4.8 | 4.7 | 6.6 | 5.6 | |
| United Kingdom | 3.0 | -0.4 | 11.1 | 9.2 | -3.2 | 12.0 | 16.7 | 12.9 | 1.0 | -7.9 | -2.9 | -2.9 | 3.7 | 7.7 | 8.8 | 11.8 | 14.1 | 6.4 | 2.8 | 3.2 | |
| Canada | 9.4 | -8.2 | 3.1 | 10.4 | 1.6 | 9.6 | 16.8 | 6.0 | -1.6 | 0.5 | -5.9 | -2.4 | 9.2 | 5.7 | 7.4 | 18.8 | 5.7 | 10.4 | 8.3 | 5.7 | |
| Total of major countries | 3.6 | -0.7 | 11.6 | 7.2 | 0.7 | 3.7 | 9.1 | 8.0 | 4.1 | -1.0 | 0.0 | -0.9 | 4.2 | 7.3 | 7.7 | 8.6 | 7.3 | 5.0 | 7.7 | 5.5 | |
| Australia | 3.4 | -7.5 | 7.2 | 15.8 | -2.0 | 8.4 | 9.2 | 10.5 | -7.5 | -11.1 | 0.6 | 2.1 | 12.5 | 7.5 | 9.3 | 10.8 | 5.4 | 4.6 | 2.5 | 5.9 | |
| Austria | 1.0 | 1.0 | 0.8 | 13.1 | 1.5 | 8.3 | 9.4 | 9.6 | 11.1 | 7.7 | -3.3 | -6.5 | 10.1 | -0.6 | 2.9 | 8.7 | 10.8 | 6.7 | 6.0 | 6.0 | |
| Belgium | -0.5 | -3.4 | 8.2 | 8.8 | 6.4 | 8.9 | 13.9 | 17.6 | 10.6 | -3.7 | 0.2 | -6.7 | -2.4 | 7.7 | 4.3 | 7.0 | 4.4 | 6.7 | 5.0 | 6.0 | |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Denmark | 0.7 | 1.6 | 11.5 | 19.2 | 18.0 | -5.1 | -6.9 | 3.5 | 2.2 | -1.3 | -4.0 | -8.7 | 7.3 | 13.7 | 2.6 | 8.8 | 8.5 | -0.5 | 0.4 | 2.6 | |
| Finland | 1.5 | 3.9 | -3.3 | 2.2 | 0.3 | 3.8 | 7.9 | 16.3 | -7.4 | -23.1 | -18.8 | -17.5 | -2.9 | 20.9 | 9.8 | 8.1 | 10.4 | 5.7 | 7.4 | 7.0 | |
| Greece | 4.5 | -12.7 | -0.6 | 9.9 | -19.4 | -7.7 | 17.0 | 18.6 | 7.5 | 5.1 | 3.7 | 1.9 | 0.5 | 3.0 | 15.1 | 15.0 | 8.6 | 7.0 | 7.5 | 8.5 | |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Iceland | 4.7 | -15.4 | 11.4 | 7.3 | 4.4 | 22.6 | -10.2 | -14.5 | 6.4 | 3.7 | -17.4 | -24.7 | 0.5 | 7.3 | 53.0 | 17.9 | 38.5 | -6.9 | 12.7 | 0.2 | |
| Ireland | 5.9 | -11.2 | -3.3 | -15.5 | -4.5 | 7.1 | 20.9 | 9.4 | 19.6 | -10.8 | -5.6 | -2.8 | 7.8 | 14.8 | 17.5 | 20.6 | 19.8 | 13.2 | 12.1 | 12.2 | |
| Korea | 14.0 | 14.0 | 16.1 | 4.6 | 13.0 | 20.5 | 12.7 | 15.6 | 19.4 | 13.1 | 0.5 | 5.8 | 15.3 | 14.0 | 7.0 | -2.9 | -30.1 | 9.9 | 16.1 | 6.3 | |
| Luxembourg | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Mexico | .. | -31.8 | 10.4 | 15.8 | -17.0 | 7.2 | 20.3 | 7.1 | 19.6 | 22.6 | 22.8 | -5.6 | -0.4 | -38.9 | 45.8 | 34.0 | 18.3 | 9.8 | 8.7 | 12.0 | |
| Netherlands | -0.2 | 7.0 | 5.8 | 14.0 | 11.3 | 0.3 | 1.4 | 7.9 | 2.6 | 2.2 | -3.0 | -4.2 | 0.2 | 7.5 | 6.5 | 8.4 | 8.5 | 6.7 | 6.5 | 6.0 | |
| New Zealand | 2.3 | -8.6 | 28.9 | 2.5 | -5.3 | 12.7 | -3.1 | 6.6 | -6.6 | -17.9 | 8.5 | 23.8 | 18.2 | 18.7 | 4.2 | -1.4 | 3.1 | 8.9 | 7.1 | 5.9 | |
| Norway | 4.4 | 7.1 | 1.7 | -5.6 | 6.6 | -2.4 | -1.7 | -7.5 | -10.4 | 1.8 | -3.7 | 9.8 | 2.6 | 2.3 | 13.3 | 14.1 | 7.1 | -7.6 | -8.9 | 1.1 | |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Portugal | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Spain | 1.3 | -0.5 | -10.8 | -0.1 | 14.6 | 21.3 | 14.4 | 13.9 | 4.5 | 2.9 | -1.9 | -15.0 | 4.3 | 12.6 | 4.2 | 6.9 | 10.7 | 8.7 | 8.7 | 8.1 | |
| Sweden | 1.1 | 2.5 | 8.2 | 11.3 | 2.1 | 9.0 | 5.1 | 13.5 | -0.6 | -14.6 | -15.0 | -15.7 | 18.5 | 20.0 | 8.0 | 3.0 | 10.5 | 7.7 | 8.0 | 8.0 | |
| Switzerland | 2.3 | 2.0 | 3.8 | 5.2 | 8.7 | 4.6 | 9.7 | 4.7 | 6.3 | -2.6 | -10.6 | -5.9 | 2.0 | 4.9 | 2.3 | 4.3 | 6.6 | 4.9 | 5.8 | 6.7 | |
| Turkey | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Total of smaller countries | 4.3 | -3.5 | 5.5 | 8.5 | 3.2 | 10.0 | 11.2 | 10.9 | 7.9 | 3.8 | 1.4 | -4.2 | 6.2 | 2.5 | 13.1 | 10.7 | 4.0 | 7.3 | 7.8 | 7.4 | |
| Total OECD | 3.7 | -1.3 | 10.4 | 7.5 | 1.2 | 4.9 | 9.5 | 8.6 | 4.8 | -0.1 | 0.2 | -1.5 | 4.6 | 6.4 | 8.8 | 9.0 | 6.7 | 5.5 | 7.7 | 5.9 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| European Union | 1.5 | -0.4 | 2.6 | 5.4 | 4.6 | 7.8 | 10.0 | 9.5 | 5.7 | 0.0 | -1.8 | -9.0 | 2.7 | 6.5 | 3.5 | 5.1 | 8.4 | 5.9 | 5.6 | 5.3 | |
| Euro area | 0.9 | -0.3 | 0.2 | 4.1 | 6.5 | 7.3 | 8.8 | 8.6 | 6.5 | 1.8 | -1.2 | -10.1 | 1.7 | 5.1 | 1.8 | 3.9 | 7.3 | 5.9 | 6.1 | 5.7 | |

Source: OECD.

Annex Table 7. Real gross private residential fixed capital formation

Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | |
|-----------------------------------|--------------------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------|------|
| <i>United States</i> | -4.6 | 41.1 | 14.6 | 1.4 | 12.0 | 0.2 | -0.5 | -4.1 | -8.6 | -12.8 | 16.3 | 7.3 | 9.7 | -3.6 | 7.4 | 2.4 | 9.2 | 7.4 | -0.1 | -1.4 |
| <i>Japan</i> | 0.3 | -5.9 | -2.1 | 2.6 | 8.1 | 22.4 | 11.4 | 0.9 | 4.8 | -8.5 | -6.5 | 2.4 | 8.5 | -6.5 | 13.6 | -16.2 | -14.4 | 1.4 | 0.5 | 2.0 |
| <i>Germany</i> | -1.7 | 5.5 | 2.0 | -10.0 | -0.6 | -1.3 | 3.6 | 4.8 | 8.4 | 4.2 | 9.8 | 4.1 | 11.9 | 0.4 | -0.2 | 0.2 | -3.6 | -0.1 | 0.8 | 0.8 |
| <i>France</i> | 0.4 | -3.0 | -4.4 | -2.7 | 1.6 | 2.9 | 5.6 | 7.4 | -1.7 | -6.9 | -3.7 | -5.2 | 4.4 | 2.1 | 0.4 | 0.9 | 3.6 | 7.7 | 6.0 | 2.6 |
| <i>Italy</i> | -1.0 | 5.1 | 0.6 | -3.1 | -3.0 | -2.1 | 2.2 | 3.0 | 3.7 | 3.3 | 1.3 | -1.5 | -2.3 | -0.1 | -1.4 | -2.7 | -0.6 | 1.6 | 3.4 | 3.0 |
| <i>United Kingdom</i> | -1.3 | 7.4 | 6.7 | -2.7 | 12.0 | 8.1 | 19.0 | -11.6 | -17.5 | -15.1 | 0.2 | 8.1 | 2.5 | -3.1 | 9.7 | 2.5 | 1.8 | 0.4 | 3.6 | 2.7 |
| <i>Canada</i> | 0.9 | 17.8 | 0.6 | 9.2 | 12.8 | 14.7 | 2.2 | 4.2 | -10.2 | -14.5 | 7.2 | -3.5 | 4.2 | -15.1 | 9.9 | 12.6 | -1.9 | 6.5 | 7.7 | 5.0 |
| <i>Total of major countries</i> | -2.1 | 20.0 | 6.8 | -0.1 | 8.2 | 5.2 | 4.1 | -1.1 | -3.8 | -9.0 | 7.5 | 4.1 | 7.7 | -3.5 | 6.8 | -1.2 | 1.6 | 4.6 | 1.4 | 0.6 |
| <i>Australia</i> | 1.7 | -15.2 | 21.8 | 3.7 | -7.7 | -2.4 | 19.7 | 8.6 | -11.2 | -6.2 | 13.1 | 13.2 | 11.9 | -5.8 | -7.1 | 14.5 | 13.3 | 4.2 | 6.0 | 0.6 |
| <i>Austria</i> | 0.8 | -1.5 | -1.3 | -0.8 | 2.1 | 2.8 | 7.1 | 0.4 | -1.1 | 4.7 | 8.6 | 4.4 | 7.6 | 11.4 | 2.4 | -2.0 | 0.8 | -5.6 | 0.0 | 1.0 |
| <i>Belgium</i> | -2.5 | -8.3 | 2.7 | 20.4 | 0.0 | 8.5 | 25.2 | 17.6 | 8.0 | -8.9 | 4.9 | 1.8 | 5.3 | 5.6 | -4.1 | 5.0 | 2.3 | 0.2 | 2.5 | 2.2 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Denmark</i> | -8.6 | 11.5 | 20.3 | -2.1 | 21.3 | -3.2 | -9.4 | -8.4 | -11.3 | -10.1 | 0.1 | 6.3 | 8.9 | 8.5 | 5.8 | 8.7 | 4.9 | 0.0 | 0.0 | -2.7 |
| <i>Finland</i> | 1.7 | -0.3 | -2.7 | -3.0 | -8.3 | 0.7 | 16.7 | 17.4 | -5.6 | -16.6 | -20.6 | -14.3 | -4.5 | -2.7 | 2.6 | 21.5 | 7.4 | 10.7 | 8.3 | 7.1 |
| <i>Greece</i> | -3.9 | 4.6 | -19.7 | -0.5 | 14.6 | 3.4 | 2.9 | -1.8 | 5.4 | -0.6 | -16.7 | -10.5 | -11.3 | 2.6 | -1.2 | 9.8 | 7.6 | 2.3 | 3.1 | 6.0 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Iceland</i> | 2.5 | -9.1 | 10.4 | -13.6 | -13.9 | 14.2 | 14.8 | 2.8 | -0.6 | -4.9 | -3.3 | -5.8 | 0.0 | -9.9 | 7.1 | -6.1 | 0.0 | 8.0 | 5.0 | -1.0 |
| <i>Ireland</i> | 2.9 | -5.7 | 7.8 | -1.0 | 7.0 | 5.1 | -0.4 | 13.2 | -0.5 | 0.7 | 8.0 | -11.9 | 24.0 | 13.9 | 18.0 | 14.7 | 13.7 | 9.4 | 9.0 | 8.7 |
| <i>Korea</i> | 12.5 | 31.3 | -9.3 | 0.8 | 16.2 | 9.0 | 22.7 | 19.7 | 62.1 | 10.8 | -7.3 | 11.2 | -1.7 | 8.3 | 1.5 | -6.3 | -7.6 | -15.0 | 7.0 | 5.0 |
| <i>Luxembourg</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Mexico</i> | 3.9 | -5.9 | 5.0 | 8.1 | -1.6 | 4.4 | -1.2 | 5.8 | 4.4 | 7.6 | 2.9 | 5.2 | 4.0 | -7.9 | 2.5 | 4.5 | 7.5 | 6.8 | 4.8 | 6.0 |
| <i>Netherlands</i> | -1.8 | -0.7 | 4.4 | -0.8 | 4.2 | 1.6 | 11.3 | 0.7 | -2.5 | -5.4 | 6.4 | -0.3 | 6.2 | 0.9 | 3.9 | 6.4 | -0.9 | 3.3 | 2.0 | 1.5 |
| <i>New Zealand</i> | -1.9 | 2.0 | 18.5 | -0.5 | -3.1 | -3.9 | 4.2 | 15.1 | 2.0 | -15.8 | 3.4 | 17.0 | 12.7 | 2.2 | 5.4 | 6.3 | -16.9 | 13.0 | 2.4 | 2.0 |
| <i>Norway</i> | 2.6 | 0.0 | -0.7 | -0.9 | 7.8 | 3.2 | -6.9 | -12.5 | -17.8 | -21.7 | -10.5 | -3.7 | 24.6 | 9.1 | -0.1 | 7.4 | -0.9 | -2.2 | 8.3 | 8.0 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Portugal</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Spain</i> | -1.5 | -5.5 | -5.4 | 6.5 | 2.1 | 6.3 | 11.4 | 3.3 | 6.4 | -3.7 | -4.0 | -4.1 | 0.4 | 7.1 | 9.1 | -0.7 | 5.5 | 9.0 | 5.7 | 5.0 |
| <i>Sweden</i> | -2.1 | -0.7 | 10.7 | -2.7 | -2.9 | 10.0 | 10.7 | 6.2 | 8.1 | -2.1 | -7.3 | -32.8 | -34.1 | -23.9 | 8.9 | -22.3 | 3.6 | 18.8 | 10.0 | 10.0 |
| <i>Switzerland</i> | -2.2 | 9.1 | 9.4 | 0.5 | -1.6 | 2.7 | 4.9 | 5.8 | -3.4 | -7.7 | -1.6 | 5.8 | 19.3 | 0.0 | -10.2 | -4.0 | -0.6 | 0.8 | 2.5 | 3.2 |
| <i>Turkey</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Total of smaller countries</i> | 2.6 | 1.9 | 2.4 | 3.5 | 3.3 | 4.4 | 10.6 | 7.3 | 10.1 | -1.0 | -0.4 | 1.8 | 3.1 | 1.2 | 2.1 | 2.3 | 2.9 | 2.1 | 4.9 | 4.2 |
| <i>Total OECD</i> | -1.1 | 16.4 | 5.9 | 0.6 | 7.3 | 5.1 | 5.4 | 0.5 | -1.1 | -7.4 | 6.0 | 3.7 | 6.9 | -2.6 | 5.9 | -0.5 | 1.8 | 4.1 | 2.1 | 1.3 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | -1.0 | 2.1 | 0.9 | -2.7 | 2.5 | 2.4 | 8.0 | 2.3 | 0.1 | -3.3 | 1.6 | -0.3 | 3.6 | 0.7 | 2.6 | 0.7 | 1.0 | 3.1 | 3.4 | 2.6 |
| <i>Euro area</i> | -0.9 | 0.9 | -0.6 | -4.0 | -0.1 | 0.9 | 6.0 | 5.3 | 3.1 | -1.1 | 3.0 | 0.0 | 6.5 | 1.7 | 0.8 | 0.8 | -0.2 | 2.6 | 2.9 | 2.2 |

Source : OECD.

Annex Table 8. **Real total domestic demand**
Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | | |
|----------------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|-------|------|--------------------------|-----|--|
| United States | 1.9 | 5.6 | 8.1 | 4.3 | 3.8 | 3.1 | 3.2 | 2.8 | 1.4 | -1.1 | 3.1 | 3.1 | 4.4 | 2.4 | 3.7 | 4.5 | 5.5 | 5.1 | 5.4 | 3.1 | |
| Japan | 3.4 | 1.7 | 3.2 | 3.8 | 3.9 | 5.1 | 7.4 | 5.6 | 5.2 | 2.9 | 0.4 | 0.1 | 1.0 | 2.3 | 5.7 | 0.2 | -3.1 | 0.6 | 1.4 | 2.1 | |
| Germany | 1.4 | 2.4 | 1.9 | 1.0 | 3.3 | 2.4 | 3.5 | 2.8 | 5.2 | 4.6 | 2.8 | -1.0 | 2.2 | 1.7 | 0.3 | 0.7 | 2.5 | 2.2 | 1.8 | 2.2 | |
| France | 2.6 | 0.0 | 0.9 | 2.0 | 3.4 | 3.3 | 4.2 | 4.0 | 2.6 | 0.5 | 0.7 | -1.6 | 1.8 | 1.8 | 0.7 | 0.6 | 3.9 | 2.8 | 3.3 | 2.9 | |
| Italy | 3.0 | 0.3 | 3.3 | 3.2 | 3.1 | 4.3 | 4.1 | 3.1 | 2.7 | 2.1 | 0.9 | -5.1 | 1.7 | 2.0 | 0.9 | 2.5 | 2.9 | 2.5 | 1.8 | 2.4 | |
| United Kingdom | 1.2 | 4.8 | 2.7 | 3.2 | 4.8 | 4.9 | 8.0 | 2.9 | -0.3 | -2.7 | 0.8 | 2.2 | 3.5 | 1.8 | 3.0 | 3.8 | 4.1 | 3.6 | 3.6 | 2.9 | |
| Canada | 3.2 | 3.8 | 4.7 | 5.8 | 3.4 | 4.7 | 5.3 | 4.1 | 0.0 | -1.4 | 0.9 | 1.4 | 3.2 | 1.7 | 1.6 | 5.7 | 2.2 | 4.0 | 4.4 | 3.1 | |
| Total of major countries | 2.3 | 3.6 | 5.2 | 3.6 | 3.7 | 3.7 | 4.5 | 3.5 | 2.4 | 0.4 | 2.0 | 1.1 | 3.1 | 2.2 | 3.1 | 2.9 | 3.1 | 3.5 | 3.7 | 2.7 | |
| Australia | 6.1 | -0.3 | 6.0 | 5.5 | 0.9 | 3.0 | 5.6 | 6.9 | -0.6 | -2.3 | 3.1 | 3.1 | 5.3 | 4.8 | 3.4 | 3.5 | 6.2 | 5.1 | 3.5 | 3.7 | |
| Austria | 2.4 | 3.3 | 1.3 | 2.0 | 2.2 | 2.4 | 3.2 | 3.3 | 4.4 | 3.6 | 1.4 | 0.8 | 3.3 | 1.8 | 2.0 | 0.5 | 2.7 | 2.1 | 2.2 | 2.7 | |
| Belgium | 2.4 | -1.7 | 2.5 | 2.0 | 2.6 | 3.5 | 4.8 | 4.3 | 2.8 | 1.8 | 1.8 | -1.5 | 2.1 | 1.9 | 0.8 | 2.7 | 4.1 | 1.8 | 3.4 | 3.1 | |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6.4 | 8.4 | 6.9 | 0.3 | -3.2 | -0.3 | 1.1 | 2.1 | |
| Denmark | 1.0 | 1.6 | 5.0 | 5.1 | 5.6 | -1.7 | -0.7 | -0.1 | -0.7 | -0.1 | 0.9 | -0.3 | 7.0 | 4.2 | 2.2 | 4.4 | 4.3 | -0.5 | 1.3 | 1.6 | |
| Finland | 2.8 | 2.9 | 2.0 | 3.2 | 2.4 | 5.1 | 6.1 | 6.7 | -1.2 | -8.5 | -5.8 | -5.7 | 3.7 | 4.4 | 2.9 | 6.0 | 5.4 | 1.9 | 3.4 | 3.1 | |
| Greece | 3.1 | 0.5 | 0.9 | 4.7 | 0.5 | 0.0 | 4.4 | 4.9 | 2.4 | 3.6 | -0.6 | -0.9 | 1.1 | 3.9 | 3.3 | 4.1 | 3.2 | 3.2 | 3.3 | 3.8 | |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.0 | -3.0 | 0.6 | 4.0 | 7.8 | 4.3 | 5.0 | 5.2 | |
| Iceland | 5.1 | -8.6 | 6.4 | 2.7 | 4.5 | 15.7 | -0.6 | -4.4 | 1.5 | 5.1 | -5.3 | -4.1 | 1.5 | 3.1 | 7.6 | 6.2 | 12.5 | 4.7 | 5.1 | 1.7 | |
| Ireland | 3.8 | -2.0 | 1.5 | 1.5 | 1.0 | 0.8 | 2.8 | 6.9 | 5.9 | 0.1 | -0.3 | 1.0 | 5.6 | 7.0 | 7.8 | 9.5 | 9.4 | 7.6 | 8.2 | 8.2 | |
| Korea | 7.3 | 9.6 | 8.9 | 5.5 | 8.2 | 10.6 | 11.4 | 12.6 | 11.6 | 10.4 | 3.2 | 4.6 | 9.6 | 9.3 | 7.8 | -0.8 | -19.6 | 13.4 | 10.7 | 6.1 | |
| Luxembourg | 2.4 | -1.7 | 1.3 | 0.4 | 8.9 | 7.2 | 6.8 | 4.9 | 4.7 | 11.6 | -2.6 | 8.3 | -2.8 | 2.6 | 2.7 | 5.6 | 2.3 | 4.5 | 3.5 | 3.6 | |
| Mexico | 5.9 | -9.1 | 4.2 | 4.2 | -5.0 | -1.2 | 3.9 | 5.6 | 7.0 | 5.7 | 6.0 | 1.1 | 5.6 | -14.0 | 5.6 | 9.6 | 6.0 | 3.4 | 5.3 | 5.7 | |
| Netherlands | 1.6 | 2.2 | 1.7 | 3.7 | 3.9 | 1.4 | 1.9 | 4.4 | 3.2 | 1.7 | 1.5 | -1.1 | 2.9 | 1.9 | 2.8 | 3.5 | 4.2 | 3.8 | 3.9 | 4.0 | |
| New Zealand | 1.8 | -1.1 | 10.5 | -0.1 | 1.4 | 1.2 | 1.4 | 2.9 | -0.3 | -6.2 | 2.0 | 4.9 | 6.9 | 5.1 | 4.1 | 3.3 | -0.2 | 5.8 | 2.8 | 2.7 | |
| Norway | 3.5 | -0.3 | 4.8 | 5.6 | 7.3 | -0.8 | -3.1 | -2.0 | -0.3 | 0.8 | 1.7 | 3.1 | 4.1 | 4.2 | 4.2 | 6.3 | 5.5 | -1.0 | 0.4 | 2.5 | |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.7 | 6.9 | 9.7 | 9.4 | 6.4 | 5.4 | 5.5 | 5.0 | |
| Portugal | 3.9 | -4.4 | -5.6 | 1.4 | 6.8 | 9.8 | 8.5 | 3.3 | 6.1 | 4.2 | 5.0 | -1.3 | 3.0 | 3.0 | 2.8 | 5.2 | 6.5 | 5.1 | 4.4 | 4.1 | |
| Spain | 2.2 | 0.9 | -0.4 | 3.2 | 4.7 | 7.4 | 6.5 | 6.9 | 4.5 | 2.6 | 0.8 | -3.5 | 1.3 | 2.9 | 1.8 | 3.2 | 5.0 | 4.9 | 4.1 | 4.2 | |
| Sweden | 1.4 | -0.9 | 4.0 | 3.5 | 2.6 | 3.9 | 2.6 | 3.9 | 1.3 | -1.9 | -2.0 | -5.6 | 3.0 | 1.9 | 0.7 | 0.8 | 3.9 | 3.6 | 3.6 | 4.3 | |
| Switzerland | 1.0 | 1.9 | 3.2 | 1.9 | 4.5 | 2.0 | 2.6 | 4.1 | 3.9 | -0.6 | -2.7 | -1.0 | 2.7 | 1.8 | 0.4 | 1.3 | 4.1 | 2.1 | 2.7 | 2.6 | |
| Turkey | 3.6 | 5.8 | 6.4 | 3.2 | 7.0 | 8.9 | -1.3 | 1.5 | 14.6 | -0.6 | 5.6 | 14.2 | -12.5 | 11.4 | 7.6 | 9.0 | 0.6 | -4.0 | 4.9 | 5.3 | |
| Total of smaller countries | 4.0 | 0.8 | 3.8 | 3.8 | 3.2 | 4.3 | 4.7 | 5.8 | 5.4 | 2.7 | 2.3 | 1.3 | 3.3 | 2.5 | 4.3 | 4.3 | 1.4 | 4.3 | 4.8 | 4.4 | |
| Total OECD | 2.7 | 3.0 | 4.9 | 3.6 | 3.6 | 3.8 | 4.6 | 4.0 | 3.1 | 0.9 | 2.1 | 1.1 | 3.1 | 2.2 | 3.4 | 3.2 | 2.7 | 3.7 | 4.0 | 3.1 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| European Union | 2.1 | 1.5 | 1.8 | 2.5 | 3.6 | 3.7 | 4.7 | 3.7 | 2.9 | 1.5 | 1.2 | -1.6 | 2.4 | 2.1 | 1.4 | 2.2 | 3.6 | 2.9 | 2.9 | 2.9 | |
| Euro area | 2.2 | 0.9 | 1.7 | 2.2 | 3.3 | 3.5 | 4.1 | 3.9 | 3.6 | 2.3 | 1.4 | -2.1 | 2.1 | 2.0 | 1.0 | 1.7 | 3.4 | 2.8 | 2.7 | 2.9 | |

Source : OECD.

Annex Table 9. Real exports of goods and services

Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | |
|-----------------------------------|--------------------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|
| <i>United States</i> | 6.1 | -2.4 | 8.4 | 2.7 | 7.4 | 11.2 | 16.1 | 11.8 | 8.7 | 6.5 | 6.2 | 3.3 | 8.9 | 10.3 | 8.2 | 12.5 | 2.2 | 3.8 | 6.8 | 7.9 |
| <i>Japan</i> | 8.7 | 4.8 | 14.8 | 5.4 | -5.7 | -0.5 | 5.9 | 9.1 | 6.9 | 5.2 | 4.9 | 1.3 | 4.6 | 5.4 | 6.3 | 11.6 | -2.5 | 1.9 | 8.0 | 4.8 |
| <i>Germany</i> | 5.2 | -0.8 | 8.2 | 7.6 | -0.6 | 0.4 | 5.5 | 10.2 | 11.0 | 12.6 | -0.8 | -5.5 | 7.6 | 5.7 | 5.1 | 10.9 | 7.0 | 4.3 | 10.5 | 8.9 |
| <i>France</i> | 5.1 | 4.6 | 7.3 | 2.1 | -0.8 | 2.8 | 8.5 | 10.8 | 4.8 | 5.5 | 5.2 | -0.1 | 7.9 | 7.8 | 3.1 | 12.1 | 7.7 | 3.6 | 10.9 | 8.9 |
| <i>Italy</i> | 5.0 | 3.7 | 7.7 | 3.9 | 0.8 | 4.5 | 5.1 | 7.8 | 7.5 | -1.4 | 7.3 | 9.0 | 9.8 | 12.6 | 0.6 | 6.5 | 3.3 | -0.4 | 10.9 | 9.5 |
| <i>United Kingdom</i> | 3.7 | 1.8 | 6.6 | 6.0 | 4.5 | 5.9 | 0.6 | 4.8 | 4.9 | -0.2 | 4.1 | 3.9 | 9.2 | 9.5 | 7.5 | 8.6 | 2.4 | 2.9 | 8.5 | 6.7 |
| <i>Canada</i> | 3.7 | 6.4 | 18.6 | 5.5 | 5.2 | 3.3 | 9.5 | 1.3 | 4.7 | 2.3 | 7.9 | 10.9 | 13.1 | 9.0 | 5.8 | 8.5 | 8.2 | 9.7 | 8.7 | 6.4 |
| <i>Total of major countries</i> | 6.2 | 0.6 | 9.7 | 4.1 | 2.9 | 6.2 | 10.5 | 9.9 | 7.8 | 5.6 | 5.1 | 2.5 | 8.2 | 8.8 | 6.4 | 11.2 | 2.6 | 3.4 | 8.2 | 7.5 |
| <i>Australia</i> | 3.3 | -4.4 | 16.1 | 11.1 | 4.3 | 12.2 | 3.5 | 2.9 | 8.5 | 13.1 | 5.4 | 8.0 | 9.0 | 5.1 | 10.6 | 11.5 | -0.4 | 5.0 | 10.0 | 8.4 |
| <i>Austria</i> | 5.5 | 3.6 | 6.3 | 7.1 | -2.3 | 3.1 | 10.2 | 11.3 | 7.9 | 5.9 | 1.7 | -1.3 | 5.6 | 6.5 | 6.0 | 10.1 | 8.7 | 4.7 | 8.5 | 7.9 |
| <i>Belgium</i> | 3.8 | 2.6 | 6.5 | 0.4 | 2.8 | 5.0 | 9.6 | 8.3 | 4.6 | 3.1 | 3.7 | -0.4 | 8.4 | 5.7 | 1.3 | 6.7 | 4.2 | 5.0 | 8.8 | 7.7 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.2 | 16.7 | 9.2 | 8.1 | 10.7 | 6.6 | 10.0 | 8.0 |
| <i>Denmark</i> | 4.3 | 4.9 | 3.5 | 5.0 | 0.0 | 5.1 | 7.8 | 4.2 | 6.2 | 6.1 | -0.9 | -1.5 | 7.0 | 2.9 | 4.3 | 4.1 | 2.2 | 7.0 | 6.5 | 6.3 |
| <i>Finland</i> | 4.8 | 2.0 | 5.0 | 1.1 | 1.2 | 2.7 | 3.7 | 1.6 | 1.2 | -7.3 | 10.3 | 16.7 | 13.1 | 8.6 | 5.8 | 14.1 | 9.3 | 7.4 | 9.9 | 8.7 |
| <i>Greece</i> | 6.5 | 8.0 | 16.9 | 1.3 | 14.0 | 16.0 | 9.0 | 4.8 | -4.1 | 3.7 | 10.4 | -3.3 | 6.6 | 0.5 | 3.5 | 7.9 | 4.2 | 6.2 | 11.1 | 9.0 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.7 | 13.4 | 8.4 | 26.4 | 16.7 | 13.2 | 15.0 | 14.2 |
| <i>Iceland</i> | 4.7 | 11.0 | 2.4 | 11.1 | 5.9 | 3.3 | -3.6 | 2.9 | 0.0 | -5.9 | -1.9 | 7.0 | 9.9 | -2.1 | 9.9 | 5.7 | 2.2 | 5.8 | 2.8 | 6.6 |
| <i>Ireland</i> | 7.3 | 10.5 | 16.6 | 6.6 | 2.9 | 13.7 | 9.0 | 10.3 | 8.7 | 5.3 | 13.5 | 9.1 | 14.7 | 19.6 | 11.8 | 17.0 | 20.5 | 14.0 | 17.1 | 11.1 |
| <i>Korea</i> | 16.5 | 19.4 | 7.7 | 4.6 | 26.5 | 21.7 | 12.5 | -4.1 | 3.8 | 11.2 | 11.3 | 11.3 | 16.1 | 24.6 | 11.2 | 21.4 | 13.2 | 16.3 | 18.0 | 12.8 |
| <i>Luxembourg</i> | 1.7 | 5.3 | 18.0 | 9.5 | 3.3 | 4.4 | 11.7 | 8.1 | 3.4 | 6.7 | 4.8 | 2.8 | 4.4 | 4.4 | 4.0 | 10.5 | 9.9 | 5.2 | 8.9 | 7.9 |
| <i>Mexico</i> | 9.7 | 14.2 | 5.8 | -4.5 | 4.5 | -3.5 | 5.8 | 5.7 | 5.3 | 5.1 | 5.0 | 8.1 | 17.8 | 30.2 | 18.2 | 10.7 | 12.1 | 13.9 | 12.5 | 8.2 |
| <i>Netherlands</i> | 3.3 | 3.2 | 7.5 | 5.1 | 1.8 | 4.0 | 9.0 | 6.6 | 5.3 | 4.7 | 2.9 | 1.5 | 6.7 | 7.1 | 4.6 | 9.0 | 6.4 | 4.7 | 9.0 | 8.0 |
| <i>New Zealand</i> | 4.3 | 8.2 | 7.4 | 8.0 | -0.4 | 6.1 | 4.1 | -2.6 | 4.6 | 9.6 | 2.7 | 5.9 | 10.3 | 3.7 | 3.6 | 3.0 | 1.6 | 6.3 | 8.5 | 6.5 |
| <i>Norway</i> | 4.4 | 7.1 | 7.9 | 7.2 | 2.2 | 1.1 | 6.4 | 11.0 | 8.6 | 6.1 | 5.2 | 3.2 | 8.7 | 4.3 | 9.3 | 6.1 | 0.3 | 1.7 | 7.4 | 4.3 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.1 | 22.8 | 12.0 | 12.2 | 14.3 | -0.7 | 7.5 | 9.0 |
| <i>Portugal</i> | 1.5 | 13.6 | 11.6 | 6.7 | 6.8 | 11.2 | 6.5 | 13.0 | 10.0 | 2.6 | 4.9 | -3.6 | 8.7 | 9.1 | 10.2 | 8.4 | 9.3 | 5.0 | 9.0 | 8.9 |
| <i>Spain</i> | 5.7 | 10.0 | 11.7 | 2.6 | 1.9 | 6.3 | 5.1 | 3.0 | 3.2 | 7.9 | 7.4 | 8.5 | 16.7 | 10.0 | 10.3 | 15.1 | 7.1 | 8.5 | 14.5 | 12.1 |
| <i>Sweden</i> | 3.5 | 9.8 | 6.8 | 1.5 | 3.7 | 4.2 | 2.5 | 3.2 | 1.6 | -2.4 | 2.4 | 7.7 | 14.1 | 11.3 | 3.5 | 13.0 | 7.3 | 5.2 | 9.0 | 5.0 |
| <i>Switzerland</i> | 3.0 | 0.8 | 7.5 | 8.0 | -0.4 | 2.3 | 6.5 | 6.6 | 2.1 | -2.1 | 3.0 | 1.5 | 1.8 | 1.6 | 2.5 | 9.0 | 4.6 | 4.4 | 7.7 | 7.2 |
| <i>Turkey</i> | 9.0 | 13.1 | 25.4 | -1.9 | -5.1 | 26.4 | 18.4 | -0.3 | 2.6 | 3.7 | 11.0 | 7.7 | 15.2 | 8.0 | 22.0 | 19.1 | 12.0 | -7.0 | 10.0 | 4.5 |
| <i>Total of smaller countries</i> | 7.5 | 9.0 | 10.3 | 3.1 | 5.7 | 8.9 | 8.1 | 3.7 | 4.5 | 5.9 | 6.4 | 6.0 | 12.1 | 13.5 | 10.3 | 12.9 | 8.6 | 7.2 | 11.5 | 8.9 |
| <i>Total OECD</i> | 6.5 | 2.4 | 9.8 | 3.8 | 3.5 | 6.8 | 10.0 | 8.6 | 7.1 | 5.7 | 5.4 | 3.3 | 9.1 | 9.9 | 7.3 | 11.6 | 4.0 | 4.3 | 8.9 | 7.8 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 4.8 | 3.5 | 8.1 | 4.6 | 1.4 | 4.0 | 5.6 | 7.8 | 6.4 | 4.7 | 3.9 | 1.8 | 9.2 | 8.4 | 4.8 | 10.1 | 5.9 | 3.9 | 10.4 | 8.7 |
| <i>Euro area</i> | 7.3 | 2.4 | 10.1 | 3.6 | -10.6 | -2.6 | 6.4 | 8.0 | 8.2 | 7.4 | 2.0 | 11.8 | 9.1 | 7.0 | 6.7 | 13.8 | 4.6 | 3.0 | 12.4 | 9.7 |

Source: OECD.

Annex Table 10. Real imports of goods and services

Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | | |
|----------------------------|--------------------|-------|------|------|------|------|------|-------|------|-------|------|-------|-------|-------|------|------|-------|------|--------------------------|------|--|
| United States | 2.3 | 12.6 | 24.3 | 6.5 | 8.4 | 6.1 | 3.8 | 3.9 | 3.8 | -0.5 | 6.6 | 9.1 | 12.0 | 8.2 | 8.6 | 13.7 | 11.6 | 11.7 | 10.1 | 7.2 | |
| Japan | 3.5 | -3.0 | 10.5 | -1.4 | 2.0 | 9.5 | 20.9 | 18.6 | 7.9 | -3.1 | -0.7 | -0.3 | 8.9 | 14.2 | 11.9 | 0.5 | -7.6 | 5.3 | 6.7 | 4.5 | |
| Germany | 3.4 | 1.4 | 5.2 | 4.5 | 2.7 | 4.2 | 5.1 | 8.3 | 10.3 | 13.1 | 1.5 | -5.4 | 7.3 | 5.6 | 3.2 | 8.3 | 8.5 | 7.1 | 7.0 | 6.5 | |
| France | 4.4 | -2.3 | 3.1 | 4.7 | 6.4 | 7.5 | 8.6 | 8.4 | 5.2 | 2.6 | 1.7 | -3.8 | 8.5 | 7.8 | 1.5 | 7.1 | 11.3 | 3.1 | 10.2 | 9.3 | |
| Italy | 3.5 | -2.4 | 12.4 | 5.3 | 4.0 | 12.2 | 5.9 | 8.9 | 11.5 | 2.3 | 7.4 | -10.9 | 8.1 | 9.7 | -0.3 | 10.2 | 9.1 | 3.4 | 7.1 | 7.5 | |
| United Kingdom | 2.3 | 6.6 | 9.9 | 2.5 | 6.9 | 7.9 | 12.8 | 7.4 | 0.5 | -5.0 | 6.8 | 3.2 | 5.4 | 5.5 | 9.1 | 9.2 | 8.8 | 7.5 | 9.8 | 7.7 | |
| Canada | 4.3 | 10.8 | 18.1 | 8.8 | 8.5 | 5.6 | 13.7 | 6.3 | 2.3 | 3.2 | 6.2 | 7.4 | 8.3 | 6.2 | 5.8 | 14.6 | 5.8 | 9.7 | 9.6 | 6.9 | |
| Total of major countries | 3.1 | 6.0 | 16.3 | 4.5 | 6.1 | 7.2 | 8.5 | 8.0 | 5.6 | 0.7 | 4.5 | 3.0 | 9.8 | 8.8 | 7.4 | 9.8 | 7.2 | 8.5 | 8.9 | 6.8 | |
| Australia | 6.4 | -9.8 | 22.1 | 3.5 | -3.3 | 2.7 | 17.1 | 20.6 | -4.0 | -2.5 | 7.1 | 4.2 | 14.1 | 8.1 | 8.2 | 10.3 | 5.9 | 9.4 | 5.2 | 6.3 | |
| Austria | 4.4 | 5.7 | 10.1 | 6.2 | -2.9 | 5.4 | 10.4 | 8.4 | 7.3 | 6.5 | 1.8 | -0.7 | 8.3 | 7.0 | 5.9 | 9.4 | 6.9 | 3.5 | 6.7 | 7.2 | |
| Belgium | 3.7 | -1.2 | 6.4 | 0.4 | 4.5 | 6.7 | 10.4 | 9.6 | 4.8 | 2.8 | 4.1 | -0.4 | 7.2 | 5.0 | 1.0 | 5.8 | 6.3 | 4.1 | 8.8 | 7.9 | |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7.8 | 21.2 | 14.3 | 7.2 | 7.9 | 5.8 | 8.8 | 7.3 | |
| Denmark | 1.8 | 1.8 | 5.5 | 8.1 | 6.8 | -2.0 | 1.5 | 4.1 | 1.2 | 3.0 | -0.4 | -2.7 | 12.3 | 7.3 | 3.5 | 8.0 | 7.3 | 1.3 | 4.4 | 4.6 | |
| Finland | 3.6 | 3.1 | 1.6 | 6.4 | 2.6 | 9.2 | 11.1 | 9.0 | -0.8 | -13.5 | 0.6 | 1.3 | 12.8 | 7.8 | 6.4 | 11.3 | 8.5 | 3.4 | 6.2 | 5.8 | |
| Greece | 4.7 | 6.6 | 0.2 | 12.8 | 3.8 | 16.6 | 8.0 | 10.7 | 8.7 | 6.0 | 1.3 | 0.2 | 1.3 | 9.2 | 7.0 | 9.5 | 1.9 | 5.4 | 7.1 | 7.3 | |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.8 | -0.7 | 6.2 | 24.6 | 22.8 | 12.3 | 14.3 | 14.2 | |
| Iceland | 4.8 | -9.7 | 9.1 | 9.4 | 0.9 | 23.7 | -4.6 | -10.3 | 1.0 | 5.3 | -5.9 | -7.7 | 4.2 | 4.0 | 16.7 | 8.5 | 23.3 | 6.3 | 6.5 | 3.5 | |
| Ireland | 5.3 | 4.7 | 9.9 | 3.2 | 5.6 | 6.2 | 4.9 | 13.5 | 5.1 | 2.2 | 7.9 | 7.0 | 15.1 | 16.1 | 12.0 | 16.1 | 23.2 | 14.5 | 16.3 | 11.7 | |
| Korea | 13.8 | 11.9 | 7.4 | -0.6 | 17.9 | 19.6 | 12.9 | 16.3 | 13.0 | 19.2 | 5.3 | 6.2 | 21.6 | 22.4 | 14.2 | 3.2 | -22.4 | 28.9 | 28.0 | 15.2 | |
| Luxembourg | 2.1 | 1.2 | 13.9 | 7.0 | 3.8 | 7.5 | 8.2 | 6.6 | 4.5 | 9.0 | -0.8 | 2.8 | -0.1 | 3.8 | 4.0 | 9.3 | 8.3 | 4.9 | 7.7 | 7.1 | |
| Mexico | 6.9 | -33.8 | 17.8 | 11.0 | -7.6 | 7.3 | 36.7 | 18.0 | 19.7 | 15.2 | 19.6 | 1.9 | 21.3 | -15.0 | 22.9 | 22.7 | 16.5 | 12.8 | 14.0 | 10.0 | |
| Netherlands | 2.4 | 3.9 | 5.0 | 6.3 | 3.5 | 4.2 | 7.6 | 6.7 | 4.2 | 4.1 | 2.1 | -2.1 | 6.7 | 7.2 | 4.4 | 9.0 | 7.7 | 5.1 | 8.9 | 8.4 | |
| New Zealand | 3.6 | -7.7 | 16.5 | 0.6 | 2.8 | 8.6 | -0.8 | 12.4 | 2.1 | -5.4 | 8.3 | 5.8 | 13.2 | 9.0 | 8.4 | 4.2 | 2.7 | 11.8 | 4.1 | 5.4 | |
| Norway | 3.7 | -3.1 | 5.8 | 8.9 | 11.8 | -6.5 | -2.4 | 2.2 | 2.5 | 0.2 | 0.7 | 4.4 | 4.9 | 5.6 | 8.0 | 11.3 | 9.3 | -3.1 | 1.1 | 4.0 | |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 11.3 | 24.2 | 28.0 | 21.4 | 18.5 | 4.0 | 8.0 | 8.5 | |
| Portugal | 2.7 | -6.1 | -4.4 | 1.4 | 16.9 | 23.1 | 17.3 | 6.1 | 14.0 | 7.3 | 10.7 | -3.3 | 9.0 | 7.8 | 7.5 | 10.4 | 13.3 | 8.5 | 9.0 | 8.7 | |
| Spain | 4.0 | -0.3 | -1.8 | 7.9 | 14.4 | 20.1 | 14.4 | 17.3 | 7.8 | 9.0 | 6.9 | -5.2 | 11.3 | 11.0 | 8.1 | 12.8 | 11.1 | 12.6 | 13.4 | 12.5 | |
| Sweden | 2.1 | 0.8 | 5.4 | 7.0 | 4.4 | 7.6 | 5.4 | 7.4 | 0.8 | -4.9 | 1.2 | -2.7 | 12.2 | 7.2 | 3.0 | 11.8 | 10.4 | 5.0 | 7.5 | 8.0 | |
| Switzerland | 2.6 | 5.5 | 8.3 | 3.7 | 8.1 | 6.2 | 5.2 | 5.9 | 2.6 | -1.6 | -4.2 | 0.1 | 7.9 | 5.1 | 2.7 | 8.1 | 9.4 | 5.3 | 7.3 | 7.0 | |
| Turkey | 7.6 | 16.9 | 19.7 | -6.6 | -3.5 | 23.0 | -4.5 | 6.9 | 33.0 | -5.2 | 10.9 | 35.8 | -21.9 | 29.6 | 20.5 | 22.4 | 2.3 | -3.7 | 11.5 | 8.5 | |
| Total of smaller countries | 6.6 | -2.0 | 9.1 | 4.6 | 5.0 | 11.5 | 13.2 | 12.7 | 9.8 | 6.1 | 6.9 | 3.5 | 10.5 | 9.5 | 11.7 | 12.6 | 6.1 | 9.7 | 11.9 | 9.5 | |
| Total OECD | 3.8 | 4.3 | 14.7 | 4.5 | 5.9 | 8.1 | 9.5 | 9.0 | 6.5 | 1.8 | 5.0 | 3.1 | 9.9 | 9.0 | 8.4 | 10.4 | 7.0 | 8.8 | 9.6 | 7.5 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| European Union | 3.5 | 0.9 | 6.0 | 4.9 | 5.6 | 8.7 | 8.5 | 9.0 | 6.8 | 4.2 | 4.0 | -3.8 | 7.9 | 7.4 | 4.0 | 9.2 | 9.3 | 6.0 | 8.7 | 8.1 | |
| Euro area | 5.3 | -2.2 | 6.3 | 3.4 | -6.7 | 5.1 | 8.0 | 8.1 | 9.2 | 6.9 | 1.8 | 1.2 | 8.0 | 5.6 | 4.8 | 11.5 | 9.1 | 5.9 | 8.8 | 8.2 | |

Source: OECD.

Annex Table 11. Output gaps^a
Deviations of actual GDP from potential GDP as a percentage of potential GDP

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -5.8 | -4.3 | -0.7 | -0.3 | -0.2 | 0.2 | 1.5 | 2.2 | 1.2 | -1.8 | -1.4 | -1.4 | -0.3 | -0.6 | -0.2 | 0.7 | 1.2 | 1.8 | 3.1 | 2.3 |
| Japan | -0.1 | -1.5 | -1.3 | -1.4 | -2.6 | -2.5 | -0.4 | 0.6 | 2.4 | 3.0 | 1.3 | -0.6 | -1.8 | -2.3 | 0.8 | 0.9 | -3.1 | -4.0 | -3.5 | -2.5 |
| Germany | -3.1 | -3.1 | -2.0 | -1.6 | -1.1 | -1.6 | -0.3 | 0.5 | 2.7 | 2.2 | 1.7 | -1.2 | -0.5 | -0.5 | -1.4 | -1.6 | -1.1 | -1.5 | -0.6 | 0.5 |
| France | 0.0 | -1.3 | -2.1 | -2.8 | -2.7 | -2.6 | -1.0 | 0.8 | 1.1 | 0.2 | -0.2 | -2.5 | -2.2 | -2.1 | -2.7 | -2.6 | -1.2 | -0.6 | 0.6 | 1.4 |
| Italy | -0.7 | -2.2 | -2.3 | -1.6 | -0.9 | -0.1 | 1.5 | 1.9 | 1.2 | 0.1 | -1.2 | -3.3 | -2.4 | -0.7 | -1.3 | -1.5 | -2.0 | -2.5 | -1.7 | -0.7 |
| United Kingdom | -4.7 | -2.8 | -2.5 | -0.9 | 0.9 | 3.0 | 5.6 | 5.2 | 3.2 | -0.8 | -2.8 | -2.8 | -0.7 | -0.3 | -0.2 | 1.1 | 0.8 | 0.4 | 1.0 | 0.9 |
| Canada | -5.3 | -5.1 | -2.2 | 0.5 | 0.4 | 1.9 | 3.9 | 3.4 | 1.0 | -3.5 | -4.7 | -4.4 | -1.9 | -1.4 | -2.1 | -1.1 | -1.2 | -0.4 | 0.6 | 0.4 |
| Total of major countries | -3.6 | -3.3 | -1.3 | -0.9 | -0.8 | -0.4 | 1.2 | 1.9 | 1.7 | -0.2 | -0.7 | -1.7 | -1.0 | -1.0 | -0.5 | 0.0 | -0.3 | -0.2 | 0.7 | 0.8 |
| Australia | -2.2 | -4.8 | -0.9 | 0.8 | -0.6 | 0.8 | 1.7 | 2.4 | 0.7 | -2.9 | -2.7 | -1.8 | -0.1 | 0.4 | 0.7 | 0.6 | 1.2 | 1.3 | 1.1 | 0.8 |
| Austria | -1.2 | -0.5 | -2.3 | -2.1 | -1.7 | -2.0 | -0.8 | 1.2 | 2.6 | 3.0 | 2.0 | -0.6 | -0.2 | -0.4 | -0.3 | -0.5 | 0.3 | 0.0 | 0.6 | 1.1 |
| Belgium | -0.1 | -1.6 | -0.8 | -0.5 | -0.7 | -0.1 | 2.1 | 3.2 | 3.4 | 2.6 | 1.5 | -2.3 | -1.9 | -1.5 | -2.6 | -1.3 | -1.0 | -0.9 | 0.1 | 0.6 |
| Denmark | -2.7 | -2.1 | 0.0 | 1.9 | 2.9 | 0.7 | -1.2 | -2.4 | -2.7 | -2.7 | -3.3 | -4.6 | -1.0 | -0.2 | 0.1 | 1.0 | 0.7 | -0.1 | 0.0 | 0.1 |
| Finland | -0.2 | -0.9 | -0.9 | -0.4 | -0.8 | 0.6 | 2.8 | 5.3 | 3.6 | -4.2 | -8.2 | -10.2 | -7.6 | -5.6 | -4.2 | -1.2 | 0.3 | -0.1 | 1.3 | 2.2 |
| Greece | -3.1 | -4.0 | -2.6 | -1.0 | -0.6 | -2.2 | 0.8 | 2.7 | 0.5 | 1.5 | 0.4 | -2.4 | -2.5 | -2.4 | -2.1 | -1.4 | -0.9 | -0.7 | -0.2 | 0.3 |
| Ireland | 0.3 | -2.5 | -1.1 | -0.7 | -3.9 | -2.7 | -0.9 | 1.5 | 5.3 | 1.7 | -0.5 | -3.3 | -3.7 | -1.5 | -1.2 | 1.2 | 2.3 | 2.6 | 4.0 | 4.1 |
| Netherlands | -3.4 | -2.8 | -1.0 | 0.4 | 0.5 | -0.7 | -1.1 | 0.5 | 1.8 | 1.2 | 0.6 | -1.2 | -0.5 | -0.7 | -0.5 | 0.1 | 0.5 | 0.9 | 2.1 | 2.9 |
| New Zealand | -1.1 | -2.9 | 1.7 | 1.3 | 1.4 | 0.8 | -0.7 | -0.9 | -2.5 | -5.1 | -5.5 | -2.8 | 0.0 | 0.6 | 0.6 | 0.0 | -2.3 | -1.1 | 0.6 | 1.0 |
| Norway ^b | -0.8 | -1.9 | -1.0 | 2.3 | 2.7 | 2.0 | -1.0 | -4.3 | -4.6 | -4.6 | -4.2 | -3.0 | -1.3 | -1.0 | 0.2 | 1.6 | 2.5 | 1.4 | 0.8 | 1.1 |
| Portugal | 2.2 | -0.4 | -4.7 | -4.7 | -3.7 | -0.9 | 0.6 | 2.3 | 3.5 | 2.8 | 2.5 | -1.3 | -1.7 | -1.7 | -1.4 | -0.8 | -0.1 | -0.3 | 0.1 | 0.3 |
| Spain | -4.6 | -3.2 | -2.5 | -1.4 | -1.0 | 1.6 | 3.5 | 4.3 | 4.7 | 3.9 | 1.8 | -1.7 | -1.8 | -1.9 | -2.4 | -1.5 | -0.7 | -0.2 | 0.7 | 1.5 |
| Sweden | .. | -3.3 | -0.6 | -0.2 | 0.7 | 2.3 | 2.5 | 3.4 | 3.0 | 0.0 | -3.0 | -6.4 | -3.9 | -1.8 | -2.3 | -2.3 | -1.6 | -0.3 | 1.4 | 1.7 |
| Switzerland | 0.7 | -0.5 | 0.6 | 1.9 | 1.2 | -0.6 | -0.1 | 1.7 | 3.1 | 0.7 | -0.7 | -2.2 | -2.6 | -2.8 | -3.2 | -2.4 | -1.9 | -1.9 | -0.8 | 0.0 |
| Total of above smaller countries | -2.1 | -2.6 | -1.4 | -0.3 | -0.4 | 0.3 | 1.2 | 2.2 | 2.2 | 0.7 | -0.5 | -2.5 | -1.7 | -1.3 | -1.4 | -0.7 | -0.1 | 0.1 | 0.8 | 1.3 |
| Total of above OECD countries | -3.4 | -3.2 | -1.3 | -0.8 | -0.8 | -0.3 | 1.2 | 1.9 | 1.8 | -0.1 | -0.7 | -1.8 | -1.1 | -1.1 | -0.6 | -0.1 | -0.3 | -0.2 | 0.8 | 0.9 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | -2.2 | -2.4 | -2.1 | -1.5 | -0.9 | -0.3 | 1.2 | 2.1 | 2.3 | 1.0 | -0.2 | -2.4 | -1.5 | -1.1 | -1.5 | -1.1 | -0.7 | -0.8 | 0.1 | 0.8 |
| Total of above Euro area countries | -1.5 | -2.0 | -1.8 | -1.5 | -1.2 | -0.9 | 0.4 | 1.6 | 2.3 | 1.3 | 0.5 | -2.1 | -1.6 | -1.2 | -1.8 | -1.6 | -1.0 | -1.1 | -0.1 | 0.8 |

a) For further details, see *Giorno et al.*, "Potential output, output gaps and structural budget balances", *OECD Economic Studies*, N^o. 24, 1995/I.

b) Mainland Norway.

Source: OECD.

Annex Table 12. Compensation per employee in the business sector

Percentage change from previous period

| | Average 1972-82 ^a | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | |
|----------------------------------------------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|
| United States | 8.3 | 5.1 | 5.0 | 4.0 | 3.9 | 4.5 | 4.8 | 3.2 | 4.9 | 3.9 | 5.7 | 2.8 | 2.3 | 1.9 | 2.5 | 4.0 | 4.9 | 4.4 | 4.4 | 4.8 |
| Japan | 11.0 | 2.5 | 4.2 | 3.4 | 2.4 | 2.5 | 3.0 | 3.8 | 5.1 | 4.3 | 0.9 | 0.6 | 2.0 | 0.8 | 0.6 | 0.9 | -1.0 | -0.3 | 0.2 | 0.4 |
| Germany | 7.3 | 3.9 | 3.8 | 3.1 | 3.7 | 3.3 | 3.2 | 3.0 | 4.2 | 4.8 | 10.5 | 3.9 | 3.2 | 3.7 | 2.0 | 1.4 | 1.3 | 1.8 | 1.8 | 2.3 |
| France | 14.2 | 10.2 | 8.2 | 6.8 | 4.1 | 4.7 | 4.2 | 4.0 | 3.6 | 4.5 | 4.0 | 2.1 | 1.3 | 1.3 | 2.0 | 1.9 | 1.8 | 1.8 | 1.7 | 2.2 |
| Italy | 20.2 | 15.7 | 11.8 | 10.4 | 7.2 | 7.6 | 7.5 | 8.2 | 8.1 | 8.9 | 6.3 | 5.3 | 3.0 | 4.9 | 4.9 | 3.4 | -1.2 | 2.2 | 2.7 | 2.9 |
| United Kingdom | 16.0 | 8.7 | 6.9 | 8.6 | 8.8 | 6.3 | 7.6 | 9.7 | 10.2 | 8.5 | 4.6 | 1.8 | 3.5 | 2.7 | 3.8 | 6.0 | 6.9 | 5.4 | 5.8 | 5.8 |
| Canada | 10.1 | 5.1 | 4.8 | 5.5 | 2.9 | 6.9 | 7.1 | 4.9 | 5.0 | 4.9 | 3.2 | 2.3 | 0.5 | 2.3 | 2.7 | 6.1 | 2.4 | 2.2 | 3.0 | 3.3 |
| Total of major countries | 10.6 | 5.9 | 5.6 | 4.9 | 4.1 | 4.5 | 4.7 | 4.2 | 5.4 | 4.8 | 5.1 | 2.6 | 2.3 | 2.2 | 2.3 | 3.2 | 2.8 | 2.9 | 3.1 | 3.4 |
| Australia | 10.2 | 4.8 | 9.9 | 5.0 | 6.6 | 5.2 | 6.3 | 7.4 | 8.3 | 2.9 | 3.4 | 3.4 | 1.8 | 3.4 | 5.6 | 3.3 | 2.6 | 2.5 | 4.0 | 3.8 |
| Austria | 9.4 | 5.0 | 5.6 | 5.5 | 5.7 | 4.1 | 4.3 | 4.8 | 5.6 | 5.7 | 4.2 | 3.7 | 3.2 | 3.6 | 0.8 | 2.2 | 3.1 | 2.1 | 1.8 | 2.5 |
| Belgium | .. | 7.0 | 6.4 | 7.0 | 4.4 | 2.5 | 2.8 | 3.0 | 8.1 | 6.9 | 5.6 | 2.9 | 3.2 | 1.8 | 1.1 | 2.8 | 1.8 | 2.4 | 2.4 | 2.7 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 17.3 | 17.6 | 17.7 | 10.6 | 9.6 | 7.2 | 5.3 | 6.4 |
| Denmark | 12.1 | 9.0 | 6.1 | 4.9 | 5.1 | 7.3 | 11.4 | 4.6 | 4.1 | 4.0 | 4.4 | 2.5 | 3.2 | 3.4 | 2.3 | 3.8 | 4.8 | 4.2 | 3.9 | 3.4 |
| Finland | 15.5 | 9.2 | 10.1 | 10.4 | 7.6 | 8.0 | 9.9 | 10.5 | 9.3 | 4.9 | 1.8 | 1.3 | 4.6 | 4.1 | 2.1 | 2.8 | 5.2 | 2.6 | 4.1 | 4.9 |
| Greece | .. | 21.9 | 18.6 | 21.9 | 12.9 | 10.7 | 17.4 | 22.5 | 16.3 | 16.4 | 12.7 | 8.7 | 11.8 | 14.7 | 10.6 | 9.3 | 4.9 | 4.6 | 4.5 | 4.6 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 20.7 | 33.7 | 22.0 | 19.1 | 16.4 | 9.2 | 11.2 | 8.3 |
| Iceland | 50.9 | 54.1 | 30.2 | 42.2 | 29.2 | 43.6 | 26.3 | 13.3 | 16.7 | 30.6 | 1.8 | -3.0 | 3.9 | 9.3 | 4.4 | 2.6 | 6.3 | 6.2 | 6.6 | 6.8 |
| Ireland | 18.8 | 13.2 | 10.5 | 9.1 | 5.0 | 6.4 | 4.8 | 6.0 | 4.6 | 3.1 | 4.5 | 4.9 | 1.6 | 1.5 | 2.0 | 6.3 | 2.5 | 6.1 | 6.9 | 7.2 |
| Korea | 25.8 | 18.9 | 11.7 | 6.3 | 11.0 | 12.3 | 18.1 | 12.1 | 18.2 | 20.6 | 10.9 | 7.8 | 9.3 | 13.2 | 11.2 | 7.4 | -1.3 | 11.8 | 9.0 | 8.3 |
| Mexico | .. | .. | .. | .. | .. | .. | .. | 26.9 | 27.6 | 30.0 | 24.0 | 15.4 | 11.2 | 17.7 | 23.6 | 21.0 | 18.0 | 13.5 | 12.1 | 10.3 |
| Netherlands | 9.4 | 3.6 | 0.8 | 1.8 | 2.7 | 1.5 | 1.3 | 0.9 | 3.3 | 4.5 | 4.2 | 3.0 | 2.8 | 1.3 | 1.7 | 2.1 | 2.1 | 3.6 | 3.9 | 3.7 |
| New Zealand | 14.7 | 3.9 | 3.5 | 12.3 | 18.8 | 14.2 | 11.2 | 6.8 | 0.9 | 1.3 | 1.1 | 1.9 | 1.9 | 0.4 | 2.1 | 2.9 | 2.4 | 2.4 | 2.9 | 3.1 |
| Norway | 10.9 | 7.9 | 7.5 | 7.1 | 9.8 | 9.1 | 8.5 | 4.6 | 5.0 | 5.4 | 4.5 | 2.2 | 2.8 | 3.0 | 3.1 | 2.0 | 7.2 | 5.6 | 4.5 | 4.8 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 40.7 | 30.3 | 30.6 | 20.7 | 14.3 | 11.6 | 8.7 | 6.4 |
| Portugal | 24.1 | 19.5 | 20.6 | 19.3 | 18.9 | 13.6 | 9.4 | 12.9 | 17.3 | 18.4 | 16.1 | 6.7 | 5.9 | 6.4 | 5.5 | 5.0 | 4.5 | 4.3 | 4.8 | 5.0 |
| Spain | 20.3 | 16.2 | 11.1 | 8.0 | 8.2 | 1.0 | 5.1 | 6.0 | 9.6 | 10.8 | 10.6 | 9.5 | 2.9 | 2.3 | 3.9 | 2.7 | 2.3 | -0.5 | 3.5 | 3.7 |
| Sweden | 11.8 | 8.0 | 9.8 | 8.4 | 8.3 | 7.4 | 8.1 | 12.2 | 9.8 | 6.3 | 3.2 | 5.2 | 5.4 | 2.8 | 6.2 | 3.2 | 4.4 | 1.9 | 3.6 | 4.9 |
| Switzerland | 5.7 | 4.6 | 3.3 | 3.9 | 4.3 | 3.2 | 3.6 | 4.5 | 5.0 | 7.2 | 6.3 | 1.8 | 1.3 | 2.4 | 0.7 | 2.7 | 0.8 | 1.5 | 2.6 | 2.9 |
| Total of above smaller countries | 16.3 | 11.4 | 9.2 | 7.4 | 8.1 | 6.3 | 8.4 | 10.7 | 12.6 | 12.9 | 9.9 | 7.0 | 8.3 | 9.3 | 9.8 | 7.9 | 5.6 | 6.0 | 6.0 | 5.7 |
| Total of above OECD countries | 11.5 | 6.9 | 6.2 | 5.3 | 4.8 | 4.8 | 5.4 | 5.5 | 6.8 | 6.5 | 6.1 | 3.5 | 3.6 | 3.7 | 4.0 | 4.2 | 3.4 | 3.6 | 3.7 | 3.9 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| OECD less high inflation countries ^b | 11.5 | 6.8 | 6.2 | 5.2 | 4.8 | 4.7 | 5.3 | 4.7 | 6.1 | 5.6 | 5.4 | 3.0 | 2.7 | 2.7 | 2.8 | 3.4 | 2.7 | 3.1 | 3.4 | 3.7 |
| European Union ^c | 14.3 | 9.8 | 7.9 | 7.3 | 6.2 | 5.0 | 5.6 | 6.2 | 6.9 | 7.1 | 7.0 | 4.0 | 3.1 | 3.3 | 3.2 | 3.1 | 2.3 | 2.5 | 3.0 | 3.3 |
| Euro area ^c | 13.1 | 9.6 | 7.4 | 6.6 | 5.4 | 4.5 | 4.3 | 4.5 | 5.4 | 6.1 | 8.0 | 5.7 | 3.2 | 3.8 | 2.1 | 1.8 | 1.1 | 1.6 | 2.1 | 2.6 |

a) Average 1975-82 in the case of Korea.

b) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

c) Luxembourg excluded.

Source : OECD.

Annex Table 13. Unit labour costs in the total economy

Percentage change from previous period

| | Average 1972-82 ^a | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | |
|-------------------------------------------------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|
| <i>United States</i> | 7.7 | 1.7 | 3.0 | 3.5 | 2.5 | 3.7 | 3.6 | 2.4 | 4.5 | 3.6 | 2.4 | 1.9 | 1.2 | 1.9 | 1.0 | 2.0 | 2.7 | 2.2 | 1.6 | 2.9 |
| <i>Japan</i> | 8.9 | 2.8 | 1.6 | 0.3 | 1.4 | -0.6 | -0.5 | 2.2 | 3.2 | 3.8 | 2.5 | 2.0 | 1.8 | 0.2 | -2.9 | 0.5 | 1.5 | -1.3 | -1.6 | -1.5 |
| <i>Germany</i> | 5.5 | 0.3 | 0.8 | 1.8 | 2.8 | 2.7 | 0.2 | 0.8 | 2.0 | 2.8 | 6.1 | 3.5 | 0.2 | 1.9 | 0.5 | -1.1 | -0.6 | 0.7 | -0.6 | 0.0 |
| <i>France</i> | 12.3 | 8.8 | 5.6 | 4.7 | 2.7 | 1.7 | 1.5 | 1.9 | 4.1 | 3.4 | 2.3 | 2.5 | 0.2 | 1.6 | 1.6 | 0.9 | 0.6 | 0.9 | 0.8 | 1.7 |
| <i>Italy</i> | 17.2 | 13.5 | 8.6 | 8.4 | 5.4 | 5.3 | 5.6 | 6.5 | 9.7 | 7.9 | 4.3 | 3.2 | -0.1 | 1.0 | 5.2 | 2.9 | -2.1 | 2.4 | 1.0 | 1.0 |
| <i>United Kingdom</i> | 13.8 | 3.1 | 4.3 | 4.5 | 3.5 | 3.8 | 6.2 | 8.9 | 9.6 | 7.5 | 3.9 | 0.4 | -0.6 | 1.3 | 2.4 | 3.3 | 5.1 | 4.1 | 3.7 | 3.8 |
| <i>Canada</i> | 9.8 | 2.0 | 1.9 | 2.3 | 3.9 | 4.4 | 4.6 | 5.2 | 4.9 | 4.7 | 1.4 | -0.5 | -2.1 | 0.6 | 0.7 | 1.8 | 0.9 | 0.3 | 1.4 | 2.0 |
| <i>Total of major countries</i> | 9.2 | 3.2 | 3.1 | 3.2 | 2.7 | 2.8 | 2.7 | 3.0 | 4.7 | 4.2 | 3.0 | 2.0 | 0.8 | 1.4 | 0.7 | 1.5 | 1.7 | 1.4 | 0.8 | 1.6 |
| <i>Australia</i> | 12.0 | 3.1 | 4.5 | 3.5 | 7.9 | 3.1 | 5.6 | 8.4 | 7.5 | 1.9 | 0.4 | -0.5 | 1.9 | 2.7 | 2.6 | 1.1 | 0.5 | 1.2 | 2.3 | 2.4 |
| <i>Austria</i> | 7.5 | 1.0 | 5.2 | 3.7 | 3.7 | 2.4 | 1.2 | 2.1 | 3.2 | 4.9 | 5.2 | 3.6 | 1.4 | 1.8 | -1.0 | 0.3 | 1.3 | 1.7 | 0.7 | 1.1 |
| <i>Belgium</i> | .. | 3.9 | 3.9 | 3.7 | 2.6 | -0.2 | -0.5 | 1.4 | 5.6 | 5.3 | 3.5 | 4.0 | 0.6 | 0.5 | 0.5 | 0.4 | 1.1 | 1.0 | 0.3 | 1.2 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 15.7 | 10.4 | 13.0 | 9.1 | 8.6 | 5.1 | 2.0 | 3.1 |
| <i>Denmark</i> | 10.6 | 6.3 | 3.5 | 3.7 | 3.9 | 8.9 | 8.7 | 3.8 | 2.7 | 2.3 | 2.4 | 1.2 | -1.9 | 2.0 | 1.9 | 2.8 | 4.4 | 3.6 | 2.4 | 2.1 |
| <i>Finland</i> | 12.6 | 7.7 | 7.9 | 7.8 | 4.6 | 4.5 | 5.4 | 6.2 | 9.5 | 7.0 | -2.3 | -4.5 | -2.1 | 2.4 | 0.3 | -0.9 | 2.5 | 2.7 | 1.2 | 2.1 |
| <i>Greece</i> | 20.2 | 19.9 | 19.0 | 20.9 | 10.5 | 13.0 | 16.1 | 21.4 | 21.6 | 11.0 | 11.4 | 14.1 | 10.7 | 15.4 | 5.7 | 8.7 | 6.2 | 2.5 | 2.2 | 2.3 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 12.9 | 0.7 | 18.1 | 28.5 | 15.4 | 8.8 | 9.5 | 5.9 |
| <i>Ireland</i> | 15.8 | 9.6 | 4.0 | 4.0 | 7.3 | 0.5 | -0.9 | 0.9 | -0.3 | 4.3 | 3.9 | 5.0 | 0.6 | -1.6 | 0.5 | -0.3 | 5.1 | 3.0 | 2.2 | 3.7 |
| <i>Korea</i> | 21.1 | 8.2 | 5.3 | 4.2 | 2.9 | 7.6 | 10.1 | 11.9 | 14.1 | 13.5 | 6.5 | 4.2 | 4.6 | 6.6 | 6.2 | 3.0 | -1.9 | -0.3 | 3.6 | 3.8 |
| <i>Mexico</i> | .. | .. | .. | .. | .. | .. | .. | 25.5 | 28.1 | 28.9 | 21.9 | 15.7 | 10.1 | 21.3 | 21.4 | 17.0 | 15.1 | 11.8 | 8.9 | 7.9 |
| <i>Netherlands</i> | 7.1 | -0.7 | -2.8 | 0.4 | 1.6 | 1.9 | 0.0 | -1.7 | 1.7 | 3.7 | 3.7 | 2.1 | -1.2 | 1.0 | 0.8 | 1.1 | 1.9 | 2.8 | 2.0 | 1.8 |
| <i>New Zealand</i> | 15.0 | 2.5 | 0.2 | 14.7 | 18.5 | 13.4 | 6.4 | 2.6 | 2.2 | 0.8 | 0.5 | -1.1 | 0.1 | 2.6 | 2.8 | 2.1 | 1.7 | -0.6 | 0.7 | 1.6 |
| <i>Norway</i> | 8.6 | 4.7 | 3.1 | 5.4 | 9.0 | 10.3 | 6.5 | 0.2 | 1.6 | 1.5 | 0.6 | -0.9 | -0.4 | 2.0 | 2.4 | 3.2 | 7.3 | 5.4 | 1.3 | 2.1 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 28.7 | 28.5 | 23.0 | 16.1 | 10.7 | 5.8 | 3.8 | 1.7 |
| <i>Portugal</i> | 19.8 | 22.1 | 20.5 | 17.4 | 15.2 | 9.3 | 11.2 | 12.3 | 16.0 | 18.0 | 11.9 | 6.2 | 1.1 | 3.1 | 2.6 | 3.1 | 6.1 | 4.1 | 3.0 | 3.2 |
| <i>Spain</i> | 16.4 | 11.1 | 5.5 | 5.1 | 9.2 | 6.0 | 6.3 | 7.7 | 10.5 | 9.3 | 7.3 | 5.0 | 0.1 | 2.3 | 3.2 | 2.3 | 3.1 | 3.0 | 3.1 | 2.6 |
| <i>Sweden</i> | 10.5 | 6.6 | 4.8 | 6.9 | 6.9 | 5.1 | 7.3 | 9.9 | 10.8 | 6.3 | 0.4 | 0.6 | -0.2 | 0.7 | 4.9 | 0.7 | 1.7 | 1.2 | 1.0 | 2.9 |
| <i>Switzerland</i> | 5.2 | 4.1 | 1.1 | 2.5 | 4.4 | 4.1 | 2.7 | 2.5 | 4.9 | 8.2 | 3.5 | 1.4 | 0.5 | 1.9 | 0.1 | 0.3 | -0.3 | 0.1 | 0.6 | 1.4 |
| <i>Total of above smaller countries</i> | 14.0 | 7.1 | 5.1 | 5.4 | 6.2 | 5.4 | 6.0 | 9.7 | 11.7 | 10.9 | 7.3 | 5.1 | 4.9 | 7.4 | 7.2 | 5.6 | 4.6 | 3.7 | 3.4 | 3.3 |
| <i>Total of above OECD countries</i> | 10.0 | 3.9 | 3.5 | 3.6 | 3.3 | 3.3 | 3.3 | 4.4 | 6.1 | 5.5 | 3.8 | 2.6 | 1.7 | 2.7 | 2.1 | 2.4 | 2.4 | 1.9 | 1.4 | 2.0 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| <i>OECD less high inflation countries^b</i> | 10.0 | 3.8 | 3.4 | 3.5 | 3.2 | 3.2 | 3.2 | 3.6 | 5.3 | 4.7 | 3.2 | 2.1 | 0.9 | 1.7 | 1.1 | 1.6 | 1.8 | 1.4 | 1.1 | 1.8 |
| <i>European Union^c</i> | 12.1 | 6.6 | 4.9 | 5.0 | 4.4 | 3.8 | 3.7 | 4.7 | 6.6 | 5.8 | 4.6 | 2.9 | 0.1 | 1.8 | 2.2 | 1.4 | 1.2 | 2.0 | 1.3 | 1.7 |
| <i>Euro area^c</i> | 10.7 | 6.5 | 4.1 | 4.4 | 4.1 | 3.2 | 2.2 | 2.8 | 5.2 | 5.0 | 4.9 | 4.4 | 0.3 | 2.2 | 1.4 | 0.4 | 0.3 | 1.5 | 0.6 | 1.1 |

a) Average 1975-82 in the case of Korea.

b) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

c) Luxembourg excluded.

Source : OECD.

Annex Table 14. **GDP deflators**
Percentage change from previous period

| | Average 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-------------------------------------------------|--------------------|------|------|------|------|-------|-------|------|------|------|------|------|-------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 7.6 | 4.0 | 3.7 | 3.2 | 2.2 | 3.0 | 3.4 | 3.8 | 3.9 | 3.6 | 2.4 | 2.4 | 2.1 | 2.2 | 1.9 | 1.9 | 1.2 | 1.5 | 2.1 | 2.3 |
| Japan | 7.3 | 1.8 | 2.6 | 2.1 | 1.7 | 0.1 | 0.7 | 2.0 | 2.3 | 2.7 | 1.7 | 0.6 | 0.2 | -0.6 | -1.4 | 0.3 | 0.3 | -0.9 | -0.8 | -0.1 |
| Germany | 4.8 | 3.2 | 2.1 | 2.1 | 3.2 | 1.9 | 1.5 | 2.4 | 3.2 | 3.9 | 5.0 | 3.7 | 2.5 | 2.0 | 1.0 | 0.8 | 1.0 | 1.0 | 0.6 | 1.4 |
| France | 10.8 | 9.3 | 7.2 | 5.5 | 5.1 | 2.9 | 3.2 | 3.3 | 2.9 | 3.0 | 2.0 | 2.4 | 1.8 | 1.7 | 1.4 | 1.2 | 0.8 | 0.3 | 1.0 | 1.6 |
| Italy | 17.4 | 15.1 | 11.5 | 8.9 | 7.9 | 6.2 | 6.8 | 6.5 | 8.2 | 7.6 | 4.5 | 3.9 | 3.5 | 5.0 | 5.3 | 2.4 | 2.7 | 1.5 | 2.2 | 2.2 |
| United Kingdom | 14.1 | 5.4 | 4.6 | 5.6 | 3.1 | 5.2 | 6.1 | 7.4 | 7.6 | 6.7 | 4.0 | 2.8 | 1.5 | 2.5 | 3.3 | 2.9 | 3.2 | 2.9 | 3.0 | 3.2 |
| Canada | 9.7 | 5.4 | 3.4 | 2.5 | 2.8 | 4.8 | 4.5 | 4.6 | 3.1 | 2.7 | 1.3 | 1.5 | 1.1 | 2.3 | 1.6 | 0.8 | -0.6 | 1.7 | 2.9 | 2.3 |
| Total of major countries | 8.8 | 4.9 | 4.2 | 3.6 | 2.9 | 2.8 | 3.2 | 3.8 | 4.0 | 3.9 | 2.8 | 2.3 | 1.8 | 1.9 | 1.5 | 1.5 | 1.1 | 1.0 | 1.4 | 1.8 |
| Australia | 11.6 | 8.3 | 6.1 | 5.8 | 6.2 | 7.7 | 8.6 | 7.0 | 4.8 | 2.4 | 1.4 | 1.5 | 1.0 | 1.5 | 2.0 | 1.4 | 0.4 | 1.0 | 2.8 | 2.8 |
| Austria | 6.4 | 3.7 | 4.6 | 3.1 | 2.7 | 2.1 | 1.6 | 2.7 | 3.4 | 3.7 | 4.3 | 2.8 | 2.8 | 2.3 | 1.3 | 1.6 | 0.6 | 0.6 | 1.4 | 1.8 |
| Belgium | 7.2 | 5.6 | 5.1 | 4.6 | 3.0 | 1.4 | 2.3 | 4.9 | 3.0 | 2.8 | 3.6 | 3.7 | 1.8 | 1.8 | 1.2 | 1.3 | 1.6 | 0.9 | 0.7 | 1.3 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 11.0 | 10.2 | 9.7 | 6.5 | 11.0 | 2.4 | 4.1 | 4.4 |
| Denmark | 10.1 | 7.6 | 5.7 | 4.3 | 4.6 | 4.7 | 3.4 | 5.2 | 3.6 | 2.8 | 2.9 | 1.4 | 1.7 | 1.8 | 2.5 | 1.6 | 2.1 | 2.6 | 2.7 | 2.5 |
| Finland | 12.0 | 8.6 | 8.9 | 5.3 | 4.6 | 4.7 | 7.0 | 6.1 | 5.4 | 1.8 | 0.9 | 2.3 | 2.0 | 4.1 | -0.2 | 2.1 | 2.9 | 1.0 | 2.4 | 2.6 |
| Greece | 17.5 | 19.1 | 20.3 | 17.7 | 17.5 | 14.2 | 15.5 | 14.5 | 20.6 | 19.8 | 14.9 | 14.4 | 11.2 | 9.8 | 7.4 | 6.7 | 4.9 | 2.5 | 2.2 | 2.7 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 19.5 | 25.6 | 21.2 | 18.5 | 12.6 | 9.0 | 7.4 | 5.2 |
| Iceland | 41.7 | 76.2 | 25.4 | 31.3 | 25.5 | 19.4 | 22.9 | 19.8 | 16.9 | 7.8 | 4.4 | 2.7 | 2.1 | 2.8 | 2.1 | 3.5 | 5.8 | 4.1 | 5.3 | 6.1 |
| Ireland | 14.7 | 10.7 | 6.4 | 5.2 | 6.6 | 2.2 | 3.2 | 5.5 | -0.7 | 1.8 | 2.8 | 5.2 | 1.7 | 2.7 | 2.3 | 3.5 | 5.7 | 4.0 | 4.5 | 4.3 |
| Korea | 20.1 | 5.2 | 5.5 | 4.6 | 4.6 | 5.0 | 6.7 | 5.3 | 11.1 | 10.9 | 7.7 | 7.0 | 7.6 | 7.1 | 3.9 | 3.1 | 5.3 | -1.6 | 0.6 | 2.7 |
| Luxembourg | 7.8 | 6.8 | 4.4 | 3.0 | 0.7 | 2.8 | 0.6 | 4.3 | 5.2 | 2.3 | 2.6 | 0.6 | 4.8 | 0.3 | 1.7 | 3.3 | 1.5 | 1.2 | 1.9 | 1.7 |
| Mexico | 24.7 | 91.0 | 58.8 | 56.5 | 73.4 | 141.3 | 101.5 | 26.5 | 28.1 | 23.3 | 14.4 | 9.5 | 8.5 | 38.0 | 30.6 | 17.7 | 15.5 | 15.9 | 10.2 | 8.5 |
| Netherlands | 6.9 | 2.1 | 1.4 | 1.8 | 0.1 | -0.7 | 1.2 | 1.2 | 2.3 | 2.7 | 2.3 | 1.9 | 2.3 | 1.8 | 1.2 | 2.0 | 1.9 | 1.3 | 2.7 | 3.0 |
| New Zealand | 13.4 | 4.5 | 6.1 | 15.4 | 15.3 | 13.1 | 8.1 | 6.7 | 3.8 | 1.0 | 1.7 | 2.7 | 1.5 | 2.7 | 1.8 | 0.0 | 1.7 | 0.0 | 2.7 | 2.3 |
| Norway | 9.3 | 7.0 | 6.3 | 5.2 | -0.9 | 6.9 | 5.0 | 5.7 | 3.8 | 2.5 | -0.4 | 2.2 | -0.2 | 3.1 | 4.3 | 3.0 | -0.8 | 6.5 | 12.2 | 0.9 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 36.7 | 27.9 | 18.7 | 14.0 | 11.7 | 6.9 | 9.6 | 6.5 |
| Portugal | 18.7 | 24.6 | 24.7 | 21.7 | 20.5 | 10.1 | 11.8 | 12.4 | 12.8 | 12.2 | 10.0 | 6.7 | 6.3 | 5.1 | 2.8 | 2.0 | 4.3 | 2.6 | 2.4 | 2.9 |
| Spain | 16.1 | 11.8 | 11.6 | 7.7 | 11.1 | 5.8 | 5.6 | 7.1 | 7.3 | 7.1 | 6.9 | 4.3 | 4.0 | 4.8 | 3.4 | 2.1 | 2.3 | 3.1 | 2.9 | 2.9 |
| Sweden | 10.1 | 10.2 | 7.1 | 6.6 | 6.7 | 4.9 | 7.0 | 7.7 | 8.6 | 7.6 | 1.3 | 2.7 | 2.4 | 3.5 | 1.4 | 1.2 | 1.3 | 0.5 | 1.0 | 2.3 |
| Switzerland | 4.5 | 2.7 | 3.5 | 2.4 | 3.1 | 2.7 | 2.8 | 3.1 | 4.3 | 6.0 | 2.7 | 2.7 | 1.6 | 1.1 | 0.4 | -0.1 | 0.2 | 0.7 | 1.4 | 1.7 |
| Turkey | 37.5 | 26.3 | 48.2 | 53.1 | 36.0 | 33.6 | 69.3 | 75.5 | 58.3 | 58.8 | 63.7 | 67.8 | 106.5 | 87.2 | 77.8 | 81.5 | 75.7 | 56.0 | 52.0 | 21.0 |
| Total of smaller countries | 16.9 | 21.5 | 18.2 | 17.2 | 18.4 | 26.8 | 24.5 | 14.4 | 14.0 | 13.0 | 10.9 | 10.0 | 14.0 | 16.1 | 13.0 | 10.9 | 10.3 | 7.5 | 7.4 | 4.9 |
| Total OECD | 10.5 | 8.4 | 7.2 | 6.5 | 6.3 | 8.0 | 7.8 | 6.1 | 6.2 | 5.8 | 4.5 | 4.0 | 4.6 | 5.2 | 4.2 | 3.7 | 3.3 | 2.5 | 2.8 | 2.5 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| OECD less high inflation countries ^a | 9.5 | 5.4 | 4.7 | 4.0 | 3.5 | 3.1 | 3.6 | 4.2 | 4.4 | 4.3 | 3.1 | 2.7 | 2.1 | 2.2 | 1.7 | 1.6 | 1.4 | 1.1 | 1.6 | 1.9 |
| European Union | 11.4 | 8.4 | 6.9 | 5.8 | 5.5 | 4.1 | 4.4 | 5.1 | 5.6 | 5.4 | 4.3 | 3.5 | 2.7 | 3.0 | 2.5 | 1.8 | 1.9 | 1.5 | 1.8 | 2.2 |
| Euro area | 9.9 | 8.1 | 6.4 | 5.1 | 5.3 | 3.3 | 3.6 | 4.1 | 4.6 | 4.7 | 4.2 | 3.4 | 2.7 | 2.8 | 2.0 | 1.5 | 1.6 | 1.2 | 1.5 | 1.9 |

a) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

Annex Table 15. Private consumption deflators
Percentage change from previous period

| | Average | | | | | | | | | | | | | | | | | | | Projections | |
|-------------------------------------------------------|---------|------|------|------|------|-------|-------|------|------|------|------|------|-------|------|------|------|------|------|------|-------------|-----|
| | 1972-82 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| <i>United States</i> | 7.7 | 4.3 | 3.7 | 3.5 | 2.4 | 3.8 | 3.9 | 4.4 | 4.6 | 3.8 | 3.1 | 2.4 | 2.0 | 2.3 | 2.1 | 2.0 | 0.9 | 1.6 | 2.4 | 2.2 | |
| <i>Japan</i> | 8.3 | 2.1 | 2.6 | 2.3 | 0.7 | 0.5 | 0.5 | 2.1 | 2.6 | 2.5 | 1.9 | 1.2 | 0.7 | -0.5 | 0.1 | 1.7 | 0.2 | -0.5 | -0.3 | 0.0 | |
| <i>Germany</i> | 5.1 | 3.2 | 2.5 | 1.8 | -0.6 | 0.5 | 1.3 | 2.9 | 2.7 | 3.7 | 4.4 | 3.8 | 2.6 | 1.9 | 1.9 | 1.7 | 0.9 | 0.8 | 1.5 | 1.5 | |
| <i>France</i> | 11.2 | 9.7 | 8.0 | 6.0 | 2.8 | 3.4 | 2.9 | 3.8 | 3.1 | 3.5 | 2.5 | 2.5 | 2.2 | 2.0 | 1.9 | 1.4 | 0.7 | 0.7 | 1.3 | 1.5 | |
| <i>Italy</i> | 17.0 | 14.9 | 11.6 | 9.1 | 6.4 | 5.2 | 5.9 | 6.7 | 6.4 | 7.0 | 5.5 | 5.5 | 4.9 | 6.0 | 4.4 | 2.2 | 2.1 | 2.2 | 2.6 | 2.3 | |
| <i>United Kingdom</i> | 13.7 | 5.1 | 5.1 | 5.2 | 4.0 | 4.2 | 5.0 | 6.2 | 7.7 | 7.9 | 4.7 | 3.5 | 2.2 | 2.9 | 3.1 | 2.5 | 2.5 | 2.4 | 2.5 | 2.8 | |
| <i>Canada</i> | 9.3 | 6.7 | 4.3 | 3.8 | 4.1 | 3.9 | 3.9 | 4.3 | 4.1 | 4.8 | 1.5 | 2.3 | 0.9 | 1.2 | 1.6 | 1.8 | 1.0 | 1.2 | 2.2 | 2.1 | |
| <i>Total of major countries</i> | 9.0 | 5.1 | 4.4 | 3.8 | 2.3 | 3.0 | 3.2 | 4.1 | 4.3 | 4.1 | 3.2 | 2.6 | 2.1 | 2.0 | 1.9 | 1.9 | 1.0 | 1.1 | 1.8 | 1.7 | |
| <i>Australia</i> | 11.3 | 9.2 | 6.4 | 6.8 | 7.7 | 8.5 | 7.6 | 5.5 | 6.3 | 4.3 | 2.3 | 2.4 | 0.9 | 1.9 | 1.7 | 1.4 | 1.3 | 1.1 | 4.0 | 3.5 | |
| <i>Austria</i> | 6.4 | 3.9 | 5.3 | 3.3 | 1.7 | 0.7 | 1.6 | 2.7 | 3.5 | 3.0 | 3.9 | 3.3 | 3.3 | 1.5 | 2.3 | 1.8 | 0.7 | 0.7 | 1.6 | 1.7 | |
| <i>Belgium</i> | 7.7 | 6.8 | 5.3 | 5.7 | -0.1 | 2.1 | 1.0 | 3.9 | 2.8 | 2.6 | 1.9 | 2.7 | 2.5 | 1.7 | 2.1 | 1.5 | 0.8 | 1.1 | 1.9 | 1.7 | |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 10.7 | 9.2 | 8.1 | 7.7 | 9.7 | 2.1 | 3.9 | 4.6 |
| <i>Denmark</i> | 11.0 | 6.8 | 6.4 | 4.3 | 2.9 | 4.6 | 4.0 | 4.7 | 2.9 | 2.8 | 1.9 | 2.0 | 3.0 | 1.9 | 2.1 | 2.0 | 1.8 | 2.5 | 2.8 | 2.5 | |
| <i>Finland</i> | 12.1 | 8.1 | 7.0 | 5.6 | 3.1 | 3.6 | 4.6 | 5.3 | 5.5 | 5.9 | 4.1 | 3.9 | 0.9 | 0.4 | 1.4 | 1.3 | 2.1 | 2.1 | 2.6 | 2.5 | |
| <i>Greece</i> | 17.0 | 18.1 | 17.9 | 18.3 | 22.1 | 15.7 | 14.2 | 13.6 | 19.9 | 19.7 | 15.7 | 14.2 | 11.0 | 8.9 | 8.2 | 5.6 | 4.7 | 2.6 | 2.7 | 2.6 | |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 19.4 | 27.7 | 23.4 | 18.0 | 13.3 | 9.9 | 8.5 | 6.0 |
| <i>Iceland</i> | 42.1 | 82.1 | 31.4 | 32.6 | 20.1 | 15.8 | 25.6 | 23.2 | 16.7 | 6.9 | 4.7 | 4.6 | 1.6 | 1.8 | 2.3 | 1.8 | 1.7 | 3.3 | 5.5 | 5.9 | |
| <i>Ireland</i> | 15.5 | 9.2 | 7.4 | 5.0 | 4.6 | 2.4 | 3.8 | 4.1 | 2.1 | 2.7 | 3.0 | 2.2 | 2.8 | 2.8 | 2.6 | 2.5 | 3.7 | 3.8 | 4.2 | 3.8 | |
| <i>Korea</i> | 20.0 | 2.8 | 3.6 | 3.9 | 1.7 | 3.3 | 5.6 | 5.4 | 9.4 | 12.1 | 8.9 | 8.0 | 9.7 | 7.0 | 5.7 | 5.5 | 8.6 | 0.5 | 2.9 | 2.8 | |
| <i>Luxembourg</i> | 7.5 | 8.3 | 6.5 | 4.3 | -2.4 | 1.0 | 0.7 | 2.0 | 1.6 | 2.9 | 2.6 | 2.5 | 3.6 | 1.1 | 1.7 | 1.7 | 1.7 | 1.0 | 2.0 | 1.8 | |
| <i>Mexico</i> | 23.3 | 90.5 | 65.5 | 59.2 | 82.0 | 122.4 | 110.2 | 25.0 | 27.9 | 24.4 | 15.4 | 10.1 | 7.6 | 34.1 | 30.4 | 16.5 | 20.5 | 16.4 | 10.0 | 8.6 | |
| <i>Netherlands</i> | 7.1 | 2.9 | 1.9 | 2.4 | 0.3 | 0.2 | 0.5 | 1.2 | 2.2 | 3.2 | 3.1 | 2.1 | 2.8 | 1.6 | 1.9 | 2.1 | 1.8 | 1.9 | 2.6 | 3.4 | |
| <i>New Zealand</i> | 13.4 | 7.5 | 7.2 | 17.3 | 12.8 | 12.9 | 6.6 | 6.8 | 6.1 | 2.9 | 1.4 | 1.8 | 1.7 | 2.5 | 2.0 | 1.0 | 1.9 | 1.2 | 2.3 | 2.3 | |
| <i>Norway</i> | 9.3 | 8.4 | 6.3 | 5.9 | 6.7 | 7.8 | 6.1 | 4.8 | 4.7 | 3.8 | 2.7 | 2.0 | 1.2 | 2.4 | 1.5 | 2.5 | 2.7 | 2.2 | 2.7 | 2.6 | |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 36.5 | 28.0 | 19.8 | 14.7 | 11.5 | 7.3 | 9.6 | 6.5 |
| <i>Portugal</i> | 20.3 | 25.8 | 28.5 | 19.4 | 13.8 | 9.9 | 11.7 | 13.1 | 12.4 | 12.2 | 9.7 | 6.6 | 5.6 | 4.5 | 3.6 | 2.0 | 2.8 | 2.3 | 2.5 | 2.6 | |
| <i>Spain</i> | 16.5 | 12.5 | 11.9 | 7.1 | 9.4 | 5.7 | 5.0 | 6.6 | 6.5 | 6.4 | 6.4 | 5.6 | 4.9 | 4.7 | 3.5 | 2.5 | 2.0 | 2.8 | 3.1 | 2.8 | |
| <i>Sweden</i> | 10.7 | 10.9 | 7.7 | 7.0 | 5.2 | 5.6 | 6.1 | 7.0 | 9.9 | 10.3 | 2.2 | 5.7 | 2.8 | 2.9 | 1.4 | 2.2 | 1.0 | 0.7 | 1.1 | 2.2 | |
| <i>Switzerland</i> | 4.8 | 3.2 | 3.0 | 3.3 | 1.3 | 1.5 | 1.9 | 2.9 | 5.2 | 6.0 | 4.2 | 3.4 | 1.1 | 1.7 | 1.1 | 0.6 | -0.3 | 0.4 | 1.6 | 1.8 | |
| <i>Turkey</i> | 37.5 | 25.8 | 49.0 | 50.9 | 30.4 | 48.8 | 58.9 | 83.7 | 59.8 | 60.7 | 65.6 | 65.9 | 108.9 | 92.4 | 67.8 | 82.1 | 83.0 | 60.7 | 53.8 | 20.2 | |
| <i>Total of smaller countries</i> | 16.8 | 21.4 | 19.1 | 17.5 | 18.3 | 25.1 | 24.3 | 14.5 | 14.0 | 13.8 | 11.5 | 10.5 | 14.5 | 15.9 | 12.7 | 11.2 | 11.8 | 8.2 | 7.8 | 5.0 | |
| <i>Total OECD</i> | 10.7 | 8.6 | 7.6 | 6.8 | 5.8 | 7.8 | 7.7 | 6.3 | 6.4 | 6.2 | 5.0 | 4.3 | 4.9 | 5.2 | 4.4 | 4.1 | 3.5 | 2.8 | 3.2 | 2.5 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| <i>OECD less high inflation countries^a</i> | 9.7 | 5.6 | 4.9 | 4.2 | 2.7 | 3.2 | 3.5 | 4.3 | 4.6 | 4.6 | 3.5 | 3.1 | 2.5 | 2.3 | 2.1 | 2.1 | 1.4 | 1.2 | 1.9 | 1.9 | |
| <i>European Union</i> | 11.5 | 8.5 | 7.3 | 5.8 | 3.8 | 3.5 | 3.9 | 5.0 | 5.2 | 5.6 | 4.5 | 4.1 | 3.3 | 3.1 | 2.8 | 2.0 | 1.6 | 1.6 | 2.1 | 2.1 | |
| <i>Euro area</i> | 10.3 | 8.5 | 7.0 | 5.3 | 3.0 | 2.9 | 3.2 | 4.4 | 4.2 | 4.7 | 4.3 | 4.0 | 3.2 | 2.9 | 2.5 | 1.8 | 1.3 | 1.4 | 2.0 | 2.0 | |

a) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

Annex Table 16. **Consumer prices^a**
Percentage change from previous period

| | Average 1970-80 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|-------------------------------------------------|--------------------|------|------|-------|------|------|------|-------|-------|------|------|------|------|------|-------|------|------|------|------|------|
| United States | 7.8 | 10.3 | 6.1 | 3.2 | 4.3 | 3.5 | 1.9 | 3.7 | 4.1 | 4.8 | 5.4 | 4.2 | 3.0 | 3.0 | 2.6 | 2.8 | 2.9 | 2.3 | 1.6 | 2.2 |
| Japan | 9.0 | 4.9 | 2.7 | 1.9 | 2.3 | 2.0 | 0.6 | 0.1 | 0.7 | 2.3 | 3.1 | 3.3 | 1.7 | 1.2 | 0.7 | -0.1 | 0.1 | 1.7 | 0.6 | -0.3 |
| Germany | 5.1 | 6.3 | 5.2 | 3.3 | 2.4 | 2.1 | -0.1 | 0.2 | 1.3 | 2.8 | 2.7 | 3.6 | 5.1 | 4.4 | 2.8 | 1.7 | 1.4 | 1.9 | 0.9 | 0.6 |
| France | 9.6 | 13.3 | 12.0 | 9.5 | 7.7 | 5.8 | 2.5 | 3.3 | 2.7 | 3.5 | 3.6 | 3.2 | 2.4 | 2.1 | 1.7 | 1.8 | 2.0 | 1.2 | 0.8 | 0.5 |
| Italy ^b | 13.8 | 18.0 | 16.5 | 14.6 | 10.8 | 9.2 | 5.8 | 4.7 | 5.1 | 6.3 | 6.5 | 6.3 | 5.3 | 4.6 | 4.1 | 5.2 | 4.0 | 2.0 | 2.0 | 1.7 |
| United Kingdom | 13.7 | 11.9 | 8.6 | 4.6 | 5.0 | 6.1 | 3.4 | 4.1 | 4.9 | 7.8 | 9.5 | 5.9 | 3.7 | 1.6 | 2.5 | 3.4 | 2.4 | 3.1 | 3.4 | 1.6 |
| Canada | 8.0 | 12.4 | 10.8 | 5.9 | 4.3 | 4.0 | 4.2 | 4.3 | 4.0 | 5.0 | 4.8 | 5.6 | 1.5 | 1.9 | 0.2 | 2.2 | 1.6 | 1.6 | 1.0 | 1.7 |
| Total of major countries | 8.7 | 10.0 | 7.0 | 4.4 | 4.5 | 3.9 | 2.0 | 2.9 | 3.3 | 4.4 | 5.0 | 4.3 | 3.1 | 2.7 | 2.3 | 2.4 | 2.3 | 2.1 | 1.4 | 1.4 |
| Australia | 10.4 | 9.6 | 11.2 | 10.1 | 3.9 | 6.7 | 9.1 | 8.5 | 7.3 | 7.5 | 7.3 | 3.2 | 1.0 | 1.8 | 1.9 | 4.6 | 2.6 | 0.3 | 0.9 | 1.5 |
| Austria | 6.2 | 6.8 | 5.4 | 3.3 | 5.7 | 3.2 | 1.7 | 1.5 | 1.9 | 2.6 | 3.3 | 3.3 | 4.0 | 3.6 | 3.0 | 2.2 | 1.5 | 1.3 | 0.9 | 0.6 |
| Belgium | 7.4 | 7.6 | 8.7 | 7.7 | 6.3 | 4.9 | 1.3 | 1.6 | 1.2 | 3.1 | 3.4 | 3.2 | 2.4 | 2.8 | 2.4 | 1.5 | 2.1 | 1.6 | 1.0 | 1.1 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 10.0 | 9.1 | 8.8 | 8.5 | 10.7 | 2.1 |
| Denmark | 9.8 | 11.8 | 10.1 | 6.9 | 6.3 | 4.7 | 3.7 | 4.0 | 4.5 | 4.8 | 2.6 | 2.4 | 2.1 | 1.3 | 2.0 | 2.1 | 2.1 | 2.2 | 1.8 | 2.5 |
| Finland | 11.1 | 11.3 | 9.6 | 8.4 | 7.1 | 5.2 | 2.9 | 4.1 | 5.1 | 6.6 | 6.1 | 4.3 | 2.9 | 2.2 | 1.1 | 0.8 | 0.6 | 1.2 | 1.4 | 1.2 |
| Greece | 14.3 | 24.5 | 21.0 | 20.2 | 18.5 | 19.3 | 23.0 | 16.4 | 13.5 | 13.7 | 20.4 | 19.5 | 15.9 | 14.4 | 10.7 | 8.9 | 8.2 | 5.5 | 4.8 | 2.6 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.9 | 28.3 | 23.5 | 18.3 | 14.2 | 10.0 |
| Iceland ^c | 32.8 | 50.6 | 50.0 | 85.2 | 28.9 | 32.5 | 21.2 | 17.8 | 25.7 | 20.8 | 15.9 | 6.8 | 3.7 | 4.1 | 1.5 | 1.7 | 2.3 | 1.8 | 1.7 | 3.4 |
| Ireland | 13.6 | 20.4 | 17.1 | 10.5 | 8.6 | 5.5 | 3.8 | 3.1 | 2.1 | 4.1 | 3.3 | 3.2 | 3.1 | 1.4 | 2.3 | 2.5 | 1.7 | 1.4 | 2.4 | 1.6 |
| Korea | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.6 | 9.3 | 6.2 | 4.8 | 6.3 | 4.5 | 4.9 | 4.4 | 7.5 | 0.8 |
| Luxembourg | 6.6 | 8.1 | 9.4 | 8.7 | 6.4 | 4.1 | 0.3 | -0.1 | 1.4 | 3.4 | 3.3 | 3.1 | 3.2 | 3.6 | 2.2 | 1.9 | 1.3 | 1.4 | 1.0 | 1.0 |
| Mexico | 16.5 | 28.0 | 59.0 | 102.3 | 65.3 | 57.8 | 86.2 | 131.8 | 114.2 | 20.0 | 26.7 | 22.7 | 15.5 | 9.8 | 7.0 | 35.0 | 34.4 | 20.6 | 15.9 | 16.6 |
| Netherlands | 7.3 | 6.7 | 5.9 | 2.7 | 3.3 | 2.3 | 0.1 | -0.7 | 0.7 | 1.1 | 2.5 | 3.2 | 3.2 | 2.6 | 2.8 | 1.9 | 2.0 | 2.2 | 2.0 | 2.2 |
| New Zealand | 12.5 | 15.4 | 16.2 | 7.3 | 6.2 | 15.4 | 13.2 | 15.7 | 6.4 | 5.7 | 6.1 | 2.6 | 1.0 | 1.3 | 1.7 | 3.8 | 2.3 | 1.2 | 1.3 | -0.1 |
| Norway | 8.4 | 13.7 | 11.3 | 8.4 | 6.3 | 5.7 | 7.2 | 8.7 | 6.7 | 4.5 | 4.1 | 3.4 | 2.3 | 2.3 | 1.4 | 2.4 | 1.2 | 2.6 | 2.3 | 2.3 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 32.2 | 27.8 | 19.9 | 14.9 | 11.6 | 7.3 |
| Portugal | 19.1 | 20.0 | 22.7 | 25.1 | 28.9 | 19.6 | 11.8 | 9.4 | 9.7 | 12.6 | 13.4 | 10.5 | 9.4 | 6.7 | 5.4 | 4.2 | 3.1 | 2.3 | 2.8 | 2.3 |
| Spain | 15.3 | 14.5 | 14.4 | 12.2 | 11.3 | 8.8 | 8.8 | 5.2 | 4.8 | 6.8 | 6.7 | 5.9 | 5.9 | 4.6 | 4.7 | 4.7 | 3.6 | 2.0 | 1.8 | 2.3 |
| Sweden | 9.2 | 12.1 | 8.6 | 8.9 | 8.0 | 7.4 | 4.2 | 4.2 | 6.1 | 6.6 | 10.4 | 9.7 | 2.6 | 4.7 | 2.4 | 2.9 | 0.8 | 0.9 | 0.4 | 0.3 |
| Switzerland | 5.0 | 6.5 | 5.7 | 2.9 | 2.9 | 3.4 | 0.8 | 1.4 | 1.9 | 3.2 | 5.4 | 5.9 | 4.0 | 3.3 | 0.9 | 1.8 | 0.8 | 0.5 | 0.0 | 0.8 |
| Turkey ^d | 33.4 | 37.6 | 29.1 | 31.4 | 48.4 | 45.0 | 34.6 | 38.9 | 68.8 | 63.3 | 60.3 | 66.0 | 70.1 | 66.1 | 105.2 | 89.1 | 80.4 | 85.7 | 84.6 | 64.9 |
| Total of smaller countries | 14.5 | 17.5 | 22.4 | 29.7 | 23.6 | 21.1 | 24.5 | 33.1 | 33.0 | 14.9 | 15.2 | 14.6 | 12.7 | 10.9 | 15.3 | 17.9 | 16.0 | 13.6 | 12.9 | 10.0 |
| Total OECD | 9.7 | 11.3 | 9.6 | 8.7 | 7.8 | 6.8 | 5.8 | 8.0 | 8.4 | 6.2 | 6.9 | 6.2 | 5.0 | 4.3 | 5.0 | 5.6 | 5.1 | 4.5 | 3.8 | 3.2 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| OECD less high inflation countries ^a | 8.9 | 10.2 | 7.5 | 5.0 | 4.9 | 4.3 | 2.4 | 3.1 | 3.4 | 4.6 | 5.2 | 4.5 | 3.3 | 2.9 | 2.5 | 2.6 | 2.4 | 2.1 | 1.6 | 1.4 |
| European Union | 10.4 | 11.8 | 10.3 | 8.0 | 6.9 | 5.8 | 3.2 | 3.0 | 3.4 | 4.9 | 5.4 | 4.8 | 4.3 | 3.4 | 2.9 | 2.9 | 2.4 | 2.0 | 1.7 | 1.2 |

a) Aggregates were computed using weights based on 1997 consumer expenditure expressed in private consumption purchasing power parities.

b) Index for households of wage and salary earners.

c) Excluding rent, but including imputed rent.

d) Until 1981: Istanbul index (154 items); from 1982, Turkish index.

e) High inflation countries are defined as countries which have had 10 per cent or more inflation in terms of GDP deflator on average during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

Annex Table 17. Oil and other primary commodity markets

| | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections 2000 2001 | |
|----------------------------------------------------------------------------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|------|
| Oil market conditions^a (in million barrels per day) | | | | | | | | | | | | | | | | | | |
| Demand | | | | | | | | | | | | | | | | | | |
| OECD ^b | 38.0 | 37.7 | 38.6 | 39.4 | 40.7 | 41.3 | 41.6 | 41.9 | 42.8 | 43.2 | 44.4 | 44.9 | 45.9 | 46.7 | 46.8 | 47.5 | 48.2 | .. |
| of which: Canada and United States | 19.3 | 19.3 | 19.6 | 20.1 | 20.8 | 21.0 | 20.7 | 20.4 | 20.8 | 21.1 | 21.7 | 21.6 | 22.2 | 22.7 | 23.1 | 23.8 | 24.1 | .. |
| Europe ^c | 12.8 | 12.7 | 13.2 | 13.3 | 13.5 | 13.5 | 13.7 | 14.0 | 14.2 | 14.2 | 14.3 | 14.6 | 14.9 | 15.0 | 15.3 | 15.1 | 15.3 | .. |
| Pacific | 5.9 | 5.7 | 5.8 | 6.0 | 6.4 | 6.8 | 7.2 | 7.5 | 7.8 | 8.0 | 8.4 | 8.7 | 8.8 | 9.0 | 8.4 | 8.6 | 8.8 | .. |
| Non-OECD ^d | 22.0 | 22.4 | 23.2 | 23.9 | 24.4 | 24.8 | 24.9 | 25.0 | 24.6 | 24.5 | 24.2 | 25.1 | 25.9 | 27.1 | 27.1 | 27.5 | 28.3 | .. |
| Total | 60.0 | 60.2 | 61.9 | 63.3 | 65.14 | 66.1 | 66.5 | 66.9 | 67.4 | 67.7 | 68.6 | 70.0 | 71.8 | 73.8 | 73.9 | 75.0 | 76.5 | .. |
| Supply | | | | | | | | | | | | | | | | | | |
| OECD ^b | 19.8 | 20.1 | 19.7 | 19.8 | 19.6 | 18.9 | 19.0 | 19.5 | 19.8 | 20.0 | 20.8 | 21.1 | 21.7 | 22.1 | 21.9 | 21.4 | 22.2 | .. |
| OPEC total | 18.8 | 17.6 | 19.9 | 19.7 | 21.8 | 23.8 | 25.1 | 25.3 | 26.5 | 27.0 | 27.3 | 27.6 | 28.4 | 30.0 | 30.8 | 29.5 | 29.4 | .. |
| Former USSR | 12.3 | 12.0 | 12.3 | 12.5 | 12.5 | 12.2 | 11.5 | 10.4 | 8.9 | 8.0 | 7.3 | 7.1 | 7.1 | 7.2 | 7.3 | 7.5 | 7.7 | .. |
| Other non-OECD ^d | 8.9 | 9.6 | 10.0 | 10.4 | 10.8 | 11.2 | 11.4 | 11.6 | 12.1 | 12.6 | 13.2 | 14.3 | 14.8 | 15.2 | 15.5 | 15.7 | 15.8 | .. |
| Total | 59.8 | 59.3 | 62.0 | 62.4 | 64.8 | 66.1 | 66.9 | 66.8 | 67.2 | 67.5 | 68.6 | 70.1 | 72.1 | 74.4 | 75.5 | 74.1 | 75.3 | .. |
| Trade | | | | | | | | | | | | | | | | | | |
| OECD net imports ^b | 18.4 | 17.4 | 19.3 | 19.9 | 20.9 | 22.5 | 22.9 | 22.3 | 23.1 | 23.4 | 23.8 | 23.4 | 24.2 | 24.9 | 25.3 | 25.3 | 25.9 | .. |
| Former USSR net exports | 3.3 | 3.0 | 3.4 | 3.6 | 3.6 | 3.5 | 3.1 | 2.2 | 1.9 | 2.1 | 2.4 | 2.4 | 2.7 | 2.9 | 3.2 | 3.5 | 3.8 | .. |
| Other non-OECD net exports ^d | 15.1 | 14.3 | 15.9 | 16.3 | 17.3 | 19.0 | 19.8 | 20.1 | 21.2 | 21.4 | 21.4 | 21.1 | 21.5 | 22.0 | 22.1 | 21.8 | 22.1 | .. |
| Prices^{e,f} | | | | | | | | | | | | | | | | | | |
| OECD crude oil import price (cif, \$ per bl) | 29.0 | 27.5 | 15.0 | 17.9 | 14.9 | 17.5 | 22.3 | 19.3 | 18.4 | 16.4 | 15.6 | 17.2 | 20.5 | 19.1 | 12.6 | 17.3 | 25.2 | 22.7 |
| Prices of other primary commodities^{e,f} (US\$ indices) | | | | | | | | | | | | | | | | | | |
| Food and tropical beverages | 108 | 94 | 97 | 80 | 94 | 88 | 79 | 74 | 72 | 73 | 98 | 100 | 99 | 104 | 91 | 74 | 69 | 70 |
| of which: Food | 110 | 87 | 73 | 71 | 99 | 96 | 85 | 83 | 87 | 88 | 95 | 100 | 118 | 104 | 91 | 77 | 75 | 76 |
| Tropical beverages | 106 | 98 | 114 | 86 | 90 | 82 | 75 | 68 | 62 | 63 | 100 | 100 | 86 | 103 | 91 | 72 | 66 | 66 |
| Agricultural raw materials | 57 | 50 | 58 | 72 | 80 | 82 | 90 | 78 | 79 | 75 | 86 | 100 | 86 | 83 | 71 | 71 | 83 | 88 |
| Minerals, ores and metals | 74 | 69 | 69 | 78 | 112 | 107 | 99 | 88 | 85 | 74 | 85 | 100 | 90 | 91 | 78 | 75 | 90 | 95 |
| Total | 75 | 67 | 71 | 76 | 94 | 92 | 90 | 80 | 79 | 74 | 89 | 100 | 90 | 91 | 78 | 73 | 82 | 85 |
| Memorandum item | | | | | | | | | | | | | | | | | | |
| Export prices of OECD manufactures (dollar index) | 60 | 59 | 70 | 79 | 84 | 84 | 91 | 90 | 93 | 89 | 92 | 100 | 96 | 89 | 86 | 83 | 79 | 79 |

a) Based on data published in IEA, *Oil Market Report*, April 2000; *Annual Statistical Supplement*, August 1999.

b) Excluding Czech Republic, Hungary, Korea, Mexico and Poland.

c) European Union countries and Iceland, Norway, Switzerland and Turkey.

d) Including Czech Republic, Hungary, Korea, Mexico and Poland.

e) Indices through 1999 are based on data compiled by IEA for oil and by Hamburg Institute for Economic Research for the prices of other primary commodities; OECD estimates and projections for 2000 to 2001.

f) By technical assumption, prices are projected to rise broadly in line with OECD manufactured export prices for 2001.

Source: OECD.

Annex Table 18. **Labour force**^a
Percentage change from previous period

| | 1996 | | | | | | | | | | | | | | | | | | | Projections | |
|----------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|--|
| | Labour force (thousands) | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| United States ^a | 133 945 | 1.2 | 1.8 | 1.7 | 2.1 | 1.7 | 1.5 | 1.8 | 1.6 | 0.4 | 1.4 | 0.8 | 1.4 | 1.0 | 1.2 | 1.8 | 1.0 | 1.2 | 1.8 | 1.2 | |
| Japan | 67 116 | 2.0 | 0.7 | 0.6 | 1.0 | 1.0 | 1.4 | 1.7 | 1.8 | 1.9 | 1.1 | 0.6 | 0.5 | 0.3 | 0.7 | 1.1 | 0.1 | -0.2 | 0.0 | 0.3 | |
| Germany | 39 649 | 0.2 | 0.2 | 0.8 | 1.0 | 0.7 | 0.8 | 0.7 | 2.2 | 1.7 | -0.5 | -0.2 | 0.2 | -0.4 | 0.1 | 0.3 | -0.2 | -0.1 | -0.1 | 0.0 | |
| France | 25 621 | 0.0 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.8 | 0.3 | 0.6 | 0.4 | 0.3 | 0.7 | 0.1 | 1.0 | 0.7 | 0.4 | 1.2 | 0.9 | 0.8 | |
| Italy | 22 604 | 1.0 | 1.1 | 0.4 | 1.8 | 0.1 | 0.8 | -0.4 | 0.0 | 0.1 | -0.8 | -1.6 | -0.5 | 0.0 | 0.5 | 0.5 | 1.2 | 0.8 | 0.9 | 0.8 | |
| United Kingdom | 28 753 | 0.4 | 2.2 | 1.3 | 0.3 | 0.9 | 1.5 | 0.5 | 0.1 | -0.5 | 0.1 | -0.3 | -0.1 | 0.4 | 0.4 | 0.4 | 0.5 | 0.7 | 0.7 | 0.6 | |
| Canada | 14 902 | 1.5 | 2.0 | 2.1 | 1.9 | 1.9 | 2.0 | 1.8 | 0.7 | 0.6 | 0.2 | 1.0 | 0.8 | 0.9 | 1.0 | 1.7 | 1.8 | 2.0 | 1.6 | 1.5 | |
| Total of major countries | 332 590 | 1.1 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 1.3 | 1.3 | 0.8 | 0.7 | 0.3 | 0.7 | 0.5 | 0.8 | 1.2 | 0.6 | 0.7 | 1.0 | 0.8 | |
| Australia | 9 166 | 1.3 | 1.8 | 2.7 | 3.5 | 2.2 | 2.6 | 3.6 | 2.4 | 0.6 | 0.7 | 0.6 | 1.7 | 2.8 | 1.3 | 0.9 | 1.2 | 1.0 | 1.4 | 1.6 | |
| Austria | 4 134 | -0.6 | 0.0 | 0.5 | 0.7 | 0.3 | 0.4 | 1.2 | 2.3 | 2.3 | 1.6 | 0.4 | 0.0 | -0.3 | -0.2 | 0.6 | 1.0 | 1.0 | 1.1 | 0.9 | |
| Belgium | 4 185 | -0.2 | 0.1 | -0.3 | 0.5 | 0.3 | 0.5 | -0.4 | 0.0 | 0.0 | 0.2 | 1.0 | 1.0 | 0.6 | 0.2 | 0.5 | 1.3 | 0.3 | 0.6 | 0.8 | |
| Czech Republic | 5 116 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.1 | 0.6 | 0.0 | 0.3 | 0.4 | 0.2 | 0.1 | 0.0 | |
| Denmark | 2 819 | 1.0 | 1.3 | 1.4 | 1.3 | 0.8 | 0.2 | 0.1 | -0.5 | 0.3 | 0.0 | -0.3 | -0.5 | -1.3 | -0.3 | 1.1 | 0.7 | -0.2 | 0.7 | 0.7 | |
| Finland | 2 490 | 0.6 | 0.7 | 0.8 | 0.1 | -0.6 | 0.9 | 0.5 | -0.1 | -1.6 | -1.8 | -0.9 | -0.5 | 0.7 | 0.4 | -0.2 | 1.0 | 1.9 | 1.1 | 0.9 | |
| Greece ^a | 4 219 | 3.4 | 0.7 | 0.6 | -0.1 | -0.1 | 2.0 | 0.2 | 0.8 | -1.7 | 2.5 | 2.1 | 1.8 | 1.3 | -0.7 | -0.4 | 4.7 | 0.8 | 0.8 | 0.8 | |
| Hungary | 3 957 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -4.6 | -2.5 | -0.9 | -1.0 | 0.4 | 2.1 | 2.0 | 1.8 | |
| Iceland | 132 | 1.2 | 1.7 | 3.2 | 2.8 | 5.8 | -2.8 | -0.4 | -0.9 | -0.3 | 0.1 | 0.6 | 0.9 | 1.1 | 1.6 | 1.3 | 2.2 | 1.8 | 1.2 | 1.2 | |
| Ireland | 1 508 | 0.8 | 0.0 | -0.4 | 0.5 | 0.8 | -0.7 | -1.4 | 1.0 | 2.2 | 2.6 | 2.0 | 2.0 | 2.4 | 3.3 | 2.1 | 6.9 | 3.5 | 3.5 | 3.5 | |
| Korea | 21 188 | 0.6 | -0.8 | 4.0 | 3.4 | 4.7 | 2.6 | 4.1 | 2.9 | 2.8 | 2.0 | 1.9 | 2.6 | 2.3 | 1.9 | 2.0 | -1.0 | 0.9 | 1.8 | 1.6 | |
| Luxembourg | 174 | -0.1 | 0.6 | -0.2 | 1.0 | 1.5 | 1.2 | 1.3 | 1.3 | 1.5 | 0.4 | 0.2 | 1.5 | 1.2 | 1.3 | 1.2 | 1.6 | 2.3 | 2.0 | 1.9 | |
| Mexico ^a | 16 392 | .. | .. | .. | .. | .. | 4.3 | 2.9 | 1.7 | 5.4 | 4.5 | 4.7 | 1.2 | 4.7 | 4.1 | 11.3 | 4.3 | 2.5 | 2.5 | 2.6 | |
| Netherlands | 6 628 | 1.4 | 0.1 | -0.2 | 1.6 | 1.2 | 2.0 | 1.0 | 2.0 | 2.0 | 1.6 | 1.9 | 1.0 | 1.9 | 1.6 | 2.2 | 1.8 | 1.9 | 1.8 | 1.8 | |
| New Zealand | 1 842 | 0.7 | 1.9 | 2.5 | 0.1 | 0.9 | -1.6 | -1.0 | 1.6 | 1.5 | 0.9 | 1.7 | 3.1 | 3.1 | 3.5 | 1.0 | 0.3 | 0.8 | 1.3 | 1.3 | |
| Norway | 2 240 | 0.9 | 1.0 | 1.7 | 2.9 | 2.0 | 0.5 | -1.3 | -0.6 | -0.7 | 0.2 | 0.0 | 1.0 | 1.7 | 2.4 | 2.1 | 1.6 | 0.5 | 0.4 | 0.4 | |
| Poland | 17 504 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -3.7 | 0.4 | -1.2 | 0.4 | 0.1 | 2.1 | 0.8 | 0.8 | |
| Portugal ^a | 4 550 | 4.5 | 0.7 | -0.3 | 0.1 | 1.0 | 1.2 | 1.5 | 1.8 | 2.4 | 0.7 | -0.6 | 1.3 | -0.2 | 0.6 | 1.3 | 2.7 | 1.1 | 1.1 | 1.1 | |
| Spain ^a | 15 950 | 1.1 | 0.6 | 0.8 | 1.7 | 2.4 | 1.6 | 1.3 | 1.4 | 0.4 | 0.5 | 1.1 | 1.0 | 0.5 | 0.9 | 1.1 | 0.9 | 1.0 | 0.9 | 0.9 | |
| Sweden | 4 311 | 0.4 | 0.4 | -0.5 | 0.4 | 0.6 | 1.0 | 1.2 | 1.1 | -0.7 | -1.9 | -2.7 | -1.2 | 1.3 | -0.2 | -1.1 | -0.2 | 1.2 | 1.0 | 0.8 | |
| Switzerland | 3 981 | 0.5 | 1.2 | 1.8 | 2.1 | 2.4 | 2.5 | 2.5 | 3.2 | 2.4 | -0.2 | 1.1 | -0.1 | -0.2 | 0.7 | 0.2 | -0.1 | -0.5 | 0.5 | 1.1 | |
| Turkey ^a | 22 919 | 1.8 | 1.4 | 1.2 | 2.7 | 2.8 | 1.6 | 2.8 | 1.1 | 1.6 | 0.3 | -0.2 | 3.2 | 2.3 | 1.1 | -2.1 | 2.7 | 3.3 | 2.0 | 2.0 | |
| Total of smaller countries | 155 403 | 1.2 | 0.6 | 1.4 | 1.9 | 2.2 | 1.9 | 2.1 | 1.6 | 1.7 | 1.2 | 1.2 | 0.7 | 1.6 | 1.0 | 1.6 | 1.4 | 1.6 | 1.5 | 1.5 | |
| Total OECD | 487 992 | 1.1 | 1.1 | 1.2 | 1.6 | 1.4 | 1.5 | 1.5 | 1.4 | 1.0 | 0.8 | 0.6 | 0.7 | 0.8 | 0.9 | 1.3 | 0.9 | 1.0 | 1.1 | 1.0 | |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | | |
| European Union | 167 593 | 0.6 | 0.8 | 0.6 | 0.9 | 0.7 | 1.0 | 0.6 | 0.9 | 0.5 | 0.0 | -0.1 | 0.3 | 0.2 | 0.5 | 0.6 | 0.8 | 0.7 | 0.7 | 0.7 | |
| Euro area | 127 543 | 0.6 | 0.5 | 0.5 | 1.1 | 0.7 | 0.8 | 0.6 | 1.1 | 0.9 | 0.0 | 0.0 | 0.4 | 0.1 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | |

a) For information on break in series, rebasing, data coverage, sources and definitions see "Sources and Methods".

Source : OECD.

Annex Table 19. Labour force participation rate

| | Average | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | 1972-82 | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States^a</i> | 68.9 | 71.7 | 72.3 | 72.8 | 73.6 | 74.3 | 74.9 | 75.8 | 76.5 | 76.2 | 76.6 | 76.6 | 76.9 | 76.9 | 77.0 | 77.7 | 77.7 | 78.0 | 78.6 | 78.7 |
| <i>Japan</i> | 71.3 | 72.8 | 72.5 | 72.3 | 72.2 | 72.3 | 72.5 | 73.1 | 74.1 | 75.2 | 75.7 | 76.0 | 76.4 | 76.5 | 77.0 | 78.0 | 78.2 | 78.1 | 78.3 | 78.7 |
| <i>Germany</i> | 68.3 | 67.3 | 67.0 | 67.4 | 68.0 | 68.4 | 68.7 | 68.6 | 69.1 | 72.3 | 72.0 | 71.6 | 71.6 | 71.2 | 71.1 | 71.3 | 71.2 | 71.1 | 71.1 | 71.1 |
| <i>France</i> | 68.1 | 66.9 | 66.6 | 66.4 | 66.5 | 66.5 | 66.4 | 66.6 | 66.5 | 66.7 | 66.7 | 66.6 | 66.9 | 66.7 | 67.1 | 67.3 | 67.4 | 68.0 | 68.4 | 68.6 |
| <i>Italy</i> | 59.7 | 59.7 | 59.5 | 59.2 | 60.2 | 60.0 | 60.3 | 59.9 | 59.6 | 59.5 | 59.0 | 57.9 | 57.4 | 57.4 | 57.7 | 58.0 | 58.8 | 59.3 | 60.0 | 60.6 |
| <i>United Kingdom</i> | 73.7 | 73.1 | 74.0 | 74.8 | 74.8 | 75.2 | 76.3 | 76.6 | 76.5 | 76.0 | 76.0 | 75.6 | 75.4 | 75.3 | 75.3 | 75.3 | 75.3 | 75.6 | 75.8 | 76.0 |
| <i>Canada</i> | 69.5 | 73.6 | 74.2 | 75.1 | 75.8 | 76.5 | 77.3 | 77.8 | 77.7 | 77.2 | 76.4 | 76.1 | 76.0 | 75.8 | 75.6 | 75.9 | 76.3 | 76.9 | 77.2 | 77.5 |
| <i>Total of major countries</i> | 68.9 | 70.1 | 70.3 | 70.6 | 71.1 | 71.5 | 71.9 | 72.4 | 72.9 | 73.2 | 73.4 | 73.3 | 73.4 | 73.3 | 73.6 | 74.1 | 74.2 | 74.5 | 74.9 | 75.1 |
| <i>Australia</i> | 70.1 | 69.8 | 69.9 | 70.6 | 71.7 | 71.9 | 72.4 | 73.6 | 74.3 | 74.0 | 73.7 | 73.5 | 74.0 | 75.2 | 75.2 | 74.8 | 74.6 | 74.4 | 74.5 | 74.8 |
| <i>Austria</i> | 78.5 | 75.2 | 74.5 | 74.4 | 74.8 | 74.8 | 75.0 | 75.7 | 76.5 | 77.3 | 78.1 | 77.1 | 76.8 | 76.5 | 76.2 | 76.5 | 77.0 | 77.5 | 78.0 | 78.2 |
| <i>Belgium</i> | 62.0 | 61.3 | 60.9 | 60.7 | 60.9 | 61.0 | 61.1 | 60.9 | 60.9 | 60.9 | 61.0 | 61.5 | 62.0 | 62.3 | 62.4 | 62.7 | 63.5 | 63.7 | 64.0 | 64.5 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 80.9 | 81.1 | 81.1 | 80.7 | 80.7 | 80.6 | 80.4 | 80.3 | 80.3 |
| <i>Denmark</i> | 79.0 | 81.4 | 82.2 | 83.0 | 83.7 | 84.1 | 84.0 | 83.8 | 83.1 | 83.0 | 82.7 | 82.2 | 81.6 | 80.2 | 79.6 | 80.3 | 80.7 | 80.5 | 80.9 | 81.4 |
| <i>Finland</i> | 73.6 | 76.5 | 76.6 | 76.9 | 76.9 | 76.4 | 77.0 | 77.4 | 77.2 | 75.5 | 73.9 | 73.0 | 72.4 | 72.8 | 72.9 | 72.5 | 72.9 | 74.0 | 74.7 | 75.2 |
| <i>Greece^a</i> | 56.7 | 59.9 | 59.8 | 59.6 | 59.1 | 58.7 | 59.5 | 59.2 | 59.2 | 57.3 | 58.1 | 58.9 | 59.6 | 60.1 | 59.6 | 59.2 | 61.6 | 61.9 | 62.2 | 62.5 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 61.8 | 59.0 | 57.6 | 57.1 | 56.6 | 57.0 | 58.4 | 59.4 | 60.4 |
| <i>Iceland</i> | 73.4 | 77.3 | 77.6 | 79.3 | 80.8 | 84.2 | 80.2 | 78.9 | 77.5 | 76.2 | 75.5 | 75.4 | 75.4 | 75.7 | 76.3 | 76.6 | 77.1 | 77.5 | 77.9 | 78.2 |
| <i>Ireland</i> | 62.7 | 62.7 | 62.0 | 61.3 | 61.4 | 61.6 | 61.0 | 60.3 | 60.8 | 61.2 | 61.9 | 62.4 | 62.7 | 63.1 | 64.1 | 64.2 | 67.2 | 68.1 | 69.2 | 70.6 |
| <i>Korea</i> | .. | 59.3 | 57.4 | 58.3 | 58.9 | 60.3 | 60.5 | 61.9 | 62.5 | 63.3 | 63.6 | 64.0 | 64.6 | 65.2 | 65.5 | 65.9 | 64.5 | 64.2 | 64.5 | 64.8 |
| <i>Luxembourg</i> | .. | 60.6 | 60.7 | 60.2 | 60.4 | 60.9 | 61.3 | 61.7 | 61.7 | 62.1 | 61.8 | 61.3 | 61.7 | 61.7 | 62.3 | 62.4 | 62.8 | 63.3 | 63.7 | 64.2 |
| <i>Mexico^a</i> | .. | .. | .. | .. | .. | 51.1 | 51.6 | 51.8 | 51.8 | 53.3 | 53.8 | 55.2 | 54.7 | 55.4 | 55.4 | 56.2 | 56.5 | 56.8 | 57.0 | 57.3 |
| <i>Netherlands</i> | 58.6 | 57.4 | 56.8 | 56.0 | 56.4 | 56.5 | 57.2 | 57.4 | 58.2 | 59.0 | 59.6 | 60.5 | 60.8 | 61.7 | 62.5 | 63.7 | 64.5 | 65.5 | 66.4 | 67.2 |
| <i>New Zealand</i> | 65.6 | 65.3 | 65.5 | 66.5 | 66.2 | 66.1 | 64.6 | 63.5 | 63.8 | 63.8 | 63.3 | 63.3 | 64.1 | 64.9 | 65.8 | 65.6 | 65.2 | 65.3 | 65.5 | 65.6 |
| <i>Norway</i> | 73.0 | 76.5 | 76.7 | 77.5 | 79.2 | 80.3 | 80.1 | 78.7 | 78.0 | 77.1 | 76.9 | 76.5 | 76.8 | 77.7 | 79.2 | 80.4 | 81.1 | 81.2 | 81.2 | 81.1 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 72.8 | 69.6 | 69.4 | 68.2 | 68.0 | 67.5 | 68.6 | 68.8 | 69.0 |
| <i>Portugal^a</i> | 62.2 | 64.4 | 64.3 | 63.8 | 63.6 | 64.1 | 64.7 | 65.5 | 66.5 | 67.8 | 68.0 | 67.2 | 67.8 | 67.4 | 67.6 | 68.2 | 70.1 | 70.6 | 71.1 | 71.6 |
| <i>Spain^a</i> | 61.4 | 59.4 | 59.1 | 58.8 | 58.9 | 59.8 | 60.4 | 60.4 | 60.9 | 60.9 | 60.9 | 61.2 | 61.5 | 61.5 | 61.8 | 62.3 | 63.0 | 63.9 | 64.4 | 64.9 |
| <i>Sweden</i> | 78.9 | 81.3 | 81.4 | 81.0 | 81.2 | 81.5 | 82.0 | 82.5 | 82.9 | 82.0 | 80.1 | 77.6 | 76.3 | 76.9 | 76.5 | 75.5 | 75.2 | 75.9 | 76.4 | 76.8 |
| <i>Switzerland</i> | 75.0 | 74.4 | 74.7 | 75.5 | 76.5 | 77.7 | 79.0 | 80.5 | 82.3 | 83.3 | 82.4 | 82.8 | 82.1 | 81.8 | 82.2 | 82.3 | 82.1 | 81.3 | 81.3 | 81.8 |
| <i>Turkey^a</i> | 73.6 | 67.2 | 66.0 | 64.6 | 64.4 | 64.3 | 63.4 | 63.3 | 62.0 | 61.3 | 59.9 | 58.2 | 58.5 | 58.4 | 57.6 | 55.2 | 55.3 | 55.7 | 55.5 | 55.2 |
| <i>Total of smaller countries</i> | 67.6 | 65.0 | 64.3 | 64.1 | 64.4 | 63.0 | 63.2 | 63.5 | 63.6 | 63.7 | 63.5 | 64.8 | 64.5 | 64.7 | 64.4 | 64.2 | 64.2 | 64.6 | 64.8 | 65.0 |
| <i>Total OECD</i> | 68.6 | 68.8 | 68.7 | 68.9 | 69.3 | 69.0 | 69.3 | 69.7 | 70.1 | 70.4 | 70.4 | 70.4 | 70.4 | 70.3 | 70.4 | 70.6 | 70.7 | 71.0 | 71.3 | 71.5 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 66.6 | 66.0 | 65.9 | 65.9 | 66.2 | 66.5 | 66.9 | 66.9 | 67.1 | 67.8 | 67.7 | 67.3 | 67.3 | 67.2 | 67.3 | 67.6 | 68.0 | 68.4 | 68.8 | 69.1 |
| <i>Euro area</i> | 64.8 | 64.0 | 63.6 | 63.5 | 63.9 | 64.1 | 64.4 | 64.4 | 64.6 | 65.9 | 65.8 | 65.4 | 65.5 | 65.4 | 65.6 | 65.9 | 66.4 | 66.8 | 67.2 | 67.6 |

a) For information on break in series, rebasing, data coverage, sources and definitions see "Sources and Methods".

Source: OECD.

Annex Table 20. **Employment**
Percentage change from previous period

| | 1996 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | Employment (thousands) | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States ^a | 126 715 | 1.3 | 4.1 | 2.0 | 2.3 | 2.6 | 2.3 | 2.0 | 1.3 | -0.9 | 0.7 | 1.5 | 2.3 | 1.5 | 1.4 | 2.2 | 1.5 | 1.5 | 2.1 | 1.0 |
| Japan | 64 865 | 1.7 | 0.6 | 0.7 | 0.8 | 1.0 | 1.7 | 2.0 | 2.0 | 1.9 | 1.1 | 0.2 | 0.1 | 0.1 | 0.4 | 1.1 | -0.7 | -0.8 | -0.1 | 0.3 |
| Germany | 36 151 | -1.4 | 0.2 | 0.7 | 1.4 | 0.7 | 0.8 | 1.5 | 3.0 | 2.5 | -1.6 | -1.5 | -0.3 | -0.1 | -0.8 | -0.8 | 0.4 | 0.3 | 0.5 | 0.9 |
| France | 22 464 | -0.2 | -0.9 | -0.1 | 0.5 | 0.4 | 1.0 | 1.5 | 0.8 | 0.0 | -0.6 | -1.2 | 0.1 | 0.8 | 0.1 | 0.5 | 1.1 | 2.0 | 2.3 | 2.0 |
| Italy | 19 951 | 0.1 | 0.3 | 0.3 | 0.4 | -0.3 | 0.5 | -0.1 | 1.2 | 0.7 | -1.0 | -3.1 | -1.6 | -0.6 | 0.5 | 0.4 | 1.1 | 1.2 | 1.5 | 1.3 |
| United Kingdom | 26 455 | -0.5 | 2.0 | 1.1 | 0.1 | 2.6 | 4.3 | 2.4 | 0.3 | -3.0 | -2.1 | -0.4 | 1.0 | 1.2 | 1.1 | 1.6 | 1.2 | 1.0 | 0.9 | 0.5 |
| Canada | 13 464 | 0.6 | 2.7 | 3.0 | 3.0 | 2.7 | 3.2 | 2.1 | 0.0 | -1.8 | -0.7 | 0.8 | 2.0 | 1.9 | 0.8 | 2.3 | 2.6 | 2.8 | 2.5 | 1.6 |
| Total of major countries | 310 066 | 0.7 | 2.0 | 1.3 | 1.4 | 1.7 | 2.0 | 1.8 | 1.4 | 0.0 | 0.0 | 0.1 | 1.0 | 0.8 | 0.8 | 1.4 | 0.9 | 0.9 | 1.3 | 0.9 |
| Australia | 8 393 | -1.8 | 2.9 | 3.5 | 3.6 | 2.2 | 3.7 | 4.7 | 1.5 | -2.1 | -0.7 | 0.4 | 3.1 | 4.2 | 1.3 | 0.8 | 1.8 | 1.9 | 1.9 | 1.9 |
| Austria | 3 906 | -1.2 | -0.1 | 0.2 | 0.4 | 0.0 | 0.6 | 1.5 | 1.9 | 1.9 | 1.5 | -0.3 | 0.2 | -0.4 | -0.6 | 0.5 | 0.9 | 1.4 | 1.4 | 1.4 |
| Belgium | 3 777 | -1.3 | 0.0 | 0.5 | 0.6 | 0.6 | 1.7 | 1.2 | 0.9 | 0.1 | -0.5 | -0.7 | -0.3 | 0.7 | 0.4 | 0.8 | 1.2 | 0.9 | 1.4 | 1.4 |
| Czech Republic | 4 915 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.1 | 0.9 | 0.1 | -0.6 | -1.4 | -2.3 | -1.5 | -0.2 |
| Denmark | 2 573 | 0.3 | 1.7 | 2.5 | 2.6 | 0.9 | -0.6 | -0.7 | -0.8 | -0.6 | -0.9 | -1.5 | -0.4 | 0.7 | 1.4 | 2.2 | 2.1 | 0.8 | 0.8 | 0.8 |
| Finland | 2 127 | 0.6 | 1.0 | 1.0 | -0.3 | -0.3 | 1.8 | 1.6 | -0.1 | -5.2 | -7.1 | -6.1 | -0.8 | 2.2 | 1.4 | 2.0 | 2.4 | 3.3 | 2.3 | 1.8 |
| Greece ^a | 3 805 | 1.1 | 0.4 | 1.0 | 0.4 | -0.1 | 1.6 | 0.4 | 1.3 | -2.3 | 1.5 | 0.9 | 1.9 | 0.9 | -0.5 | -0.3 | 3.4 | 1.0 | 1.2 | 1.4 |
| Hungary | 3 557 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -3.4 | -1.9 | -0.5 | 0.3 | 1.5 | 3.1 | 2.7 | 2.0 |
| Iceland | 127 | 0.9 | 1.5 | 3.6 | 3.1 | 6.0 | -3.0 | -1.4 | -1.1 | -0.1 | -1.4 | -0.8 | 0.5 | 0.9 | 2.3 | 1.8 | 3.4 | 2.7 | 1.4 | 1.0 |
| Ireland | 1 331 | -2.1 | -1.8 | -2.5 | 0.5 | 0.6 | 0.3 | -0.1 | 3.3 | -0.1 | 3.1 | 1.5 | 3.2 | 5.4 | 3.9 | 3.6 | 10.2 | 5.8 | 5.6 | 3.8 |
| Korea | 20 764 | 0.9 | -0.5 | 3.7 | 3.6 | 5.5 | 3.2 | 4.1 | 3.0 | 2.9 | 1.9 | 1.5 | 3.0 | 2.7 | 1.9 | 1.4 | -5.3 | 1.5 | 3.7 | 2.1 |
| Luxembourg | 220 | -0.3 | 0.6 | 1.4 | 2.5 | 2.1 | 3.0 | 3.5 | 4.1 | 4.1 | 2.5 | 1.7 | 2.6 | 2.6 | 2.7 | 3.2 | 4.3 | 5.0 | 4.6 | 4.3 |
| Mexico ^a | 15 492 | .. | .. | .. | .. | .. | 4.7 | 3.6 | 1.9 | 5.5 | 4.2 | 4.1 | 0.9 | 1.9 | 5.0 | 13.3 | 4.9 | 3.2 | 2.6 | 2.6 |
| Netherlands | 6 187 | -1.3 | 0.5 | 1.3 | 2.5 | 1.6 | 2.3 | 1.8 | 3.0 | 2.6 | 1.6 | 0.7 | -0.1 | 2.4 | 2.0 | 3.4 | 3.3 | 3.0 | 2.5 | 2.2 |
| New Zealand | 1 729 | -1.0 | 2.7 | 3.5 | -0.4 | 0.8 | -3.1 | -2.6 | 0.9 | -1.3 | 0.8 | 2.6 | 4.7 | 5.2 | 3.7 | 0.4 | -0.6 | 1.5 | 2.0 | 1.4 |
| Norway | 2 131 | 0.1 | 1.3 | 2.3 | 3.5 | 1.9 | -0.6 | -3.0 | -0.9 | -1.0 | -0.3 | 0.0 | 1.5 | 2.2 | 2.5 | 3.0 | 2.5 | 0.5 | 0.1 | 0.3 |
| Poland | 14 997 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -5.5 | 1.9 | -0.2 | 3.7 | 1.9 | -0.2 | -0.5 | 0.8 |
| Portugal ^a | 4 218 | 4.3 | 0.0 | -0.4 | 0.2 | 2.6 | 2.6 | 2.2 | 2.2 | 3.0 | 0.9 | -2.0 | -0.1 | -0.6 | 0.5 | 1.9 | 4.6 | 1.8 | 1.5 | 1.3 |
| Spain ^a | 12 408 | -1.1 | -1.8 | -0.9 | 2.2 | 3.1 | 2.9 | 4.1 | 2.6 | 0.2 | -1.9 | -4.3 | -0.9 | 1.8 | 1.5 | 2.9 | 3.4 | 4.6 | 3.1 | 2.4 |
| Sweden | 3 964 | 0.1 | 0.7 | -0.3 | 0.7 | 1.0 | 1.4 | 1.5 | 1.0 | -2.0 | -4.3 | -5.8 | -0.9 | 1.6 | -0.6 | -1.1 | 1.5 | 2.2 | 1.9 | 1.4 |
| Switzerland | 3 813 | .. | 1.0 | 2.0 | 2.3 | 2.5 | 2.6 | 2.7 | 3.2 | 1.9 | -1.6 | -0.8 | -0.3 | 0.3 | 0.3 | -0.3 | 1.2 | 0.6 | 1.2 | 1.2 |
| Turkey ^a | 21 537 | 1.0 | 1.6 | 1.7 | 1.9 | 2.3 | 1.5 | 2.6 | 1.7 | 1.7 | 0.2 | 0.2 | 2.8 | 3.7 | 2.0 | -2.5 | 2.8 | 2.2 | 2.1 | 2.0 |
| Total of smaller countries | 141 919 | 0.1 | 0.4 | 1.5 | 2.0 | 2.4 | 2.3 | 2.7 | 2.0 | 1.3 | 0.4 | -0.1 | 0.4 | 2.1 | 1.5 | 2.3 | 1.5 | 1.9 | 2.0 | 1.8 |
| Total OECD | 451 985 | 0.5 | 1.6 | 1.3 | 1.6 | 1.9 | 2.1 | 2.0 | 1.5 | 0.3 | 0.1 | 0.1 | 0.8 | 1.2 | 1.0 | 1.7 | 1.1 | 1.3 | 1.5 | 1.2 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | 149 487 | -0.5 | 0.2 | 0.4 | 0.8 | 1.1 | 1.8 | 1.6 | 1.5 | 0.1 | -1.2 | -1.7 | -0.2 | 0.6 | 0.4 | 0.8 | 1.5 | 1.6 | 1.5 | 1.3 |
| Euro area | 112 741 | -0.5 | -0.3 | 0.2 | 1.0 | 0.8 | 1.2 | 1.5 | 1.9 | 1.0 | -1.0 | -2.0 | -0.5 | 0.4 | 0.2 | 0.6 | 1.5 | 1.7 | 1.7 | 1.6 |

a) For information on break in series, rebasing, data coverage, sources and definitions see "Sources and Methods".

Source: OECD.

Annex Table 21. Unemployment rates: commonly used definitions^a

| | 1996 | | | | | | | | | | | | | | | | | | Projections | |
|----------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | Unemployment (thousands) | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| United States ^a | 7 229 | 9.6 | 7.5 | 7.2 | 7.0 | 6.2 | 5.5 | 5.3 | 5.6 | 6.8 | 7.5 | 6.9 | 6.1 | 5.6 | 5.4 | 4.9 | 4.5 | 4.2 | 4.0 | 4.2 |
| Japan | 2 251 | 2.7 | 2.7 | 2.6 | 2.8 | 2.8 | 2.5 | 2.3 | 2.1 | 2.1 | 2.2 | 2.5 | 2.9 | 3.1 | 3.4 | 3.4 | 4.1 | 4.7 | 4.8 | 4.8 |
| Germany | 3 498 | 7.9 | 7.9 | 8.0 | 7.7 | 7.6 | 7.6 | 6.9 | 6.2 | 5.5 | 6.6 | 7.8 | 8.3 | 8.1 | 8.8 | 9.8 | 9.3 | 9.0 | 8.5 | 7.7 |
| France | 3 157 | 8.3 | 9.7 | 10.2 | 10.4 | 10.5 | 10.0 | 9.3 | 8.9 | 9.4 | 10.4 | 11.7 | 12.2 | 11.6 | 12.3 | 12.4 | 11.8 | 11.1 | 9.8 | 8.8 |
| Italy | 2 653 | 7.7 | 8.5 | 8.6 | 9.9 | 10.2 | 10.5 | 10.2 | 9.1 | 8.6 | 8.8 | 10.2 | 11.2 | 11.7 | 11.7 | 11.8 | 11.9 | 11.5 | 11.0 | 10.5 |
| United Kingdom | 2 298 | 11.2 | 11.4 | 11.6 | 11.8 | 10.2 | 7.8 | 6.1 | 5.9 | 8.2 | 10.2 | 10.3 | 9.4 | 8.6 | 8.0 | 6.9 | 6.2 | 5.9 | 5.7 | 5.8 |
| Canada | 1 437 | 11.9 | 11.3 | 10.5 | 9.6 | 8.8 | 7.8 | 7.5 | 8.1 | 10.3 | 11.2 | 11.4 | 10.3 | 9.4 | 9.6 | 9.1 | 8.3 | 7.6 | 6.8 | 6.6 |
| Total of major countries | 22 524 | 8.0 | 7.4 | 7.3 | 7.3 | 6.8 | 6.2 | 5.7 | 5.6 | 6.3 | 7.0 | 7.2 | 7.0 | 6.7 | 6.8 | 6.6 | 6.4 | 6.2 | 5.8 | 5.7 |
| Australia | 774 | 9.9 | 8.9 | 8.2 | 8.1 | 8.1 | 7.1 | 6.1 | 7.0 | 9.5 | 10.7 | 10.9 | 9.7 | 8.5 | 8.4 | 8.5 | 8.0 | 7.2 | 6.7 | 6.4 |
| Austria | 228 | 3.4 | 3.5 | 3.7 | 4.0 | 4.3 | 4.1 | 3.8 | 4.2 | 4.5 | 4.7 | 5.3 | 5.2 | 5.2 | 5.5 | 5.6 | 5.7 | 5.3 | 5.0 | 4.5 |
| Belgium | 407 | 11.0 | 11.1 | 10.4 | 10.3 | 10.0 | 9.0 | 7.5 | 6.7 | 6.6 | 7.2 | 8.8 | 10.0 | 9.9 | 9.7 | 9.4 | 9.5 | 9.0 | 8.3 | 7.8 |
| Czech Republic | 201 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.3 | 4.4 | 4.1 | 3.9 | 4.8 | 6.5 | 8.8 | 10.2 | 10.5 |
| Denmark | 246 | 10.3 | 9.9 | 8.9 | 7.7 | 7.7 | 8.4 | 9.2 | 9.4 | 10.3 | 11.0 | 12.1 | 12.0 | 10.2 | 8.7 | 7.7 | 6.4 | 5.5 | 5.4 | 5.4 |
| Finland | 363 | 5.4 | 5.2 | 5.0 | 5.4 | 5.1 | 4.2 | 3.1 | 3.2 | 6.6 | 11.7 | 16.3 | 16.6 | 15.4 | 14.6 | 12.7 | 11.4 | 10.2 | 9.2 | 8.5 |
| Greece ^a | 414 | 7.9 | 8.1 | 7.8 | 7.4 | 7.4 | 7.7 | 7.5 | 7.0 | 7.7 | 8.7 | 9.7 | 9.6 | 10.0 | 9.8 | 9.7 | 10.9 | 10.7 | 10.3 | 9.8 |
| Hungary | 400 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 12.1 | 11.0 | 10.4 | 10.1 | 8.9 | 8.0 | 7.1 | 6.5 | 6.2 |
| Iceland | 6 | 1.0 | 1.3 | 0.9 | 0.6 | 0.4 | 0.6 | 1.7 | 1.8 | 1.5 | 3.0 | 4.4 | 4.8 | 5.0 | 4.4 | 3.9 | 2.8 | 1.9 | 1.7 | 1.9 |
| Ireland | 176 | 14.0 | 15.5 | 17.4 | 17.4 | 17.5 | 16.7 | 15.6 | 13.7 | 15.7 | 15.3 | 15.7 | 14.7 | 12.2 | 11.7 | 10.4 | 7.6 | 5.5 | 3.6 | 3.3 |
| Korea | 424 | 4.1 | 3.8 | 4.0 | 3.8 | 3.1 | 2.5 | 2.6 | 2.4 | 2.3 | 2.4 | 2.8 | 2.4 | 2.0 | 2.0 | 2.6 | 6.8 | 6.3 | 4.5 | 4.1 |
| Luxembourg | 6 | 1.6 | 1.7 | 1.7 | 1.5 | 1.7 | 1.6 | 1.4 | 1.3 | 1.4 | 1.6 | 2.1 | 2.7 | 3.0 | 3.3 | 3.3 | 3.1 | 2.9 | 2.8 | 2.7 |
| Mexico ^a | 900 | 6.1 | 5.6 | 4.4 | 4.3 | 3.9 | 3.5 | 2.9 | 2.7 | 2.6 | 2.8 | 3.4 | 3.7 | 6.3 | 5.5 | 3.7 | 3.2 | 2.5 | 2.4 | 2.4 |
| Netherlands | 441 | 11.0 | 10.6 | 9.2 | 8.4 | 8.0 | 7.7 | 6.9 | 6.0 | 5.4 | 5.4 | 6.6 | 7.6 | 7.1 | 6.6 | 5.5 | 4.2 | 3.2 | 2.5 | 2.1 |
| New Zealand | 113 | 5.3 | 4.5 | 3.5 | 4.0 | 4.1 | 5.6 | 7.1 | 7.8 | 10.3 | 10.3 | 9.5 | 8.1 | 6.3 | 6.1 | 6.6 | 7.5 | 6.8 | 6.1 | 6.0 |
| Norway | 108 | 3.4 | 3.2 | 2.6 | 2.0 | 2.1 | 3.2 | 4.9 | 5.2 | 5.5 | 5.9 | 6.0 | 5.4 | 4.9 | 4.8 | 4.0 | 3.2 | 3.2 | 3.5 | 3.6 |
| Poland | 2 507 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 14.9 | 16.5 | 15.2 | 14.3 | 11.5 | 10.0 | 12.0 | 13.1 | 13.1 |
| Portugal ^a | 331 | 8.1 | 8.8 | 8.9 | 8.8 | 7.3 | 6.0 | 5.3 | 4.9 | 4.3 | 4.1 | 5.5 | 6.9 | 7.2 | 7.3 | 6.8 | 5.0 | 4.4 | 4.1 | 4.0 |
| Spain ^a | 3 542 | 17.7 | 19.6 | 20.9 | 20.5 | 20.0 | 19.0 | 16.7 | 15.7 | 15.8 | 17.9 | 22.2 | 23.7 | 22.7 | 22.2 | 20.8 | 18.8 | 15.9 | 14.1 | 12.9 |
| Sweden | 347 | 3.5 | 3.1 | 2.8 | 2.5 | 2.1 | 1.7 | 1.5 | 1.7 | 3.0 | 5.3 | 8.2 | 8.0 | 7.7 | 8.0 | 8.0 | 6.5 | 5.6 | 4.8 | 4.3 |
| Switzerland | 169 | 0.9 | 1.1 | 1.0 | 0.8 | 0.8 | 0.7 | 0.6 | 0.5 | 1.1 | 2.5 | 4.5 | 4.7 | 4.2 | 4.7 | 5.2 | 3.9 | 2.7 | 2.0 | 1.8 |
| Turkey ^a | 1 382 | 7.8 | 7.7 | 7.2 | 8.0 | 8.4 | 8.5 | 8.7 | 8.1 | 7.9 | 8.1 | 7.8 | 8.1 | 6.9 | 6.0 | 6.4 | 6.3 | 7.3 | 7.2 | 7.2 |
| Total of smaller countries | 13 483 | 8.5 | 8.6 | 8.5 | 8.4 | 7.8 | 7.4 | 6.8 | 6.5 | 6.8 | 7.5 | 9.3 | 9.6 | 9.1 | 8.7 | 8.0 | 7.9 | 7.6 | 7.1 | 6.8 |
| Total OECD | 36 007 | 8.1 | 7.7 | 7.6 | 7.6 | 7.1 | 6.5 | 6.0 | 5.9 | 6.5 | 7.1 | 7.9 | 7.8 | 7.5 | 7.4 | 7.0 | 6.9 | 6.6 | 6.3 | 6.1 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | 18 106 | 9.5 | 10.0 | 10.2 | 10.3 | 10.0 | 9.3 | 8.4 | 7.8 | 8.1 | 9.2 | 10.7 | 11.1 | 10.7 | 10.8 | 10.6 | 10.0 | 9.2 | 8.5 | 7.9 |
| Euro area | 14 803 | 9.3 | 10.0 | 10.3 | 10.4 | 10.4 | 10.1 | 9.2 | 8.5 | 8.2 | 9.1 | 10.9 | 11.6 | 11.3 | 11.6 | 11.6 | 10.9 | 10.1 | 9.2 | 8.5 |

a) For information on break in series, rebasing, data coverage, sources and definitions see "Sources and Methods".

Source: OECD.

Annex Table 22. **Standardised unemployment rates^a**

Per cent of civilian labour force

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| United States | 7.6 | 9.7 | 9.6 | 7.5 | 7.2 | 7.0 | 6.2 | 5.5 | 5.3 | 5.6 | 6.8 | 7.5 | 6.9 | 6.1 | 5.6 | 5.4 | 4.9 | 4.5 | 4.2 |
| Japan | 2.2 | 2.4 | 2.7 | 2.7 | 2.6 | 2.8 | 2.8 | 2.5 | 2.3 | 2.1 | 2.1 | 2.2 | 2.5 | 2.9 | 3.1 | 3.4 | 3.4 | 4.1 | 4.7 |
| Germany ^b | 4.0 | 5.7 | 6.9 | 7.1 | 7.2 | 6.5 | 6.3 | 6.2 | 5.6 | 4.8 | 4.2 | 4.5 | 7.9 | 8.4 | 8.2 | 8.9 | 9.9 | 9.4 | 8.7 |
| France | .. | 7.7 | 8.1 | 9.7 | 10.2 | 10.3 | 10.4 | 9.9 | 9.4 | 9.0 | 9.5 | 10.4 | 11.7 | 12.3 | 11.7 | 12.4 | 12.3 | 11.8 | 11.3 |
| Italy | .. | 6.4 | 7.5 | 8.0 | 8.3 | 9.0 | 9.7 | 9.8 | 9.8 | 9.0 | 8.6 | 8.8 | 10.2 | 11.2 | 11.6 | 11.7 | 11.7 | 11.9 | 11.4 |
| United Kingdom | .. | 10.3 | 11.1 | 11.2 | 11.5 | 11.6 | 10.6 | 8.7 | 7.3 | 7.1 | 8.9 | 10.0 | 10.5 | 9.6 | 8.7 | 8.2 | 7.0 | 6.3 | 6.1 |
| Canada | 7.6 | 11.0 | 11.9 | 11.3 | 10.7 | 9.6 | 8.8 | 7.8 | 7.5 | 8.1 | 10.3 | 11.2 | 11.4 | 10.4 | 9.4 | 9.6 | 9.1 | 8.3 | 7.6 |
| Total of major countries | 6.2 | 7.5 | 7.8 | 7.2 | 7.1 | 7.1 | 6.7 | 6.0 | 5.6 | 5.6 | 6.3 | 6.8 | 7.2 | 7 | 6.7 | 6.8 | 6.6 | 6.4 | 6.2 |
| Australia | 5.8 | 7.2 | 10.0 | 9.0 | 8.3 | 8.1 | 8.1 | 7.2 | 6.2 | 6.9 | 9.6 | 10.8 | 10.9 | 9.7 | 8.5 | 8.5 | 8.5 | 8.0 | 7.2 |
| Austria | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.0 | 3.8 | 3.9 | 4.3 | 4.4 | 4.5 | 3.7 |
| Belgium | 9.5 | 10.1 | 11.0 | 11.1 | 10.4 | 10.3 | 10.0 | 9.0 | 7.5 | 6.7 | 6.6 | 7.2 | 8.8 | 10.0 | 9.9 | 9.7 | 9.4 | 9.5 | 9.0 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.4 | 4.4 | 4.1 | 3.9 | 4.8 | 6.5 | 8.8 |
| Denmark | .. | 8.4 | 9.0 | 8.5 | 7.1 | 5.4 | 5.4 | 6.0 | 7.3 | 7.7 | 8.4 | 9.2 | 10.1 | 8.2 | 7.2 | 6.8 | 5.6 | 5.2 | 5.2 |
| Finland | 5.7 | 6.1 | 6.1 | 5.9 | 6.0 | 6.7 | 4.9 | 4.2 | 3.1 | 3.2 | 6.6 | 11.6 | 16.4 | 16.7 | 15.2 | 14.5 | 12.6 | 11.4 | 10.2 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 9.9 | 12.1 | 11.0 | 10.4 | 10.1 | 8.9 | 8.0 | 7.1 |
| Ireland | .. | 11.4 | 13.9 | 15.5 | 16.8 | 16.8 | 16.6 | 16.2 | 14.7 | 13.4 | 14.8 | 15.4 | 15.6 | 14.4 | 12.3 | 11.7 | 9.9 | 7.6 | 5.8 |
| Luxembourg | .. | 3.0 | 3.5 | 3.1 | 2.9 | 2.6 | 2.5 | 2.0 | 1.8 | 1.7 | 1.7 | 2.1 | 2.6 | 3.2 | 2.9 | 3.0 | 2.7 | 2.7 | 2.3 |
| Netherlands | 6.8 | 8.1 | 9.7 | 9.3 | 8.3 | 8.3 | 8.1 | 7.6 | 6.9 | 6.2 | 5.8 | 5.6 | 6.6 | 7.1 | 6.9 | 6.3 | 5.2 | 4.0 | 3.3 |
| New Zealand | 3.6 | 3.5 | 5.7 | 5.7 | 4.2 | 4.0 | 4.1 | 5.6 | 7.1 | 7.8 | 10.3 | 10.3 | 9.5 | 8.2 | 6.3 | 6.1 | 6.7 | 7.4 | 6.8 |
| Norway | 2.1 | 2.6 | 3.5 | 3.2 | 2.7 | 2.0 | 2.1 | 3.2 | 5.0 | 5.3 | 5.6 | 6.0 | 6.1 | 5.5 | 5.0 | 4.9 | 4.1 | 3.3 | 3.2 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 14.0 | 14.4 | 13.3 | 12.3 | 11.2 | 10.6 | .. |
| Portugal | .. | .. | 7.9 | 8.5 | 8.7 | 8.4 | 6.9 | 5.6 | 5.0 | 4.6 | 4.0 | 4.2 | 5.7 | 7.0 | 7.3 | 7.3 | 6.8 | 5.2 | 4.5 |
| Spain | 13.3 | 14.9 | 17.5 | 20.2 | 21.6 | 21.2 | 20.6 | 19.5 | 17.2 | 16.3 | 16.4 | 18.4 | 22.7 | 24.1 | 22.9 | 22.2 | 20.8 | 18.8 | 15.9 |
| Sweden | 2.5 | 3.3 | 3.7 | 3.3 | 2.9 | 2.7 | 2.2 | 1.8 | 1.5 | 1.7 | 3.1 | 5.6 | 9.1 | 9.4 | 8.8 | 9.6 | 9.9 | 8.3 | 7.2 |
| Switzerland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.0 | 3.1 | 4.0 | 3.8 | 3.5 | 3.9 | 4.2 | 3.5 | .. |
| Total OECD | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.2 | 8.1 | 7.7 | 7.7 | 7.4 | 7.1 | 6.8 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| European Union | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.2 | 9.2 | 10.7 | 11.1 | 10.7 | 10.8 | 10.6 | 9.9 | 9.2 |
| Euro area | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.24 | 9.15 | 10.9 | 11.6 | 11.3 | 11.5 | 11.5 | 10.9 | 10.0 |

Note: Data for European Union (EU) countries are calculated by Eurostat from 1982 onwards (1984 for Finland). Prior to these dates, figures published for EU countries are OECD estimates.

a) See technical notes in OECD *Quarterly Labour Force Statistics*.

b) Prior to 1993 data refers to Western Germany.

Source: OECD.

Annex Table 23. Labour force, employment and unemployment

Millions

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| Labour force | | | | | | | | | | | | | | | | | | | |
| <i>Major seven countries</i> | 284.5 | 288.2 | 291.6 | 295.8 | 299.2 | 303.1 | 307.0 | 311.0 | 322.5 | 324.7 | 325.9 | 328.3 | 329.9 | 332.6 | 336.5 | 338.6 | 341.1 | 344.4 | 347.2 |
| <i>Total of smaller countries^a</i> | 93.9 | 94.5 | 95.8 | 97.6 | 111.6 | 113.7 | 116.1 | 117.9 | 119.9 | 121.3 | 150.4 | 151.5 | 153.8 | 155.4 | 157.8 | 160.0 | 162.6 | 165.0 | 167.4 |
| <i>European Union</i> | 147.9 | 149.1 | 150.1 | 151.5 | 152.6 | 154.1 | 155.0 | 156.3 | 166.2 | 166.2 | 166.1 | 166.5 | 166.8 | 167.6 | 168.5 | 169.8 | 171.1 | 172.3 | 173.4 |
| <i>Euro area</i> | 110.1 | 110.6 | 111.2 | 112.4 | 113.3 | 114.2 | 114.9 | 116.1 | 126.3 | 126.3 | 126.2 | 126.7 | 126.8 | 127.5 | 128.4 | 129.3 | 130.3 | 131.2 | 132.1 |
| <i>Total OECD^a</i> | 378.5 | 382.7 | 387.4 | 393.4 | 410.8 | 416.8 | 423.1 | 429.0 | 442.4 | 446.0 | 476.2 | 479.7 | 483.7 | 488.0 | 494.3 | 498.7 | 503.8 | 509.4 | 514.5 |
| Employment | | | | | | | | | | | | | | | | | | | |
| <i>Major seven countries</i> | 261.8 | 267.0 | 270.4 | 274.3 | 278.9 | 284.4 | 289.6 | 293.6 | 302.1 | 301.9 | 302.3 | 305.3 | 307.7 | 310.1 | 314.3 | 317.0 | 320.0 | 324.3 | 327.2 |
| <i>Total of smaller countries^a</i> | 85.9 | 86.3 | 87.6 | 89.4 | 102.9 | 105.3 | 108.2 | 110.3 | 111.7 | 112.2 | 136.3 | 136.9 | 139.8 | 141.9 | 145.2 | 147.4 | 150.3 | 153.3 | 156.0 |
| <i>European Union</i> | 133.9 | 134.2 | 134.7 | 135.8 | 137.3 | 139.7 | 142.0 | 144.1 | 152.8 | 150.9 | 148.3 | 148.0 | 149.0 | 149.5 | 150.6 | 152.9 | 155.3 | 157.6 | 159.7 |
| <i>Euro area</i> | 99.8 | 99.5 | 99.7 | 100.7 | 101.5 | 102.7 | 104.3 | 106.3 | 115.9 | 114.8 | 112.5 | 112.0 | 112.5 | 112.7 | 113.5 | 115.2 | 117.2 | 119.1 | 120.9 |
| <i>Total OECD^a</i> | 347.8 | 353.3 | 358.0 | 363.6 | 381.8 | 389.8 | 397.7 | 403.9 | 413.8 | 414.1 | 438.7 | 442.2 | 447.5 | 452.0 | 459.5 | 464.5 | 470.3 | 477.6 | 483.2 |
| Unemployment | | | | | | | | | | | | | | | | | | | |
| <i>Major seven countries</i> | 22.7 | 21.2 | 21.2 | 21.5 | 20.4 | 18.7 | 17.5 | 17.4 | 20.4 | 22.8 | 23.5 | 23.0 | 22.1 | 22.5 | 22.2 | 21.6 | 21.1 | 20.1 | 19.9 |
| <i>Total of smaller countries^a</i> | 8.0 | 8.2 | 8.2 | 8.2 | 8.7 | 8.4 | 7.9 | 7.7 | 8.1 | 9.1 | 14.0 | 14.6 | 14.1 | 13.5 | 12.6 | 12.6 | 12.3 | 11.7 | 11.4 |
| <i>European Union</i> | 14.0 | 15.0 | 15.4 | 15.6 | 15.3 | 14.4 | 13.0 | 12.2 | 13.4 | 15.3 | 17.7 | 18.5 | 17.8 | 18.1 | 17.9 | 16.9 | 15.8 | 14.6 | 13.7 |
| <i>Euro area</i> | 10.2 | 11.1 | 11.5 | 11.7 | 11.8 | 11.5 | 10.6 | 9.9 | 10.3 | 11.5 | 13.7 | 14.7 | 14.3 | 14.8 | 15.0 | 14.2 | 13.1 | 12.1 | 11.2 |
| <i>Total OECD^a</i> | 30.7 | 29.4 | 29.4 | 29.7 | 29.0 | 27.0 | 25.4 | 25.1 | 28.5 | 31.9 | 37.6 | 37.6 | 36.2 | 36.0 | 34.8 | 34.2 | 33.5 | 31.9 | 31.3 |

a) The aggregate measures include Mexico as of 1987. There is a potential bias in the aggregates thereafter because of the limited coverage of the Mexican National Survey of Urban Employment.

Source : OECD.

Annex Table 26. Household saving rates^a

Percentage of disposable household income

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States ^b | 10.9 | 8.8 | 10.6 | 9.2 | 8.2 | 7.3 | 7.8 | 7.5 | 7.8 | 8.3 | 8.7 | 7.1 | 6.1 | 5.6 | 4.8 | 4.5 | 3.7 | 2.4 | 1.1 | 1.5 |
| Japan | 16.7 | 16.1 | 15.8 | 15.6 | 15.6 | 13.8 | 13.0 | 12.9 | 12.1 | 13.2 | 13.1 | 13.4 | 13.3 | 13.7 | 13.4 | 12.6 | 13.4 | 13.1 | 12.2 | 12.0 |
| Germany ^b | 10.9 | 9.0 | 9.5 | 9.5 | 10.4 | 13.6 | 16.0 | 14.1 | 16.1 | 12.2 | 12.0 | 11.8 | 11.0 | 10.3 | 9.9 | 9.5 | 9.1 | 8.6 | 8.4 | 8.8 |
| France ^b | 16.2 | 14.7 | 13.0 | 12.3 | 11.8 | 10.0 | 11.3 | 11.6 | 12.6 | 13.5 | 14.7 | 15.2 | 14.8 | 15.9 | 14.8 | 16.0 | 15.6 | 15.7 | 15.2 | 15.0 |
| Italy ^b | 22.5 | 24.7 | 22.8 | 21.0 | 20.2 | 19.5 | 18.4 | 17.0 | 18.4 | 18.7 | 18.4 | 17.2 | 17.2 | 16.6 | 16.0 | 14.6 | 13.4 | 12.7 | 12.7 | 12.7 |
| United Kingdom ^b | 10.8 | 8.7 | 10.1 | 9.6 | 7.9 | 5.8 | 4.1 | 5.9 | 7.7 | 9.7 | 11.8 | 11.2 | 9.6 | 10.5 | 9.7 | 9.6 | 6.3 | 6.2 | 6.1 | 6.2 |
| Canada ^b | 19.0 | 15.4 | 15.2 | 14.2 | 11.9 | 10.3 | 10.7 | 11.5 | 11.5 | 11.7 | 11.4 | 10.3 | 7.7 | 7.5 | 5.2 | 2.8 | 2.4 | 1.4 | 1.0 | 1.4 |
| Australia | 12.3 | 12.1 | 13.5 | 10.9 | 10.3 | 8.0 | 6.6 | 8.2 | 8.7 | 6.0 | 5.3 | 3.8 | 5.6 | 5.1 | 5.9 | 4.1 | 2.6 | 1.7 | 1.7 | 1.9 |
| Belgium ^c | 12.5 | 13.4 | 12.5 | 10.5 | 12.3 | 11.1 | 12.4 | 13.5 | 13.9 | 15.6 | 16.6 | 17.9 | 15.8 | 15.1 | 13.4 | 12.5 | 12.2 | 12.9 | 12.7 | 12.8 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6.0 | 1.9 | 6.2 | 8.2 | 8.3 | 9.3 | 10.3 | 10.2 | 9.6 |
| Denmark | .. | .. | .. | .. | .. | .. | 7.6 | 8.6 | 11.4 | 11.1 | 9.9 | 8.6 | 4.5 | 7.1 | 5.6 | 4.8 | 5.7 | 5.1 | 5.0 | 5.1 |
| Finland | 3.6 | 4.2 | 3.6 | 3.2 | 1.8 | 2.9 | -0.5 | 0.3 | 2.9 | 7.8 | 10.1 | 7.6 | 2.7 | 6.0 | 2.0 | 4.4 | 3.9 | 4.6 | 3.8 | 3.6 |
| Greece | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8.1 | 10.0 | 4.2 | 7.2 | 13.6 | 16.7 | 17.5 | 17.7 | 18.2 |
| Iceland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Ireland | 16.4 | 14.7 | 15.5 | 13.7 | 11.9 | 12.7 | 10.0 | 8.3 | 9.8 | 11.0 | 9.8 | 11.8 | 7.8 | 9.9 | 9.1 | 11.7 | 11.7 | 11.3 | 11.7 | 11.6 |
| Korea | 11.0 | 10.8 | 13.7 | 13.5 | 18.5 | 21.8 | 23.4 | 21.7 | 19.8 | 21.9 | 20.2 | 18.6 | 17.9 | 17.9 | 17.3 | 17.6 | 16.7 | 16.6 | 17.1 | 17.3 |
| Luxembourg | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Mexico | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Netherlands ^d | 9.5 | 5.7 | 5.5 | 5.5 | 8.3 | 8.4 | 8.2 | 10.1 | 11.9 | 7.2 | 8.4 | 6.8 | 7.1 | 6.5 | 5.7 | 5.7 | 4.2 | 2.8 | 2.4 | 3.7 |
| New Zealand | 9.0 | 6.9 | 6.6 | 5.7 | 4.4 | 7.2 | 5.8 | 5.5 | 3.3 | 5.5 | 3.3 | 3.4 | 0.5 | 0.5 | 0.4 | 1.3 | 1.6 | 0.4 | 0.3 | 0.6 |
| Norway | 4.4 | 4.2 | 5.0 | -1.8 | -4.7 | -4.6 | -1.2 | 1.1 | 2.2 | 4.2 | 5.9 | 6.9 | 5.9 | 5.7 | 4.7 | 4.8 | 6.6 | 6.7 | 6.6 | 6.4 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Portugal | 24.1 | 22.4 | 23.2 | 24.3 | 21.8 | 21.4 | 16.4 | 15.1 | 16.4 | 17.0 | 14.8 | 12.6 | 10.2 | 10.3 | 10.2 | 10.4 | 10.6 | 9.5 | 8.7 | 8.2 |
| Spain ^b | 12.2 | 11.8 | 10.9 | 10.6 | 12.1 | 10.6 | 11.0 | 10.0 | 11.8 | 12.7 | 11.2 | 13.9 | 11.4 | 13.4 | 12.6 | 11.4 | 11.1 | 10.2 | 10.0 | 10.0 |
| Sweden | 3.2 | 4.0 | 3.7 | 3.9 | 2.9 | -1.2 | -3.2 | -3.2 | 1.0 | 4.7 | 9.2 | 9.7 | 9.3 | 6.9 | 5.1 | 2.0 | 2.4 | 1.6 | 1.0 | 0.2 |
| Switzerland | 3.2 | 2.7 | 2.9 | 2.8 | 3.8 | 5.5 | 7.9 | 9.3 | 10.3 | 10.5 | 10.1 | 10.8 | 9.1 | 9.5 | 8.5 | 9.0 | 8.9 | 8.1 | 8.1 | 8.1 |
| Turkey | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

a) National definition except the United States.

b) Gross saving.

c) Data are on a ESA79 basis.

d) Excluding mandatory saving through occupational pension schemes.

Source : OECD.

Annex Table 27. Gross national saving
As a percentage of nominal GDP

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <i>United States^a</i> | 19.4 | 20.7 | 18.2 | 16.3 | 18.6 | 17.2 | 15.7 | 15.9 | 16.7 | 16.2 | 15.2 | 15.4 | 14.1 | 14.2 | 15.4 | 16.2 | 16.6 | 17.4 | .. |
| <i>Japan^a</i> | 31.1 | 31.5 | 30.6 | 29.8 | 30.8 | 31.7 | 31.9 | 32.5 | 33.4 | 33.6 | 33.6 | 34.5 | 33.9 | 32.7 | 31.3 | 30.8 | 31.6 | 31.0 | .. |
| <i>Germany</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 23.3 | 23.1 | 22.0 | 22.0 | 21.9 | 21.3 | 21.6 | 21.7 |
| <i>France</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 20.5 | 19.0 | 19.2 | 19.5 | 19.2 | 20.5 | 20.9 |
| <i>Italy</i> | .. | .. | 22.8 | 23.1 | 23.1 | 22.6 | 22.4 | 21.9 | 21.8 | 21.0 | 20.7 | 19.6 | 18.3 | 19.2 | 19.7 | 21.6 | 21.9 | 21.7 | 21.4 |
| <i>United Kingdom</i> | .. | .. | .. | .. | .. | .. | .. | 17.8 | 17.8 | 17.6 | 16.8 | 15.7 | 14.6 | 14.3 | 16.2 | 16.4 | 16.8 | 18.1 | 18.1 |
| <i>Canada</i> | 22.5 | 22.5 | 19.7 | 19.6 | 20.3 | 19.7 | 18.2 | 19.5 | 20.3 | 19.5 | 17.0 | 14.3 | 13.0 | 13.6 | 15.7 | 17.9 | 18.5 | 18.8 | 18.0 |
| <i>Total of major countries</i> | 22.6 | 23.6 | 21.6 | 20.3 | 22.0 | 21.3 | 20.3 | 20.3 | 21.0 | 20.6 | 19.9 | 20.2 | 19.3 | 19.0 | 19.6 | 20.1 | 20.4 | 20.9 | 20.4 |
| <i>Australia</i> | 21.8 | 20.9 | 18.6 | 20.6 | 20.2 | 19.0 | 19.5 | 21.3 | 22.6 | 21.4 | 17.7 | 15.8 | 16.6 | 18.0 | 17.7 | 18.1 | 19.3 | 19.7 | 20.1 |
| <i>Austria</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 22.1 | 21.5 | 22.4 | 22.6 |
| <i>Belgium</i> | 20.2 | 17.3 | 16.3 | 16.7 | 17.5 | 17.4 | 19.0 | 19.5 | 21.8 | 22.3 | 22.9 | 22.1 | 22.9 | 24.0 | 24.7 | 25.0 | 24.5 | 25.3 | 25.2 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 27.9 | 27.9 | 27.4 | 29.9 | 28.1 | .. | .. |
| <i>Denmark</i> | .. | .. | .. | .. | .. | .. | .. | .. | 19.2 | 19.5 | 20.7 | 20.0 | 20.3 | 19.2 | 19.1 | 20.4 | 20.4 | 20.4 | 19.9 |
| <i>Finland</i> | 27.0 | 26.1 | 24.7 | 24.2 | 25.4 | 24.4 | 23.8 | 23.7 | 26.1 | 26.1 | 24.5 | 16.8 | 14.0 | 14.9 | 18.4 | 21.6 | 20.7 | 24.1 | 24.9 |
| <i>Greece</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.0 | 17.4 | 18.7 | 20.1 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Iceland^a</i> | 24.0 | 21.5 | 19.0 | 18.3 | 16.3 | 14.7 | 17.4 | 15.2 | 15.0 | 15.0 | 16.0 | 14.9 | 15.0 | 16.6 | 17.1 | 16.0 | 16.1 | 17.2 | 15.9 |
| <i>Ireland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 19.2 | 19.0 | 16.5 | 18.0 | 18.3 | 20.7 | 22.0 | 23.3 | 24.4 |
| <i>Korea</i> | 24.2 | 24.0 | 25.1 | 28.8 | 30.6 | 30.6 | 34.6 | 38.4 | 40.7 | 37.6 | 37.6 | 37.4 | 36.5 | 36.2 | 35.6 | 35.4 | 33.7 | 33.3 | 33.0 |
| <i>Luxembourg</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| <i>Mexico</i> | .. | .. | .. | .. | .. | .. | .. | .. | 21.3 | 20.3 | 20.3 | 18.7 | 16.6 | 15.1 | 14.8 | 19.3 | 22.5 | 24.1 | .. |
| <i>Netherlands</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 27.4 | 26.7 | 28.6 | 27.9 |
| <i>New Zealand^a</i> | .. | .. | .. | .. | .. | .. | 18.9 | 17.9 | 17.8 | 15.6 | 14.0 | 13.7 | 16.4 | 19.2 | 19.1 | 17.4 | 15.1 | 15.1 | 12.4 |
| <i>Norway</i> | 30.6 | 30.6 | 29.1 | 29.6 | 32.1 | 31.2 | 25.5 | 25.7 | 25.1 | 26.2 | 25.8 | 25.1 | 24.2 | 24.6 | 25.4 | 27.0 | 29.3 | 30.2 | 27.1 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 15.9 | 15.4 | 15.8 | 20.2 | 21.4 | 20.9 | 21.0 | .. |
| <i>Portugal</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 21.7 | 20.4 | 21.0 | 20.6 |
| <i>Spain</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 22.3 | 22.0 | 22.5 | 22.7 |
| <i>Sweden</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.4 | 17.1 | 19.9 | 18.9 | 19.1 | 20.1 |
| <i>Switzerland^a</i> | 28.5 | 29.5 | 28.3 | 27.4 | 30.0 | 30.4 | 30.0 | 29.8 | 31.8 | 32.5 | 32.3 | 30.2 | 28.4 | 28.9 | 27.9 | 28.5 | 27.9 | 29.3 | .. |
| <i>Turkey^a</i> | 12.1 | 19.2 | 18.4 | 15.5 | 16.3 | 20.7 | 23.9 | 24.3 | 28.9 | 26.4 | 21.5 | 17.7 | 18.5 | 18.7 | 18.9 | 20.1 | 22.6 | 21.6 | .. |
| <i>Total of smaller countries</i> | 22.0 | 22.7 | 22.1 | 23.1 | 24.2 | 24.7 | 26.2 | 27.8 | 27.6 | 26.3 | 25.0 | 23.4 | 22.7 | 21.9 | 22.4 | 23.7 | 23.8 | 24.4 | 24.6 |
| <i>Total OECD</i> | 22.5 | 23.5 | 21.7 | 20.7 | 22.3 | 21.8 | 21.1 | 21.3 | 22.2 | 21.6 | 20.8 | 20.7 | 19.8 | 19.5 | 20.1 | 20.9 | 21.2 | 21.7 | 21.9 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 22.3 | 20.0 | 21.9 | 22.2 | 22.4 | 21.9 | 21.9 | 20.0 | 20.2 | 19.8 | 19.4 | 20.1 | 19.7 | 19.0 | 19.7 | 20.8 | 20.6 | 21.3 | 21.4 |

^a) SNA 68
Source : OECD.

Annex Table 28. General government total outlays^a

As a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 33.9 | 33.1 | 33.8 | 34.2 | 33.9 | 32.9 | 32.8 | 33.6 | 34.2 | 34.8 | 34.1 | 33.1 | 32.9 | 32.4 | 31.4 | 30.5 | 30.1 | 29.5 | 29.4 |
| Japan ^b | 33.3 | 32.3 | 31.6 | 31.9 | 32.1 | 31.3 | 30.6 | 31.3 | 30.9 | 31.7 | 33.7 | 34.4 | 35.6 | 35.9 | 34.9 | 36.6 | 38.1 | 38.4 | 38.2 |
| Germany ^c | 46.4 | 46.1 | 45.6 | 45.0 | 45.3 | 44.9 | 43.5 | 43.8 | 44.2 | 45.1 | 46.2 | 46.0 | 46.3 | 47.3 | 46.3 | 45.6 | 45.6 | 45.1 | 44.1 |
| France | 50.5 | 51.0 | 51.8 | 51.2 | 50.2 | 49.9 | 48.9 | 49.6 | 50.0 | 51.7 | 53.9 | 53.8 | 53.5 | 53.8 | 52.8 | 52.3 | 52.2 | 50.9 | 50.2 |
| Italy | 48.6 | 49.4 | 50.6 | 50.6 | 50.3 | 50.4 | 51.2 | 53.1 | 53.1 | 53.3 | 56.4 | 53.9 | 52.3 | 52.5 | 49.9 | 48.7 | 48.3 | 47.3 | 46.5 |
| United Kingdom | .. | .. | .. | .. | 43.0 | 40.6 | 39.8 | 41.8 | 43.4 | 45.2 | 45.4 | 44.7 | 44.4 | 43.0 | 40.9 | 40.0 | 39.3 | 39.4 | 39.4 |
| Canada | 45.8 | 45.3 | 46.0 | 45.4 | 44.0 | 43.4 | 43.9 | 46.7 | 50.1 | 51.1 | 50.0 | 47.5 | 46.3 | 44.4 | 42.4 | 42.6 | 40.2 | 39.3 | 39.0 |
| Total of above countries | 38.1 | 37.5 | 37.9 | 38.1 | 38.2 | 37.3 | 36.9 | 37.9 | 38.5 | 39.4 | 39.9 | 39.1 | 39.1 | 38.9 | 37.7 | 37.3 | 37.2 | 36.7 | 36.4 |
| Australia | 35.3 | 36.4 | 37.3 | 37.4 | 35.7 | 33.1 | 31.9 | 33.5 | 34.7 | 36.3 | 36.4 | 35.0 | 35.5 | 34.7 | 33.2 | 32.8 | 32.3 | 32.1 | 31.8 |
| Austria | 49.0 | 49.2 | 50.1 | 50.9 | 51.4 | 50.3 | 48.9 | 48.5 | 49.6 | 50.2 | 53.0 | 52.4 | 52.6 | 51.9 | 50.7 | 50.9 | 50.7 | 49.6 | 48.5 |
| Belgium | 59.0 | 57.9 | 57.3 | 56.4 | 54.5 | 52.4 | 50.8 | 50.7 | 51.6 | 51.7 | 53.1 | 51.1 | 50.1 | 50.3 | 48.5 | 48.0 | 47.9 | 46.9 | 46.3 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 40.6 | 44.0 | 43.1 | 41.7 | 40.9 | 40.6 | 46.0 | 46.8 | 46.5 |
| Denmark | .. | .. | .. | .. | .. | 56.6 | 56.7 | 56.0 | 56.9 | 58.0 | 60.6 | 60.6 | 59.0 | 58.7 | 56.9 | 55.7 | 54.3 | 54.2 | 54.1 |
| Finland | 39.8 | 39.8 | 41.8 | 43.0 | 43.5 | 42.7 | 41.0 | 44.4 | 52.7 | 57.7 | 59.1 | 57.5 | 54.3 | 54.0 | 51.3 | 48.4 | 47.1 | 44.5 | 42.4 |
| Greece | 36.9 | 39.2 | 42.3 | 41.9 | 41.7 | 41.8 | 43.2 | 47.8 | 43.8 | 45.8 | 47.9 | 45.5 | 46.6 | 44.4 | 42.8 | 42.6 | 43.5 | 43.4 | 42.6 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 50.1 | 48.4 | 46.9 | 45.8 | 45.1 |
| Iceland | .. | .. | .. | .. | 32.5 | 37.1 | 39.4 | 36.7 | 37.4 | 37.7 | 37.4 | 37.1 | 36.0 | 35.5 | 33.8 | 32.9 | 33.4 | 32.8 | 32.3 |
| Ireland | 49.4 | 47.7 | 48.6 | 48.3 | 46.6 | 43.0 | 36.9 | 37.8 | 39.0 | 39.4 | 39.1 | 38.9 | 36.4 | 34.5 | 33.2 | 31.0 | 31.5 | 30.2 | 27.5 |
| Korea | 18.5 | 17.7 | 17.6 | 16.8 | 15.9 | 16.1 | 17.2 | 18.1 | 19.3 | 20.5 | 19.8 | 19.6 | 19.1 | 20.4 | 22.1 | 25.8 | 25.5 | 24.8 | 24.3 |
| Netherlands | 54.7 | 53.8 | 51.9 | 52.0 | 53.3 | 51.3 | 48.9 | 49.4 | 49.5 | 50.0 | 49.9 | 47.6 | 47.7 | 45.6 | 44.6 | 43.5 | 43.2 | 42.5 | 41.8 |
| New Zealand | .. | .. | .. | 52.6 | 49.0 | 49.9 | 48.4 | 48.8 | 45.8 | 45.4 | 42.0 | 39.6 | 38.8 | 38.5 | 38.9 | 39.5 | 40.8 | 39.7 | 39.0 |
| Norway | 44.0 | 42.1 | 41.5 | 45.4 | 47.7 | 49.5 | 49.1 | 49.7 | 50.6 | 52.0 | 51.0 | 49.9 | 47.6 | 45.4 | 43.8 | 46.4 | 46.1 | 41.9 | 42.4 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 54.3 | 49.1 | 47.7 | 46.6 | 46.0 | 44.3 | 44.5 | 42.5 | 41.1 |
| Portugal | 44.5 | 41.1 | 40.2 | 40.6 | 39.2 | 38.5 | 37.6 | 40.6 | 43.1 | 43.6 | 45.3 | 43.8 | 44.5 | 43.4 | 43.5 | 43.5 | 44.7 | 46.3 | 47.0 |
| Spain | 35.4 | 35.2 | 37.7 | 38.6 | 37.7 | 37.2 | 38.9 | 39.7 | 40.7 | 42.0 | 45.2 | 43.1 | 42.5 | 41.3 | 40.0 | 39.7 | 38.6 | 37.9 | 37.3 |
| Sweden | 61.4 | 59.0 | 60.3 | 58.6 | 55.0 | 55.2 | 55.5 | 56.2 | 58.3 | 64.0 | 67.7 | 65.3 | 62.4 | 60.8 | 58.7 | 56.1 | 55.9 | 54.5 | 53.5 |
| Total of above smaller countries | 39.3 | 38.7 | 39.4 | 39.7 | 38.9 | 38.7 | 38.5 | 39.5 | 40.6 | 42.0 | 43.8 | 42.3 | 41.6 | 40.9 | 40.4 | 40.4 | 40.3 | 39.5 | 38.8 |
| Total of above OECD countries | 38.3 | 37.7 | 38.2 | 38.3 | 38.3 | 37.6 | 37.2 | 38.2 | 38.9 | 39.8 | 40.6 | 39.7 | 39.6 | 39.3 | 38.2 | 37.9 | 37.8 | 37.3 | 36.9 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | 47.7 | 47.6 | 48.2 | 48.0 | 46.9 | 46.2 | 45.7 | 46.7 | 47.4 | 48.6 | 50.3 | 49.2 | 48.8 | 48.5 | 47.0 | 46.2 | 45.9 | 45.3 | 44.6 |
| Euro area | 47.3 | 47.3 | 47.7 | 47.6 | 47.2 | 46.7 | 46.0 | 46.8 | 47.3 | 48.2 | 50.3 | 49.3 | 48.9 | 49.2 | 47.9 | 47.1 | 46.8 | 46.0 | 45.1 |

Note: The numbers are subject to revision for countries that have changed their national accounts since there can be differences between the treatment of individual items of the government accounts in ESA95/SNA93 and the databank of the *OECD Economic Outlook*. For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) Current outlays plus net capital outlays.

b) The 1998 outlays would have risen by 5.4 percentage points of GDP if account were taken of the assumption by the central government of the debt of the Japan Railway Settlement Corporation and the National Forest Special Account.

c) Includes outlays of the German Railways Fund from 1994 onwards and the Inherited Debt Fund from 1995 onwards.

Source: OECD.

Annex Table 29 . General government current tax and non-tax receipts^a

As a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 28.3 | 28.3 | 28.7 | 28.9 | 29.6 | 29.3 | 29.5 | 29.3 | 29.2 | 28.9 | 29.2 | 29.4 | 29.8 | 30.2 | 30.5 | 30.9 | 31.1 | 31.2 | 31.1 |
| Japan | 29.6 | 30.2 | 30.8 | 31.0 | 32.5 | 32.8 | 33.1 | 34.2 | 33.8 | 33.2 | 32.1 | 32.1 | 32.0 | 31.7 | 31.6 | 31.6 | 31.1 | 31.8 | 31.9 |
| Germany | 44.0 | 44.2 | 44.5 | 43.8 | 43.5 | 42.8 | 43.6 | 41.8 | 41.3 | 42.6 | 43.0 | 43.5 | 43.1 | 43.9 | 43.7 | 43.8 | 44.6 | 43.9 | 42.4 |
| France | 47.4 | 48.3 | 48.7 | 47.9 | 48.4 | 47.7 | 47.2 | 47.5 | 47.7 | 47.5 | 47.9 | 48.2 | 48.0 | 49.7 | 49.7 | 49.6 | 50.4 | 49.5 | 49.1 |
| Italy | 38.1 | 38.0 | 38.4 | 39.3 | 39.4 | 39.7 | 41.4 | 42.1 | 43.1 | 43.8 | 47.0 | 44.8 | 44.7 | 45.4 | 47.2 | 45.9 | 46.4 | 45.8 | 45.3 |
| United Kingdom | .. | .. | .. | .. | 41.1 | 41.2 | 40.8 | 40.3 | 40.6 | 38.7 | 37.4 | 37.9 | 38.6 | 38.6 | 38.9 | 40.2 | 40.4 | 40.5 | 40.4 |
| Canada | 38.9 | 38.9 | 38.7 | 39.5 | 39.9 | 40.3 | 40.6 | 42.1 | 42.9 | 43.1 | 42.4 | 41.9 | 42.0 | 42.6 | 43.2 | 43.5 | 42.9 | 41.8 | 41.2 |
| Total of above countries | 33.0 | 33.2 | 33.6 | 33.7 | 34.8 | 34.7 | 35.0 | 35.0 | 35.1 | 34.9 | 35.0 | 35.0 | 35.2 | 35.6 | 35.9 | 36.0 | 36.2 | 36.2 | 35.9 |
| Australia | 29.9 | 31.2 | 32.2 | 33.2 | 33.6 | 32.7 | 31.8 | 32.3 | 30.9 | 30.4 | 30.9 | 30.4 | 31.8 | 32.6 | 32.7 | 33.3 | 33.9 | 32.8 | 32.3 |
| Austria | 45.0 | 46.6 | 47.5 | 47.1 | 47.0 | 46.9 | 45.8 | 46.1 | 46.6 | 48.2 | 48.8 | 47.5 | 47.5 | 48.1 | 48.9 | 48.5 | 48.7 | 47.7 | 46.6 |
| Belgium | 46.4 | 47.1 | 47.0 | 46.3 | 46.5 | 45.1 | 43.2 | 44.0 | 44.3 | 43.8 | 45.9 | 46.1 | 45.9 | 46.6 | 46.8 | 47.0 | 47.2 | 47.0 | 46.8 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 42.3 | 42.1 | 41.5 | 39.8 | 38.9 | 38.2 | 41.6 | 40.8 | 40.5 |
| Denmark | .. | .. | .. | .. | .. | 58.1 | 57.0 | 55.0 | 54.5 | 55.8 | 57.8 | 58.1 | 56.8 | 57.7 | 57.0 | 56.6 | 57.3 | 57.0 | 56.9 |
| Finland | 41.8 | 43.7 | 45.4 | 46.7 | 44.7 | 46.5 | 46.9 | 49.6 | 51.6 | 52.0 | 51.8 | 51.8 | 50.6 | 50.9 | 49.8 | 49.7 | 49.4 | 48.3 | 47.2 |
| Greece | 29.8 | 30.8 | 30.8 | 31.6 | 32.2 | 30.3 | 28.8 | 31.7 | 32.3 | 33.0 | 34.1 | 35.5 | 36.4 | 36.9 | 38.9 | 40.1 | 41.9 | 41.9 | 41.8 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 43.2 | 42.4 | 41.3 | 41.2 | 41.4 |
| Iceland | .. | .. | .. | .. | 31.7 | 35.0 | 34.8 | 33.4 | 34.5 | 34.9 | 32.9 | 32.4 | 33.1 | 33.9 | 33.8 | 33.4 | 35.6 | 35.2 | 34.5 |
| Ireland | 38.5 | 38.6 | 38.2 | 38.1 | 38.4 | 38.7 | 35.2 | 35.0 | 36.2 | 36.5 | 36.3 | 36.9 | 34.0 | 34.3 | 33.8 | 33.2 | 33.2 | 32.3 | 32.2 |
| Korea | 20.3 | 19.2 | 18.8 | 18.4 | 18.6 | 19.7 | 20.8 | 21.8 | 21.3 | 22.0 | 22.6 | 22.9 | 23.5 | 24.6 | 24.5 | 25.6 | 26.4 | 26.6 | 26.8 |
| Netherlands | 48.3 | 47.6 | 47.9 | 46.3 | 46.7 | 46.2 | 43.6 | 43.7 | 46.3 | 45.6 | 46.3 | 43.4 | 43.6 | 43.8 | 43.4 | 42.8 | 43.7 | 43.1 | 41.9 |
| New Zealand | .. | .. | .. | 46.0 | 46.7 | 45.1 | 44.7 | 44.0 | 42.1 | 42.1 | 41.4 | 42.6 | 41.9 | 41.4 | 40.9 | 41.0 | 41.1 | 40.7 | 40.4 |
| Norway | 50.1 | 49.1 | 51.4 | 51.3 | 52.3 | 52.1 | 51.0 | 52.3 | 50.7 | 50.2 | 49.6 | 50.3 | 51.1 | 52.0 | 51.7 | 50.0 | 51.0 | 52.6 | 54.0 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 49.8 | 46.0 | 44.6 | 43.5 | 43.0 | 41.9 | 41.0 | 39.5 | 38.5 |
| Portugal | 34.5 | 34.1 | 32.8 | 34.3 | 33.7 | 35.0 | 35.2 | 35.5 | 37.1 | 40.7 | 39.2 | 37.8 | 38.8 | 40.1 | 41.0 | 41.3 | 42.8 | 44.7 | 45.5 |
| Spain | 31.3 | 30.9 | 32.2 | 32.7 | 34.1 | 33.9 | 35.3 | 35.6 | 36.5 | 38.1 | 38.6 | 37.1 | 35.5 | 36.3 | 36.8 | 37.1 | 37.5 | 37.5 | 37.2 |
| Sweden | 56.6 | 56.2 | 56.6 | 57.5 | 59.1 | 58.6 | 60.6 | 60.2 | 57.3 | 56.6 | 55.9 | 54.4 | 54.6 | 57.2 | 57.0 | 58.0 | 57.8 | 56.9 | 56.7 |
| Total of above smaller countries | 35.3 | 35.3 | 35.7 | 36.0 | 36.5 | 37.2 | 37.0 | 37.6 | 37.7 | 38.2 | 39.6 | 38.8 | 38.6 | 39.2 | 39.4 | 39.5 | 40.1 | 39.7 | 39.4 |
| Total of above OECD countries | 33.4 | 33.5 | 34.0 | 34.1 | 35.1 | 35.1 | 35.3 | 35.4 | 35.5 | 35.4 | 35.8 | 35.7 | 35.8 | 36.3 | 36.5 | 36.7 | 36.9 | 36.8 | 36.5 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | 42.3 | 42.6 | 43.0 | 42.8 | 42.8 | 42.7 | 43.0 | 42.7 | 43.0 | 43.4 | 44.0 | 43.6 | 43.4 | 44.2 | 44.6 | 44.6 | 45.2 | 44.7 | 44.1 |
| Euro area | 42.4 | 42.6 | 43.0 | 42.8 | 42.8 | 42.4 | 42.7 | 42.5 | 42.8 | 43.5 | 44.8 | 44.3 | 44.0 | 45.0 | 45.3 | 45.0 | 45.6 | 45.0 | 44.1 |

Note: The numbers are subject to revision for countries that have changed their national accounts since there can be differences between the treatment of individual items of the government accounts in ESA95/SNA93 and the databank of the *OECD Economic Outlook*. For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) Current receipts exclude capital receipts. Non-tax current receipts include operating surpluses of departmental enterprises, property income, fees, charges, fines etc.

Source: OECD.

Annex Table 30. **General government financial balances**

Surplus (+) or deficit (-) as a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -5.6 | -4.7 | -5.0 | -5.3 | -4.3 | -3.6 | -3.2 | -4.3 | -5.0 | -5.9 | -5.0 | -3.6 | -3.1 | -2.2 | -0.9 | 0.4 | 1.0 | 1.6 | 1.7 |
| Japan ^a | -3.6 | -2.1 | -0.8 | -0.9 | 0.5 | 1.5 | 2.5 | 2.9 | 2.9 | 1.5 | -1.6 | -2.3 | -3.6 | -4.2 | -3.3 | -5.0 | -7.0 | -6.7 | -6.3 |
| Germany ^b | -2.5 | -1.9 | -1.1 | -1.3 | -1.8 | -2.1 | 0.1 | -2.0 | -2.9 | -2.5 | -3.2 | -2.5 | -3.2 | -3.4 | -2.6 | -1.7 | -1.1 | -1.2 | -1.7 |
| France | -3.1 | -2.7 | -3.1 | -3.3 | -1.8 | -2.2 | -1.8 | -2.1 | -2.4 | -4.2 | -6.0 | -5.5 | -5.5 | -4.1 | -3.0 | -2.7 | -1.8 | -1.4 | -1.2 |
| Italy | -10.4 | -11.4 | -12.2 | -11.4 | -11.0 | -10.7 | -9.8 | -11.0 | -10.0 | -9.5 | -9.4 | -9.1 | -7.6 | -7.1 | -2.7 | -2.8 | -1.9 | -1.5 | -1.1 |
| United Kingdom | -3.3 | -4.0 | -2.9 | -2.6 | -1.9 | 0.6 | 0.9 | -1.5 | -2.8 | -6.5 | -8.0 | -6.8 | -5.8 | -4.4 | -2.0 | 0.2 | 1.1 | 1.1 | 0.9 |
| Canada | -6.8 | -6.5 | -7.3 | -5.9 | -4.1 | -3.1 | -3.3 | -4.5 | -7.2 | -8.0 | -7.6 | -5.6 | -4.3 | -1.8 | 0.8 | 0.9 | 2.8 | 2.5 | 2.2 |
| Total of above countries | -5.0 | -4.3 | -4.2 | -4.2 | -3.3 | -2.7 | -2.0 | -2.9 | -3.5 | -4.5 | -4.9 | -4.1 | -3.9 | -3.3 | -1.8 | -1.2 | -1.0 | -0.6 | -0.6 |
| Australia | -5.4 | -5.2 | -5.1 | -4.2 | -2.2 | -0.4 | 0.0 | -1.2 | -3.8 | -5.9 | -5.5 | -4.6 | -3.7 | -2.1 | -0.5 | 0.6 | 1.6 | 0.7 | 0.4 |
| Austria | -3.9 | -2.6 | -2.6 | -3.8 | -4.3 | -3.5 | -3.1 | -2.4 | -3.0 | -2.0 | -4.2 | -5.0 | -5.1 | -3.8 | -1.9 | -2.4 | -2.0 | -1.9 | -1.9 |
| Belgium | -12.6 | -10.8 | -10.3 | -10.1 | -7.9 | -7.2 | -7.6 | -6.8 | -7.2 | -7.9 | -7.2 | -4.9 | -4.2 | -3.7 | -1.8 | -1.0 | -0.7 | 0.0 | 0.5 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.7 | -1.9 | -1.6 | -1.9 | -2.0 | -2.4 | -4.3 | -5.9 | -6.0 |
| Denmark | .. | .. | .. | .. | .. | 1.5 | 0.3 | -1.0 | -2.4 | -2.2 | -2.9 | -2.4 | -2.3 | -1.0 | 0.1 | 0.9 | 3.0 | 2.8 | 2.8 |
| Finland | 2.0 | 4.0 | 3.7 | 3.7 | 1.2 | 3.8 | 6.0 | 5.3 | -1.1 | -5.6 | -7.3 | -5.7 | -3.7 | -3.2 | -1.5 | 1.3 | 2.3 | 3.8 | 4.9 |
| Greece | -7.1 | -8.4 | -11.5 | -10.3 | -9.5 | -11.5 | -14.4 | -16.1 | -11.5 | -12.8 | -13.8 | -10.0 | -10.2 | -7.4 | -3.9 | -2.5 | -1.6 | -1.5 | -0.8 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -6.9 | -6.1 | -5.7 | -4.6 | -3.6 |
| Iceland | .. | .. | .. | .. | -0.9 | -2.0 | -4.6 | -3.3 | -2.9 | -2.8 | -4.5 | -4.7 | -3.0 | -1.6 | 0.0 | 0.5 | 2.2 | 2.4 | 2.2 |
| Ireland | -10.9 | -9.1 | -10.4 | -10.2 | -8.2 | -4.3 | -1.7 | -2.8 | -2.9 | -3.0 | -2.7 | -2.0 | -2.5 | -0.2 | 0.6 | 2.2 | 1.7 | 2.0 | 4.8 |
| Korea | 1.7 | 1.5 | 1.2 | 1.7 | 2.7 | 3.7 | 3.6 | 3.8 | 2.0 | 1.5 | 2.7 | 3.3 | 4.4 | 4.2 | 2.4 | -0.3 | 1.0 | 1.8 | 2.5 |
| Netherlands | -6.4 | -6.2 | -4.1 | -5.7 | -6.6 | -5.1 | -5.3 | -5.7 | -3.2 | -4.4 | -3.6 | -4.2 | -4.2 | -1.8 | -1.2 | -0.8 | 0.5 | 0.6 | 0.1 |
| New Zealand | .. | .. | .. | -6.5 | -2.2 | -4.8 | -3.7 | -4.7 | -3.8 | -3.3 | -0.6 | 3.0 | 3.1 | 3.0 | 2.0 | 1.4 | 0.3 | 1.0 | 1.4 |
| Norway | 6.1 | 7.0 | 9.9 | 5.9 | 4.6 | 2.7 | 1.8 | 2.6 | 0.1 | -1.7 | -1.4 | 0.4 | 3.5 | 6.6 | 7.9 | 3.6 | 4.9 | 10.7 | 11.6 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -4.5 | -3.1 | -3.1 | -3.1 | -3.0 | -2.5 | -3.5 | -3.0 | -2.6 |
| Portugal | -10.0 | -7.0 | -7.3 | -6.3 | -5.5 | -3.5 | -2.4 | -5.1 | -6.0 | -2.9 | -6.1 | -6.0 | -5.7 | -3.3 | -2.5 | -2.2 | -1.9 | -1.6 | -1.4 |
| Spain | -4.1 | -4.3 | -5.5 | -5.9 | -3.6 | -3.2 | -3.5 | -4.1 | -4.2 | -3.9 | -6.6 | -6.0 | -6.9 | -5.0 | -3.2 | -2.6 | -1.1 | -0.5 | -0.1 |
| Sweden | -4.8 | -2.8 | -3.7 | -1.2 | 4.1 | 3.4 | 5.2 | 4.0 | -1.1 | -7.4 | -11.8 | -10.9 | -7.8 | -3.6 | -1.7 | 1.9 | 1.9 | 2.4 | 3.2 |
| Total of above smaller countries | -4.0 | -3.5 | -3.6 | -3.7 | -2.4 | -1.5 | -1.5 | -2.0 | -2.9 | -3.8 | -4.2 | -3.5 | -3.0 | -1.7 | -1.0 | -0.9 | -0.2 | 0.3 | 0.6 |
| Total of above OECD countries | -4.8 | -4.2 | -4.1 | -4.1 | -3.2 | -2.5 | -1.9 | -2.8 | -3.4 | -4.4 | -4.8 | -4.0 | -3.8 | -3.0 | -1.7 | -1.2 | -0.8 | -0.4 | -0.3 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | -5.0 | -4.9 | -4.8 | -4.7 | -4.1 | -3.5 | -2.7 | -4.0 | -4.3 | -5.2 | -6.3 | -5.6 | -5.4 | -4.3 | -2.5 | -1.6 | -0.8 | -0.5 | -0.5 |
| Euro area | -4.9 | -4.7 | -4.7 | -4.8 | -4.4 | -4.2 | -3.3 | -4.3 | -4.5 | -4.7 | -5.5 | -5.0 | -4.9 | -4.2 | -2.6 | -2.0 | -1.2 | -1.0 | -0.9 |
| General government financial balances excluding social security | | | | | | | | | | | | | | | | | | | |
| United States | -5.6 | -4.8 | -5.3 | -5.7 | -4.8 | -4.5 | -4.2 | -5.3 | -5.9 | -6.7 | -5.7 | -4.5 | -3.9 | -3.1 | -1.9 | -0.8 | -0.4 | 0.1 | 0.0 |
| Japan | -6.2 | -4.6 | -3.4 | -3.9 | -2.4 | -1.6 | -0.7 | -0.6 | -0.8 | -2.0 | -4.8 | -5.1 | -6.4 | -6.9 | -5.9 | -7.1 | -8.9 | -8.5 | -8.1 |

Note: Fiscal policy assumptions are based on announced measures and stated policy intentions, where they are embodied in well defined programmes. Detailed assumptions for individual countries are provided in the country notes. Further details can also be found in "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) The 1998 outlays would have risen by 5.4 percentage points of GDP if account were taken of the assumption by the central government of the debt of the Japan Railway Settlement Corporation and the National Forest Special Account.

b) Includes balances of the German Railways Fund from 1994 onwards and the Inherited Debt Fund from 1995 onwards.

Source: OECD.

Annex Table 31. General government structural balances
Surplus (+) or deficit (-) as a percentage of potential GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | <i>Projections</i> | |
|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|--------------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | -4.3 | -4.5 | -5.0 | -5.2 | -4.4 | -4.1 | -3.8 | -4.7 | -5.1 | -5.5 | -4.5 | -3.5 | -2.9 | -2.1 | -1.1 | 0.1 | 0.5 | 0.9 | 1.1 |
| <i>Japan</i> | -3.3 | -1.8 | -0.5 | -0.3 | 1.0 | 1.6 | 2.4 | 2.4 | 2.5 | 1.2 | -1.5 | -1.9 | -3.1 | -4.4 | -3.6 | -4.2 | -6.0 | -5.8 | -5.7 |
| <i>Germany</i> | -1.0 | -0.9 | -0.4 | -0.8 | -1.1 | -1.9 | -0.1 | -3.2 | -3.5 | -3.3 | -2.6 | -2.2 | -2.9 | -2.6 | -1.8 | -1.1 | -0.3 | -0.9 | -2.0 |
| <i>France</i> | -2.6 | -1.8 | -2.0 | -2.2 | -0.8 | -1.8 | -2.1 | -2.5 | -2.4 | -4.1 | -4.9 | -4.6 | -4.7 | -2.9 | -2.0 | -2.2 | -1.5 | -1.7 | -1.7 |
| <i>Italy</i> | -9.4 | -10.3 | -11.5 | -10.9 | -10.9 | -11.4 | -10.7 | -11.7 | -10.1 | -8.9 | -7.6 | -7.9 | -7.2 | -6.5 | -2.0 | -1.9 | -0.7 | -0.7 | -0.8 |
| <i>United Kingdom</i> | .. | .. | .. | .. | -3.4 | -2.2 | -1.6 | -3.2 | -2.3 | -4.9 | -6.4 | -6.4 | -5.6 | -4.3 | -2.5 | -0.2 | 0.9 | 0.6 | 0.5 |
| <i>Canada</i> | -4.6 | -5.5 | -7.5 | -6.1 | -5.0 | -4.7 | -4.8 | -5.0 | -5.4 | -5.6 | -5.4 | -4.7 | -3.6 | -0.9 | 1.2 | 1.4 | 2.9 | 2.3 | 2.1 |
| <i>Total of above countries</i> | -4.0 | -3.9 | -4.0 | -4.0 | -3.3 | -3.1 | -2.6 | -3.6 | -3.5 | -4.2 | -4.2 | -3.7 | -3.6 | -3.1 | -1.7 | -1.1 | -0.8 | -0.8 | -0.8 |
| <i>Australia</i> | -4.1 | -4.9 | -5.3 | -4.0 | -2.4 | -0.8 | -0.6 | -1.4 | -3.0 | -5.1 | -5.0 | -4.5 | -3.8 | -2.3 | -0.7 | 0.3 | 1.3 | 0.4 | 0.2 |
| <i>Austria</i> | -3.8 | -2.0 | -2.0 | -3.3 | -3.8 | -3.2 | -3.4 | -3.1 | -3.8 | -2.5 | -4.0 | -4.9 | -4.9 | -3.7 | -1.7 | -2.5 | -2.1 | -2.1 | -2.2 |
| <i>Belgium</i> | -11.4 | -10.2 | -9.9 | -9.6 | -7.9 | -8.7 | -9.6 | -8.9 | -8.9 | -8.9 | -5.7 | -3.7 | -3.2 | -2.0 | -1.0 | -0.4 | -0.1 | 0.0 | 0.2 |
| <i>Denmark</i> | .. | .. | .. | .. | .. | 2.4 | 2.1 | 1.0 | -0.3 | 0.2 | 0.8 | -1.6 | -2.1 | -1.0 | -0.7 | 0.3 | 3.0 | 2.8 | 2.7 |
| <i>Finland</i> | 2.5 | 4.4 | 3.9 | 4.1 | 0.9 | 2.2 | 2.9 | 3.1 | 1.8 | 0.6 | 0.6 | 0.3 | 0.4 | -0.1 | -0.7 | 1.1 | 2.3 | 3.0 | 3.6 |
| <i>Greece</i> | -5.6 | -7.4 | -11.0 | -10.0 | -8.6 | -11.9 | -15.6 | -16.4 | -12.2 | -12.9 | -12.6 | -8.9 | -9.0 | -6.5 | -3.3 | -2.1 | -1.3 | -1.5 | -0.9 |
| <i>Ireland</i> | -9.7 | -8.6 | -10.0 | -8.4 | -7.0 | -3.9 | -2.2 | -4.7 | -3.5 | -2.8 | -1.5 | -0.6 | -1.9 | 0.2 | 0.2 | 1.5 | 0.9 | 0.9 | 3.6 |
| <i>Netherlands</i> | -4.2 | -5.4 | -4.4 | -6.0 | -6.1 | -4.3 | -5.7 | -7.0 | -4.1 | -4.8 | -2.7 | -3.9 | -3.7 | -1.5 | -1.3 | -1.1 | -0.1 | -0.7 | -1.7 |
| <i>New Zealand</i> | .. | .. | .. | -7.4 | -2.7 | -4.4 | -3.2 | -3.3 | -0.9 | -0.1 | 0.9 | 3.0 | 2.8 | 2.7 | 2.0 | 2.6 | 0.8 | 0.7 | 0.9 |
| <i>Norway^a</i> | -1.2 | -1.4 | -0.9 | 1.1 | 0.3 | 0.8 | 0.6 | -0.7 | -3.6 | -5.4 | -6.1 | -5.0 | -1.8 | -1.8 | -1.1 | -2.5 | -2.9 | -2.0 | -2.0 |
| <i>Portugal</i> | -9.9 | -5.3 | -5.7 | -5.0 | -5.2 | -3.7 | -3.1 | -6.3 | -7.1 | -3.9 | -5.6 | -5.3 | -5.1 | -2.8 | -2.2 | -2.2 | -1.8 | -1.7 | -1.6 |
| <i>Spain</i> | -2.9 | -3.4 | -4.9 | -5.5 | -4.3 | -4.6 | -5.3 | -6.0 | -5.9 | -4.7 | -5.9 | -5.2 | -6.1 | -4.0 | -2.6 | -2.3 | -1.0 | -0.8 | -0.7 |
| <i>Sweden</i> | .. | -2.4 | -3.6 | -1.7 | 2.8 | 1.7 | 2.9 | 2.0 | -1.1 | -5.2 | -6.7 | -7.9 | -6.5 | -1.9 | -0.1 | 3.0 | 2.1 | 1.5 | 2.1 |
| <i>Total of above smaller countries</i> | -4.7 | -4.4 | -5.0 | -5.0 | -3.9 | -3.3 | -3.8 | -4.6 | -4.6 | -4.9 | -4.8 | -4.5 | -4.3 | -2.5 | -1.4 | -0.8 | -0.1 | -0.2 | -0.2 |
| <i>Total of above OECD countries</i> | -4.1 | -4.0 | -4.1 | -4.2 | -3.4 | -3.1 | -2.8 | -3.7 | -3.7 | -4.3 | -4.3 | -3.9 | -3.7 | -3.0 | -1.7 | -1.0 | -0.7 | -0.7 | -0.7 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| <i>Total of above European Union countries</i> | -4.3 | -4.2 | -4.5 | -4.6 | -4.0 | -4.1 | -3.7 | -5.1 | -4.6 | -5.0 | -5.0 | -4.8 | -4.8 | -3.6 | -1.9 | -1.3 | -0.4 | -0.6 | -0.9 |
| <i>Euro area</i> | -3.9 | -3.8 | -4.0 | -4.3 | -4.0 | -4.4 | -4.0 | -5.4 | -5.2 | -4.9 | -4.4 | -4.1 | -4.3 | -3.3 | -1.8 | -1.5 | -0.7 | -0.9 | -1.3 |

Note: Fiscal policy assumptions are based on announced measures and stated policy intentions, where they are embodied in well defined programmes. Details on the methodology used for estimating the structural components of the general government balances can be found in "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) As a percentage of mainland potential GDP. The financial balances shown exclude revenues from oil production.

Source: OECD.

Annex Table 32. **General government primary balances**
Surplus (+) or deficit (-) as a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -2.8 | -1.6 | -1.8 | -2.0 | -1.0 | -0.3 | 0.2 | -0.8 | -1.3 | -2.2 | -1.4 | -0.2 | 0.6 | 1.3 | 2.4 | 3.5 | 3.8 | 4.2 | 4.0 |
| Japan ^{a, b} | -1.8 | -0.1 | 1.0 | 0.7 | 2.0 | 2.7 | 3.6 | 3.7 | 3.4 | 2.1 | -0.9 | -2.3 | -3.1 | -3.5 | -2.3 | -3.8 | -5.7 | -5.2 | -4.9 |
| Germany | -0.3 | 0.4 | 1.1 | 1.0 | 0.4 | 0.2 | 2.2 | -0.1 | -0.7 | 0.1 | -0.5 | 0.2 | -0.1 | -0.3 | 0.5 | 1.4 | 2.0 | 1.8 | 1.2 |
| France | -1.3 | -0.8 | -1.0 | -1.1 | 0.3 | 0.0 | 0.5 | 0.3 | 0.2 | -1.5 | -3.0 | -2.4 | -2.3 | -0.6 | 0.2 | 0.5 | 1.2 | 1.3 | 1.3 |
| Italy | -3.6 | -4.0 | -5.1 | -3.8 | -3.8 | -3.3 | -1.6 | -2.2 | -0.4 | 1.4 | 2.1 | 1.4 | 3.5 | 4.0 | 6.2 | 4.9 | 4.5 | 4.5 | 4.7 |
| United Kingdom | -0.2 | -0.6 | 0.5 | 0.6 | 1.2 | 3.3 | 3.4 | 0.8 | -0.7 | -4.5 | -5.8 | -4.2 | -2.8 | -1.5 | 0.9 | 3.0 | 3.3 | 3.2 | 3.0 |
| Canada | -3.9 | -3.0 | -3.3 | -1.7 | 0.0 | 1.2 | 1.4 | 0.7 | -2.0 | -2.9 | -2.7 | -0.6 | 1.3 | 3.4 | 5.6 | 5.9 | 7.4 | 7.0 | 6.5 |
| Total of above countries | -2.2 | -1.3 | -1.1 | -1.1 | -0.2 | 0.4 | 1.2 | 0.2 | -0.2 | -1.1 | -1.4 | -0.9 | -0.3 | 0.2 | 1.5 | 1.9 | 1.9 | 2.1 | 2.0 |
| Australia | -3.0 | -2.4 | -1.9 | -0.7 | 1.2 | 2.7 | 3.0 | 1.5 | -1.3 | -3.5 | -2.7 | -1.0 | -0.2 | 0.9 | 2.1 | 2.5 | 3.2 | 2.1 | 1.8 |
| Austria | -1.7 | 0.1 | 0.2 | -0.9 | -1.3 | -0.2 | 0.0 | 0.8 | 0.4 | 1.4 | -0.7 | -1.5 | -1.4 | 0.0 | 1.6 | 1.2 | 1.4 | 1.5 | 1.5 |
| Belgium | -3.4 | -1.4 | -0.1 | 0.4 | 2.0 | 2.4 | 2.9 | 4.0 | 3.0 | 2.2 | 3.0 | 4.0 | 4.5 | 4.6 | 5.7 | 6.2 | 6.0 | 6.4 | 6.5 |
| Denmark | .. | .. | .. | .. | .. | 5.8 | 4.3 | 2.7 | 1.5 | 0.9 | 0.6 | 0.8 | 0.8 | 1.8 | 2.9 | 3.3 | 5.0 | 4.7 | 4.5 |
| Finland | 1.1 | 3.0 | 2.8 | 2.7 | 0.3 | 2.9 | 4.7 | 3.6 | -3.1 | -7.6 | -7.7 | -4.6 | -2.8 | -1.7 | 0.4 | 3.0 | 3.9 | 5.1 | 5.8 |
| Greece | -4.1 | -4.7 | -7.1 | -5.6 | -3.6 | -5.1 | -7.9 | -7.4 | -3.4 | -2.7 | -2.8 | 2.1 | 1.0 | 3.1 | 4.3 | 5.4 | 5.9 | 5.6 | 5.9 |
| Iceland | .. | .. | .. | .. | -0.5 | -0.8 | -3.1 | -1.4 | -1.1 | -0.9 | -2.4 | -2.5 | -0.3 | 0.7 | 2.1 | 2.5 | 4.3 | 4.2 | 3.7 |
| Ireland ^a | -5.0 | -2.8 | -3.4 | -3.3 | -1.2 | 2.3 | 4.6 | 3.4 | 2.8 | 2.2 | 2.1 | 2.6 | 1.7 | 3.0 | 3.8 | 4.6 | 3.5 | 3.5 | 5.9 |
| Korea | 1.8 | 1.7 | 1.3 | 1.8 | 2.8 | 3.7 | 3.4 | 3.4 | 1.6 | 1.0 | 2.3 | 2.9 | 4.1 | 3.6 | 1.9 | -1.4 | 0.2 | 1.7 | 2.5 |
| Netherlands | -2.5 | -2.0 | 0.3 | -1.2 | -2.0 | -0.5 | -1.2 | -1.6 | 1.1 | 0.0 | 0.8 | 0.2 | 0.6 | 2.9 | 3.2 | 3.4 | 4.3 | 4.1 | 3.3 |
| New Zealand ^a | .. | .. | .. | -2.0 | 1.8 | -1.4 | 0.2 | -0.5 | -0.8 | -0.3 | 1.8 | 4.3 | 4.6 | 3.8 | 2.7 | 1.7 | 0.2 | 1.0 | 1.4 |
| Norway | 5.8 | 6.0 | 8.7 | 4.2 | 2.8 | 0.3 | -0.4 | 0.4 | -2.0 | -3.5 | -2.7 | -0.2 | 2.9 | 6.1 | 7.4 | 3.1 | 4.3 | 9.5 | 10.3 |
| Portugal | -4.6 | 0.2 | 0.9 | 2.2 | 2.2 | 3.4 | 3.8 | 3.0 | 1.8 | 4.2 | 0.1 | 0.2 | 0.6 | 1.5 | 1.8 | 1.2 | 1.3 | 1.7 | 1.8 |
| Spain | -4.6 | -4.3 | -4.8 | -3.4 | -0.5 | -0.7 | -0.3 | -1.1 | -1.6 | -0.7 | -3.0 | -2.3 | -2.4 | -0.2 | 1.2 | 1.4 | 2.2 | 2.7 | 3.0 |
| Sweden | -3.0 | -0.5 | -0.8 | 1.0 | 5.8 | 4.3 | 5.7 | 4.2 | -0.9 | -7.2 | -10.8 | -9.0 | -5.2 | -0.2 | 1.4 | 4.9 | 4.8 | 5.2 | 5.8 |
| Total of above smaller countries | -2.0 | -1.1 | -0.9 | -0.5 | 0.9 | 1.5 | 1.6 | 1.1 | 0.0 | -0.7 | -1.1 | -0.2 | 0.5 | 1.9 | 2.4 | 2.1 | 2.8 | 3.3 | 3.6 |
| Total of above OECD countries | -2.1 | -1.2 | -1.1 | -1.0 | -0.1 | 0.6 | 1.2 | 0.4 | -0.2 | -1.0 | -1.4 | -0.7 | -0.2 | 0.5 | 1.7 | 2.0 | 2.1 | 2.3 | 2.3 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | -1.9 | -1.4 | -1.2 | -0.9 | -0.3 | 0.2 | 1.1 | -0.1 | -0.3 | -0.8 | -1.7 | -1.1 | -0.4 | 0.6 | 2.0 | 2.5 | 2.9 | 2.9 | 2.8 |
| Euro area | -1.8 | -1.3 | -1.2 | -1.0 | -0.6 | -0.5 | 0.7 | -0.3 | -0.3 | 0.0 | -0.7 | -0.4 | 0.0 | 0.8 | 2.0 | 2.2 | 2.6 | 2.6 | 2.5 |

Note : For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) Where net interest payments are not available, net property income paid is used as a proxy.

b) The 1998 outlays would have risen by 5.4 percentage points of GDP if account were taken of the assumption by the central government of the debt of the Japan Railway Settlement Corporation and the National Forest Special Account.

Source: OECD.

Annex Table 33. General government net debt interest payments
As a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | 2.8 | 3.1 | 3.2 | 3.3 | 3.3 | 3.3 | 3.4 | 3.5 | 3.7 | 3.7 | 3.5 | 3.5 | 3.6 | 3.5 | 3.3 | 3.2 | 2.8 | 2.6 | 2.4 |
| <i>Japan</i> ^{a,b} | 1.9 | 2.0 | 1.9 | 1.7 | 1.5 | 1.2 | 1.1 | 0.8 | 0.5 | 0.7 | 0.7 | 0.0 | 0.6 | 0.7 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 |
| <i>Germany</i> ^c | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.1 | 1.9 | 2.2 | 2.6 | 2.7 | 2.7 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 3.0 | 2.9 |
| <i>France</i> | 1.8 | 1.9 | 2.1 | 2.2 | 2.2 | 2.1 | 2.2 | 2.4 | 2.6 | 2.7 | 3.0 | 3.1 | 3.3 | 3.4 | 3.3 | 3.2 | 3.0 | 2.7 | 2.5 |
| <i>Italy</i> | 6.8 | 7.4 | 7.2 | 7.5 | 7.2 | 7.4 | 8.2 | 8.9 | 9.6 | 10.9 | 11.5 | 10.5 | 11.1 | 11.1 | 9.0 | 7.7 | 6.4 | 6.0 | 5.8 |
| <i>United Kingdom</i> | 3.1 | 3.4 | 3.4 | 3.2 | 3.1 | 2.7 | 2.4 | 2.3 | 2.1 | 2.0 | 2.2 | 2.6 | 3.0 | 2.8 | 2.9 | 2.8 | 2.2 | 2.1 | 2.1 |
| <i>Canada</i> | 2.9 | 3.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.7 | 5.3 | 5.1 | 5.1 | 4.9 | 5.0 | 5.6 | 5.2 | 4.9 | 5.0 | 4.7 | 4.5 | 4.3 |
| <i>Total of above countries</i> | 2.8 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.2 | 3.6 | 3.5 | 3.3 | 3.2 | 2.9 | 2.7 | 2.6 |
| <i>Australia</i> | 2.4 | 2.7 | 3.2 | 3.5 | 3.4 | 3.1 | 3.1 | 2.7 | 2.4 | 2.4 | 2.9 | 3.6 | 3.5 | 3.0 | 2.6 | 2.0 | 1.7 | 1.5 | 1.4 |
| <i>Austria</i> | 2.3 | 2.7 | 2.8 | 2.9 | 3.1 | 3.2 | 3.1 | 3.2 | 3.3 | 3.4 | 3.6 | 3.4 | 3.6 | 3.8 | 3.4 | 3.6 | 3.5 | 3.4 | 3.5 |
| <i>Belgium</i> | 9.2 | 9.4 | 10.2 | 10.5 | 9.9 | 9.6 | 10.5 | 10.8 | 10.3 | 10.1 | 10.2 | 8.9 | 8.7 | 8.2 | 7.5 | 7.2 | 6.7 | 6.3 | 6.0 |
| <i>Denmark</i> | .. | .. | .. | .. | .. | 4.3 | 4.0 | 3.7 | 3.9 | 3.1 | 3.4 | 3.2 | 3.1 | 2.8 | 2.8 | 2.4 | 2.0 | 1.8 | 1.7 |
| <i>Finland</i> | -0.9 | -0.9 | -0.9 | -1.0 | -0.9 | -0.9 | -1.2 | -1.7 | -1.9 | -1.9 | -0.3 | 1.1 | 0.9 | 1.5 | 1.9 | 1.7 | 1.6 | 1.3 | 0.9 |
| <i>Greece</i> | 3.0 | 3.7 | 4.4 | 4.7 | 5.9 | 6.4 | 6.5 | 8.7 | 8.1 | 10.1 | 11.0 | 12.1 | 11.1 | 10.5 | 8.3 | 7.8 | 7.5 | 7.2 | 6.7 |
| <i>Iceland</i> | .. | .. | .. | .. | 0.4 | 1.3 | 1.5 | 2.0 | 1.9 | 1.9 | 2.1 | 2.3 | 2.6 | 2.3 | 2.1 | 2.0 | 2.1 | 1.8 | 1.5 |
| <i>Ireland</i> ^a | 5.9 | 6.3 | 6.9 | 7.0 | 7.0 | 6.6 | 6.3 | 6.2 | 5.7 | 5.2 | 4.8 | 4.5 | 4.2 | 3.2 | 3.2 | 2.4 | 1.9 | 1.4 | 1.1 |
| <i>Korea</i> | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | -0.2 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.6 | -0.6 | -1.1 | -0.8 | -0.1 | 0.0 |
| <i>Netherlands</i> | 3.9 | 4.2 | 4.4 | 4.4 | 4.7 | 4.6 | 4.1 | 4.1 | 4.3 | 4.4 | 4.4 | 4.4 | 4.7 | 4.7 | 4.4 | 4.2 | 3.8 | 3.5 | 3.2 |
| <i>New Zealand</i> ^a | .. | .. | .. | 4.5 | 4.1 | 3.3 | 3.9 | 4.2 | 3.0 | 2.9 | 2.4 | 1.3 | 1.5 | 0.8 | 0.8 | 0.3 | -0.1 | 0.0 | 0.0 |
| <i>Norway</i> | -0.3 | -1.0 | -1.2 | -1.7 | -1.8 | -2.4 | -2.3 | -2.1 | -2.2 | -1.8 | -1.3 | -0.6 | -0.6 | -0.5 | -0.5 | -0.5 | -0.6 | -1.2 | -1.3 |
| <i>Portugal</i> | 5.4 | 7.2 | 8.2 | 8.5 | 7.7 | 6.9 | 6.2 | 8.1 | 7.9 | 7.2 | 6.2 | 6.2 | 6.3 | 4.8 | 4.3 | 3.4 | 3.2 | 3.3 | 3.2 |
| <i>Spain</i> | -0.5 | 0.1 | 0.6 | 2.5 | 3.1 | 2.5 | 3.2 | 3.0 | 2.7 | 3.3 | 3.6 | 3.7 | 4.6 | 4.8 | 4.4 | 4.0 | 3.3 | 3.2 | 3.1 |
| <i>Sweden</i> | 1.8 | 2.3 | 2.9 | 2.1 | 1.7 | 0.9 | 0.5 | 0.1 | 0.1 | 0.2 | 1.0 | 1.9 | 2.6 | 3.3 | 3.1 | 3.0 | 2.9 | 2.8 | 2.6 |
| <i>Total of above smaller countries</i> | 2.0 | 2.4 | 2.7 | 3.2 | 3.3 | 3.0 | 3.0 | 3.1 | 2.9 | 3.0 | 3.3 | 3.4 | 3.6 | 3.4 | 3.1 | 2.7 | 2.5 | 2.4 | 2.3 |
| <i>Total of above OECD countries</i> | 2.7 | 2.9 | 3.1 | 3.1 | 3.1 | 3.0 | 3.1 | 3.2 | 3.2 | 3.4 | 3.4 | 3.3 | 3.6 | 3.5 | 3.3 | 3.1 | 2.8 | 2.7 | 2.5 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| <i>Total of above European Union countries</i> | 3.2 | 3.5 | 3.6 | 3.8 | 3.8 | 3.7 | 3.8 | 3.9 | 4.0 | 4.4 | 4.6 | 4.6 | 4.9 | 4.9 | 4.4 | 4.1 | 3.7 | 3.5 | 3.3 |
| <i>Euro area</i> | 3.1 | 3.4 | 3.5 | 3.8 | 3.8 | 3.7 | 3.9 | 4.1 | 4.3 | 4.7 | 4.8 | 4.6 | 4.9 | 5.1 | 4.6 | 4.2 | 3.8 | 3.6 | 3.5 |

Note: For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) Where net interest payments are not available, net property income paid is used as a proxy.

b) Includes interest payments on the debt of the Japan Railway Settlement Corporation and the National Forest Special Account from 1998 onwards.

c) Includes interest payments of the German Railways Fund from 1994 onwards and the Inherited Debt Fund from 1995 onwards.

Source: OECD.

Annex Table 34. General government gross financial liabilities

As a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------------------|--------------------|-------------|-------|
| | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 52.4 | 54.0 | 59.0 | 62.6 | 64.1 | 64.7 | 65.0 | 66.6 | 71.4 | 74.1 | 75.8 | 75.0 | 74.5 | 73.9 | 71.6 | 68.6 | 65.1 | 60.2 | 56.2 |
| Japan ^b | 61.3 | 63.4 | 63.8 | 67.1 | 67.5 | 65.8 | 63.3 | 61.5 | 57.9 | 59.3 | 63.7 | 68.8 | 76.2 | 80.5 | 84.6 | 97.4 | 105.3 ^a | 112.8 | 119.4 |
| Germany ^c | 39.1 | 40.6 | 41.6 | 41.5 | 42.2 | 42.2 | 39.9 | 42.0 | 40.1 | 43.4 | 49.0 | 49.2 | 59.1 | 61.9 | 62.8 | 63.3 | 63.5 ^a | 63.5 | 63.3 |
| France | 34.6 | 36.3 | 37.9 | 38.8 | 40.1 | 40.0 | 39.9 | 39.5 | 40.3 | 44.7 | 51.6 | 55.3 | 59.3 | 62.4 | 64.7 | 65.2 ^a | 65.0 | 63.9 | 62.6 |
| Italy | 70.0 | 75.2 | 81.9 | 86.2 | 90.4 | 92.5 | 95.3 | 103.7 | 107.4 | 116.1 | 117.9 | 124.0 | 123.1 | 121.8 | 119.8 ^a | 117.7 | 116.6 | 112.9 | 108.9 |
| United Kingdom | 53.9 | 60.8 | 59.4 | 58.6 | 56.3 | 49.9 | 43.2 | 39.1 | 40.1 | 46.9 | 56.2 | 53.7 | 58.9 | 58.5 | 58.9 | 56.2 ^a | 53.0 | 49.7 | 46.9 |
| Canada | 58.1 | 61.2 | 66.4 | 70.5 | 70.8 | 70.3 | 71.5 | 74.5 | 82.2 | 90.4 | 98.2 | 98.7 | 101.4 | 100.9 | 97.9 | 97.0 | 93.0 | 85.1 | 80.3 |
| Total of above countries | 53.0 | 55.4 | 58.6 | 61.3 | 62.4 | 62.1 | 61.3 | 62.4 | 64.2 | 67.8 | 71.6 | 72.7 | 75.6 | 76.4 | 76.1 | 76.7 | 76.0 | 74.2 | 72.8 |
| Australia | .. | .. | .. | .. | .. | 25.8 | 23.8 | 22.6 | 23.8 | 28.1 | 31.4 | 41.1 | 42.8 | 40.0 | 38.3 | 33.0 | 26.2 | 23.6 | 22.6 |
| Austria | 44.3 | 46.8 | 48.8 | 53.2 | 57.1 | 58.4 | 57.6 | 56.8 | 57.1 | 57.0 | 61.6 | 64.6 | 68.4 | 68.3 | 63.9 | 63.5 | 64.9 | 64.3 | 63.4 |
| Belgium | 109.9 | 113.9 | 118.5 | 123.5 | 128.0 | 128.0 | 124.4 | 124.9 | 126.7 | 128.1 | 134.8 | 132.7 | 129.8 | 128.3 | 123.0 | 117.4 | 114.3 | 109.8 | 104.8 |
| Denmark | 76.2 | 77.5 | 74.9 | 71.8 | 68.6 | 66.7 | 65.0 | 65.8 | 66.7 | 70.6 | 83.8 | 77.7 | 73.9 | 68.1 | 64.7 | 59.8 ^a | 55.4 | 50.8 | 46.7 |
| Finland | .. | .. | .. | .. | .. | .. | .. | 14.3 | 22.7 | 45.3 | 58.5 | 60.0 | 66.0 | 66.6 | 64.9 | 61.5 | 63.4 ^a | 58.5 | 53.6 |
| Greece | 34.0 | 40.9 | 47.8 | 48.4 | 52.6 | 62.7 | 65.7 | 89.0 | 91.2 | 97.5 | 110.2 | 107.9 | 108.7 | 111.3 | 108.5 | 105.4 | 104.4 ^a | 103.8 | 100.3 |
| Iceland | 31.3 | 33.3 | 33.1 | 30.6 | 28.1 | 31.5 | 37.3 | 36.9 | 38.8 | 46.7 | 53.5 | 56.3 | 59.3 | 56.4 | 52.7 | 47.7 ^a | 43.6 ^a | 39.0 | 35.1 |
| Ireland | 92.7 | 96.8 | 99.7 | 110.8 | 112.1 | 108.5 | 99.1 | 92.6 | 92.4 | 90.0 | 94.0 | 88.1 | 80.8 | 74.1 | 65.3 | 55.6 | 51.9 ^a | 42.9 | 33.5 |
| Korea | 17.8 | 16.7 | 16.3 | 14.4 | 12.6 | 9.8 | 9.1 | 8.2 | 7.2 | 6.9 | 5.9 | 6.1 | 6.3 | 6.3 | 9.2 | 10.7 ^a | 13.4 | 15.4 | 16.4 |
| Netherlands | 60.2 | 64.2 | 68.7 | 70.6 | 73.1 | 76.0 | 76.0 | 75.6 | 75.7 | 76.4 | 77.6 | 74.0 | 75.5 | 75.3 | 70.3 | 67.0 | 63.7 | 59.7 | 56.5 |
| Norway | 31.6 | 31.9 | 34.6 | 43.0 | 36.0 | 35.1 | 35.4 | 32.4 | 30.3 | 36.1 | 45.1 | 43.5 | 41.1 | 35.2 | 31.5 | 33.7 ^a | 34.6 | 32.0 | 24.7 |
| Portugal ^d | 48.5 | 54.0 | 57.0 | 66.8 | 64.3 | 65.0 | 63.3 | 65.3 | 67.3 | 59.9 | 63.1 | 63.8 | 65.9 | 64.8 | 62.0 | 57.8 | 58.3 | 58.8 | 57.3 |
| Spain | 37.4 | 43.7 | 48.6 | 49.4 | 48.6 | 45.0 | 46.5 | 48.5 | 49.6 | 52.1 | 63.4 | 65.5 | 68.4 | 72.2 | 70.9 | 69.0 | 67.6 ^a | 65.7 | 62.1 |
| Sweden | 63.4 | 64.7 | 64.4 | 63.9 | 57.0 | 51.3 | 46.7 | 42.7 | 51.4 | 68.6 | 73.7 | 77.9 | 76.9 | 74.5 | 74.0 | 73.3 ^a | 68.3 | 58.1 | 52.3 |
| Total of above smaller countries | 47.1 | 50.1 | 52.7 | 54.3 | 53.9 | 49.5 | 48.6 | 48.3 | 49.4 | 52.5 | 57.9 | 59.0 | 59.8 | 59.5 | 57.7 | 55.4 | 53.9 | 51.7 | 49.1 |
| Total of above OECD countries | 52.1 | 54.6 | 57.7 | 60.3 | 61.2 | 60.1 | 59.3 | 60.1 | 61.8 | 65.3 | 69.4 | 70.5 | 73.0 | 73.7 | 73.1 | 73.3 | 72.4 | 70.5 | 68.9 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| Total of above European Union countries | 50.8 | 54.7 | 57.1 | 58.4 | 59.3 | 58.4 | 57.1 | 58.2 | 58.7 | 63.7 | 70.0 | 71.2 | 75.2 | 76.2 | 75.7 | 74.3 | 73.1 | 70.9 | 68.5 |
| Euro area | 47.3 | 50.3 | 53.3 | 55.1 | 56.9 | 57.2 | 57.1 | 59.5 | 60.1 | 64.1 | 68.5 | 70.2 | 74.3 | 77.0 | 77.0 | 76.0 | 75.3 | 73.6 | 71.4 |

Note: General government gross financial liabilities are based on ESA95/SNA93 definitions. For some countries this implies that official national debt data have been adjusted. For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) OECD estimates starting from this year.

b) Includes the debt of the Japan Railway Settlement Corporation and the National Forest Special Account from 1998 onwards.

c) Includes the debt of the German Railways Fund from 1994 onwards and the Inherited Debt Fund from 1995 onwards.

d) Data are based on ESA79 definitions.

Source: OECD.

Annex Table 35. General government net financial liabilities
As a percentage of nominal GDP

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|--------------------|--------------------|--------------------|-------------|-------|
| | | | | | | | | | | | | | | | | | | | 2000 |
| <i>United States</i> | 37.5 | 38.7 | 41.9 | 45.5 | 47.5 | 48.6 | 48.7 | 49.9 | 53.7 | 57.1 | 59.1 | 59.8 | 59.3 | 58.9 | 57.0 | 53.7 | 49.7 | 44.8 | 40.8 |
| <i>Japan</i> ^b | 26.0 | 27.0 | 26.5 | 25.5 | 21.2 | 18.0 | 14.8 | 9.5 | 4.8 | 4.2 | 5.2 | 7.7 | 13.0 | 16.4 | 17.9 | 30.6 | 37.7 ^a | 44.1 | 49.5 |
| <i>Germany</i> ^c | 17.1 | 18.7 | 18.7 | 19.0 | 20.4 | 20.7 | 18.0 | 17.8 | 18.4 | 24.6 | 32.5 | 37.8 | 42.1 | 44.9 | 45.9 | 46.6 | 47.0 ^a | 47.0 | 47.2 |
| <i>France</i> | 4.5 | 7.3 | 10.6 | 13.6 | 12.8 | 13.9 | 14.6 | 16.1 | 16.3 | 18.4 | 26.6 | 29.4 | 36.0 | 41.5 | 41.4 | 42.5 ^a | 43.0 | 42.5 | 41.8 |
| <i>Italy</i> | 67.2 | 72.7 | 79.6 | 84.0 | 88.3 | 90.6 | 93.5 | 83.7 | 88.6 | 97.3 | 105.4 | 110.7 | 108.7 | 108.8 | 107.0 ^a | 105.5 | 104.4 | 100.7 | 96.7 |
| <i>United Kingdom</i> | 37.4 | 30.3 | 30.9 | 31.3 | 29.6 | 23.9 | 19.2 | 18.6 | 18.9 | 25.9 | 35.2 | 35.2 | 41.0 | 42.6 | 44.2 | 41.7 ^a | 38.7 | 35.4 | 32.6 |
| <i>Canada</i> | 22.8 | 26.7 | 32.4 | 36.8 | 36.5 | 35.4 | 38.3 | 41.1 | 47.6 | 57.2 | 63.7 | 66.0 | 67.6 | 66.9 | 62.6 | 60.9 | 55.3 | 49.1 | 44.3 |
| <i>Total of above countries</i> | 32.5 | 33.7 | 36.1 | 38.4 | 38.8 | 38.6 | 37.9 | 36.9 | 38.3 | 42.1 | 46.2 | 48.2 | 50.2 | 51.4 | 50.7 | 51.2 | 50.2 | 48.3 | 46.7 |
| <i>Australia</i> | .. | .. | .. | .. | .. | 15.3 | 11.3 | 10.7 | 11.6 | 16.1 | 22.0 | 26.5 | 27.0 | 21.5 | 21.7 | 16.5 | 13.8 | 11.3 | 10.3 |
| <i>Austria</i> | 26.8 | 28.3 | 29.9 | 33.1 | 36.0 | 38.1 | 37.8 | 37.6 | 37.4 | 38.6 | 43.4 | 44.6 | 48.8 | 49.8 | 50.3 ^a | 51.0 | 51.7 | 51.3 | 50.8 |
| <i>Belgium</i> | 101.6 | 105.2 | 108.5 | 113.7 | 117.8 | 118.1 | 114.9 | 115.2 | 116.4 | 118.4 | 124.8 | 123.9 | 123.0 | 120.8 | 116.1 | 110.6 | 107.6 ^a | 103.1 | 98.1 |
| <i>Denmark</i> | 45.6 | 48.8 | 45.3 | 37.9 | 33.7 | 35.4 | 33.2 | 33.0 | 37.5 | 41.2 | 45.2 | 45.8 | 46.2 | 42.4 | 38.6 | 36.0 ^a | 31.6 | 27.2 | 23.2 |
| <i>Finland</i> | -25.9 | -25.7 | -27.0 | -27.9 | -27.6 | -29.2 | -33.3 | -35.5 | -34.2 | -25.8 | -17.3 | -17.4 | -13.3 ^a | -15.5 | -16.1 | -27.2 | -28.3 ^a | -30.0 | -32.8 |
| <i>Iceland</i> | 5.8 | 5.8 | 6.1 | 9.0 | 8.2 | 9.9 | 17.9 | 19.4 | 20.0 | 26.8 | 34.8 | 38.0 | 39.7 | 39.4 | 37.1 | 30.5 ^a | 25.8 | 21.2 | 17.3 |
| <i>Korea</i> | -4.4 | -5.3 | -6.5 | -8.1 | -10.2 | -13.6 | -16.3 | -17.2 | -15.9 | -15.3 | -15.5 | -15.2 | -18.0 | -19.4 | -22.5 | -22.5 ^a | -21.7 | -21.7 | -22.4 |
| <i>Netherlands</i> | 34.5 | 37.8 | 40.6 | 43.7 | 27.1 | 30.9 | 34.5 | 35.4 | 36.2 | 39.6 | 40.6 | 41.9 | 53.2 | 53.7 | 55.4 | 54.0 | 51.0 ^a | 47.0 | 43.7 |
| <i>Norway</i> | -26.6 | -30.1 | -36.9 | -41.4 | -42.8 | -43.0 | -42.2 | -42.0 | -38.3 | -35.9 | -32.1 | -30.8 | -32.8 | -36.7 | -43.0 | -46.1 ^a | -47.8 | -51.9 | -61.6 |
| <i>Spain</i> | 19.4 | 23.1 | 25.9 | 29.1 | 29.7 | 30.4 | 30.4 | 31.5 | 33.0 | 35.2 | 42.2 | 46.4 | 50.4 | 52.6 | 52.1 | 49.7 | 47.6 ^a | 44.9 | 42.1 |
| <i>Sweden</i> | 10.4 | 13.2 | 13.8 | 12.5 | 6.4 | 0.2 | -6.0 | -7.8 | -5.0 | 4.6 | 10.7 | 21.0 | 22.7 | 19.5 | 18.2 | 15.5 ^a | 13.0 | 3.9 | 0.0 |
| <i>Total of above smaller countries</i> | 20.3 | 22.1 | 22.8 | 23.6 | 20.9 | 19.8 | 18.2 | 18.1 | 19.5 | 22.5 | 26.7 | 29.1 | 31.1 | 29.9 | 28.5 | 26.0 | 24.4 | 21.6 | 19.1 |
| <i>Total of above OECD countries</i> | 30.9 | 32.1 | 34.3 | 36.4 | 36.4 | 35.7 | 34.9 | 34.1 | 35.5 | 39.2 | 43.3 | 45.4 | 47.3 | 48.2 | 47.4 | 47.5 | 46.4 | 44.3 | 42.6 |
| <i>Memorandum items</i> | | | | | | | | | | | | | | | | | | | |
| <i>Total of above European Union countries</i> | 30.6 | 32.0 | 34.3 | 36.3 | 36.2 | 36.1 | 35.1 | 33.6 | 34.6 | 39.9 | 47.5 | 50.9 | 54.8 | 56.7 | 56.7 | 55.7 | 54.7 | 52.6 | 50.6 |
| <i>Euro area</i> | 27.0 | 30.2 | 33.0 | 35.6 | 36.3 | 37.5 | 37.7 | 36.3 | 37.7 | 42.4 | 48.5 | 52.1 | 55.3 | 58.9 | 59.1 | 58.6 | 58.1 | 56.5 | 54.9 |

Note: General government net financial liabilities are based on ESA95/SNA93 definitions. For some countries this implies that official national debt data have been adjusted. For further details see "Sources and Methods" (<http://www.oecd.org/eco/out/source.htm>).

a) OECD estimates starting from this year.

b) Includes the debt of the Japan Railway Settlement Corporation and the National Forest Special Account from 1998 onwards.

c) Includes the debt of the German Railways Fund from 1994 onwards and the Inherited Debt Fund from 1995 onwards.

Source: OECD.

Annex Table 36. Short-term interest rates^a

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------|------|------|------|------|------|-------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 13.1 | 9.6 | 10.8 | 8.3 | 6.8 | 7.1 | 7.9 | 9.2 | 8.2 | 5.9 | 3.8 | 3.2 | 4.7 | 6.0 | 5.4 | 5.7 | 5.5 | 5.4 | 6.8 | 7.3 |
| Japan | 7.0 | 6.7 | 6.5 | 6.6 | 5.2 | 4.2 | 4.5 | 5.4 | 7.7 | 7.4 | 4.5 | 3.0 | 2.2 | 1.2 | 0.6 | 0.6 | 0.7 | 0.2 | 0.3 | 0.7 |
| Germany | 8.9 | 5.8 | 6.0 | 5.4 | 4.6 | 4.0 | 4.3 | 7.1 | 8.5 | 9.2 | 9.5 | 7.3 | 5.4 | 4.5 | 3.3 | 3.3 | 3.5 | 3.0 | 4.3 | 5.1 |
| France | 14.6 | 12.5 | 11.7 | 9.9 | 7.7 | 8.3 | 7.9 | 9.4 | 10.3 | 9.6 | 10.3 | 8.6 | 5.8 | 6.6 | 3.9 | 3.5 | 3.6 | 3.0 | 4.3 | 5.1 |
| Italy | 19.9 | 18.3 | 17.3 | 15.2 | 13.4 | 11.3 | 10.8 | 12.6 | 12.2 | 12.2 | 14.0 | 10.2 | 8.5 | 10.5 | 8.8 | 6.9 | 5.0 | 3.0 | 4.3 | 5.1 |
| United Kingdom | 12.3 | 10.1 | 9.9 | 12.2 | 10.9 | 9.7 | 10.3 | 13.9 | 14.8 | 11.5 | 9.6 | 5.9 | 5.5 | 6.7 | 6.0 | 6.8 | 7.3 | 5.4 | 6.6 | 7.0 |
| Canada | 14.1 | 8.3 | 10.0 | 8.6 | 8.1 | 7.8 | 9.5 | 12.1 | 12.7 | 8.8 | 6.6 | 5.0 | 5.5 | 7.1 | 4.4 | 3.5 | 5.0 | 4.9 | 6.1 | 6.6 |
| Australia | 16.6 | 12.1 | 12.2 | 16.2 | 16.4 | 13.5 | 12.9 | 17.7 | 14.4 | 10.2 | 6.5 | 5.2 | 5.7 | 7.7 | 7.2 | 5.4 | 5.0 | 5.0 | 6.4 | 7.0 |
| Austria | 8.8 | 5.4 | 6.5 | 6.2 | 5.3 | 4.3 | 4.6 | 7.5 | 9.0 | 9.5 | 9.5 | 7.0 | 5.1 | 4.6 | 3.4 | 3.5 | 3.6 | 3.0 | 4.3 | 5.1 |
| Belgium | 14.0 | 10.4 | 11.4 | 9.5 | 8.1 | 7.1 | 6.7 | 8.8 | 9.6 | 9.4 | 9.4 | 8.2 | 5.7 | 4.8 | 3.2 | 3.4 | 3.6 | 3.0 | 4.3 | 5.1 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.1 | 9.1 | 10.9 | 12.0 | 15.9 | 14.3 | 6.9 | 5.6 | 6.8 |
| Denmark | 16.8 | 12.7 | 11.7 | 10.2 | 9.1 | 10.1 | 8.5 | 9.8 | 10.8 | 9.7 | 11.5 | 10.3 | 6.2 | 6.0 | 3.9 | 3.7 | 4.1 | 3.4 | 4.7 | 5.5 |
| Finland | 11.8 | 14.6 | 16.5 | 13.5 | 12.7 | 10.0 | 10.0 | 12.6 | 14.0 | 13.1 | 13.3 | 7.8 | 5.4 | 5.8 | 3.6 | 3.2 | 3.6 | 3.0 | 4.3 | 5.1 |
| Greece | 15.3 | 15.3 | 17.8 | 18.4 | 18.5 | 19.0 | 19.2 | 19.0 | 23.0 | 23.3 | 21.7 | 21.3 | 19.3 | 15.5 | 12.8 | 10.4 | 11.6 | 8.9 | 5.8 | 5.1 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 17.2 | 26.9 | 32.0 | 24.0 | 20.1 | 18.0 | 14.7 | 11.1 | 10.6 |
| Iceland | 47.6 | 51.0 | 28.4 | 35.0 | 23.8 | 25.6 | 31.0 | 27.9 | 14.8 | 14.6 | 10.5 | 8.8 | 4.9 | 7.0 | 7.0 | 7.1 | 7.4 | 8.6 | 10.7 | 11.9 |
| Ireland | 16.3 | 13.2 | 13.2 | 11.9 | 12.5 | 10.8 | 8.0 | 10.0 | 11.3 | 10.4 | 14.3 | 9.1 | 5.9 | 6.2 | 5.4 | 6.1 | 5.4 | 3.0 | 4.3 | 5.1 |
| Korea | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.3 | 16.4 | 13.0 | 13.3 | 14.1 | 12.7 | 13.4 | 15.2 | 6.8 | 7.5 | 7.9 |
| Mexico | 45.7 | 59.5 | 49.7 | 63.7 | 90.5 | 103.8 | 62.1 | 44.6 | 35.0 | 19.8 | 15.9 | 15.5 | 14.5 | 47.8 | 32.9 | 21.3 | 26.1 | 22.4 | 15.2 | 13.0 |
| Netherlands | 8.4 | 5.6 | 6.1 | 6.3 | 5.7 | 5.4 | 4.8 | 7.4 | 8.7 | 9.3 | 9.4 | 6.9 | 5.2 | 4.4 | 3.0 | 3.3 | 3.5 | 3.0 | 4.3 | 5.1 |
| New Zealand | 17.0 | 13.1 | 15.0 | 23.3 | 19.1 | 21.1 | 15.4 | 13.5 | 13.9 | 10.0 | 6.7 | 6.3 | 6.7 | 9.0 | 9.3 | 7.7 | 7.3 | 4.8 | 7.0 | 7.4 |
| Norway | 15.4 | 13.3 | 13.0 | 12.5 | 14.4 | 14.7 | 13.5 | 11.4 | 11.5 | 10.6 | 11.8 | 7.3 | 5.9 | 5.5 | 4.9 | 3.7 | 5.8 | 6.5 | 6.6 | 7.3 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 33.2 | 28.8 | 25.6 | 20.3 | 21.6 | 19.1 | 13.1 | 16.0 | 14.0 |
| Portugal | 18.5 | 22.7 | 24.9 | 22.4 | 15.6 | 13.9 | 13.0 | 14.9 | 16.9 | 17.7 | 16.1 | 12.5 | 11.1 | 9.8 | 7.4 | 5.7 | 4.3 | 3.0 | 4.3 | 5.1 |
| Spain | 16.3 | 20.0 | 14.9 | 12.2 | 11.7 | 15.8 | 11.7 | 15.0 | 15.2 | 13.2 | 13.3 | 11.7 | 8.0 | 9.4 | 7.5 | 5.4 | 4.2 | 3.0 | 4.3 | 5.1 |
| Sweden | 13.3 | 11.4 | 11.9 | 14.2 | 9.8 | 9.4 | 10.1 | 11.5 | 13.7 | 11.6 | 12.9 | 8.4 | 7.4 | 8.7 | 5.8 | 4.1 | 4.2 | 3.1 | 4.2 | 5.6 |
| Switzerland | 5.1 | 4.1 | 4.3 | 4.9 | 4.2 | 3.8 | 3.1 | 7.4 | 9.0 | 8.2 | 7.9 | 4.9 | 4.2 | 3.1 | 2.1 | 1.7 | 1.6 | 1.4 | 2.7 | 3.5 |
| Turkey | .. | .. | .. | .. | .. | 39.8 | 60.6 | 40.7 | 51.9 | 109.6 | 97.8 | 90.3 | 150.6 | 136.3 | 143.6 | 119.2 | 115.7 | 89.2 | 36.7 | 22.7 |
| Euro area | 13.3 | 11.6 | 11.0 | 9.7 | 8.3 | 8.0 | 7.5 | 9.9 | 10.7 | 10.6 | 11.2 | 8.6 | 6.3 | 6.5 | 4.8 | 4.2 | 3.9 | 3.0 | 4.3 | 5.1 |

a) For sources and detailed definitions see "Sources and Methods".

Source: OECD.

Annex Table 37. Long-term interest rates^a

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------|------|------|------|------|------|-------|------|------|------|------|------|------|-------|-------|-------|-------|-------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 13.0 | 11.1 | 12.4 | 10.6 | 7.7 | 8.4 | 8.8 | 8.5 | 8.6 | 7.9 | 7.0 | 5.9 | 7.1 | 6.6 | 6.4 | 6.4 | 5.3 | 5.6 | 6.6 | 6.8 |
| Japan | 8.3 | 7.8 | 7.3 | 6.5 | 5.1 | 5.0 | 4.8 | 5.1 | 7.0 | 6.3 | 5.3 | 4.3 | 4.4 | 3.4 | 3.1 | 2.4 | 1.5 | 1.8 | 1.9 | 2.2 |
| Germany | 9.1 | 8.2 | 8.1 | 7.2 | 6.3 | 6.4 | 6.6 | 7.1 | 8.7 | 8.5 | 7.9 | 6.5 | 6.9 | 6.9 | 6.2 | 5.7 | 4.6 | 4.5 | 5.8 | 6.2 |
| France | 16.0 | 14.4 | 13.4 | 11.9 | 9.1 | 10.2 | 9.2 | 9.2 | 10.3 | 9.0 | 8.6 | 6.8 | 7.2 | 7.5 | 6.3 | 5.6 | 4.7 | 4.6 | 5.9 | 6.3 |
| Italy | 20.2 | 18.3 | 15.6 | 13.7 | 11.5 | 10.6 | 10.9 | 12.8 | 13.5 | 13.3 | 13.3 | 11.2 | 10.5 | 12.2 | 9.4 | 6.9 | 4.9 | 4.7 | 6.0 | 6.4 |
| United Kingdom | 13.1 | 11.3 | 11.1 | 11.0 | 10.1 | 9.6 | 9.7 | 10.2 | 11.8 | 10.1 | 9.1 | 7.5 | 8.2 | 8.2 | 7.8 | 7.0 | 5.5 | 5.1 | 5.7 | 6.1 |
| Canada | 14.4 | 11.8 | 12.7 | 11.1 | 9.5 | 9.9 | 10.2 | 9.9 | 10.8 | 9.8 | 8.8 | 7.9 | 8.6 | 8.4 | 7.5 | 6.5 | 5.5 | 5.7 | 6.4 | 6.6 |
| Australia | 15.4 | 13.9 | 13.5 | 14.0 | 13.4 | 13.2 | 12.1 | 13.4 | 13.2 | 10.7 | 9.2 | 7.3 | 9.0 | 9.2 | 8.2 | 6.9 | 5.5 | 6.1 | 7.1 | 7.2 |
| Austria | 9.9 | 8.2 | 8.0 | 7.8 | 7.3 | 6.9 | 6.7 | 7.1 | 8.7 | 8.5 | 8.1 | 6.7 | 7.0 | 7.1 | 6.3 | 5.7 | 4.7 | 4.7 | 6.0 | 6.4 |
| Belgium | 13.4 | 11.9 | 12.2 | 11.0 | 8.6 | 8.2 | 8.0 | 8.6 | 10.1 | 9.3 | 8.7 | 7.2 | 7.7 | 7.4 | 6.3 | 5.6 | 4.7 | 4.7 | 6.0 | 6.4 |
| Denmark | 21.4 | 15.1 | 14.5 | 11.6 | 10.1 | 11.3 | 9.6 | 9.8 | 10.6 | 9.3 | 8.9 | 7.2 | 7.9 | 8.3 | 7.1 | 6.2 | 4.9 | 5.0 | 6.2 | 6.6 |
| Finland | 11.0 | 10.8 | 11.1 | 10.7 | 8.9 | 7.9 | 10.3 | 12.1 | 13.2 | 11.9 | 12.1 | 8.8 | 9.0 | 8.8 | 7.1 | 6.0 | 4.8 | 4.7 | 6.0 | 6.3 |
| Iceland | 45.4 | 48.8 | 23.0 | 32.5 | 19.6 | 27.9 | 33.2 | 29.5 | 16.4 | 17.7 | 13.1 | 14.3 | 10.6 | 11.6 | 12.4 | 12.9 | 12.8 | 13.8 | 17.0 | 17.6 |
| Ireland | .. | .. | .. | 12.8 | 11.2 | 11.3 | 9.4 | 9.2 | 10.3 | 9.4 | 9.3 | 7.6 | 8.0 | 8.2 | 7.2 | 6.3 | 4.7 | 4.8 | 6.0 | 6.4 |
| Korea | .. | 13.8 | 14.3 | 13.9 | 11.9 | 12.4 | 13.0 | 14.2 | 15.1 | 16.5 | 15.1 | 12.1 | 12.3 | 12.4 | 10.9 | 11.8 | 12.8 | 8.7 | 10.1 | 10.6 |
| Mexico | .. | .. | .. | 63.7 | 90.5 | 103.8 | 62.1 | 44.6 | 34.8 | 19.7 | 16.1 | 15.5 | 13.8 | 39.8 | 34.4 | 22.5 | 24.8 | 24.1 | 17.5 | 14.5 |
| Netherlands | 9.9 | 8.2 | 8.1 | 7.3 | 6.3 | 6.4 | 6.4 | 7.2 | 8.9 | 8.7 | 8.1 | 6.4 | 6.9 | 6.9 | 6.2 | 5.6 | 4.6 | 4.6 | 5.9 | 6.3 |
| New Zealand | 12.9 | 12.2 | 12.6 | 17.7 | 16.4 | 15.7 | 13.1 | 12.8 | 12.4 | 10.1 | 8.4 | 6.9 | 7.6 | 7.8 | 7.9 | 7.2 | 6.3 | 6.4 | 7.4 | 7.5 |
| Norway | 13.2 | 12.9 | 12.2 | 12.6 | 13.3 | 13.3 | 12.9 | 10.8 | 10.7 | 10.0 | 9.6 | 6.9 | 7.4 | 7.4 | 6.8 | 5.9 | 5.4 | 5.5 | 6.6 | 7.1 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 28.5 | 22.9 | 18.3 | 19.0 | 16.4 | 14.5 | 14.5 | 12.5 |
| Portugal | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 10.4 | 11.5 | 8.6 | 6.4 | 4.9 | 4.8 | 6.0 | 6.4 |
| Spain | 16.0 | 16.9 | 16.5 | 13.4 | 11.4 | 12.8 | 11.7 | 13.8 | 14.6 | 12.8 | 11.7 | 10.2 | 10.0 | 11.3 | 8.7 | 6.4 | 4.8 | 4.7 | 6.1 | 6.5 |
| Sweden | 13.3 | 12.6 | 12.5 | 13.2 | 10.5 | 11.7 | 11.4 | 11.2 | 13.2 | 10.7 | 10.0 | 8.5 | 9.5 | 10.2 | 8.0 | 6.6 | 5.0 | 5.0 | 5.8 | 6.3 |
| Switzerland | 4.6 | 4.2 | 4.6 | 4.7 | 4.2 | 4.0 | 4.0 | 5.1 | 6.4 | 6.2 | 6.4 | 4.6 | 4.9 | 4.6 | 4.0 | 3.4 | 2.8 | 3.0 | 4.3 | 4.7 |
| Turkey | .. | .. | .. | .. | 55.0 | 47.0 | 62.4 | 58.3 | 51.9 | 71.9 | 79.6 | 86.6 | 138.5 | 111.5 | 124.9 | 106.0 | 113.6 | 97.4 | 32.7 | 23.1 |
| Euro area | .. | .. | .. | 10.6 | 8.8 | 9.0 | 8.8 | 9.7 | 11.0 | 10.3 | 9.8 | 8.0 | 8.0 | 8.4 | 7.0 | 5.9 | 4.7 | 4.6 | 5.9 | 6.3 |

a) For sources and detailed definitions see "Sources and Methods".

Source : OECD.

Annex Table 38. Nominal exchange rates (*vis-à-vis* the US dollar)

| | | Average of daily rates | | | | | | | | | | | | | | |
|--------------------|---------------|------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|---------|---------|---------|----------------------------------------|---------|
| | Monetary unit | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Estimates and assumptions ^a | |
| | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | Dollar | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Japan | Yen | 144.6 | 128.1 | 138.0 | 144.8 | 134.5 | 126.7 | 111.2 | 102.2 | 94.1 | 108.8 | 121.0 | 130.9 | 113.9 | 108.5 | 109.4 |
| Germany | Deutschemark | 1.797 | 1.756 | 1.880 | 1.616 | 1.659 | 1.562 | 1.653 | 1.623 | 1.433 | 1.505 | 1.734 | 1.759 | 1.836 | 2.102 | 2.152 |
| France | Franc | 6.009 | 5.957 | 6.380 | 5.446 | 5.641 | 5.294 | 5.662 | 5.552 | 4.991 | 5.116 | 5.837 | 5.899 | 6.157 | 7.051 | 7.216 |
| Italy | Lira | 1 297 | 1 302 | 1 372 | 1 198 | 1 241 | 1 232 | 1 572 | 1 613 | 1 629 | 1 543 | 1 703 | 1 736 | 1 817 | 2 081 | 2 130 |
| United Kingdom | Pound | 0.612 | 0.562 | 0.611 | 0.563 | 0.567 | 0.570 | 0.666 | 0.653 | 0.634 | 0.641 | 0.611 | 0.604 | 0.618 | 0.649 | 0.662 |
| Canada | Dollar | 1.326 | 1.231 | 1.184 | 1.167 | 1.146 | 1.209 | 1.290 | 1.366 | 1.372 | 1.364 | 1.385 | 1.483 | 1.486 | 1.481 | 1.494 |
| Australia | Dollar | 1.429 | 1.281 | 1.265 | 1.282 | 1.284 | 1.362 | 1.473 | 1.369 | 1.350 | 1.277 | 1.348 | 1.592 | 1.550 | 1.679 | 1.714 |
| Austria | Schilling | 12.64 | 12.34 | 13.23 | 11.37 | 11.67 | 10.99 | 11.63 | 11.42 | 10.08 | 10.58 | 12.20 | 12.38 | 12.91 | 14.79 | 15.14 |
| Belgium-Luxembourg | Franc | 37.34 | 36.77 | 39.40 | 33.42 | 34.16 | 32.15 | 34.55 | 33.46 | 29.50 | 30.98 | 35.76 | 36.30 | 37.86 | 43.36 | 44.38 |
| Czech Republic | Koruny | .. | .. | .. | .. | 29.47 | 28.26 | 29.15 | 28.79 | 26.54 | 27.15 | 31.70 | 32.28 | 34.59 | 39.49 | 40.87 |
| Denmark | Krone | 6.838 | 6.730 | 7.310 | 6.186 | 6.393 | 6.038 | 6.482 | 6.360 | 5.604 | 5.798 | 6.604 | 6.696 | 6.980 | 8.001 | 8.182 |
| Finland | Markka | 4.396 | 4.186 | 4.288 | 3.823 | 4.043 | 4.486 | 5.721 | 5.223 | 4.367 | 4.592 | 5.187 | 5.345 | 5.580 | 6.392 | 6.541 |
| Greece | Drachma | 135.2 | 141.7 | 162.1 | 158.2 | 182.1 | 190.5 | 229.1 | 242.2 | 231.6 | 240.7 | 272.9 | 295.3 | 305.7 | 360.4 | 369.8 |
| Hungary | Forint | .. | .. | .. | .. | 74.8 | 79.0 | 91.9 | 105.1 | 125.7 | 152.6 | 186.6 | 214.3 | 237.1 | 279.8 | 294.9 |
| Iceland | Krona | 38.68 | 43.05 | 57.11 | 58.38 | 59.10 | 57.62 | 67.64 | 69.99 | 64.77 | 66.69 | 70.97 | 71.17 | 72.43 | 75.27 | 76.25 |
| Ireland | Pound | 0.672 | 0.657 | 0.706 | 0.605 | 0.622 | 0.588 | 0.683 | 0.670 | 0.624 | 0.625 | 0.660 | 0.703 | 0.739 | 0.847 | 0.866 |
| Korea | Won | 825.0 | 730.0 | 669.2 | 708.0 | 733.2 | 780.0 | 802.4 | 804.3 | 771.4 | 804.4 | 950.5 | 1 400.5 | 1 186.7 | 1 113.4 | 1 109.3 |
| Mexico | Peso | 1.418 | 2.281 | 2.495 | 2.841 | 3.022 | 3.095 | 3.115 | 3.389 | 6.421 | 7.601 | 7.924 | 9.153 | 9.553 | 9.485 | 9.535 |
| Netherlands | Guilder | 2.026 | 1.977 | 2.121 | 1.821 | 1.870 | 1.759 | 1.857 | 1.820 | 1.605 | 1.686 | 1.951 | 1.985 | 2.068 | 2.369 | 2.424 |
| New Zealand | Dollar | 1.695 | 1.529 | 1.674 | 1.678 | 1.729 | 1.860 | 1.851 | 1.687 | 1.524 | 1.454 | 1.513 | 1.869 | 1.892 | 2.056 | 2.079 |
| Norway | Krone | 6.737 | 6.517 | 6.903 | 6.258 | 6.484 | 6.214 | 7.094 | 7.057 | 6.337 | 6.457 | 7.072 | 7.545 | 7.797 | 8.823 | 9.078 |
| Poland | Zloty | .. | .. | .. | .. | 1.058 | 1.363 | 1.814 | 2.273 | 2.425 | 2.696 | 3.277 | 3.492 | 3.964 | 4.375 | 4.490 |
| Portugal | Escudo | 140.8 | 143.9 | 157.1 | 142.3 | 144.4 | 134.8 | 160.7 | 166.0 | 149.9 | 154.2 | 175.2 | 180.1 | 188.2 | 215.5 | 220.6 |
| Spain | Peseta | 123.5 | 116.5 | 118.4 | 101.9 | 103.9 | 102.4 | 127.2 | 134.0 | 124.7 | 126.7 | 146.4 | 149.4 | 156.2 | 178.9 | 183.0 |
| Sweden | Krona | 6.340 | 6.129 | 6.446 | 5.918 | 6.045 | 5.823 | 7.785 | 7.716 | 7.134 | 6.707 | 7.635 | 7.947 | 8.262 | 8.926 | 9.074 |
| Switzerland | Franc | 1.491 | 1.463 | 1.635 | 1.389 | 1.434 | 1.406 | 1.477 | 1.367 | 1.182 | 1.236 | 1.450 | 1.450 | 1.503 | 1.690 | 1.716 |
| Turkey | Lira | 855 | 1 421 | 2 120 | 2 606 | 4 169 | 6 861 | 10 964 | 29 778 | 45 738 | 81 281 | 151 595 | 260 473 | 418 984 | 624 780 | 717 094 |
| | € | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.939 | 1.075 | 1.100 |
| | SDR | 0.774 | 0.742 | 0.780 | 0.738 | 0.731 | 0.710 | 0.716 | 0.699 | 0.659 | 0.689 | 0.726 | 0.737 | 0.731 | 0.757 | 0.765 |

a) On the technical assumption that exchange rates remain at their levels of 10 May 2000, except for Hungary and Turkey where exchange rates vary according to official exchange policy.

Source: OECD.

Annex Table 39. **Effective exchange rates^a**
Indices 1995 = 100, average of daily rates

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Estimates and assumptions ^a | |
|--------------------|---------|---------|---------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------------------|-------|
| | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 80.1 | 75.3 | 73.7 | 79.1 | 83.3 | 85.4 | 87.0 | 92.5 | 98.3 | 100.0 | 105.6 | 113.3 | 125.5 | 124.7 | 126.9 | 128.2 |
| Japan | 43.6 | 48.7 | 54.7 | 53.4 | 52.7 | 59.3 | 64.3 | 79.8 | 93.2 | 100.0 | 87.3 | 83.4 | 86.4 | 99.3 | 106.5 | 106.4 |
| Germany | 66.4 | 71.4 | 72.1 | 72.6 | 78.7 | 79.4 | 83.2 | 87.8 | 92.6 | 100.0 | 98.7 | 95.2 | 98.8 | 98.4 | 94.0 | 93.6 |
| France | 79.9 | 80.7 | 79.9 | 79.8 | 85.6 | 85.1 | 88.8 | 92.3 | 95.6 | 100.0 | 100.4 | 97.4 | 100.1 | 99.1 | 95.0 | 94.5 |
| Italy | 111.6 | 112.7 | 111.6 | 115.7 | 122.9 | 124.1 | 123.0 | 106.6 | 107.5 | 100.0 | 110.2 | 111.7 | 114.3 | 114.3 | 110.2 | 109.8 |
| United Kingdom | 103.9 | 103.0 | 110.1 | 107.9 | 108.8 | 110.9 | 108.2 | 100.0 | 103.3 | 100.0 | 102.3 | 119.1 | 127.1 | 127.4 | 131.9 | 131.4 |
| Canada | 92.5 | 94.8 | 101.8 | 109.0 | 112.4 | 115.7 | 109.9 | 104.9 | 100.5 | 100.0 | 102.1 | 102.7 | 98.3 | 97.9 | 99.0 | 98.5 |
| Australia | 96.2 | 91.8 | 99.1 | 106.3 | 106.5 | 107.3 | 100.5 | 95.3 | 103.1 | 100.0 | 109.7 | 111.0 | 102.8 | 103.0 | 97.4 | 96.1 |
| Austria | 81.0 | 83.8 | 84.1 | 84.2 | 87.6 | 87.8 | 89.9 | 92.8 | 95.1 | 100.0 | 99.1 | 97.1 | 99.3 | 99.7 | 97.3 | 97.2 |
| Belgium-Luxembourg | 75.8 | 79.2 | 78.9 | 79.2 | 84.7 | 85.5 | 88.2 | 90.3 | 94.3 | 100.0 | 98.4 | 94.5 | 96.7 | 96.1 | 92.3 | 91.8 |
| Czech Republic | .. | .. | .. | .. | .. | .. | 90.9 | 95.3 | 98.6 | 100.0 | 101.9 | 99.0 | 100.9 | 99.8 | 98.0 | 96.5 |
| Denmark | 79.2 | 82.1 | 81.1 | 79.8 | 86.3 | 85.9 | 88.6 | 92.5 | 95.0 | 100.0 | 99.3 | 96.9 | 99.5 | 98.9 | 94.9 | 94.6 |
| Finland | 89.7 | 91.0 | 93.1 | 97.3 | 101.2 | 98.3 | 86.3 | 77.1 | 87.3 | 100.0 | 97.8 | 95.5 | 98.0 | 99.8 | 94.8 | 94.2 |
| Greece | 178.6 | 160.1 | 149.8 | 140.4 | 131.9 | 119.0 | 112.0 | 104.7 | 100.8 | 100.0 | 98.6 | 96.9 | 94.4 | 95.6 | 89.9 | 89.4 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | 126.4 | 120.9 | 100.0 | 85.2 | 78.8 | 71.4 | 68.9 | 65.2 | 63.1 |
| Iceland | 153.8 | 151.8 | 144.3 | 123.1 | 111.5 | 112.0 | 111.6 | 104.5 | 99.9 | 100.0 | 99.7 | 102.2 | 105.4 | 106.6 | 111.9 | 112.5 |
| Ireland | 93.7 | 93.3 | 91.5 | 90.9 | 98.8 | 97.7 | 101.9 | 96.5 | 98.1 | 100.0 | 102.5 | 102.2 | 99.4 | 96.0 | 89.0 | 88.2 |
| Korea | 93.4 | 91.1 | 97.9 | 113.1 | 109.8 | 106.0 | 98.8 | 97.6 | 99.3 | 100.0 | 101.4 | 93.7 | 67.5 | 77.5 | 84.1 | 85.1 |
| Mexico | 837.9 | 371.6 | 218.7 | 210.8 | 192.0 | 185.4 | 185.6 | 195.3 | 190.0 | 100.0 | 84.9 | 83.4 | 74.2 | 70.7 | 71.8 | 71.7 |
| Netherlands | 72.1 | 76.4 | 76.9 | 77.2 | 83.0 | 83.6 | 86.9 | 90.6 | 94.2 | 100.0 | 98.5 | 93.8 | 96.7 | 96.3 | 91.6 | 91.0 |
| New Zealand | 89.1 | 92.3 | 96.2 | 91.3 | 91.5 | 89.0 | 82.8 | 86.7 | 93.8 | 100.0 | 107.2 | 109.9 | 97.7 | 94.1 | 89.5 | 89.6 |
| Norway | 96.9 | 93.6 | 94.1 | 94.7 | 96.1 | 95.3 | 97.0 | 95.5 | 96.2 | 100.0 | 100.4 | 101.1 | 98.3 | 98.3 | 94.5 | 93.4 |
| Poland | .. | .. | .. | .. | .. | .. | 154.9 | 141.5 | 114.3 | 100.0 | 93.0 | 86.1 | 84.0 | 77.0 | 77.6 | 77.1 |
| Portugal | 103.6 | 95.7 | 92.2 | 91.7 | 93.2 | 95.7 | 101.2 | 97.6 | 97.0 | 100.0 | 99.7 | 98.4 | 98.4 | 97.8 | 95.4 | 95.1 |
| Spain | 98.5 | 98.6 | 102.8 | 108.7 | 116.0 | 117.3 | 116.1 | 103.6 | 99.3 | 100.0 | 101.2 | 97.0 | 98.4 | 97.5 | 94.2 | 93.8 |
| Sweden | 112.1 | 111.2 | 112.3 | 114.1 | 114.6 | 115.6 | 118.4 | 97.4 | 99.0 | 100.0 | 110.2 | 106.7 | 106.4 | 105.9 | 107.7 | 108.0 |
| Switzerland | 73.8 | 78.1 | 78.3 | 75.2 | 81.5 | 81.2 | 80.7 | 84.1 | 92.3 | 100.0 | 98.7 | 93.2 | 97.0 | 97.5 | 95.1 | 95.4 |
| Turkey | 6 497.2 | 4 501.0 | 2 703.1 | 1 927.5 | 1 484.8 | 982.6 | 586.4 | 416.2 | 171.8 | 100.0 | 58.8 | 35.0 | 21.1 | 14.2 | 10.2 | 9.0 |
| Euro area | 60.2 | 65.9 | 66.1 | 68.2 | 81.0 | 81.7 | 87.1 | 86.1 | 92.1 | 100.0 | 102.1 | 95.7 | 101.5 | 100.2 | 91.2 | 90.3 |

a) For the details on the method of calculation, see the section exchange rates and competitiveness indicators in "Sources and Methods".

b) On the technical assumption that exchange rates remain at their levels of 10 May 2000, except for Hungary and Turkey where exchange rates vary according to official exchange policy.

Source : OECD.

Annex Table 40. **Export volumes**

Total goods, customs basis, percentage changes from previous period

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|-------|------|------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States ^a | -9.1 | -2.9 | 7.9 | 3.6 | 5.1 | 11.4 | 18.8 | 12.6 | 8.3 | 7.1 | 6.8 | 3.0 | 9.7 | 11.9 | 8.7 | 14.5 | 2.1 | 4.0 | 7.3 | 8.0 |
| Japan | -2.3 | 8.5 | 15.8 | 5.0 | -0.5 | 0.4 | 4.4 | 4.5 | 5.5 | 2.5 | 1.5 | -2.1 | 1.7 | 4.4 | 0.7 | 11.8 | -1.2 | 2.1 | 8.4 | 5.2 |
| Germany | 3.3 | -0.3 | 9.1 | 5.9 | 1.3 | 2.9 | 6.6 | 8.1 | 1.4 | 1.4 | 0.8 | -6.3 | 9.0 | 6.7 | 7.1 | 8.1 | 7.5 | 4.3 | 11.3 | 9.2 |
| France | -1.1 | 4.4 | 7.3 | 2.6 | 0.1 | 4.2 | 9.6 | 10.2 | 5.0 | 5.3 | 4.8 | 0.0 | 9.9 | 9.6 | 2.2 | 12.1 | 8.8 | 3.6 | 11.6 | 9.4 |
| Italy | 0.7 | 4.7 | 5.0 | 6.5 | 1.5 | 3.0 | 8.9 | 5.3 | 2.7 | 0.8 | 3.5 | 11.7 | 11.5 | 7.9 | 4.5 | 4.6 | 1.8 | 0.2 | 11.4 | 9.9 |
| United Kingdom | 3.3 | 1.8 | 8.6 | 5.7 | 4.0 | 5.5 | 2.5 | 5.4 | 6.5 | 0.5 | 2.2 | 0.1 | 13.0 | 10.6 | 8.3 | 7.6 | 1.6 | 1.3 | 7.5 | 6.2 |
| Canada | -0.5 | 7.4 | 18.6 | 6.4 | 5.8 | 3.6 | 9.7 | 1.2 | 4.7 | 2.6 | 7.9 | 11.3 | 13.2 | 9.5 | 5.5 | 9.2 | 8.3 | 10.5 | 9.1 | 6.7 |
| Total of major countries | -1.0 | 2.8 | 10.4 | 5.1 | 1.9 | 4.1 | 8.4 | 7.4 | 4.8 | 3.1 | 3.4 | 0.5 | 8.7 | 8.4 | 5.5 | 10.4 | 3.8 | 3.6 | 9.4 | 7.9 |
| Australia | 5.9 | -2.8 | 17.7 | 9.0 | 3.1 | 8.1 | 0.1 | 4.8 | 7.2 | 16.2 | 6.4 | 6.2 | 6.3 | 3.0 | 12.7 | 7.4 | 0.2 | 4.9 | 11.1 | 9.2 |
| Austria | 1.6 | 4.3 | 9.4 | 9.7 | 1.0 | 2.2 | 7.6 | 15.2 | 11.2 | 7.1 | 3.5 | -2.7 | 11.4 | 12.4 | 4.3 | 12.9 | 9.7 | 4.3 | 9.8 | 8.7 |
| Belgium ^b | 1.6 | 4.1 | 5.0 | 4.1 | 7.9 | 6.9 | 4.6 | 8.1 | 3.1 | 4.0 | 0.0 | 7.5 | 9.0 | 6.2 | 2.2 | 7.4 | 5.6 | 3.4 | 11.1 | 7.9 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5.7 | 15.0 | 2.6 | 15.0 | 13.4 | 9.8 | 12.8 | 8.6 |
| Denmark | 2.0 | 7.6 | 5.5 | 4.6 | 1.4 | 2.4 | 7.6 | 7.4 | 6.5 | 7.1 | 5.3 | 0.1 | 7.5 | 5.5 | 3.7 | 6.1 | 0.9 | 6.0 | 6.9 | 7.2 |
| Finland | -2.7 | 4.0 | 9.6 | 0.9 | 0.4 | 1.5 | 3.5 | -0.2 | 2.8 | -9.2 | 9.1 | 18.7 | 13.9 | 7.0 | 6.0 | 12.0 | 7.0 | 7.1 | 10.7 | 9.2 |
| Greece | -0.1 | 18.2 | 17.1 | -0.7 | 19.3 | 10.5 | -31.1 | 37.7 | -7.2 | 10.3 | 24.5 | -1.3 | 3.7 | 7.5 | 17.0 | 7.0 | 2.1 | 4.8 | 9.8 | 7.8 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 16.7 | 9.9 | 24.2 | 29.7 | 21.9 | 16.3 | 16.8 | 15.9 |
| Iceland ^c | -23.4 | 9.4 | -3.6 | 12.7 | 34.5 | 24.4 | 1.3 | -2.1 | 13.5 | -1.2 | -2.8 | -4.7 | 10.8 | 11.7 | 5.3 | 0.2 | -2.8 | 7.4 | 3.0 | 6.8 |
| Ireland | 7.3 | 12.0 | 18.4 | 6.5 | 4.0 | 14.2 | 7.1 | 11.2 | 8.5 | 5.6 | 13.7 | 11.1 | 14.8 | 20.1 | 9.9 | 14.9 | 24.6 | 14.7 | 16.8 | 11.4 |
| Korea | 9.8 | 19.5 | 18.1 | 10.7 | 24.5 | 23.2 | 21.7 | -5.1 | 6.2 | 9.9 | 8.3 | 6.8 | 14.7 | 24.1 | 20.0 | 24.8 | 21.8 | 9.4 | 19.5 | 13.6 |
| Mexico | 14.6 | 15.5 | 10.4 | -3.2 | 18.0 | 11.7 | 16.8 | 5.9 | 8.1 | 14.3 | 8.1 | 16.6 | 8.6 | 23.9 | 18.4 | 16.3 | 13.2 | 11.7 | 10.6 | 8.4 |
| Netherlands | -0.6 | 4.5 | 7.4 | 5.9 | 2.1 | 4.5 | 9.2 | 6.4 | 5.2 | 4.8 | 2.6 | 1.1 | 6.5 | 7.2 | 5.4 | 6.5 | 8.2 | 4.6 | 9.5 | 8.2 |
| New Zealand | 2.9 | 5.5 | 4.9 | 10.7 | -2.0 | 2.9 | 3.9 | -2.7 | 5.7 | 10.4 | 2.6 | 4.2 | 10.1 | 2.9 | 4.8 | 5.6 | -1.0 | 1.3 | 7.8 | 6.9 |
| Norway | -0.8 | 12.6 | 9.1 | 3.5 | 1.8 | 13.9 | 4.4 | 15.0 | 6.7 | 6.7 | 8.0 | 5.3 | 12.4 | 5.5 | 12.9 | 4.6 | 0.2 | 3.1 | 9.8 | 5.1 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.3 | 16.7 | 9.7 | 13.7 | 14.6 | -1.0 | 7.6 | 9.5 |
| Portugal | 11.9 | 21.3 | 14.5 | 10.6 | 7.8 | 11.7 | 9.3 | 20.5 | 12.7 | 0.6 | 7.5 | -4.2 | 14.4 | 14.2 | 9.6 | 10.0 | 4.8 | 6.5 | 9.9 | 9.5 |
| Spain | 6.2 | 8.4 | 17.5 | 2.8 | -3.7 | 7.6 | 6.0 | 4.8 | 11.9 | 11.3 | 4.9 | 11.7 | 21.2 | 9.7 | 12.0 | 14.5 | 6.6 | 6.4 | 14.4 | 12.9 |
| Sweden | 3.7 | 11.4 | 8.2 | 3.4 | 2.9 | 2.8 | 3.7 | 2.1 | 0.2 | -2.2 | 1.0 | 9.8 | 16.9 | 10.8 | 6.1 | 10.2 | 7.2 | 5.3 | 10.1 | 5.4 |
| Switzerland | -4.9 | -0.5 | 7.9 | 7.8 | 0.0 | 1.8 | 7.2 | 7.7 | 3.4 | -2.8 | 3.5 | 1.0 | 3.4 | 2.2 | 2.6 | 7.9 | 4.0 | 4.7 | 10.6 | 8.0 |
| Turkey | 29.3 | 5.4 | 29.5 | 14.5 | -20.8 | 21.9 | 8.7 | -1.6 | 1.1 | 6.4 | 6.5 | 7.6 | 22.0 | 5.8 | 12.9 | 18.6 | 6.6 | 15.4 | 7.5 | 2.1 |
| Total of smaller countries | 2.2 | 6.5 | 9.9 | 5.5 | 4.2 | 7.3 | 7.5 | 6.0 | 5.4 | 5.1 | 4.6 | 5.8 | 10.9 | 10.5 | 8.9 | 12.1 | 9.6 | 6.8 | 12.2 | 9.4 |
| Total OECD | -0.2 | 3.8 | 10.2 | 5.2 | 2.5 | 5.0 | 8.2 | 7.0 | 4.9 | 3.7 | 3.8 | 2.0 | 9.4 | 9.1 | 6.6 | 10.9 | 5.7 | 4.7 | 10.4 | 8.4 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | 1.9 | 3.3 | 8.2 | 5.1 | 2.1 | 4.2 | 6.4 | 7.5 | 3.9 | 2.6 | 2.8 | 1.2 | 10.7 | 8.5 | 5.8 | 8.7 | 6.4 | 3.9 | 10.9 | 8.8 |

a) Derived from values and unit values on a national account basis.

b) Including Luxembourg until 1994.

c) OECD estimates.

Source: OECD.

Annex Table 41. Import volumes

Total goods, customs basis, percentage changes from previous period

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|-------|-------|------|------|------|------|-------|-------|------|-------|------|-------|-------|-------|------|------|-------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States^a</i> | -2.5 | 13.6 | 24.2 | 6.3 | 10.3 | 4.8 | 4.1 | 4.2 | 3.0 | -0.1 | 9.3 | 10.1 | 13.3 | 9.0 | 9.4 | 14.2 | 11.7 | 12.7 | 10.8 | 7.5 |
| <i>Japan</i> | -0.7 | 1.1 | 10.6 | 0.7 | 9.7 | 9.0 | 16.9 | 7.7 | 5.5 | 3.9 | -0.7 | 3.7 | 13.4 | 13.7 | 5.0 | 1.7 | -5.3 | 9.6 | 6.7 | 5.0 |
| <i>Germany</i> | 1.3 | 4.0 | 5.2 | 4.9 | 5.4 | 5.3 | 6.4 | 7.3 | 12.7 | 11.9 | 1.3 | -9.8 | 7.9 | 6.9 | 5.5 | 6.6 | 10.9 | 4.0 | 8.3 | 6.6 |
| <i>France</i> | 5.4 | -2.3 | 2.1 | 5.5 | 6.6 | 8.8 | 11.2 | 9.7 | 5.2 | 2.9 | 1.0 | -4.3 | 10.3 | 8.7 | 0.1 | 7.4 | 12.3 | 4.2 | 10.8 | 9.8 |
| <i>Italy</i> | -0.1 | 1.2 | 7.6 | 8.8 | 2.5 | 10.2 | 3.8 | 9.6 | 4.2 | 2.9 | 3.3 | -9.1 | 11.1 | 5.9 | 0.1 | 9.9 | 9.5 | 4.2 | 7.7 | 7.8 |
| <i>United Kingdom</i> | 5.1 | 6.1 | 11.1 | 3.8 | 7.2 | 6.9 | 13.8 | 8.0 | 0.5 | -5.2 | 6.2 | 0.4 | 6.3 | 6.0 | 9.8 | 8.7 | 9.5 | 5.6 | 9.5 | 7.7 |
| <i>Canada</i> | -16.4 | 11.0 | 19.7 | 10.4 | 9.1 | 5.4 | 13.5 | 5.2 | 0.6 | 3.1 | 7.6 | 8.7 | 10.6 | 7.5 | 6.2 | 16.9 | 7.3 | 10.4 | 10.2 | 7.2 |
| <i>Total of major countries</i> | -0.1 | 5.5 | 12.2 | 5.5 | 7.6 | 6.6 | 8.5 | 6.9 | 5.1 | 3.1 | 4.3 | 0.3 | 10.7 | 8.4 | 6.1 | 9.7 | 9.0 | 8.2 | 9.5 | 7.4 |
| <i>Australia</i> | 6.3 | -16.0 | 18.9 | 7.9 | -1.3 | 1.5 | 13.2 | 22.8 | -7.3 | -1.3 | 6.7 | 4.3 | 11.8 | 10.1 | 7.0 | 6.2 | 7.2 | 7.1 | 6.3 | 6.5 |
| <i>Austria</i> | -0.8 | 8.0 | 8.4 | 5.4 | 5.2 | 5.4 | 7.7 | 10.6 | 11.2 | 3.0 | 3.1 | -1.1 | 12.9 | 4.6 | 3.1 | 10.1 | 7.5 | 4.6 | 6.8 | 7.5 |
| <i>Belgium^b</i> | 0.8 | -1.4 | 4.9 | 3.8 | 10.6 | 8.3 | 4.9 | 6.8 | 5.2 | 4.1 | 1.0 | 1.2 | 7.7 | 5.0 | 4.3 | 4.5 | 8.1 | 0.6 | 10.6 | 8.0 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.8 | 26.7 | 10.9 | 8.8 | 10.9 | 5.2 | 10.3 | 7.6 |
| <i>Denmark</i> | 2.3 | 3.0 | 3.4 | 7.9 | 7.0 | -1.7 | 0.0 | 2.4 | 4.5 | 4.7 | 4.7 | -3.6 | 12.3 | 7.0 | 1.2 | 9.1 | 3.3 | 1.2 | 4.6 | 4.8 |
| <i>Finland</i> | 1.3 | 3.2 | -0.3 | 5.9 | 5.2 | 9.3 | 9.1 | 10.6 | -4.1 | -17.0 | -2.0 | -3.6 | 20.4 | 8.1 | 7.7 | 10.1 | 8.9 | 3.6 | 6.3 | 6.0 |
| <i>Greece</i> | 13.6 | 3.5 | 1.4 | 13.0 | 6.1 | 13.0 | -14.1 | 30.8 | 14.2 | 9.7 | 14.6 | 6.2 | 6.2 | 8.6 | 7.9 | 7.1 | 0.9 | 5.4 | 6.9 | 7.3 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 14.9 | -3.1 | 17.9 | 26.2 | 24.6 | 14.2 | 14.5 | 14.7 |
| <i>Iceland^c</i> | -7.8 | -13.4 | 0.7 | 10.1 | 23.4 | 41.6 | 0.6 | -12.3 | 18.6 | 5.1 | -3.3 | -16.3 | 4.6 | 19.4 | 16.2 | 8.2 | 24.1 | 6.4 | 7.0 | 3.8 |
| <i>Ireland</i> | -3.5 | 3.2 | 10.5 | 3.3 | 3.0 | 6.2 | 4.7 | 13.0 | 6.8 | 0.8 | 4.8 | 7.0 | 13.2 | 14.4 | 10.0 | 14.9 | 18.1 | 13.2 | 15.4 | 11.3 |
| <i>Korea</i> | -2.8 | 12.0 | 18.6 | 5.6 | 1.6 | 17.8 | 17.4 | 11.5 | 12.0 | 16.8 | 2.0 | 6.5 | 21.4 | 21.2 | 12.7 | 1.5 | -28.9 | 26.7 | 30.0 | 15.1 |
| <i>Mexico</i> | -39.3 | -32.1 | 30.1 | 14.6 | -6.9 | 8.9 | 41.1 | 18.8 | 17.4 | 19.7 | 23.2 | 3.8 | 18.5 | -13.3 | 22.7 | 22.0 | 15.3 | 13.9 | 14.6 | 10.3 |
| <i>Netherlands</i> | 0.9 | 4.5 | 5.5 | 7.2 | 3.7 | 4.7 | 8.0 | 6.8 | 4.7 | 4.3 | 1.3 | -2.7 | 7.1 | 7.8 | 6.1 | 7.6 | 7.5 | 5.1 | 9.4 | 8.5 |
| <i>New Zealand</i> | 6.2 | -6.8 | 20.1 | 0.0 | -1.4 | 10.4 | -7.8 | 21.7 | 7.3 | -9.6 | 10.7 | 4.3 | 16.3 | 6.5 | 3.4 | 3.6 | 2.4 | 13.5 | 6.6 | 5.8 |
| <i>Norway</i> | 3.4 | -3.3 | 13.5 | 11.7 | 14.4 | -2.0 | -9.5 | -5.7 | 10.3 | 2.6 | 3.3 | 0.7 | 16.1 | 8.1 | 10.4 | 7.9 | 10.5 | -2.3 | 1.1 | 4.3 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.4 | 20.5 | 28.0 | 20.8 | 19.1 | 3.9 | 8.3 | 8.8 |
| <i>Portugal</i> | 5.9 | -12.6 | -5.7 | 6.6 | 19.2 | 28.0 | 22.2 | 8.4 | 15.8 | 5.9 | 13.0 | -9.5 | 12.2 | 9.4 | 5.1 | 12.8 | 14.2 | 9.4 | 9.6 | 9.0 |
| <i>Spain</i> | 4.4 | -1.6 | -1.0 | 8.4 | 20.3 | 27.7 | 19.2 | 16.8 | 9.9 | 11.5 | 6.8 | -5.7 | 15.2 | 11.0 | 7.5 | 12.4 | 13.1 | 13.9 | 14.4 | 12.6 |
| <i>Sweden</i> | 5.4 | 1.9 | 6.7 | 9.2 | 3.7 | 8.8 | 5.4 | 7.1 | 0.2 | -6.4 | -0.8 | 2.5 | 14.9 | 9.0 | 2.4 | 10.6 | 10.3 | 2.6 | 8.1 | 8.6 |
| <i>Switzerland</i> | -2.2 | 5.9 | 8.5 | 3.8 | 8.5 | 6.0 | 4.5 | 7.0 | 1.9 | -1.5 | -4.9 | -0.8 | 8.3 | 4.1 | 2.4 | 8.5 | 9.1 | 5.8 | 10.8 | 7.2 |
| <i>Turkey</i> | 3.1 | 12.0 | 24.0 | 7.9 | -5.0 | 14.1 | -0.5 | 5.7 | 34.2 | -2.0 | 10.6 | 37.2 | -21.1 | 29.9 | 30.8 | 21.9 | -1.9 | -3.4 | 12.3 | 8.5 |
| <i>Total of smaller countries</i> | -0.9 | 0.5 | 7.9 | 6.6 | 6.1 | 8.4 | 8.1 | 9.6 | 6.4 | 4.1 | 3.7 | 0.9 | 11.2 | 8.5 | 8.5 | 9.7 | 5.9 | 7.4 | 11.7 | 9.3 |
| <i>Total OECD</i> | -0.4 | 3.8 | 10.8 | 5.8 | 7.1 | 7.1 | 8.3 | 7.7 | 5.5 | 3.4 | 4.1 | 0.5 | 10.9 | 8.5 | 6.9 | 9.7 | 7.9 | 8.0 | 10.3 | 8.0 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 2.4 | 2.2 | 5.6 | 5.8 | 6.2 | 7.8 | 8.3 | 8.6 | 6.3 | 4.0 | 2.8 | -4.5 | 9.4 | 7.3 | 4.7 | 8.2 | 10.1 | 5.0 | 9.5 | 8.2 |

a) Derived from values and unit values on a national account basis.

b) Including Luxembourg until 1994.

c) OECD estimates.

Source: OECD.

Annex Table 42. **Export prices (average unit values)**

Total goods, percentage changes, national currency terms

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|------|-------|------|------|-------|-------|------|------|------|------|------|------|-------|-------|------|------|-------|-------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -1.1 | -0.7 | 0.9 | -5.0 | -3.3 | 2.3 | 6.4 | 1.3 | -0.9 | -0.1 | -1.5 | -0.5 | 1.1 | 2.4 | -2.6 | -2.7 | -3.1 | -1.4 | 1.4 | 0.1 |
| Japan | 5.5 | -6.6 | -0.2 | -0.7 | -15.4 | -6.0 | -2.5 | 6.9 | 3.6 | -0.3 | -0.1 | -4.6 | -1.0 | -1.8 | 6.9 | 1.9 | 0.7 | -8.0 | -2.0 | -0.1 |
| Germany | 4.5 | 1.3 | 3.4 | 3.9 | -3.3 | -2.7 | 0.9 | 4.4 | -1.1 | -0.6 | 0.7 | 0.0 | 1.0 | 1.7 | 0.2 | 1.6 | 0.0 | -1.2 | 3.2 | 2.1 |
| France | 12.2 | 9.0 | 8.7 | 3.9 | -4.6 | -1.2 | 2.1 | 3.7 | -1.9 | -1.5 | -2.3 | -3.2 | -0.6 | 0.4 | 1.7 | 2.1 | -1.7 | -0.9 | 3.7 | 1.9 |
| Italy | 15.1 | 6.3 | 11.1 | 9.1 | -4.4 | 0.5 | 2.0 | 9.7 | 2.3 | 2.7 | 0.9 | 8.7 | 3.8 | 13.3 | -1.7 | 0.3 | 1.9 | -1.6 | 5.7 | 2.0 |
| United Kingdom | 6.3 | 7.6 | 6.9 | 5.2 | -10.6 | 3.8 | 0.4 | 8.3 | 3.9 | 0.6 | 1.2 | 9.7 | 0.4 | 3.7 | 1.1 | -5.1 | -5.7 | -1.7 | 2.4 | 2.6 |
| Canada | 0.5 | -0.1 | 3.7 | 0.5 | -2.4 | 1.4 | -0.5 | 1.2 | -1.2 | -5.3 | 2.5 | 4.6 | 6.0 | 6.2 | 0.0 | -1.4 | -1.2 | 1.2 | 3.6 | 1.8 |
| Total of major countries | 5.0 | 1.2 | 3.9 | 1.4 | -6.5 | -0.8 | 1.6 | 4.7 | 0.5 | -0.5 | -0.1 | 0.7 | 1.0 | 2.6 | 0.8 | -0.3 | -1.3 | -2.4 | 2.1 | 1.2 |
| Australia | 4.5 | 7.6 | 0.3 | 12.5 | 1.2 | 4.0 | 11.8 | 5.5 | 1.2 | -9.1 | 2.1 | 1.3 | -2.8 | 7.4 | -4.2 | 1.8 | 4.9 | -7.0 | 8.8 | 5.6 |
| Austria | 4.2 | -0.3 | 3.8 | 2.5 | -4.1 | -2.1 | 4.0 | -2.9 | -2.3 | -4.1 | -1.6 | -1.5 | -1.6 | 0.9 | 1.0 | 3.3 | -1.2 | 1.7 | 0.8 | 3.0 |
| Belgium ^a | 13.2 | 7.9 | 7.8 | 1.7 | -9.9 | -6.1 | 4.8 | 7.9 | -3.1 | -1.9 | -1.4 | -1.4 | 1.1 | 1.8 | 2.8 | 5.4 | -0.1 | -0.7 | 7.6 | 2.0 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.7 | 7.2 | 1.0 | 5.5 | 4.0 | -0.9 | 7.0 | 2.9 |
| Denmark | 11.1 | 4.9 | 6.2 | 3.4 | -4.5 | -1.0 | -0.1 | 5.6 | -1.6 | -0.4 | -1.7 | -3.0 | 1.9 | 0.6 | 0.8 | 2.2 | -0.3 | -0.1 | 8.1 | 2.3 |
| Finland | 7.3 | 6.4 | 6.3 | 2.6 | -2.2 | 2.1 | 5.0 | 7.6 | -1.2 | 0.8 | 6.1 | 5.2 | 0.8 | 6.9 | -0.1 | 1.8 | 1.3 | -5.6 | 7.1 | 2.7 |
| Greece | 22.6 | 15.0 | 20.3 | 15.9 | 6.4 | 7.7 | 16.6 | 13.7 | 13.6 | 13.8 | -2.6 | 3.1 | 11.6 | 4.6 | -5.7 | 2.7 | 2.1 | 5.0 | 5.2 | 1.8 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.0 | 31.2 | 18.9 | 15.1 | 13.1 | 3.5 | 13.9 | 6.8 |
| Iceland ^b | 70.6 | 102.1 | 27.7 | 30.9 | -1.0 | -5.9 | 11.7 | 32.1 | 2.2 | 1.4 | -2.4 | 17.6 | 3.1 | -7.3 | 2.9 | 2.8 | 7.1 | -1.4 | 2.1 | -0.6 |
| Ireland | 10.7 | 8.5 | 8.5 | 2.8 | -7.2 | -0.1 | 7.1 | 6.7 | -9.4 | -0.9 | -2.6 | 6.8 | 1.0 | 1.3 | -0.7 | 1.2 | 2.6 | 2.2 | 6.2 | 2.1 |
| Korea | -6.3 | -6.4 | 1.3 | -6.0 | -8.4 | 10.6 | 5.5 | 8.3 | -1.8 | 4.2 | 4.6 | 3.3 | 1.9 | 0.7 | -9.4 | -0.5 | 16.0 | -15.2 | 1.6 | 1.5 |
| Mexico | 89.0 | 181.3 | 25.9 | 60.7 | 35.6 | 153.8 | 52.3 | 18.5 | 22.2 | -2.5 | 2.5 | -3.0 | 17.9 | 100.0 | 20.3 | 3.1 | 8.7 | 8.2 | 6.0 | 6.2 |
| Netherlands | 4.1 | -0.3 | 5.9 | 1.3 | -17.0 | -5.7 | 0.4 | 5.0 | -1.2 | -0.6 | -2.9 | -3.4 | 2.0 | 1.5 | 0.7 | 3.0 | -3.4 | -3.2 | 8.0 | 2.2 |
| New Zealand | 10.6 | 5.6 | 13.1 | 9.3 | -2.6 | 6.0 | 6.3 | 13.0 | -1.2 | -4.2 | 8.1 | 2.7 | -4.1 | -1.7 | -3.5 | -2.6 | 4.8 | 1.5 | 7.6 | 2.4 |
| Norway | 7.4 | 3.7 | 9.4 | 4.9 | -24.8 | -3.4 | 0.0 | 12.3 | 4.1 | -3.7 | -8.4 | 0.6 | -3.7 | 3.7 | 7.4 | 2.3 | -11.3 | 12.1 | 37.1 | -1.4 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 29.0 | 21.0 | 8.0 | 14.9 | -2.0 | 0.7 | 11.0 | 6.5 |
| Portugal | 15.2 | 30.2 | 30.7 | 15.7 | 3.3 | 8.5 | 10.4 | 5.7 | 2.9 | 0.2 | -2.2 | 4.3 | 5.1 | 3.0 | -1.1 | 0.4 | 0.3 | -3.3 | 4.4 | 2.3 |
| Spain | 11.7 | 16.9 | 12.4 | 6.9 | -3.9 | 2.6 | 5.4 | 4.6 | -1.8 | -0.9 | 1.1 | 5.1 | 4.2 | 6.3 | 1.0 | 3.2 | 0.1 | -0.8 | 4.4 | 2.3 |
| Sweden | 10.6 | 13.9 | 6.6 | 3.8 | -1.2 | 3.4 | 4.5 | 6.9 | 2.1 | 0.2 | -3.0 | 8.4 | 3.9 | 5.4 | -4.3 | 0.9 | -1.4 | -1.1 | 1.6 | 1.9 |
| Switzerland | 4.9 | 2.4 | 4.7 | 2.0 | 0.5 | -1.0 | 2.3 | 5.6 | 1.3 | 2.5 | 1.2 | 0.2 | -0.6 | -1.8 | -0.1 | 3.8 | -0.7 | 1.1 | 3.6 | 3.1 |
| Turkey | 40.9 | 32.5 | 51.6 | 35.9 | 25.7 | 47.2 | 57.8 | 50.3 | 35.8 | 58.2 | 66.9 | 55.4 | 163.7 | 72.1 | 69.6 | 77.6 | 64.0 | 52.9 | 54.6 | 16.6 |
| Total of smaller countries | 11.9 | 13.5 | 8.8 | 6.6 | -4.5 | 7.7 | 7.9 | 7.9 | 1.1 | 0.3 | 0.7 | 1.8 | 4.9 | 8.9 | 1.8 | 4.0 | 2.6 | -0.9 | 7.3 | 2.8 |
| Total OECD | 7.1 | 4.8 | 5.4 | 2.9 | -5.9 | 1.8 | 3.5 | 5.7 | 0.6 | -0.3 | 0.2 | 1.0 | 2.3 | 4.6 | 1.1 | 1.1 | -0.1 | -1.9 | 3.7 | 1.7 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | 8.7 | 5.9 | 7.2 | 4.5 | -6.2 | -1.0 | 2.2 | 5.8 | -0.4 | -0.3 | -0.4 | 2.0 | 1.4 | 3.4 | 0.4 | 1.2 | -1.0 | -1.3 | 4.4 | 2.2 |

a) Including Luxembourg until 1994.

b) OECD estimates.

Source: OECD.

Annex Table 43. Import prices (average unit values)

Total goods, percentage changes, national currency terms

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|-------|-------|------|------|-------|-------|------|------|------|------|------|-------|-------|------|------|------|------|-------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | -4.1 | -4.2 | -0.7 | -4.0 | -2.2 | 6.9 | 4.8 | 2.8 | 1.8 | -1.4 | -0.4 | -1.1 | 0.8 | 2.7 | -2.4 | -4.1 | -5.9 | 0.0 | 3.2 | -0.9 |
| <i>Japan</i> | 4.6 | -9.1 | -2.6 | -4.4 | -36.5 | -8.0 | -5.4 | 11.9 | 10.7 | -9.1 | -6.9 | -12.3 | -7.7 | -1.4 | 14.7 | 6.0 | -5.4 | -12.3 | 3.0 | -0.3 |
| <i>Germany</i> | 0.7 | -0.4 | 5.9 | 2.5 | -15.9 | -6.1 | 1.0 | 7.4 | -2.5 | 1.9 | -2.4 | -1.5 | 0.8 | 0.5 | 0.5 | 3.2 | -3.3 | -1.0 | 5.8 | 1.9 |
| <i>France</i> | 9.9 | 7.4 | 11.3 | 0.9 | -14.9 | -2.3 | 0.8 | 6.0 | -2.1 | -0.7 | -3.8 | -4.1 | 0.1 | 0.4 | 2.4 | 1.7 | -3.1 | 0.0 | 5.6 | 1.8 |
| <i>Italy</i> | 12.5 | 3.6 | 12.8 | 7.5 | -15.9 | -1.7 | 7.5 | 6.4 | -0.5 | 0.8 | -0.6 | 10.5 | 5.2 | 15.2 | -4.0 | 0.9 | -3.6 | -0.4 | 8.9 | 2.2 |
| <i>United Kingdom</i> | 7.2 | 9.1 | 8.0 | 3.9 | -5.8 | 2.7 | -0.4 | 5.9 | 3.0 | -0.5 | -0.3 | 7.8 | 3.6 | 6.7 | 0.0 | -6.6 | -7.3 | -3.0 | 1.5 | 2.3 |
| <i>Canada</i> | 3.5 | -1.4 | 4.6 | 1.7 | 0.1 | -1.8 | -2.0 | -0.3 | 0.7 | -3.3 | 2.0 | 5.5 | 6.1 | 3.0 | -2.5 | -0.2 | 1.8 | -2.4 | 1.1 | 1.4 |
| <i>Total of major countries</i> | 2.4 | -0.6 | 3.9 | -0.2 | -12.7 | -0.3 | 1.5 | 5.6 | 1.5 | -1.6 | -1.9 | -0.8 | 0.6 | 2.9 | 0.8 | -0.5 | -4.5 | -2.3 | 4.0 | 0.7 |
| <i>Australia</i> | 6.8 | 8.6 | 2.5 | 18.7 | 9.3 | 6.1 | -2.6 | -0.8 | 3.9 | 1.0 | 4.6 | 8.1 | -2.4 | 3.6 | -5.4 | -0.1 | 8.4 | -2.3 | 6.1 | 3.1 |
| <i>Austria</i> | 0.1 | -2.8 | 4.0 | 3.9 | -9.8 | -4.2 | 1.9 | 2.9 | -2.8 | 3.3 | -2.6 | -3.8 | -1.3 | 1.1 | 2.4 | 0.9 | -0.5 | 1.1 | 6.6 | 2.5 |
| <i>Belgium^a</i> | 9.1 | 13.8 | 8.3 | 0.0 | -16.2 | -7.0 | 5.7 | 7.1 | -1.8 | -1.3 | -3.2 | -5.7 | 2.0 | 3.1 | 3.3 | 6.1 | -1.6 | 1.4 | 9.2 | 2.1 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -0.9 | 5.6 | 1.3 | 5.2 | -2.8 | 1.9 | 10.6 | 3.5 |
| <i>Denmark</i> | 9.5 | 3.2 | 8.7 | 2.4 | -9.6 | -4.1 | 1.8 | 7.1 | -2.9 | 0.0 | -2.9 | -2.9 | 2.5 | 3.2 | 0.9 | 3.2 | 0.4 | -0.2 | 7.5 | 3.3 |
| <i>Finland</i> | 4.4 | 7.1 | 4.4 | 3.5 | -9.9 | -2.3 | 2.0 | 3.5 | 1.8 | 2.5 | 10.3 | 12.8 | -2.9 | -1.3 | 2.6 | 2.7 | -1.3 | -1.1 | 9.4 | 2.1 |
| <i>Greece</i> | 28.0 | 14.5 | 20.6 | 22.6 | 12.7 | 0.2 | 11.0 | 13.3 | 10.0 | 11.3 | 1.5 | 1.8 | 0.7 | 1.4 | 2.4 | 1.5 | 4.8 | 6.1 | 7.5 | 3.1 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 15.2 | 30.6 | 21.3 | 13.6 | 11.3 | 5.5 | 14.1 | 7.7 |
| <i>Iceland^b</i> | 70.6 | 102.1 | 27.7 | 30.9 | -1.0 | -6.0 | 11.1 | 32.7 | 2.4 | 1.2 | -2.5 | 17.3 | 3.3 | -7.3 | 3.3 | -2.4 | -0.5 | -2.4 | 2.8 | -0.8 |
| <i>Ireland</i> | 7.3 | 4.6 | 9.5 | 2.6 | -11.2 | -0.1 | 6.5 | 6.4 | -4.9 | 2.1 | -1.9 | 5.4 | 2.4 | 4.5 | -1.0 | 0.4 | 1.7 | 0.4 | 8.3 | 2.5 |
| <i>Korea</i> | -4.5 | -3.5 | -1.4 | -3.6 | -0.2 | 10.2 | 7.6 | 6.5 | 1.3 | 3.6 | 4.5 | -1.0 | 0.7 | 4.4 | 3.1 | 11.5 | 31.1 | -15.9 | 6.9 | 0.0 |
| <i>Mexico</i> | 117.7 | 206.3 | 28.4 | 70.7 | 92.1 | 133.2 | 67.5 | 14.1 | 16.2 | 6.6 | 3.3 | 2.0 | 11.7 | 99.7 | 18.8 | 4.8 | 14.8 | 3.3 | 3.7 | 6.3 |
| <i>Netherlands</i> | 1.0 | 0.1 | 5.7 | 0.9 | -18.0 | -3.1 | -0.6 | 5.2 | -1.7 | -0.3 | -2.7 | -3.2 | 2.0 | 0.2 | 0.7 | 2.6 | -1.8 | -1.4 | 8.5 | 2.8 |
| <i>New Zealand</i> | 11.6 | 8.3 | 13.7 | 10.5 | -2.5 | -4.4 | -0.7 | 7.9 | 0.7 | 1.0 | 6.7 | -0.6 | -3.4 | -0.1 | -2.7 | -0.9 | 3.8 | 2.3 | 4.0 | 1.7 |
| <i>Norway</i> | 4.5 | 3.7 | 3.1 | 6.5 | 0.0 | 2.7 | 2.9 | 6.1 | 0.9 | -1.7 | -2.1 | 1.0 | 0.7 | 0.9 | -0.9 | -1.0 | 1.4 | -0.8 | 7.4 | 3.7 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 27.2 | 19.2 | 10.9 | 16.6 | -0.5 | 3.8 | 10.0 | 6.9 |
| <i>Portugal</i> | 17.0 | 37.3 | 35.3 | 7.3 | -8.6 | 6.2 | 7.1 | 7.7 | 3.2 | 0.2 | -5.1 | 5.0 | 3.6 | 1.8 | 2.7 | 0.3 | -3.0 | 2.0 | 6.9 | 1.7 |
| <i>Spain</i> | 12.2 | 22.3 | 11.8 | 1.2 | -19.1 | -4.5 | -2.1 | 2.1 | -3.4 | -2.7 | -1.2 | 5.2 | 5.8 | 4.4 | 0.3 | 3.6 | -2.4 | 0.0 | 6.1 | 1.3 |
| <i>Sweden</i> | 11.1 | 15.0 | 2.3 | 2.4 | -8.3 | 1.7 | 3.4 | 5.2 | 2.2 | -0.6 | -2.7 | 12.0 | 4.2 | 0.8 | -3.8 | 0.9 | -3.3 | 1.7 | 4.1 | 1.4 |
| <i>Switzerland</i> | -1.2 | -0.7 | 4.2 | 4.4 | -9.3 | -3.7 | 4.9 | 8.0 | -0.4 | -0.1 | 2.1 | -1.9 | -4.9 | -2.0 | -0.1 | 4.9 | -3.6 | -2.1 | 3.3 | 2.6 |
| <i>Turkey</i> | 41.5 | 29.4 | 56.2 | 44.3 | 8.3 | 38.7 | 61.8 | 56.4 | 29.6 | 54.6 | 61.6 | 50.0 | 171.5 | 82.2 | 65.2 | 71.5 | 62.9 | 56.1 | 61.2 | 15.7 |
| <i>Total of smaller countries</i> | 10.3 | 13.6 | 8.9 | 6.7 | -6.3 | 4.4 | 7.0 | 7.2 | 1.1 | 2.1 | 1.1 | 1.5 | 5.3 | 8.0 | 3.6 | 5.8 | 4.3 | -0.1 | 8.4 | 2.9 |
| <i>Total OECD</i> | 4.9 | 3.8 | 5.5 | 2.0 | -10.6 | 1.2 | 3.2 | 6.1 | 1.3 | -0.4 | -0.9 | 0.0 | 2.2 | 4.6 | 1.7 | 1.6 | -1.6 | -1.6 | 5.5 | 1.5 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 6.6 | 6.2 | 8.7 | 2.9 | -13.7 | -2.9 | 1.9 | 6.1 | -1.0 | 0.4 | -2.0 | 1.1 | 2.1 | 3.2 | 0.5 | 1.3 | -3.1 | -0.5 | 6.2 | 2.1 |

a) Including Luxembourg until 1994.

b) OECD estimates.

Source: OECD.

Annex Table 44. **Competitive positions: relative unit labour costs**
Indices, 1995 = 100

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States | 150.6 | 155.6 | 158.9 | 164.5 | 143.0 | 121.8 | 112.8 | 113.6 | 111.6 | 110.8 | 108.2 | 107.8 | 105.5 | 100.0 | 102.9 | 110.1 | 121.2 | 119.6 |
| Japan | 48.9 | 54.8 | 56.0 | 55.1 | 75.5 | 79.4 | 82.8 | 74.0 | 67.2 | 71.5 | 75.7 | 90.7 | 102.2 | 100.0 | 81.4 | 78.1 | 82.5 | 93.2 |
| Germany | 69.4 | 70.4 | 68.8 | 68.1 | 75.1 | 83.2 | 82.9 | 80.5 | 83.4 | 81.2 | 87.4 | 91.3 | 92.7 | 100.0 | 97.1 | 90.3 | 90.0 | 88.8 |
| France | 107.6 | 106.7 | 107.6 | 110.5 | 113.6 | 112.8 | 106.8 | 102.0 | 105.7 | 101.3 | 101.3 | 102.4 | 100.1 | 100.0 | 99.1 | 92.4 | 93.3 | 92.6 |
| Italy | 127.4 | 135.4 | 132.2 | 129.9 | 132.7 | 131.6 | 130.5 | 135.2 | 142.7 | 145.6 | 138.4 | 114.9 | 109.6 | 100.0 | 113.7 | 117.6 | 119.5 | 121.1 |
| United Kingdom | 123.5 | 113.1 | 108.7 | 111.9 | 105.6 | 108.1 | 115.1 | 111.1 | 114.3 | 118.1 | 112.3 | 98.9 | 101.3 | 100.0 | 102.6 | 125.4 | 141.0 | 141.5 |
| Canada | 115.5 | 119.5 | 109.9 | 105.4 | 99.5 | 104.9 | 114.8 | 120.2 | 122.3 | 126.6 | 116.2 | 104.5 | 98.0 | 100.0 | 102.1 | 103.1 | 101.6 | 102.0 |
| Australia | 287.2 | 281.9 | 283.9 | 221.8 | 177.6 | 160.8 | 157.4 | 159.8 | 146.5 | 131.0 | 115.3 | 101.6 | 102.9 | 100.0 | 103.3 | 104.1 | 94.1 | 97.8 |
| Austria | 114.3 | 114.0 | 110.6 | 110.1 | 115.7 | 115.7 | 109.6 | 105.5 | 105.7 | 103.3 | 103.3 | 101.9 | 98.8 | 100.0 | 95.4 | 89.6 | 89.3 | 87.2 |
| Belgium-Luxembourg | 93.8 | 89.1 | 89.0 | 89.8 | 93.6 | 96.0 | 93.5 | 91.2 | 96.8 | 97.9 | 98.2 | 97.4 | 97.2 | 100.0 | 97.5 | 91.6 | 94.3 | 93.8 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 87.1 | 96.2 | 100.0 | 109.3 | 108.3 | 120.4 | 125.1 |
| Denmark | 80.2 | 80.6 | 81.4 | 84.7 | 92.9 | 101.7 | 98.6 | 92.9 | 100.4 | 97.1 | 100.1 | 101.1 | 96.4 | 100.0 | 95.7 | 97.3 | 99.8 | 101.4 |
| Finland | 136.8 | 133.5 | 138.3 | 139.8 | 134.3 | 131.0 | 134.9 | 140.6 | 147.7 | 143.4 | 111.3 | 84.6 | 87.6 | 100.0 | 94.2 | 91.3 | 95.8 | 98.2 |
| Greece | 108.4 | 103.1 | 107.7 | 105.8 | 90.1 | 86.1 | 94.8 | 100.0 | 105.6 | 98.7 | 96.1 | 90.1 | 93.0 | 100.0 | 102.2 | 105.0 | 102.7 | 104.2 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 127.1 | 119.0 | 100.0 | 92.7 | 92.1 | 86.2 | 86.0 |
| Iceland | 98.3 | 84.4 | 88.1 | 94.5 | 91.4 | 111.1 | 121.7 | 109.1 | 107.1 | 111.5 | 109.6 | 100.9 | 98.9 | 100.0 | 100.3 | 104.8 | 112.8 | 115.7 |
| Ireland | 183.5 | 171.0 | 157.8 | 152.6 | 163.2 | 149.6 | 137.2 | 126.2 | 131.4 | 126.2 | 122.0 | 112.7 | 108.7 | 100.0 | 99.1 | 91.1 | 85.8 | 81.5 |
| Korea | 90.7 | 91.6 | 96.4 | 87.1 | 68.1 | 71.0 | 85.1 | 99.8 | 97.2 | 98.7 | 91.9 | 87.8 | 90.1 | 100.0 | 106.1 | 89.8 | 60.3 | 66.1 |
| Mexico | 208.6 | 110.4 | 141.1 | 134.5 | 103.9 | 104.4 | 108.0 | 119.8 | 121.6 | 135.9 | 151.8 | 163.5 | 160.8 | 100.0 | 100.8 | 109.3 | 107.3 | 111.3 |
| Netherlands | 114.2 | 111.2 | 100.3 | 98.4 | 106.2 | 110.8 | 107.4 | 99.9 | 101.0 | 99.4 | 102.9 | 103.1 | 98.6 | 100.0 | 95.5 | 90.0 | 91.9 | 93.1 |
| New Zealand | 96.7 | 92.8 | 78.0 | 77.8 | 79.5 | 88.9 | 98.5 | 92.1 | 92.2 | 92.4 | 83.2 | 85.7 | 93.4 | 100.0 | 112.3 | 116.7 | 105.8 | 103.0 |
| Norway | 94.9 | 96.4 | 94.8 | 94.8 | 95.0 | 95.5 | 101.2 | 99.5 | 97.7 | 95.5 | 94.1 | 90.8 | 94.0 | 100.0 | 102.1 | 108.5 | 109.8 | 114.4 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 91.0 | 93.7 | 100.0 | 102.9 | 102.5 | 110.1 | 102.9 |
| Portugal | 83.3 | 74.8 | 66.6 | 73.2 | 69.9 | 69.8 | 72.1 | 73.5 | 79.5 | 89.1 | 99.8 | 97.4 | 98.9 | 100.0 | 98.1 | 97.4 | 100.2 | 101.1 |
| Spain | 103.3 | 89.5 | 91.7 | 90.6 | 89.2 | 90.1 | 96.4 | 103.8 | 114.7 | 117.4 | 120.3 | 107.4 | 101.0 | 100.0 | 103.3 | 102.1 | 106.7 | 107.0 |
| Sweden | 130.8 | 117.9 | 121.6 | 127.1 | 127.6 | 127.6 | 134.2 | 140.5 | 144.2 | 149.8 | 147.0 | 105.9 | 101.4 | 100.0 | 112.7 | 106.9 | 107.3 | 107.3 |
| Switzerland | 67.7 | 72.5 | 70.6 | 69.7 | 76.9 | 81.3 | 82.8 | 77.9 | 83.3 | 85.1 | 83.4 | 83.6 | 92.0 | 100.0 | 96.6 | 92.5 | 97.3 | 97.1 |
| Turkey | 103.2 | 111.1 | 96.7 | 99.5 | 79.1 | 71.5 | 64.9 | 98.3 | 116.0 | 149.6 | 140.8 | 139.0 | 95.5 | 100.0 | 99.0 | 101.1 | 110.9 | 119.2 |
| Euro area | 88.4 | 87.9 | 84.1 | 83.8 | 95.2 | 103.9 | 99.4 | 95.4 | 106.1 | 102.7 | 106.9 | 100.4 | 96.9 | 100.0 | 100.7 | 90.7 | 93.0 | 92.2 |

Note: Indices are expressed in a common currency and concern the manufacturing sector. The relative export price indices take into account both export and import competitiveness. For the details on the method of calculation, see Durand, M., C. Madaschi and F. Terribile (1998), "Trends in OECD countries' international competitiveness: The influence of emerging market economies", OECD Economics Department Working Papers, No. 195.

Source: OECD.

Annex Table 45. Competitive positions: relative export prices

Indices, 1995 = 100

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <i>United States</i> | 151.1 | 153.8 | 153.6 | 151.4 | 134.0 | 123.4 | 119.2 | 119.2 | 115.0 | 114.3 | 111.1 | 112.4 | 108.6 | 100.0 | 99.4 | 102.5 | 106.7 | 107.2 |
| <i>Japan</i> | 68.6 | 70.4 | 70.3 | 71.8 | 80.8 | 79.5 | 81.6 | 79.2 | 75.0 | 80.4 | 84.0 | 94.2 | 100.5 | 100.0 | 93.9 | 91.6 | 91.7 | 100.3 |
| <i>Germany</i> | 81.2 | 82.5 | 79.5 | 80.9 | 89.9 | 93.1 | 90.7 | 89.1 | 92.9 | 91.7 | 95.1 | 96.4 | 96.7 | 100.0 | 97.5 | 93.5 | 95.3 | 94.7 |
| <i>France</i> | 106.6 | 104.4 | 103.9 | 105.7 | 108.8 | 109.2 | 107.5 | 104.1 | 106.7 | 102.1 | 102.5 | 99.5 | 99.0 | 100.0 | 101.6 | 99.0 | 99.0 | 98.6 |
| <i>Italy</i> | 103.1 | 101.7 | 102.3 | 102.8 | 106.0 | 105.5 | 102.5 | 109.2 | 114.5 | 115.3 | 113.7 | 101.5 | 99.3 | 100.0 | 106.4 | 105.7 | 109.5 | 107.9 |
| <i>United Kingdom</i> | 103.0 | 101.1 | 98.4 | 101.2 | 97.1 | 98.1 | 102.9 | 101.5 | 103.4 | 104.8 | 102.7 | 102.1 | 103.7 | 100.0 | 101.6 | 110.3 | 110.9 | 109.3 |
| <i>Canada</i> | 98.2 | 102.3 | 102.4 | 101.6 | 98.9 | 101.0 | 104.4 | 107.0 | 104.4 | 101.8 | 97.3 | 96.0 | 96.0 | 100.0 | 101.6 | 102.7 | 99.4 | 99.8 |
| <i>Australia</i> | 119.4 | 121.4 | 121.6 | 108.7 | 98.1 | 101.1 | 118.4 | 123.5 | 116.5 | 105.7 | 96.9 | 91.0 | 96.0 | 100.0 | 101.0 | 103.3 | 96.2 | 98.3 |
| <i>Austria</i> | 110.5 | 109.4 | 107.2 | 106.6 | 110.8 | 112.9 | 115.6 | 105.4 | 107.4 | 101.6 | 101.0 | 101.8 | 98.2 | 100.0 | 98.9 | 98.0 | 98.6 | 101.4 |
| <i>Belgium-Luxembourg</i> | 88.9 | 90.0 | 89.5 | 89.7 | 93.4 | 93.0 | 92.6 | 95.1 | 97.2 | 94.8 | 95.7 | 94.0 | 95.6 | 100.0 | 100.1 | 99.8 | 102.0 | 101.9 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 93.4 | 97.2 | 100.0 | 102.7 | 102.1 | 107.9 | 105.8 |
| <i>Denmark</i> | 85.5 | 88.1 | 86.2 | 88.9 | 95.5 | 98.1 | 94.9 | 92.7 | 98.1 | 96.5 | 98.0 | 97.6 | 98.8 | 100.0 | 99.5 | 97.6 | 101.8 | 103.1 |
| <i>Finland</i> | 89.5 | 86.2 | 87.1 | 88.7 | 88.8 | 91.4 | 94.7 | 99.5 | 99.5 | 98.0 | 90.1 | 79.0 | 84.6 | 100.0 | 95.6 | 94.8 | 98.6 | 90.5 |
| <i>Greece</i> | 152.8 | 144.6 | 138.7 | 128.9 | 112.5 | 106.1 | 111.7 | 114.5 | 118.6 | 116.4 | 105.3 | 100.7 | 102.1 | 100.0 | 89.6 | 89.4 | 87.4 | 92.2 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 102.1 | 101.6 | 100.0 | 100.4 | 103.6 | 105.5 | 103.5 |
| <i>Iceland</i> | 160.4 | 169.6 | 176.1 | 175.3 | 144.0 | 127.5 | 120.0 | 121.2 | 110.0 | 110.9 | 107.6 | 115.1 | 111.5 | 100.0 | 102.9 | 110.2 | 136.6 | 148.9 |
| <i>Ireland</i> | 105.3 | 106.4 | 105.6 | 108.4 | 110.8 | 103.5 | 108.1 | 108.5 | 103.6 | 101.6 | 104.2 | 100.4 | 99.1 | 100.0 | 102.4 | 106.3 | 106.7 | 108.2 |
| <i>Korea</i> | 117.9 | 105.4 | 107.8 | 97.8 | 84.4 | 96.6 | 108.9 | 124.5 | 111.1 | 108.8 | 103.1 | 103.3 | 101.8 | 100.0 | 88.6 | 77.9 | 64.7 | 62.5 |
| <i>Mexico</i> | 92.0 | 96.5 | 100.7 | 103.4 | 100.9 | 97.5 | 97.5 | 95.7 | 93.8 | 93.9 | 91.5 | 92.1 | 99.4 | 100.0 | 103.8 | 110.4 | 114.2 | 115.0 |
| <i>Netherlands</i> | 100.6 | 99.3 | 94.4 | 91.3 | 91.8 | 98.5 | 98.6 | 95.0 | 96.5 | 94.9 | 95.1 | 94.6 | 95.8 | 100.0 | 98.8 | 95.1 | 93.1 | 88.0 |
| <i>New Zealand</i> | 96.1 | 96.8 | 96.1 | 92.1 | 88.0 | 94.0 | 105.4 | 103.3 | 98.1 | 91.6 | 88.6 | 92.1 | 96.9 | 100.0 | 102.5 | 102.5 | 92.7 | 91.7 |
| <i>Norway</i> | 100.1 | 98.6 | 103.4 | 99.9 | 95.9 | 96.6 | 112.2 | 116.6 | 106.1 | 100.4 | 94.9 | 90.1 | 89.0 | 100.0 | 96.1 | 95.3 | 94.9 | 94.3 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 99.1 | 99.0 | 100.0 | 99.6 | 104.5 | 100.2 | 90.5 |
| <i>Portugal</i> | 109.0 | 107.2 | 109.6 | 110.5 | 108.1 | 105.9 | 106.0 | 101.2 | 101.8 | 103.2 | 104.8 | 100.0 | 99.0 | 100.0 | 98.6 | 95.3 | 95.3 | 92.3 |
| <i>Spain</i> | 88.5 | 84.1 | 86.5 | 89.4 | 97.6 | 100.0 | 103.8 | 103.9 | 109.6 | 114.1 | 115.7 | 107.4 | 101.6 | 100.0 | 101.4 | 99.4 | 101.6 | 99.9 |
| <i>Sweden</i> | 103.9 | 100.5 | 102.6 | 104.9 | 107.5 | 109.0 | 110.7 | 112.5 | 113.2 | 114.3 | 112.9 | 97.6 | 98.4 | 100.0 | 105.7 | 101.1 | 99.3 | 98.7 |
| <i>Switzerland</i> | 74.6 | 78.4 | 77.0 | 74.7 | 84.6 | 88.6 | 87.9 | 84.0 | 90.8 | 92.4 | 91.6 | 93.4 | 99.1 | 100.0 | 99.2 | 96.7 | 99.4 | 101.6 |
| <i>Turkey</i> | 162.3 | 162.9 | 157.4 | 143.1 | 113.0 | 120.3 | 109.0 | 106.7 | 105.2 | 104.7 | 102.3 | 100.6 | 98.4 | 100.0 | 97.3 | 99.2 | 96.5 | 99.0 |
| <i>Euro area</i> | 89.4 | 87.8 | 84.1 | 85.7 | 97.6 | 101.9 | 98.8 | 97.6 | 105.7 | 101.1 | 103.5 | 96.1 | 94.8 | 100.0 | 100.8 | 95.4 | 98.5 | 95.9 |

Note: Indices are expressed in a common currency and concern the manufacturing sector. The relative export price indices take into account both export and import competitiveness. For the details on the method of calculation, see Durand, M., C. Madaschi and F. Terribile (1998), "Trends in OECD countries' international competitiveness: The influence of emerging market economies", OECD Economics Department Working Papers, No. 195.

Source: OECD.

Annex Table 46. Export performance for total goods^a

Total goods, percentage changes, national currency terms

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------|-------|------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|------|-------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -3.4 | -1.2 | -1.4 | 0.7 | 0.7 | 8.3 | 5.2 | 4.2 | 3.2 | 0.1 | -0.6 | -2.0 | -2.3 | 3.5 | 1.6 | 3.7 | -1.2 | -2.2 | -3.4 | -0.4 |
| Japan | -2.8 | 2.7 | 1.8 | -0.5 | -6.1 | -6.5 | -6.0 | -3.4 | -0.3 | -4.9 | -6.3 | -9.6 | -10.4 | -6.2 | -6.7 | 0.8 | -3.3 | -7.2 | -3.9 | -3.7 |
| Germany | 2.2 | -1.7 | 1.8 | 2.2 | -4.5 | -3.4 | -1.0 | 0.5 | -2.7 | -1.8 | -2.2 | -10.0 | -0.9 | -3.2 | 0.3 | -1.4 | 0.6 | -4.2 | 0.6 | 0.5 |
| France | -2.3 | 4.4 | 0.5 | 2.0 | -4.7 | -1.1 | 1.0 | 1.0 | -1.3 | -1.2 | 1.3 | 2.4 | -2.1 | 0.9 | -3.3 | 2.3 | -0.3 | -0.4 | 1.3 | 1.0 |
| Italy | -0.8 | 5.3 | 0.1 | 4.0 | -5.2 | -2.0 | 0.7 | -2.0 | -3.8 | -4.4 | 0.4 | 13.0 | 1.8 | -1.0 | -1.7 | -4.4 | -6.4 | -3.6 | 1.0 | 1.2 |
| United Kingdom | 1.0 | -0.6 | 1.7 | 3.2 | -1.0 | 1.1 | -3.0 | -1.3 | 0.7 | -3.8 | -1.8 | 1.5 | 2.2 | 1.4 | 2.6 | -1.4 | -6.4 | -3.8 | -2.3 | -2.1 |
| Canada | -0.2 | -4.2 | -0.8 | -0.7 | -2.6 | -1.1 | 2.9 | -3.8 | 3.9 | 1.6 | -0.4 | 1.7 | 0.8 | 1.5 | -2.5 | -3.2 | -1.6 | -1.5 | -1.3 | -0.8 |
| Total of major countries | -0.4 | 1.0 | 1.1 | 1.6 | -3.7 | -1.4 | -0.6 | -0.2 | -0.3 | -2.1 | -1.9 | -3.0 | -2.6 | -0.8 | -1.3 | 0.2 | -2.1 | -3.5 | -1.5 | -0.6 |
| Australia | 5.8 | -4.5 | 6.8 | 7.0 | 2.2 | -2.0 | -8.9 | -1.5 | 2.1 | 11.2 | 0.4 | 2.6 | -4.5 | -5.1 | 8.8 | 3.3 | -0.2 | -0.3 | -0.6 | 1.1 |
| Austria | 0.6 | 2.1 | 2.8 | 5.3 | -5.4 | -4.1 | 0.4 | 6.4 | 3.2 | 0.5 | 3.2 | 1.5 | -0.3 | 3.6 | -1.8 | 3.7 | -1.2 | 1.1 | 0.0 | 0.5 |
| Belgium ^b | -0.2 | 2.2 | -0.1 | 0.6 | -1.3 | 0.1 | -1.1 | 0.1 | -3.3 | -1.4 | -2.4 | 11.4 | -0.5 | -2.0 | -2.8 | -0.9 | -3.5 | -0.5 | 1.3 | -0.4 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -6.9 | 4.7 | -4.5 | 6.5 | 2.8 | 10.4 | 4.1 | 1.1 |
| Denmark | 0.3 | 5.4 | -0.5 | 0.0 | -3.6 | -2.8 | 2.2 | 1.1 | 1.5 | 2.4 | 2.6 | 2.2 | -2.3 | -1.0 | -3.4 | -1.1 | -6.5 | 3.6 | -1.1 | -0.1 |
| Finland | -3.1 | 1.9 | 1.5 | -2.7 | -5.2 | -3.9 | -2.8 | -6.3 | -0.5 | -12.1 | 7.8 | 20.5 | 8.1 | -10.3 | -2.7 | 2.2 | -0.3 | 4.1 | 1.2 | 1.0 |
| Greece | -1.0 | 18.3 | 12.6 | -2.1 | 17.1 | 6.6 | -33.9 | 30.5 | -10.0 | 7.0 | 24.9 | 1.9 | -4.8 | 0.2 | 10.7 | -0.1 | -4.8 | 5.4 | 1.4 | 0.4 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7.5 | 0.9 | 17.2 | 20.7 | 12.4 | 17.3 | 8.3 | 8.1 |
| Iceland | -22.9 | 7.5 | -8.7 | 10.4 | 27.3 | 18.5 | 0.2 | -6.5 | 9.4 | -3.5 | -5.9 | -4.1 | 3.9 | 7.8 | 0.6 | -4.4 | -6.8 | 5.3 | -3.1 | 0.9 |
| Ireland | 4.8 | 7.8 | 9.3 | 2.3 | -1.5 | 9.0 | -3.3 | 3.5 | 3.7 | 2.9 | 8.6 | 11.7 | 6.5 | 11.0 | 2.7 | 4.3 | 14.5 | 9.6 | 6.7 | 3.3 |
| Korea | 3.4 | 16.2 | 2.7 | 3.2 | 10.3 | 11.6 | 7.5 | -12.5 | 0.7 | 1.7 | 1.1 | -1.9 | 1.8 | 11.0 | 12.2 | 13.6 | 18.2 | 1.5 | 7.7 | 4.7 |
| Mexico | 4.6 | 7.7 | -5.8 | -7.4 | 1.3 | 5.0 | 9.4 | 3.2 | 7.5 | 10.3 | -2.2 | 3.8 | -3.9 | 16.7 | 8.3 | 0.5 | -0.5 | 1.9 | 1.0 | 0.9 |
| Netherlands | -1.8 | 2.9 | 3.1 | 2.4 | -2.2 | -1.3 | 2.7 | -0.5 | -0.7 | -0.3 | 0.0 | 4.4 | -2.7 | 0.6 | 0.0 | -0.4 | -0.2 | 2.7 | 0.6 | 0.5 |
| New Zealand | 3.6 | 7.2 | -4.9 | 8.9 | -1.7 | -5.1 | -4.5 | -11.4 | 4.3 | 8.7 | -3.8 | -0.4 | 0.7 | -5.2 | 0.3 | 0.1 | -1.4 | -4.1 | -0.4 | -0.2 |
| Norway | -0.6 | 9.3 | 2.4 | 0.2 | -5.2 | 6.3 | -0.8 | 9.1 | 2.6 | 3.3 | 3.7 | 5.5 | 4.3 | -0.1 | 6.7 | -1.7 | -4.6 | 0.2 | 1.7 | -1.9 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7.8 | 8.4 | 4.6 | 9.1 | 4.9 | -1.2 | -1.0 | 1.9 |
| Portugal | 11.3 | 16.6 | 8.6 | 6.5 | 1.2 | 3.7 | -0.5 | 11.1 | 6.2 | -4.2 | 4.4 | 0.4 | 3.4 | 6.0 | 5.1 | 1.4 | -4.8 | 1.6 | -0.3 | 0.7 |
| Spain | 1.5 | 6.0 | 13.6 | -2.1 | -13.1 | -0.3 | -0.5 | -0.3 | 2.1 | 1.1 | -0.4 | 13.8 | 11.7 | 4.4 | 6.2 | 5.3 | -3.0 | 3.3 | 5.1 | 4.2 |
| Sweden | 2.1 | 9.2 | 0.2 | -1.9 | -3.8 | -2.2 | -2.8 | -4.5 | -4.5 | -5.1 | -2.2 | 10.3 | 4.9 | 1.9 | -1.0 | 1.1 | -1.1 | 1.0 | 1.0 | -2.1 |
| Switzerland | -5.2 | -5.3 | -2.7 | 6.2 | -4.3 | -4.5 | -0.7 | -0.4 | -2.6 | -9.2 | 1.3 | 2.9 | -6.9 | -4.9 | -4.4 | -2.9 | -3.0 | 0.0 | 0.5 | -0.3 |
| Turkey | 29.4 | 6.0 | 25.4 | 15.9 | -23.1 | 18.2 | 3.8 | -5.0 | -2.9 | 3.0 | 6.2 | 12.7 | 11.3 | -3.7 | 7.2 | 12.1 | -0.7 | 14.7 | -1.2 | -5.2 |
| Total of smaller countries | 0.5 | 4.1 | 2.2 | 1.6 | -2.6 | 0.6 | 0.3 | -0.8 | 0.0 | -0.2 | 0.8 | 6.0 | 0.6 | 2.1 | 2.5 | 3.0 | 1.4 | 2.6 | 2.5 | 1.4 |
| Total OECD | -0.3 | 1.9 | 1.5 | 1.6 | -3.4 | -0.8 | -0.3 | -0.4 | -0.2 | -1.6 | -1.0 | -0.4 | -1.6 | 0.1 | -0.1 | 1.1 | -0.9 | -1.5 | -0.1 | 0.0 |
| China | 7.3 | 3.1 | 2.1 | 14.5 | 6.1 | 1.9 | 0.7 | -2.8 | 0.6 | 8.3 | 10.1 | 2.8 | 19.3 | -6.5 | 6.3 | 17.1 | 8.7 | 1.3 | 1.5 | 2.6 |
| Dynamic Asia ^c | 4.4 | 6.9 | 2.0 | -4.2 | 15.1 | 10.0 | 4.5 | 2.3 | 4.4 | 5.2 | 3.5 | 3.8 | 2.4 | 0.5 | -1.1 | 0.0 | 0.8 | -0.5 | 0.5 | -1.1 |
| Other Asia | 8.2 | 1.8 | -3.1 | -3.1 | 5.1 | 3.7 | -1.8 | 5.7 | 5.3 | 0.9 | 7.4 | 8.1 | 1.0 | 6.8 | 5.6 | -4.1 | 2.1 | 0.7 | 0.6 | 0.6 |
| Latin America | 3.3 | 4.7 | 3.0 | 0.7 | -8.6 | -2.1 | 6.5 | 2.5 | -2.9 | -1.6 | -4.1 | 3.5 | -4.3 | -6.7 | 1.4 | 0.0 | 2.5 | 2.3 | 0.6 | 1.3 |
| Africa and Middle-East | -15.0 | -4.7 | -8.1 | -0.7 | 21.0 | -8.9 | -1.2 | -0.5 | -6.0 | 0.3 | -0.9 | 1.7 | -5.5 | -6.7 | 8.8 | 1.8 | 1.3 | -0.4 | -1.1 | -0.2 |
| Central and Eastern Europe | 1.1 | 3.0 | 2.3 | -8.3 | 1.5 | -1.0 | -3.7 | -4.1 | -3.5 | -13.2 | -13.5 | -0.6 | 12.4 | 0.3 | -4.7 | -12.4 | -7.6 | 6.5 | -3.3 | -3.5 |
| Total of non-OECD countries | -3.0 | 1.0 | -1.7 | -3.2 | 8.2 | -0.4 | 0.3 | -0.2 | -1.1 | -0.2 | -0.2 | 2.8 | 2.4 | -2.2 | 1.6 | 0.6 | 1.1 | 0.9 | 0.0 | -0.3 |
| World | -1.0 | 1.7 | 0.7 | 0.4 | -0.5 | -0.7 | -0.1 | -0.3 | -0.4 | -1.2 | -0.8 | 0.5 | -0.5 | -0.5 | 0.4 | 1.0 | -0.4 | -0.9 | -0.1 | 0.0 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | 0.4 | 2.0 | 1.9 | 2.1 | -3.8 | -1.5 | -0.7 | 0.0 | -1.7 | -2.1 | -0.4 | 1.7 | 0.5 | -0.4 | -0.3 | -0.3 | -1.8 | -1.2 | 0.8 | 0.5 |

a) Export performance is the ratio between export volumes and export markets for total goods. The export volume concept employed is the sum of the exports of non-manufactured goods and manufactures. The calculation of exports markets is based on a weighted average of import volumes in each exporting country's markets, with weights based on trade flows in 1995. The export markets for total goods facing each country is calculated as the weighted sum of the individual export markets for non-manufactured goods and manufactures, where the weights correspond to the commodity export structure of the exporting country in 1995.

b) Including Luxembourg until 1994.

c) Dynamic Asia include Chinese Taipei; Hong Kong, China; Indonesia; Malaysia; Philippines; Singapore and Thailand.

Source: OECD.

Annex Table 47. Shares in world exports and imports
Percentage, values for total goods, customs basis

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | <i>Projections</i> | |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| A. Exports | | | | | | | | | | | | | | | | | | | | |
| <i>United States</i> | 11.5 | 11.3 | 11.6 | 11.3 | 10.5 | 10.2 | 11.2 | 11.8 | 11.2 | 11.7 | 11.5 | 11.8 | 11.5 | 11.0 | 11.1 | 12.0 | 12.0 | 11.9 | 11.8 | 11.8 |
| <i>Japan</i> | 7.9 | 8.6 | 9.4 | 9.6 | 10.5 | 9.8 | 9.8 | 9.4 | 8.6 | 9.3 | 9.4 | 9.9 | 9.5 | 8.9 | 7.9 | 7.8 | 7.3 | 7.7 | 7.8 | 7.5 |
| <i>Germany</i> | 10.3 | 10.1 | 9.6 | 10.1 | 12.3 | 12.6 | 12.1 | 11.8 | 12.2 | 11.7 | 11.8 | 10.4 | 10.2 | 10.5 | 10.2 | 9.5 | 10.2 | 9.7 | 8.8 | 8.9 |
| <i>France</i> | 5.5 | 5.5 | 5.2 | 5.4 | 6.1 | 6.1 | 6.0 | 5.9 | 6.3 | 6.2 | 6.3 | 5.7 | 5.6 | 5.7 | 5.5 | 5.4 | 5.8 | 5.5 | 5.0 | 5.1 |
| <i>Italy</i> | 4.2 | 4.2 | 4.0 | 4.2 | 4.8 | 4.8 | 4.7 | 4.7 | 5.0 | 4.9 | 4.8 | 4.6 | 4.5 | 4.6 | 4.8 | 4.4 | 4.5 | 4.1 | 3.9 | 3.9 |
| <i>United Kingdom</i> | 5.4 | 5.2 | 5.0 | 5.3 | 5.2 | 5.4 | 5.3 | 5.1 | 5.4 | 5.3 | 5.1 | 4.8 | 4.9 | 4.8 | 4.9 | 5.1 | 5.1 | 4.8 | 4.5 | 4.5 |
| <i>Canada</i> | 4.0 | 4.4 | 4.8 | 4.8 | 4.5 | 4.2 | 4.3 | 4.2 | 3.9 | 3.8 | 3.7 | 4.0 | 4.0 | 3.9 | 3.9 | 4.0 | 4.1 | 4.4 | 4.5 | 4.5 |
| <i>Other OECD countries</i> | 18.9 | 19.4 | 19.5 | 19.7 | 20.6 | 21.6 | 21.7 | 21.5 | 22.3 | 22.0 | 22.0 | 22.2 | 22.5 | 23.4 | 23.5 | 23.2 | 24.1 | 24.1 | 23.9 | 24.4 |
| <i>Total OECD</i> | 67.7 | 68.7 | 69.2 | 70.5 | 74.3 | 74.6 | 75.2 | 74.3 | 74.9 | 74.8 | 74.7 | 73.4 | 72.7 | 72.7 | 71.8 | 71.4 | 73.1 | 72.2 | 70.3 | 70.5 |
| <i>Non OECD Asia</i> | 8.9 | 9.4 | 10.1 | 9.8 | 9.7 | 10.5 | 11.2 | 11.7 | 11.7 | 13.1 | 14.1 | 15.5 | 16.2 | 16.3 | 16.4 | 16.8 | 16.2 | 16.5 | 17.1 | 17.2 |
| <i>Latin America</i> | 4.5 | 4.5 | 4.7 | 4.5 | 3.6 | 3.3 | 3.4 | 3.4 | 3.2 | 3.0 | 2.9 | 3.0 | 3.0 | 2.9 | 3.0 | 3.2 | 3.1 | 3.1 | 3.3 | 3.4 |
| <i>Other non OECD countries</i> | 18.8 | 17.3 | 16.0 | 15.2 | 12.3 | 11.6 | 10.2 | 10.6 | 10.2 | 9.2 | 8.4 | 8.2 | 8.1 | 8.1 | 8.7 | 8.6 | 7.6 | 8.2 | 9.3 | 8.9 |
| <i>Total of non OECD countries</i> | 32.3 | 31.3 | 30.8 | 29.5 | 25.7 | 25.4 | 24.8 | 25.7 | 25.1 | 25.2 | 25.3 | 26.6 | 27.3 | 27.3 | 28.2 | 28.6 | 26.9 | 27.8 | 29.7 | 29.5 |
| B. Imports | | | | | | | | | | | | | | | | | | | | |
| <i>United States</i> | 13.5 | 15.2 | 17.7 | 17.9 | 17.6 | 17.0 | 16.1 | 16.0 | 14.8 | 14.2 | 14.5 | 16.0 | 16.0 | 15.1 | 15.4 | 16.3 | 17.3 | 18.8 | 19.5 | 19.2 |
| <i>Japan</i> | 6.3 | 6.2 | 6.3 | 6.0 | 5.4 | 5.4 | 5.9 | 6.1 | 6.0 | 5.9 | 5.5 | 5.8 | 5.8 | 5.9 | 5.9 | 5.5 | 4.6 | 4.9 | 5.2 | 4.9 |
| <i>Germany</i> | 8.3 | 8.4 | 8.0 | 8.2 | 9.0 | 9.3 | 8.9 | 8.8 | 10.0 | 10.8 | 10.7 | 9.0 | 8.8 | 9.0 | 8.7 | 8.0 | 8.6 | 8.2 | 7.4 | 7.2 |
| <i>France</i> | 6.2 | 5.8 | 5.4 | 5.6 | 6.0 | 6.3 | 6.2 | 6.2 | 6.6 | 6.4 | 6.2 | 5.4 | 5.3 | 5.4 | 5.2 | 4.8 | 5.2 | 5.0 | 4.7 | 4.7 |
| <i>Italy</i> | 4.3 | 4.1 | 4.1 | 4.4 | 4.4 | 4.7 | 4.6 | 4.7 | 4.9 | 4.8 | 4.6 | 3.7 | 3.7 | 3.7 | 3.6 | 3.5 | 3.7 | 3.5 | 3.3 | 3.3 |
| <i>United Kingdom</i> | 5.2 | 5.4 | 5.4 | 5.5 | 5.8 | 6.1 | 6.6 | 6.4 | 6.4 | 5.8 | 5.8 | 5.4 | 5.3 | 5.2 | 5.4 | 5.6 | 5.8 | 5.6 | 5.4 | 5.3 |
| <i>Canada</i> | 2.8 | 3.1 | 3.5 | 3.7 | 3.6 | 3.4 | 3.5 | 3.6 | 3.2 | 3.2 | 3.1 | 3.4 | 3.3 | 3.1 | 3.0 | 3.4 | 3.5 | 3.6 | 3.7 | 3.6 |
| <i>Other OECD countries</i> | 20.9 | 20.5 | 20.1 | 20.7 | 22.0 | 23.3 | 23.3 | 23.7 | 24.8 | 24.5 | 24.3 | 23.9 | 24.0 | 24.5 | 25.0 | 24.4 | 24.8 | 24.9 | 24.6 | 25.0 |
| <i>Total OECD</i> | 67.5 | 68.7 | 70.5 | 72.0 | 73.9 | 75.4 | 75.2 | 75.5 | 76.7 | 75.6 | 74.7 | 72.4 | 72.3 | 71.9 | 72.1 | 71.6 | 73.5 | 74.6 | 73.7 | 73.3 |
| <i>Non OECD Asia</i> | 9.0 | 9.5 | 9.7 | 10.1 | 9.5 | 9.8 | 11.1 | 11.5 | 11.3 | 12.5 | 13.7 | 15.8 | 16.1 | 16.4 | 16.0 | 16.0 | 14.1 | 14.5 | 15.2 | 15.5 |
| <i>Latin America</i> | 5.0 | 4.1 | 3.9 | 3.7 | 3.7 | 3.4 | 3.1 | 2.9 | 2.8 | 2.9 | 3.2 | 3.6 | 3.7 | 3.8 | 3.8 | 4.3 | 4.5 | 3.8 | 3.8 | 3.9 |
| <i>Other non OECD countries</i> | 18.4 | 17.6 | 15.9 | 14.2 | 12.9 | 11.3 | 10.6 | 10.0 | 9.2 | 9.0 | 8.4 | 8.2 | 7.8 | 7.9 | 8.0 | 8.1 | 7.9 | 7.1 | 7.2 | 7.3 |
| <i>Total of non OECD countries</i> | 32.5 | 31.3 | 29.5 | 28.0 | 26.1 | 24.6 | 24.8 | 24.5 | 23.3 | 24.4 | 25.3 | 27.6 | 27.7 | 28.1 | 27.9 | 28.4 | 26.5 | 25.4 | 26.3 | 26.7 |

Source: OECD.

Annex Table 48. Trade balances

Billions US dollars

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------------|--------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -36.5 | -67.1 | -112.5 | -122.2 | -145.1 | -159.6 | -127.0 | -115.2 | -109.0 | -74.1 | -96.1 | -132.6 | -166.2 | -173.7 | -191.3 | -196.7 | -246.9 | -347.1 | -434.9 | -451.8 |
| Japan | 18.1 | 31.5 | 44.3 | 54.9 | 90.7 | 91.3 | 92.3 | 80.3 | 69.2 | 96.2 | 124.7 | 139.4 | 144.1 | 132.1 | 83.7 | 101.6 | 122.4 | 123.7 | 126.8 | 133.7 |
| Germany | 24.2 | 19.5 | 21.4 | 28.3 | 54.6 | 67.6 | 76.3 | 74.9 | 68.4 | 19.5 | 28.2 | 41.2 | 50.9 | 65.1 | 70.6 | 72.0 | 79.7 | 72.7 | 76.3 | 96.2 |
| France | -15.4 | -8.3 | -4.4 | -5.0 | -1.4 | -7.8 | -7.6 | -10.3 | -13.3 | -9.7 | 2.4 | 7.2 | 7.2 | 11.0 | 15.1 | 26.6 | 26.1 | 22.5 | 20.7 | 21.7 |
| Italy | -7.9 | -1.6 | -5.1 | -5.4 | 4.8 | 0.1 | -0.7 | -1.7 | 0.9 | -0.1 | 3.1 | 32.9 | 35.4 | 44.1 | 60.7 | 47.1 | 42.2 | 22.0 | 24.9 | 31.5 |
| United Kingdom | 3.2 | -2.4 | -7.1 | -4.2 | -14.1 | -19.4 | -38.3 | -40.6 | -32.8 | -18.2 | -22.8 | -20.0 | -17.0 | -18.5 | -20.4 | -19.5 | -34.1 | -43.1 | -48.5 | -56.0 |
| Canada | 15.1 | 14.2 | 15.6 | 11.9 | 7.2 | 9.2 | 8.8 | 6.5 | 9.5 | 6.1 | 7.4 | 10.2 | 14.8 | 25.8 | 30.8 | 17.1 | 12.7 | 22.9 | 29.5 | 31.2 |
| Total of major countries | 0.8 | -14.4 | -47.7 | -41.8 | -3.3 | -18.5 | 3.9 | -6.0 | -7.1 | 19.8 | 46.8 | 78.2 | 69.3 | 85.9 | 49.2 | 48.3 | 2.0 | -126.5 | -205.3 | -193.5 |
| Australia | -2.2 | 0.0 | -0.8 | -1.0 | -1.9 | 0.5 | -0.7 | -3.4 | 0.4 | 3.5 | 1.6 | -0.1 | -3.3 | -4.2 | -0.6 | 1.8 | -5.4 | -9.7 | -5.3 | -2.3 |
| Austria | -3.1 | -3.2 | -3.2 | -3.1 | -4.0 | -4.8 | -4.8 | -5.6 | -7.0 | -8.6 | -7.7 | -6.5 | -7.9 | -6.7 | -7.3 | -4.3 | -3.7 | -3.5 | -5.3 | -4.6 |
| Belgium ^a | -1.6 | 0.0 | 0.4 | 1.1 | 3.0 | 2.2 | 3.7 | 3.4 | 3.0 | 3.3 | 5.0 | 6.9 | 8.1 | 11.1 | 10.4 | 9.7 | 8.9 | 8.7 | 6.6 | 6.9 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -0.5 | -1.4 | -3.7 | -5.9 | -4.6 | -2.6 | -2.1 | -2.4 | -2.5 |
| Denmark | -0.8 | 0.2 | -0.2 | -0.7 | -1.0 | 0.8 | 2.1 | 2.7 | 5.3 | 5.2 | 7.4 | 7.8 | 7.4 | 6.5 | 7.6 | 5.7 | 3.9 | 6.6 | 7.9 | 9.0 |
| Finland | 0.2 | 0.1 | 1.5 | 0.9 | 1.7 | 1.5 | 1.2 | -0.2 | 0.7 | 2.2 | 3.8 | 6.3 | 7.7 | 12.4 | 11.3 | 11.6 | 12.5 | 11.5 | 12.6 | 15.0 |
| Greece | -5.9 | -5.4 | -5.4 | -6.3 | -5.7 | -6.9 | -7.7 | -9.1 | -12.3 | -12.3 | -13.9 | -12.6 | -13.5 | -17.1 | -18.3 | -18.3 | -16.6 | -17.5 | -16.9 | -18.3 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -4.0 | -3.7 | -2.4 | -2.6 | -2.0 | -2.4 | -2.2 | -1.8 | -2.0 |
| Iceland | -0.7 | 0.1 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.0 | 0.0 | -0.4 | -0.3 | -0.4 | -0.4 |
| Ireland | -1.6 | -0.7 | -0.2 | 0.1 | 0.5 | 1.8 | 2.9 | 3.0 | 2.8 | 3.1 | 5.7 | 6.7 | 7.7 | 11.4 | 13.3 | 15.9 | 20.2 | 24.0 | 26.5 | 29.3 |
| Korea | -2.8 | -1.8 | -1.1 | 0.0 | 4.3 | 7.5 | 11.3 | 4.4 | -2.5 | -6.8 | -1.8 | 2.3 | -2.9 | -4.4 | -15.0 | -3.2 | 41.6 | 28.7 | 15.3 | 18.1 |
| Mexico | 7.0 | 14.1 | 13.2 | 8.4 | 5.0 | 8.8 | 2.6 | 0.4 | -0.9 | -7.3 | -15.9 | -13.5 | -18.5 | 7.1 | 6.5 | 0.6 | -7.9 | -5.3 | -8.8 | -13.7 |
| Netherlands | 6.2 | 5.5 | 6.6 | 6.8 | 7.4 | 6.3 | 10.1 | 9.8 | 12.0 | 12.0 | 12.3 | 16.9 | 18.7 | 22.1 | 20.4 | 19.0 | 18.0 | 16.3 | 17.1 | 17.0 |
| New Zealand | -0.3 | 0.3 | -0.5 | 0.0 | 0.1 | 0.6 | 2.2 | 1.0 | 0.9 | 2.1 | 1.6 | 1.7 | 1.4 | 0.9 | 0.5 | 0.8 | 0.9 | -0.4 | 0.4 | 0.7 |
| Norway | 2.4 | 4.3 | 5.2 | 4.7 | -2.1 | -0.7 | -0.2 | 3.8 | 7.8 | 8.6 | 9.3 | 8.0 | 7.5 | 8.6 | 12.9 | 11.2 | 1.6 | 10.1 | 26.5 | 25.2 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -2.5 | -0.6 | -1.6 | -7.3 | -9.8 | -12.8 | -14.5 | -15.6 | -17.6 |
| Portugal | -4.7 | -3.0 | -2.0 | -1.4 | -1.6 | -3.5 | -5.4 | -4.8 | -6.7 | -7.7 | -9.4 | -8.1 | -8.3 | -9.0 | -9.4 | -10.1 | -12.3 | -14.1 | -15.0 | -15.9 |
| Spain | -9.3 | -7.8 | -4.6 | -4.7 | -7.2 | -13.7 | -18.7 | -25.4 | -29.1 | -30.4 | -30.4 | -15.0 | -14.8 | -18.2 | -16.0 | -13.2 | -18.7 | -29.0 | -32.1 | -34.3 |
| Sweden | -0.3 | 1.9 | 3.4 | 2.4 | 5.1 | 4.5 | 4.8 | 4.0 | 3.4 | 6.3 | 6.2 | 7.2 | 9.4 | 16.9 | 18.7 | 18.4 | 17.0 | 15.8 | 15.9 | 14.9 |
| Switzerland | -3.1 | -4.0 | -4.2 | -3.9 | -4.3 | -6.0 | -6.3 | -7.4 | -7.1 | -6.0 | -1.0 | 1.7 | 1.6 | 0.9 | 0.9 | -0.3 | -1.6 | -0.1 | 0.5 | 1.7 |
| Turkey | -2.7 | -3.0 | -2.9 | -3.0 | -3.1 | -3.2 | -1.8 | -4.2 | -9.6 | -7.3 | -8.2 | -14.2 | -4.2 | -13.2 | -10.6 | -15.4 | -14.2 | -10.4 | -15.3 | -18.5 |
| Total of smaller countries | -23.1 | -2.2 | 5.0 | 0.2 | -3.7 | -4.4 | -4.7 | -27.5 | -38.7 | -40.0 | -35.2 | -11.1 | -9.3 | 17.4 | 9.7 | 13.7 | 26.2 | 12.5 | 10.5 | 7.8 |
| Total OECD | -22.3 | -16.6 | -42.7 | -41.6 | -6.9 | -22.9 | -0.8 | -33.5 | -45.8 | -20.2 | 11.5 | 67.1 | 60.0 | 103.3 | 58.9 | 62.1 | 28.3 | -114.0 | -194.8 | -185.6 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | -16.7 | -5.1 | 1.0 | 8.6 | 42.1 | 28.7 | 18.0 | 0.2 | -4.6 | -35.3 | -10.2 | 71.0 | 91.1 | 131.0 | 156.8 | 160.7 | 143.2 | 92.8 | 90.6 | 112.5 |
| Euro area | -12.9 | 0.6 | 10.3 | 17.4 | 57.9 | 49.8 | 57.1 | 43.2 | 31.8 | -16.3 | 12.9 | 88.5 | 104.8 | 143.3 | 169.2 | 174.4 | 172.9 | 131.1 | 132.2 | 162.8 |

a) Including Luxembourg until 1994.

Source: OECD.

Annex Table 49. Non-factors services, net

Billions US dollars

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | 12.3 | 9.3 | 3.4 | 0.3 | 5.3 | 6.8 | 11.5 | 23.7 | 29.1 | 44.6 | 59.1 | 62.7 | 67.8 | 76.2 | 86.9 | 91.9 | 82.6 | 79.6 | 87.4 | 100.8 |
| <i>Japan</i> | -11.6 | -12.2 | -12.0 | -9.6 | -12.9 | -20.4 | -30.3 | -36.7 | -42.9 | -41.9 | -44.0 | -43.0 | -48.0 | -57.3 | -62.3 | -54.1 | -49.5 | -54.6 | -59.7 | -61.8 |
| <i>Germany</i> | -7.4 | -6.6 | -4.9 | -4.0 | -6.2 | -10.7 | -14.4 | -13.7 | -18.6 | -22.6 | -31.6 | -33.8 | -41.1 | -47.0 | -45.4 | -43.2 | -47.5 | -52.4 | -51.4 | -54.7 |
| <i>France</i> | 7.9 | 8.6 | 8.9 | 9.6 | 10.0 | 10.4 | 10.7 | 13.6 | 14.9 | 16.6 | 19.5 | 17.3 | 17.8 | 14.3 | 15.1 | 18.0 | 18.7 | 20.3 | 19.6 | 19.9 |
| <i>Italy</i> | 2.4 | 3.7 | 3.3 | 3.4 | 3.4 | 3.5 | 1.3 | -0.2 | -0.3 | 0.3 | -3.8 | -0.1 | 1.9 | 1.7 | 2.0 | 2.1 | 0.9 | 2.4 | 3.9 | 5.5 |
| <i>United Kingdom</i> | 5.4 | 6.0 | 5.8 | 8.6 | 9.5 | 10.9 | 7.7 | 6.4 | 7.1 | 7.8 | 10.0 | 9.9 | 10.0 | 14.1 | 14.0 | 20.3 | 20.1 | 18.0 | 19.8 | 22.5 |
| <i>Canada</i> | -3.6 | -3.8 | -3.9 | -4.1 | -4.1 | -4.6 | -5.4 | -6.9 | -9.1 | -10.0 | -10.1 | -10.5 | -8.5 | -7.4 | -6.4 | -6.5 | -4.7 | -4.5 | -4.1 | -3.8 |
| <i>Total of major countries</i> | 5.4 | 5.1 | 0.7 | 4.3 | 5.1 | -4.0 | -18.9 | -13.8 | -19.7 | -5.1 | -0.8 | 2.4 | -0.1 | -5.5 | 3.9 | 28.5 | 20.6 | 8.8 | 15.6 | 28.5 |
| <i>Australia</i> | -3.2 | -2.8 | -3.7 | -3.5 | -2.9 | -2.6 | -2.4 | -4.3 | -3.6 | -2.5 | -2.6 | -1.5 | -1.3 | -1.0 | 0.0 | -0.3 | -1.1 | -0.7 | -0.7 | -0.1 |
| <i>Austria</i> | 4.2 | 3.9 | 3.5 | 3.4 | 5.0 | 5.5 | 5.5 | 6.9 | 9.2 | 10.1 | 9.4 | 7.5 | 7.3 | 4.6 | 4.6 | 1.0 | 2.4 | 2.4 | 3.1 | 3.1 |
| <i>Belgium^a</i> | 0.3 | 0.6 | 0.3 | 0.2 | 0.5 | 1.1 | 0.7 | -0.8 | 0.1 | -0.1 | 0.5 | 1.1 | 1.3 | 0.1 | 0.4 | 1.3 | 1.1 | 1.3 | 0.0 | -0.6 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.0 | 0.5 | 1.8 | 1.9 | 1.8 | 1.8 | 1.2 | 1.2 | 1.1 |
| <i>Denmark</i> | 0.9 | 0.6 | 0.8 | 0.7 | 0.3 | 0.5 | 0.8 | 0.7 | 1.8 | 3.0 | 2.6 | 1.9 | 0.7 | 0.8 | 1.5 | 0.2 | -0.6 | 0.6 | -0.1 | -0.4 |
| <i>Finland</i> | 0.2 | 0.0 | -0.2 | -0.5 | -0.7 | -1.2 | -1.7 | -2.1 | -3.0 | -3.2 | -2.5 | -2.0 | -1.8 | -2.2 | -1.7 | -1.6 | -1.0 | -1.0 | -1.0 | -1.2 |
| <i>Greece</i> | 3.0 | 2.5 | 2.5 | 2.4 | 2.9 | 2.6 | 2.9 | 2.4 | 3.6 | 4.0 | 5.0 | 4.7 | 5.4 | 5.2 | 5.1 | 4.6 | 4.5 | 4.8 | 5.1 | 5.8 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.2 | 0.2 | 0.6 | 1.5 | 2.3 | 1.8 | 1.4 | 1.1 | 1.0 |
| <i>Iceland</i> | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 |
| <i>Ireland</i> | 0.5 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.5 | 0.2 | -0.1 | -0.5 | -0.9 | -0.6 | -1.9 | -3.5 | -4.5 | -5.8 | -10.1 | -12.0 | -12.8 | -14.7 |
| <i>Korea</i> | 0.3 | 0.4 | 0.4 | 0.5 | 1.4 | 2.3 | 2.3 | 0.4 | -0.6 | -2.2 | -2.9 | -2.1 | -1.8 | -3.0 | -6.2 | -3.2 | 0.6 | -1.0 | -2.6 | -5.6 |
| <i>Mexico</i> | -1.7 | -0.3 | -0.3 | -0.6 | -0.4 | 0.3 | 0.0 | -0.5 | -1.9 | -1.8 | -2.3 | -2.1 | -2.0 | 0.7 | 0.5 | -0.5 | -0.6 | -1.6 | -2.4 | -2.5 |
| <i>Netherlands</i> | -0.3 | -0.6 | -0.6 | -1.2 | -1.2 | -1.4 | -2.2 | -0.7 | 0.7 | -0.7 | 0.3 | 0.7 | 1.4 | 2.2 | 3.9 | 5.7 | 5.8 | 6.9 | 6.6 | 7.0 |
| <i>New Zealand</i> | -0.8 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.6 | -0.8 | -0.8 | -0.8 | -0.9 | -0.6 | -0.3 | -0.2 | -0.3 | -0.7 | -0.8 | -0.3 | -0.1 | 0.0 |
| <i>Norway</i> | 0.8 | 0.0 | -0.2 | 0.0 | -0.5 | -1.1 | -0.6 | 0.1 | 0.4 | 0.6 | -1.1 | -1.1 | 0.2 | 0.2 | 0.6 | -0.2 | -1.2 | -1.4 | -2.0 | -2.5 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.4 | 2.8 | 3.5 | 3.4 | 3.2 | 4.2 | 1.9 | 2.2 | 2.8 |
| <i>Portugal</i> | 0.3 | 0.4 | 0.6 | 0.8 | 1.0 | 1.1 | 0.9 | 1.0 | 1.1 | 0.8 | 0.6 | 1.3 | 1.3 | 1.5 | 1.4 | 1.3 | 1.6 | 1.7 | 1.6 | 1.7 |
| <i>Spain</i> | 5.6 | 6.3 | 7.9 | 8.1 | 11.8 | 13.4 | 13.9 | 12.7 | 11.9 | 12.1 | 12.4 | 11.3 | 14.5 | 17.8 | 19.8 | 19.3 | 21.2 | 22.7 | 20.7 | 22.1 |
| <i>Sweden</i> | -0.4 | 0.1 | 0.0 | -0.6 | -1.8 | -1.7 | -2.2 | -3.0 | -3.3 | -2.6 | -2.3 | 0.1 | 0.2 | -0.6 | -1.3 | -1.8 | -2.2 | -2.6 | -3.2 | -4.0 |
| <i>Switzerland</i> | 4.2 | 4.4 | 4.4 | 4.8 | 6.6 | 8.3 | 8.3 | 8.0 | 9.4 | 10.3 | 10.7 | 11.4 | 11.5 | 12.9 | 12.4 | 13.1 | 13.1 | 14.2 | 13.4 | 13.6 |
| <i>Turkey</i> | 0.9 | 0.8 | 0.9 | 1.5 | 1.6 | 2.1 | 3.7 | 3.9 | 4.9 | 5.2 | 5.8 | 6.7 | 7.0 | 9.6 | 6.6 | 10.9 | 13.5 | 7.4 | 9.5 | 10.6 |
| <i>Total of smaller countries</i> | 14.9 | 16.6 | 16.6 | 16.6 | 23.7 | 29.7 | 29.8 | 24.3 | 29.7 | 31.8 | 31.8 | 38.4 | 45.3 | 51.4 | 49.7 | 50.4 | 54.0 | 45.8 | 39.4 | 37.1 |
| <i>Total OECD</i> | 20.3 | 21.6 | 17.3 | 20.8 | 28.8 | 25.7 | 10.9 | 10.5 | 10.0 | 26.6 | 31.0 | 40.8 | 45.2 | 45.9 | 53.7 | 78.9 | 74.6 | 54.7 | 55.0 | 65.6 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | 22.6 | 26.2 | 28.5 | 31.9 | 35.1 | 35.0 | 24.4 | 23.4 | 25.1 | 25.1 | 19.3 | 19.5 | 17.1 | 9.2 | 14.9 | 21.4 | 14.8 | 13.0 | 11.8 | 12.1 |
| <i>Euro area</i> | 13.7 | 17.0 | 19.5 | 20.7 | 24.2 | 22.6 | 15.2 | 16.9 | 15.9 | 12.8 | 4.0 | 2.8 | 0.7 | -10.4 | -4.4 | -1.9 | -7.0 | -7.7 | -9.7 | -11.9 |

a) Including Luxembourg until 1994.

Source: OECD.

Annex Table 50. Investment income, net

Billions US dollars

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | 35.1 | 36.3 | 35.0 | 25.6 | 15.4 | 14.2 | 18.5 | 19.7 | 28.4 | 24.0 | 22.3 | 23.2 | 15.9 | 19.4 | 17.2 | 3.2 | -12.7 | -26.7 | -45.5 | -58.4 |
| Japan | 1.7 | 3.1 | 4.2 | 6.8 | 9.3 | 16.3 | 20.6 | 22.9 | 22.7 | 26.0 | 35.7 | 40.7 | 40.4 | 44.1 | 53.4 | 55.7 | 56.7 | 50.1 | 62.7 | 74.6 |
| Germany | 0.0 | 2.9 | 4.7 | 4.7 | 5.3 | 5.2 | 9.4 | 14.3 | 20.6 | 20.3 | 21.8 | 16.6 | 2.9 | 0.1 | 1.0 | -1.5 | -6.6 | -12.7 | -10.0 | -8.3 |
| France | 0.2 | -1.5 | -2.4 | -2.3 | -1.7 | -1.7 | -1.0 | -0.3 | -1.6 | -3.3 | -6.0 | -6.6 | -6.0 | -8.4 | -1.9 | 3.5 | 5.7 | 3.8 | 3.8 | 5.4 |
| Italy | -2.4 | -2.5 | -2.5 | -2.7 | -4.2 | -4.9 | -5.5 | -7.3 | -14.7 | -17.6 | -21.9 | -17.2 | -16.5 | -15.5 | -15.0 | -11.2 | -12.4 | -8.8 | -7.1 | -6.9 |
| United Kingdom | -1.0 | 1.7 | 3.1 | 0.0 | 4.2 | 2.4 | 2.3 | 0.0 | -0.9 | -3.5 | 3.7 | 1.0 | 11.9 | 9.4 | 12.6 | 18.3 | 23.6 | 11.1 | 11.0 | 10.6 |
| Canada | -9.6 | -12.6 | -12.4 | -12.8 | -14.0 | -17.1 | -17.5 | -20.5 | -19.4 | -17.4 | -17.5 | -20.8 | -18.9 | -22.7 | -21.5 | -21.4 | -19.6 | -22.0 | -23.1 | -23.8 |
| Total of major countries | 24.0 | 27.4 | 29.7 | 19.2 | 14.3 | 14.4 | 27.0 | 28.8 | 35.0 | 28.4 | 38.1 | 36.9 | 29.7 | 26.5 | 45.8 | 46.5 | 34.7 | -5.2 | -8.2 | -6.9 |
| Australia | -2.5 | -3.2 | -4.1 | -4.5 | -4.9 | -5.8 | -8.4 | -10.5 | -13.2 | -12.2 | -10.1 | -8.1 | -12.3 | -14.2 | -15.2 | -13.9 | -11.5 | -12.0 | -12.4 | -13.7 |
| Austria | -0.4 | -0.4 | -0.4 | -0.2 | -0.7 | -0.9 | -0.9 | -0.9 | -1.0 | -1.4 | -1.4 | -1.1 | -1.3 | -1.6 | -0.3 | -0.3 | -1.6 | -2.7 | -2.0 | -1.9 |
| Belgium ^a | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.5 | 0.6 | 1.8 | 1.8 | 2.3 | 2.3 | 3.2 | 3.4 | 4.1 | 4.5 | 4.3 | 4.4 | 4.3 | 5.7 | 6.2 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -0.1 | 0.0 | -0.1 | -0.7 | -0.8 | -1.0 | -0.7 | -0.6 | -0.6 |
| Denmark | -2.2 | -2.1 | -2.3 | -2.6 | -3.5 | -4.1 | -3.9 | -3.9 | -5.2 | -5.3 | -5.0 | -4.0 | -3.9 | -3.8 | -3.8 | -3.7 | -3.7 | -3.0 | -2.4 | -2.3 |
| Finland | -1.2 | -1.1 | -1.1 | -1.0 | -1.3 | -1.6 | -1.7 | -2.7 | -3.8 | -4.7 | -5.5 | -4.9 | -4.4 | -4.4 | -3.6 | -2.4 | -3.1 | -2.9 | -2.8 | -3.0 |
| Greece | -0.6 | -0.8 | -0.9 | -1.1 | -1.2 | -1.4 | -1.5 | -1.6 | -1.6 | -1.7 | -2.0 | -1.5 | -1.3 | -1.7 | -1.9 | -1.5 | -1.5 | -1.3 | -2.0 | -1.9 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -1.2 | -1.4 | -1.8 | -1.5 | -1.4 | -1.9 | -1.6 | -1.8 | -1.8 |
| Iceland | -0.7 | -0.3 | -0.3 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 | -0.2 | -0.2 | -0.2 |
| Ireland | -1.7 | -2.0 | -2.3 | -2.7 | -3.4 | -3.9 | -4.9 | -5.3 | -5.5 | -4.9 | -6.4 | -6.2 | -6.0 | -7.9 | -9.0 | -10.1 | -10.1 | -12.2 | -14.0 | -16.0 |
| Korea | -0.6 | -0.8 | -1.3 | -2.1 | -2.3 | -1.6 | -1.3 | -0.6 | -0.1 | -0.2 | -0.4 | -0.4 | -0.5 | -1.3 | -1.8 | -2.5 | -5.0 | -4.7 | -3.2 | -2.6 |
| Mexico | -12.3 | -9.1 | -10.1 | -9.0 | -7.5 | -6.8 | -7.2 | -8.3 | -8.6 | -8.6 | -9.6 | -11.4 | -13.0 | -13.3 | -13.9 | -12.8 | -13.3 | -13.3 | -13.3 | -13.6 |
| Netherlands | 0.4 | 1.1 | 1.4 | -0.2 | -0.2 | 1.4 | 1.1 | 2.8 | -0.7 | 0.6 | -0.9 | 0.5 | 3.0 | 6.2 | 4.1 | 9.0 | 8.8 | 5.6 | 5.3 | 5.8 |
| New Zealand | -0.7 | -0.9 | -1.1 | -1.3 | -1.5 | -2.0 | -2.1 | -1.9 | -1.6 | -2.5 | -2.2 | -2.3 | -3.3 | -4.0 | -4.7 | -4.9 | -3.1 | -3.8 | -4.0 | -4.2 |
| Norway | -1.9 | -1.7 | -1.6 | -1.1 | -1.2 | -1.3 | -2.0 | -2.6 | -2.7 | -2.7 | -3.4 | -3.3 | -2.2 | -1.9 | -1.8 | -1.6 | -0.9 | -1.6 | -0.6 | 1.2 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -3.4 | -2.6 | -2.0 | -1.1 | -1.1 | -1.2 | -1.5 | -1.7 | -0.8 |
| Portugal | -1.4 | -1.2 | -1.3 | -1.2 | -1.1 | -0.9 | -0.8 | -0.7 | -0.1 | 0.2 | 0.7 | 0.3 | -0.6 | 0.1 | -1.0 | -0.5 | -0.6 | -1.0 | -1.0 | -1.0 |
| Spain | -2.2 | -2.3 | -2.3 | -1.7 | -1.8 | -2.6 | -3.3 | -2.8 | -3.5 | -4.3 | -5.8 | -3.6 | -7.8 | -4.1 | -6.1 | -6.7 | -7.5 | -9.0 | -9.5 | -9.9 |
| Sweden | -1.7 | -1.8 | -1.9 | -2.0 | -2.0 | -1.6 | -1.8 | -2.3 | -4.5 | -6.4 | -10.0 | -8.8 | -5.9 | -6.5 | -7.6 | -5.8 | -4.4 | -3.4 | -2.9 | -2.6 |
| Switzerland | 3.9 | 4.3 | 5.0 | 5.0 | 5.8 | 6.8 | 8.9 | 8.1 | 8.8 | 8.9 | 8.4 | 9.1 | 7.9 | 11.8 | 12.6 | 16.6 | 16.0 | 18.6 | 18.4 | 18.7 |
| Turkey | -1.5 | -1.4 | -1.5 | -1.6 | -1.9 | -2.1 | -2.5 | -2.3 | -2.5 | -2.7 | -2.6 | -2.7 | -3.3 | -3.2 | -2.9 | -3.0 | -3.0 | -3.5 | -4.1 | -2.1 |
| Total of smaller countries | -27.2 | -23.6 | -25.9 | -27.3 | -28.5 | -28.1 | -32.1 | -34.1 | -44.2 | -45.7 | -54.0 | -49.9 | -55.6 | -49.8 | -55.8 | -43.2 | -44.2 | -50.0 | -49.1 | -46.4 |
| Total OECD | -3.2 | 3.8 | 3.9 | -8.1 | -14.3 | -13.7 | -5.1 | -5.3 | -9.2 | -17.3 | -16.0 | -13.0 | -26.0 | -23.3 | -10.0 | 3.3 | -9.6 | -55.2 | -57.3 | -53.2 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | -14.1 | -9.9 | -8.0 | -12.9 | -11.3 | -14.0 | -11.8 | -9.0 | -20.7 | -29.7 | -36.3 | -32.1 | -32.5 | -34.0 | -27.9 | -8.7 | -9.1 | -32.2 | -27.9 | -26.0 |
| Euro area | -8.7 | -6.9 | -5.9 | -7.2 | -8.7 | -9.3 | -7.0 | -1.1 | -8.5 | -12.9 | -23.0 | -18.9 | -33.2 | -31.4 | -27.3 | -15.9 | -23.1 | -35.6 | -31.6 | -29.7 |

a) Including Luxembourg until 1994.

Source: OECD.

Annex Table 51. Current account balances

Billions US dollars

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|-----------------------------------|-------|-------|-------|--------|--------|--------|--------|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------------|--------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| <i>United States</i> | -6.2 | -39.2 | -94.7 | -119.1 | -149.2 | -162.7 | -123.1 | -98.9 | -79.3 | 4.3 | -50.6 | -85.3 | -121.7 | -113.6 | -129.3 | -143.5 | -221.0 | -340.8 | -444.3 | -461.0 |
| <i>Japan</i> | 6.8 | 20.8 | 35.0 | 50.7 | 85.4 | 84.1 | 79.2 | 63.3 | 44.2 | 68.3 | 112.6 | 131.9 | 130.3 | 111.2 | 65.8 | 94.3 | 120.8 | 107.0 | 117.5 | 134.3 |
| <i>Germany</i> | 5.8 | 5.8 | 10.6 | 18.9 | 41.0 | 45.8 | 52.7 | 57.1 | 48.6 | -18.4 | -14.5 | -9.7 | -24.3 | -20.7 | -7.9 | -3.1 | -4.7 | -19.8 | -10.5 | 8.4 |
| <i>France</i> | -12.0 | -5.0 | -0.8 | -0.2 | 2.4 | -4.5 | -4.6 | -4.6 | -9.8 | -5.7 | 4.8 | 9.6 | 7.4 | 6.9 | 19.6 | 38.7 | 40.7 | 37.7 | 32.5 | 34.4 |
| <i>Italy</i> | -7.2 | 0.8 | -3.1 | -4.2 | 2.2 | -2.5 | -6.8 | -12.8 | -17.2 | -24.2 | -30.2 | 8.3 | 13.8 | 25.7 | 40.5 | 33.6 | 23.2 | 12.0 | 17.3 | 23.9 |
| <i>United Kingdom</i> | 4.6 | 2.8 | -0.6 | 0.5 | -3.5 | -9.5 | -31.2 | -38.4 | -34.2 | -15.0 | -17.8 | -15.9 | -2.1 | -5.9 | -0.8 | 10.8 | -1.1 | -20.7 | -25.7 | -30.7 |
| <i>Canada</i> | 1.8 | -2.5 | -1.3 | -5.7 | -11.2 | -13.5 | -14.9 | -21.8 | -19.8 | -22.4 | -21.1 | -21.7 | -13.0 | -4.4 | 3.3 | -10.3 | -11.1 | -2.9 | 3.0 | 4.4 |
| <i>Total of major countries</i> | -6.3 | -16.5 | -55.0 | -59.1 | -32.9 | -62.8 | -48.6 | -56.1 | -67.6 | -13.0 | -16.7 | 17.3 | -9.6 | -0.8 | -8.7 | 20.6 | -53.1 | -227.5 | -310.2 | -286.2 |
| <i>Australia</i> | -8.5 | -6.3 | -8.9 | -9.2 | -9.9 | -8.0 | -11.7 | -18.2 | -16.0 | -11.2 | -11.2 | -9.8 | -17.2 | -19.6 | -15.8 | -12.6 | -18.1 | -22.4 | -18.7 | -16.6 |
| <i>Austria</i> | 0.7 | 0.3 | -0.2 | -0.1 | 0.3 | -0.2 | -0.3 | 0.3 | 1.2 | 0.0 | -0.8 | -1.0 | -2.9 | -5.4 | -4.8 | -5.3 | -4.8 | -5.8 | -6.0 | -5.3 |
| <i>Belgium^a</i> | -2.1 | -0.2 | 0.2 | 0.9 | 3.0 | 2.6 | 3.3 | 2.6 | 3.0 | 3.6 | 5.6 | 8.9 | 9.7 | 11.4 | 11.3 | 11.7 | 10.3 | 10.0 | 7.8 | 7.9 |
| <i>Czech Republic</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.5 | -0.8 | -1.4 | -4.3 | -3.3 | -1.4 | -1.1 | -1.4 | -1.5 |
| <i>Denmark</i> | -2.3 | -1.4 | -1.7 | -2.7 | -4.5 | -3.0 | -1.5 | -1.4 | 1.2 | 1.8 | 3.8 | 4.5 | 2.8 | 1.7 | 3.2 | 0.9 | -1.9 | 2.0 | 3.4 | 4.5 |
| <i>Finland</i> | -0.9 | -1.1 | 0.0 | -0.8 | -0.7 | -1.7 | -2.7 | -5.8 | -7.0 | -6.7 | -4.9 | -1.1 | 1.1 | 5.2 | 5.0 | 6.7 | 7.3 | 6.7 | 7.8 | 9.9 |
| <i>Greece</i> | -1.9 | -1.9 | -2.1 | -3.3 | -1.7 | -2.7 | -2.7 | -4.4 | -5.7 | -3.7 | -4.4 | -2.8 | -2.4 | -5.6 | -7.1 | -7.6 | -3.6 | -3.8 | -3.2 | -3.5 |
| <i>Hungary</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -4.3 | -4.1 | -2.5 | -1.7 | -1.0 | -2.3 | -2.1 | -2.1 | -2.5 |
| <i>Iceland</i> | -1.3 | -0.1 | -0.3 | -0.2 | 0.0 | -0.2 | -0.2 | -0.1 | -0.1 | -0.3 | -0.2 | 0.0 | 0.1 | 0.1 | -0.1 | -0.1 | -0.5 | -0.5 | -0.7 | -0.6 |
| <i>Ireland</i> | -1.9 | -1.2 | -1.0 | -0.8 | -0.9 | -0.1 | 0.0 | -0.6 | -0.4 | 0.3 | 0.6 | 1.8 | 1.5 | 1.7 | 2.0 | 1.9 | 1.7 | 0.3 | 0.9 | -0.3 |
| <i>Korea</i> | -2.5 | -1.5 | -1.3 | -0.8 | 4.7 | 10.1 | 14.5 | 5.4 | -2.0 | -8.3 | -3.9 | 1.0 | -3.9 | -8.5 | -23.0 | -8.2 | 40.6 | 25.0 | 9.7 | 9.6 |
| <i>Mexico</i> | -5.9 | 5.9 | 4.2 | 0.8 | -1.4 | 4.2 | -2.4 | -5.8 | -7.5 | -14.6 | -24.4 | -23.4 | -29.7 | -1.6 | -2.3 | -7.4 | -15.7 | -14.0 | -18.2 | -23.0 |
| <i>Netherlands</i> | 5.0 | 5.0 | 6.3 | 4.4 | 4.4 | 4.2 | 7.1 | 10.0 | 9.2 | 7.8 | 7.4 | 13.6 | 17.8 | 24.1 | 21.7 | 27.5 | 25.5 | 22.7 | 22.8 | 23.3 |
| <i>New Zealand</i> | -1.7 | -1.0 | -1.9 | -1.6 | -1.8 | -1.7 | -0.4 | -1.6 | -1.4 | -1.2 | -1.4 | -1.0 | -1.9 | -3.0 | -4.0 | -4.4 | -2.6 | -4.3 | -3.4 | -3.3 |
| <i>Norway</i> | 0.6 | 2.0 | 2.9 | 3.0 | -4.5 | -4.1 | -3.9 | 0.2 | 4.0 | 5.0 | 3.0 | 2.2 | 3.8 | 4.9 | 10.2 | 8.0 | -2.2 | 5.5 | 22.2 | 22.0 |
| <i>Poland</i> | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -4.6 | 1.0 | 0.9 | -3.3 | -5.7 | -6.9 | -11.7 | -12.9 | -12.9 |
| <i>Portugal</i> | -3.2 | -1.6 | -0.6 | 0.4 | 1.2 | 0.4 | -1.0 | 0.2 | -0.2 | -0.7 | -0.3 | 0.3 | -2.3 | -0.2 | -4.5 | -5.5 | -7.2 | -9.5 | -10.3 | -10.9 |
| <i>Spain</i> | -4.5 | -2.9 | 1.8 | 2.8 | 3.9 | -0.2 | -3.7 | -10.9 | -18.1 | -19.9 | -21.6 | -6.0 | -6.7 | 0.2 | 0.2 | 2.3 | -1.5 | -12.3 | -18.1 | -18.9 |
| <i>Sweden</i> | -3.3 | -0.7 | 0.7 | -1.0 | 0.0 | 0.0 | -0.6 | -3.1 | -6.3 | -4.7 | -7.5 | -2.6 | 2.5 | 7.1 | 7.2 | 7.5 | 7.0 | 6.1 | 6.6 | 5.2 |
| <i>Switzerland</i> | 4.0 | 3.8 | 4.4 | 5.1 | 6.9 | 7.6 | 9.1 | 7.0 | 8.7 | 10.6 | 15.2 | 19.5 | 17.5 | 21.4 | 21.9 | 26.0 | 24.3 | 29.2 | 29.0 | 30.6 |
| <i>Turkey</i> | -1.0 | -1.8 | -1.4 | -1.0 | -1.5 | -0.8 | 1.6 | 0.9 | -2.6 | 0.3 | -1.0 | -6.4 | 2.6 | -2.3 | -2.4 | -2.6 | 2.0 | -1.4 | -4.4 | -4.5 |
| <i>Total of smaller countries</i> | -30.8 | -4.9 | 1.0 | -4.1 | -2.3 | 6.4 | 4.6 | -25.2 | -39.9 | -42.0 | -46.2 | -10.9 | -11.5 | 28.6 | 9.4 | 28.9 | 49.7 | 18.8 | 10.9 | 9.1 |
| <i>Total OECD</i> | -37.1 | -21.5 | -54.0 | -63.2 | -35.2 | -56.4 | -44.0 | -81.4 | -107.5 | -55.0 | -62.9 | 6.4 | -21.1 | 27.7 | 0.7 | 49.5 | -3.4 | -208.6 | -299.3 | -277.1 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| <i>European Union</i> | -23.3 | -1.3 | 9.4 | 14.7 | 47.1 | 28.5 | 8.1 | -11.8 | -35.6 | -85.5 | -79.8 | 7.9 | 15.8 | 46.4 | 85.6 | 120.2 | 90.7 | 25.7 | 25.3 | 47.9 |
| <i>Euro area</i> | -20.3 | -0.1 | 13.1 | 21.2 | 56.8 | 43.8 | 44.1 | 35.5 | 9.3 | -63.9 | -53.9 | 24.8 | 15.2 | 49.0 | 83.1 | 108.6 | 90.4 | 42.1 | 44.2 | 72.4 |

a) Including Luxembourg until 1994.

Note: The balance-of-payments data in this table are derived from OECD countries' submission and publications. They are based on the concepts and definitions of the IMF Balance of Payments Manual.

Source: OECD.

Annex Table 52. Current account balances as a percentage of GDP

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------|-------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|-------------|-------|
| | | | | | | | | | | | | | | | | | | | 2000 | 2001 |
| United States | -0.2 | -1.1 | -2.4 | -2.8 | -3.4 | -3.4 | -2.4 | -1.8 | -1.4 | 0.1 | -0.8 | -1.3 | -1.7 | -1.5 | -1.7 | -1.7 | -2.5 | -3.7 | -4.5 | -4.4 |
| Japan | 0.6 | 1.8 | 2.8 | 3.7 | 4.3 | 3.5 | 2.7 | 2.2 | 1.5 | 2.0 | 3.0 | 3.1 | 2.8 | 2.2 | 1.4 | 2.2 | 3.2 | 2.5 | 2.6 | 2.9 |
| Germany | 0.9 | 0.8 | 1.7 | 2.9 | 4.5 | 4.0 | 4.3 | 4.7 | 3.2 | -1.0 | -0.7 | -0.5 | -1.1 | -0.8 | -0.3 | -0.1 | -0.2 | -0.9 | -0.5 | 0.4 |
| France | -2.1 | -0.9 | -0.1 | -0.1 | 0.3 | -0.5 | -0.5 | -0.5 | -0.8 | -0.5 | 0.4 | 0.8 | 0.5 | 0.5 | 1.3 | 2.7 | 2.8 | 2.6 | 2.5 | 2.6 |
| Italy | -1.8 | 0.2 | -0.8 | -1.0 | 0.3 | -0.3 | -0.8 | -1.5 | -1.6 | -2.1 | -2.5 | 0.9 | 1.3 | 2.3 | 3.3 | 2.9 | 1.9 | 1.0 | 1.6 | 2.2 |
| United Kingdom | 1.0 | 0.6 | -0.1 | 0.1 | -0.6 | -1.4 | -3.8 | -4.6 | -3.5 | -1.5 | -1.7 | -1.7 | -0.2 | -0.5 | -0.1 | 0.8 | -0.1 | -1.4 | -1.8 | -2.0 |
| Canada | 0.6 | -0.8 | -0.4 | -1.6 | -3.0 | -3.2 | -3.0 | -3.9 | -3.4 | -3.8 | -3.6 | -3.9 | -2.3 | -0.8 | 0.5 | -1.6 | -1.8 | -0.5 | 0.4 | 0.6 |
| Total of major countries | -0.1 | -0.2 | -0.7 | -0.7 | -0.3 | -0.6 | -0.4 | -0.4 | -0.5 | -0.1 | -0.1 | 0.1 | -0.1 | 0.0 | 0.0 | 0.1 | -0.3 | -1.1 | -1.5 | -1.3 |
| Australia | -4.8 | -3.7 | -4.7 | -5.5 | -5.7 | -3.9 | -4.5 | -6.2 | -5.2 | -3.6 | -3.7 | -3.3 | -5.1 | -5.4 | -3.9 | -3.1 | -5.0 | -5.7 | -4.8 | -4.1 |
| Austria | 1.0 | 0.3 | -0.3 | -0.1 | 0.3 | -0.2 | -0.2 | 0.2 | 0.7 | 0.0 | -0.4 | -0.5 | -1.5 | -2.3 | -2.1 | -2.5 | -2.3 | -2.8 | -3.2 | -2.7 |
| Belgium ^{a)} | -2.3 | -0.3 | 0.2 | 1.1 | 2.6 | 1.8 | 2.1 | 1.7 | 1.5 | 1.8 | 2.5 | 4.1 | 4.2 | 4.1 | 4.2 | 4.8 | 4.1 | 4.0 | 3.4 | 3.4 |
| Czech Republic | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.3 | -1.9 | -2.6 | -7.4 | -6.1 | -2.4 | -2.0 | -2.8 | -2.9 |
| Denmark | -3.9 | -2.4 | -3.1 | -4.6 | -5.3 | -2.9 | -1.4 | -1.3 | 0.9 | 1.4 | 2.6 | 3.3 | 1.8 | 1.0 | 1.8 | 0.6 | -1.1 | 1.1 | 2.1 | 2.7 |
| Finland | -1.9 | -2.3 | -0.1 | -1.4 | -1.0 | -1.9 | -2.5 | -5.0 | -5.1 | -5.4 | -4.5 | -1.3 | 1.1 | 4.0 | 3.9 | 5.5 | 5.6 | 5.2 | 6.5 | 7.7 |
| Greece | -4.1 | -4.4 | -5.1 | -8.0 | -3.5 | -4.8 | -4.0 | -6.4 | -6.8 | -4.1 | -4.4 | -3.1 | -2.4 | -4.7 | -5.7 | -6.2 | -3.0 | -3.1 | -2.9 | -3.0 |
| Hungary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -11.0 | -9.7 | -5.5 | -3.8 | -2.1 | -4.9 | -4.3 | -4.5 | -5.2 |
| Iceland | -40.0 | -5.5 | -9.2 | -6.0 | 0.1 | -3.3 | -3.7 | -1.9 | -2.1 | -4.7 | -3.2 | 0.1 | 1.8 | 0.7 | -1.6 | -1.4 | -5.6 | -6.2 | -7.6 | -6.2 |
| Ireland | -9.2 | -5.8 | -5.3 | -3.7 | -3.1 | -0.2 | 0.0 | -1.5 | -0.8 | 0.7 | 1.0 | 3.7 | 2.7 | 2.6 | 2.8 | 2.5 | 2.0 | 0.3 | 0.9 | -0.3 |
| Korea | -3.4 | -1.8 | -1.4 | -0.8 | 4.3 | 7.4 | 7.9 | 2.4 | -0.8 | -2.8 | -1.2 | 0.3 | -1.0 | -1.7 | -4.4 | -1.5 | 12.8 | 6.1 | 2.1 | 1.9 |
| Mexico | -2.1 | 4.8 | 2.5 | 0.8 | -0.8 | 2.8 | -1.3 | -2.7 | -2.9 | -4.7 | -6.7 | -5.8 | -7.1 | -0.5 | -0.7 | -1.9 | -3.7 | -2.9 | -3.2 | -3.6 |
| Netherlands | 3.4 | 3.5 | 4.8 | 3.2 | 2.4 | 1.9 | 2.9 | 4.2 | 3.1 | 2.6 | 2.2 | 4.2 | 5.1 | 5.8 | 5.3 | 7.3 | 6.5 | 5.8 | 6.2 | 6.0 |
| New Zealand | -7.3 | -4.4 | -8.6 | -7.3 | -6.4 | -5.0 | -1.0 | -3.8 | -3.2 | -2.8 | -3.5 | -2.4 | -3.8 | -5.1 | -6.1 | -6.7 | -5.0 | -7.9 | -6.4 | -6.0 |
| Norway | 1.0 | 3.3 | 4.8 | 4.9 | -6.0 | -4.5 | -4.0 | 0.2 | 3.3 | 4.3 | 2.3 | 1.8 | 3.0 | 3.3 | 6.5 | 5.1 | -1.5 | 3.6 | 14.2 | 13.9 |
| Poland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | -5.2 | 1.0 | 0.7 | -2.3 | -4.0 | -4.4 | -7.6 | -8.0 | -7.4 |
| Portugal | -11.6 | -6.2 | -2.6 | 1.5 | 3.4 | 1.0 | -2.1 | 0.3 | -0.3 | -0.9 | -0.2 | 0.4 | -2.5 | -0.1 | -4.2 | -5.4 | -6.8 | -8.9 | -10.3 | -10.5 |
| Spain | -2.4 | -1.7 | 1.1 | 1.6 | 1.6 | 0.0 | -1.0 | -2.7 | -3.5 | -3.6 | -3.6 | -1.2 | -1.3 | 0.0 | 0.0 | 0.4 | -0.2 | -2.1 | -3.2 | -3.2 |
| Sweden | -3.3 | -0.8 | 0.7 | -1.0 | 0.0 | 0.0 | -0.3 | -1.6 | -2.6 | -1.9 | -3.0 | -1.3 | 1.2 | 3.0 | 2.8 | 3.1 | 2.9 | 2.5 | 2.8 | 2.1 |
| Switzerland | 3.9 | 3.8 | 4.6 | 5.2 | 5.0 | 4.4 | 4.9 | 3.9 | 3.8 | 4.6 | 6.2 | 8.2 | 6.7 | 6.9 | 7.4 | 10.1 | 9.3 | 11.3 | 12.1 | 12.4 |
| Turkey | -1.4 | -2.9 | -2.4 | -1.5 | -1.9 | -0.9 | 2.0 | 0.9 | -1.7 | 0.1 | -0.6 | -3.6 | 2.2 | -1.5 | -1.3 | -1.3 | 1.1 | -0.9 | -2.3 | -2.1 |
| Total of smaller countries | -2.0 | -0.4 | 0.1 | -0.3 | -0.1 | 0.3 | 0.2 | -0.9 | -1.2 | -1.2 | -1.3 | -0.3 | -0.3 | 0.6 | 0.2 | 0.7 | 1.1 | 0.4 | 0.2 | 0.2 |
| Total OECD | -0.4 | -0.3 | -0.6 | -0.7 | -0.3 | -0.4 | -0.3 | -0.5 | -0.6 | -0.3 | -0.3 | 0.0 | -0.1 | 0.1 | 0.0 | 0.2 | 0.0 | -0.8 | -1.2 | -1.0 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | | | | | |
| European Union | -0.8 | 0.0 | 0.3 | 0.5 | 1.2 | 0.6 | 0.2 | -0.2 | -0.5 | -1.2 | -1.0 | 0.1 | 0.2 | 0.5 | 1.0 | 1.5 | 1.1 | 0.3 | 0.3 | 0.6 |
| Euro area | -0.9 | 0.0 | 0.6 | 1.0 | 1.8 | 1.1 | 1.1 | 0.8 | 0.2 | -1.1 | -0.9 | 0.4 | 0.3 | 0.7 | 1.2 | 1.7 | 1.4 | 0.6 | 0.7 | 1.2 |

a) Including Luxembourg until 1994.

Source: OECD.

Annex Table 53. Structure of current account balances of major world regions^a

| | Billions US dollars | | | | | | | | | | | | | | | | | | | Projections | |
|--------------------------------------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|--|
| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | |
| Trade balance | | | | | | | | | | | | | | | | | | | | | |
| OECD | -22 | -17 | -43 | -42 | -7 | -23 | -1 | -34 | -46 | -20 | 12 | 67 | 60 | 103 | 59 | 62 | 28 | -114 | -195 | -186 | |
| Non-OECD of which: | 37 | 36 | 63 | 53 | 16 | 51 | 30 | 51 | 68 | 52 | 28 | -2 | 28 | 9 | 33 | 48 | 50 | 154 | 236 | 207 | |
| China | 4 | 2 | 0 | -13 | -9 | -2 | -5 | -6 | 9 | 9 | 5 | -11 | 7 | 18 | 20 | 46 | 47 | 31 | 30 | 29 | |
| Dynamic Asia ^b | -6 | -4 | 12 | 18 | 22 | 28 | 21 | 22 | 10 | 10 | 8 | 6 | 1 | -15 | -9 | -1 | 67 | 79 | 80 | 70 | |
| Other Asia | -13 | -11 | -12 | -13 | -14 | -13 | -14 | -13 | -12 | -9 | -10 | -11 | -14 | -20 | -24 | -21 | -20 | -22 | -22 | -22 | |
| Latin America | 1 | 17 | 26 | 25 | 12 | 12 | 22 | 28 | 31 | 19 | 10 | 2 | 3 | -7 | -5 | -18 | -32 | -1 | 11 | 14 | |
| Africa and Middle-East | 40 | 20 | 24 | 31 | -4 | 14 | 1 | 25 | 53 | 23 | 13 | 11 | 22 | 26 | 50 | 46 | -5 | 41 | 94 | 76 | |
| Central and Eastern Europe | 11 | 12 | 13 | 5 | 8 | 12 | 6 | -6 | -23 | 1 | 2 | 0 | 10 | 8 | 2 | -5 | -6 | 27 | 44 | 40 | |
| World ^c | 14 | 19 | 20 | 11 | 9 | 28 | 29 | 17 | 22 | 32 | 40 | 65 | 88 | 113 | 91 | 110 | 78 | 40 | 42 | 22 | |
| Services and private transfers, net | | | | | | | | | | | | | | | | | | | | | |
| OECD | 11 | 18 | 15 | 7 | 7 | -4 | -12 | -13 | -19 | -9 | -8 | 8 | -3 | -5 | 12 | 51 | 40 | -34 | -35 | -20 | |
| Non-OECD of which: | -98 | -84 | -89 | -82 | -67 | -69 | -75 | -84 | -85 | -103 | -90 | -92 | -81 | -111 | -102 | -115 | -136 | -122 | -132 | -145 | |
| China | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 4 | 1 | -1 | 0 | -17 | -13 | -17 | -17 | -17 | -20 | -22 | |
| Dynamic Asia ^b | -6 | -8 | -11 | -9 | -5 | -6 | -6 | -5 | -4 | -4 | -1 | -1 | 0 | -2 | 2 | 0 | -13 | -7 | -11 | -16 | |
| Other Asia | 5 | 5 | 4 | 3 | 3 | 2 | 0 | 0 | -1 | -1 | 0 | 1 | 4 | 3 | 6 | 9 | 7 | 8 | 9 | 8 | |
| Latin America | -38 | -32 | -33 | -30 | -30 | -28 | -31 | -33 | -27 | -24 | -21 | -27 | -27 | -31 | -33 | -43 | -45 | -39 | -36 | -37 | |
| Africa and Middle-East | -63 | -56 | -56 | -48 | -38 | -41 | -41 | -48 | -57 | -74 | -58 | -57 | -54 | -55 | -59 | -57 | -57 | -58 | -60 | -63 | |
| Central and Eastern Europe | 3 | 4 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | -4 | -10 | -6 | -4 | -9 | -5 | -8 | -11 | -9 | -13 | -17 | |
| World ^c | -87 | -66 | -74 | -75 | -60 | -73 | -87 | -97 | -104 | -112 | -98 | -84 | -84 | -117 | -90 | -63 | -96 | -155 | -167 | -165 | |
| Official transfers, net | | | | | | | | | | | | | | | | | | | | | |
| OECD | -26 | -23 | -26 | -29 | -35 | -30 | -32 | -35 | -42 | -26 | -66 | -69 | -78 | -70 | -71 | -64 | -72 | -61 | -69 | -72 | |
| Non-OECD of which: | 3 | 2 | 6 | 10 | 11 | 10 | 13 | 13 | 4 | -9 | 18 | 19 | 15 | 17 | 15 | 14 | 14 | 16 | 15 | 15 | |
| China | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Dynamic Asia ^b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| Other Asia | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | |
| Latin America | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Africa and Middle-East | 0 | -1 | 3 | 6 | 7 | 6 | 8 | 8 | -1 | -19 | 10 | 11 | 9 | 9 | 9 | 8 | 8 | 8 | 9 | 9 | |
| Central and Eastern Europe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | |
| World ^c | -23 | -21 | -20 | -19 | -23 | -20 | -19 | -22 | -39 | -35 | -48 | -50 | -64 | -53 | -55 | -50 | -58 | -45 | -55 | -57 | |
| Current balance | | | | | | | | | | | | | | | | | | | | | |
| OECD | -37 | -21 | -54 | -63 | -35 | -56 | -44 | -81 | -107 | -55 | -63 | 6 | -21 | 28 | 1 | 50 | -3 | -209 | -299 | -277 | |
| Non-OECD of which: | -59 | -46 | -19 | -20 | -40 | -8 | -32 | -20 | -14 | -60 | -43 | -75 | -38 | -85 | -54 | -53 | -73 | 48 | 119 | 77 | |
| China | 6 | 4 | 2 | -11 | -7 | 0 | -4 | -4 | 12 | 13 | 6 | -12 | 7 | 2 | 7 | 30 | 29 | 14 | 11 | 7 | |
| Dynamic Asia ^b | -12 | -11 | 2 | 8 | 17 | 22 | 16 | 17 | 7 | 6 | 8 | 5 | 1 | -17 | -8 | -1 | 54 | 73 | 69 | 54 | |
| Other Asia | -6 | -5 | -6 | -8 | -9 | -9 | -12 | -11 | -12 | -8 | -8 | -8 | -8 | -15 | -16 | -9 | -11 | -12 | -11 | -11 | |
| Latin America | -36 | -14 | -6 | -4 | -16 | -14 | -8 | -3 | 6 | -3 | -9 | -22 | -22 | -36 | -37 | -60 | -76 | -38 | -24 | -21 | |
| Africa and Middle-East | -23 | -37 | -29 | -11 | -35 | -21 | -32 | -15 | -5 | -71 | -35 | -36 | -23 | -20 | 1 | -2 | -54 | -8 | 42 | 22 | |
| Central and Eastern Europe | 13 | 16 | 18 | 6 | 10 | 13 | 7 | -4 | -21 | 3 | -4 | -3 | 7 | 1 | -1 | -11 | -15 | 20 | 31 | 25 | |
| World ^c | -96 | -67 | -73 | -83 | -75 | -65 | -77 | -102 | -121 | -115 | -106 | -69 | -59 | -57 | -54 | -3 | -76 | -161 | -180 | -200 | |

a) Historical data for the OECD area are aggregates of reported balance-of-payments data of each individual country. Because of various statistical problems as well as a large number of non-reporters among non-OECD countries, trade and current account balances estimated on the basis of these countries' own balance-of-payments records may differ from corresponding estimates shown in this table.

b) Dynamic Asia include Chinese Taipei; Hong Kong, China; Indonesia; Malaysia; Philippines; Singapore and Thailand.

c) Reflects statistical errors and asymmetries. Given the very large gross flows of world balance-of-payments transactions, statistical errors and asymmetries easily give rise to world totals (balances) that are significantly different from zero.

Source: OECD.

Annex Table 54. **Semiannual demand and output projections**
 Percentage changes from previous period, seasonally adjusted at annual rates, volume

| | 1999 | 2000 | 2001 | 1999 | | 2000 | | 2001 | |
|-------------------------------------|------|------|------|------|------|------|------|------|-----|
| | | | | I | II | I | II | I | II |
| Private consumption | | | | | | | | | |
| United States | 5.3 | 5.5 | 2.7 | 5.7 | 5.2 | 6.7 | 3.5 | 2.6 | 2.2 |
| Japan | 1.2 | 1.3 | 2.1 | 2.8 | -1.0 | 1.9 | 2.5 | 2.0 | 1.8 |
| Germany | 2.1 | 2.3 | 2.7 | 2.2 | 1.9 | 2.3 | 2.5 | 2.7 | 2.8 |
| France | 2.3 | 3.1 | 3.3 | 1.6 | 2.9 | 3.1 | 3.1 | 3.4 | 3.4 |
| Italy | 1.7 | 1.5 | 2.2 | 2.0 | 0.5 | 1.6 | 2.0 | 2.3 | 2.3 |
| United Kingdom | 3.9 | 3.3 | 2.6 | 5.0 | 3.2 | 3.4 | 3.0 | 2.5 | 2.4 |
| Canada | 3.2 | 3.6 | 2.8 | 3.3 | 4.1 | 3.5 | 3.1 | 2.8 | 2.5 |
| Total of above countries | 3.6 | 3.7 | 2.6 | 4.1 | 3.1 | 4.4 | 3.0 | 2.6 | 2.3 |
| European Union | 2.8 | 2.8 | 2.9 | 2.9 | 2.5 | 2.9 | 2.9 | 2.9 | 2.9 |
| Euro area | 2.5 | 2.6 | 3.0 | 2.6 | 2.2 | 2.7 | 2.9 | 3.0 | 3.0 |
| Total OECD | 3.7 | 3.8 | 2.9 | 4.3 | 3.5 | 4.3 | 3.2 | 2.9 | 2.7 |
| Public consumption | | | | | | | | | |
| United States | 2.6 | 1.8 | 2.3 | 2.0 | 4.3 | 0.6 | 2.0 | 2.4 | 2.3 |
| Japan | 1.3 | 0.3 | 0.6 | 1.1 | 0.2 | 0.1 | 0.7 | 0.5 | 0.7 |
| Germany | 0.2 | 0.5 | 0.3 | 2.4 | -1.7 | 1.4 | 1.0 | 0.1 | 0.1 |
| France | 2.6 | 1.8 | 1.4 | 3.3 | 2.5 | 1.6 | 1.4 | 1.4 | 1.4 |
| Italy | 0.6 | 0.5 | 0.5 | 0.6 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 |
| United Kingdom | 4.4 | 3.8 | 3.2 | 5.3 | 3.4 | 4.1 | 3.7 | 3.0 | 3.0 |
| Canada | 1.0 | 1.9 | 1.7 | 0.8 | 1.5 | 2.0 | 2.0 | 1.6 | 1.5 |
| Total of above countries | 2.0 | 1.5 | 1.6 | 2.0 | 2.4 | 0.9 | 1.6 | 1.6 | 1.6 |
| European Union | 1.8 | 1.5 | 1.3 | 2.6 | 0.8 | 1.8 | 1.5 | 1.3 | 1.3 |
| Euro area | 1.4 | 1.2 | 1.0 | 2.3 | 0.5 | 1.5 | 1.2 | 1.0 | 1.0 |
| Total OECD | 2.0 | 1.6 | 1.7 | 2.2 | 2.1 | 1.3 | 1.7 | 1.7 | 1.7 |
| Investment | | | | | | | | | |
| United States | 8.2 | 8.3 | 4.4 | 9.8 | 6.2 | 11.2 | 4.9 | 4.3 | 4.0 |
| Japan | -1.0 | 1.3 | 2.1 | 7.0 | -6.6 | 4.5 | 3.4 | 2.2 | 0.7 |
| Germany | 2.3 | 2.8 | 3.4 | 3.2 | 1.9 | 3.2 | 3.0 | 3.4 | 3.6 |
| France | 7.1 | 5.6 | 3.5 | 8.1 | 5.4 | 6.0 | 5.1 | 3.0 | 2.7 |
| Italy | 4.4 | 5.5 | 4.9 | 5.7 | 5.6 | 5.6 | 5.2 | 4.8 | 4.7 |
| United Kingdom | 5.2 | 3.8 | 3.4 | 3.3 | 3.9 | 3.8 | 3.6 | 3.4 | 3.3 |
| Canada | 9.3 | 8.1 | 5.4 | 11.8 | 10.9 | 7.6 | 6.5 | 5.2 | 4.6 |
| Total of above countries | 5.4 | 5.8 | 3.8 | 7.8 | 3.4 | 7.7 | 4.4 | 3.7 | 3.3 |
| European Union | 5.0 | 4.8 | 4.4 | 5.0 | 4.7 | 4.9 | 4.7 | 4.4 | 4.3 |
| Euro area | 4.8 | 4.9 | 4.6 | 5.3 | 4.7 | 5.0 | 4.8 | 4.5 | 4.4 |
| Total OECD | 5.0 | 6.0 | 4.5 | 6.8 | 4.0 | 7.6 | 5.1 | 4.4 | 4.0 |
| Total domestic demand | | | | | | | | | |
| United States | 5.1 | 5.4 | 3.1 | 5.0 | 5.7 | 6.3 | 3.6 | 3.0 | 2.7 |
| Japan | 0.6 | 1.4 | 2.1 | 4.4 | -2.7 | 2.7 | 3.0 | 2.0 | 1.4 |
| Germany | 2.2 | 1.8 | 2.2 | 2.7 | 1.5 | 1.7 | 2.3 | 2.1 | 2.2 |
| France | 2.8 | 3.3 | 2.9 | 2.6 | 2.5 | 3.8 | 3.2 | 2.8 | 2.8 |
| Italy | 2.5 | 1.8 | 2.4 | 3.4 | 0.9 | 2.0 | 2.3 | 2.5 | 2.4 |
| United Kingdom | 3.6 | 3.6 | 2.9 | 3.5 | 3.6 | 3.7 | 3.3 | 2.8 | 2.7 |
| Canada | 4.0 | 4.4 | 3.1 | 5.3 | 5.7 | 4.2 | 3.6 | 3.1 | 2.8 |
| Total of above countries | 3.5 | 3.7 | 2.7 | 4.3 | 3.1 | 4.4 | 3.2 | 2.7 | 2.4 |
| European Union | 2.9 | 2.9 | 2.9 | 3.2 | 2.3 | 3.0 | 3.0 | 2.9 | 2.9 |
| Euro area | 2.8 | 2.7 | 2.9 | 3.0 | 2.2 | 2.9 | 3.0 | 2.9 | 2.8 |
| Total OECD | 3.7 | 4.0 | 3.1 | 4.5 | 3.6 | 4.5 | 3.5 | 3.1 | 2.8 |
| Export of goods and services | | | | | | | | | |
| United States | 3.8 | 6.8 | 7.9 | 1.9 | 9.2 | 4.7 | 8.4 | 7.7 | 7.7 |
| Japan | 1.9 | 8.0 | 4.8 | -1.0 | 12.7 | 7.7 | 4.2 | 5.0 | 5.0 |
| Germany | 4.3 | 10.5 | 8.9 | 4.1 | 10.8 | 10.7 | 9.7 | 8.7 | 8.5 |
| France | 3.6 | 10.9 | 8.9 | 0.9 | 12.6 | 10.5 | 10.0 | 8.7 | 8.2 |
| Italy | -0.4 | 10.9 | 9.5 | -4.1 | 11.2 | 11.0 | 10.4 | 9.4 | 8.8 |
| United Kingdom | 2.9 | 8.5 | 6.7 | -1.0 | 13.5 | 7.0 | 6.8 | 6.7 | 6.6 |
| Canada | 9.7 | 8.7 | 6.4 | 9.5 | 9.5 | 9.0 | 7.2 | 6.3 | 6.0 |
| Total of above countries | 3.4 | 8.2 | 7.5 | 1.3 | 10.7 | 7.1 | 7.9 | 7.4 | 7.3 |
| European Union | 3.9 | 10.4 | 8.7 | 1.8 | 11.5 | 10.3 | 9.6 | 8.6 | 8.1 |
| Euro area | 3.0 | 12.4 | 9.7 | 0.4 | 13.7 | 12.4 | 11.2 | 9.6 | 8.7 |
| Total OECD | 4.3 | 8.9 | 7.8 | 2.4 | 10.8 | 8.3 | 8.6 | 7.7 | 7.4 |

Source: OECD.

Annex Table 54. (cont'd) Semiannual demand and output projections
Percentage changes from previous period, seasonally adjusted at annual rates, volume

| | 1999 | 2000 | 2001 | 1999 | | 2000 | | 2001 | |
|-------------------------------------|--------|------|------|--------|--------|------|------|------|------|
| | | | | I | II | I | II | I | II |
| Import of goods and services | | | | | | | | | |
| <i>United States</i> | 11.7 | 10.1 | 7.2 | 12.6 | 13.2 | 9.5 | 8.2 | 7.1 | 6.4 |
| <i>Japan</i> | 5.3 | 6.7 | 4.5 | 6.7 | 13.9 | 4.6 | 4.2 | 4.7 | 4.2 |
| <i>Germany</i> | 7.1 | 7.0 | 6.5 | 8.9 | 7.2 | 7.0 | 6.8 | 6.4 | 6.4 |
| <i>France</i> | 3.1 | 10.2 | 9.3 | -0.1 | 9.3 | 10.8 | 10.1 | 9.2 | 8.7 |
| <i>Italy</i> | 3.4 | 7.1 | 7.5 | 4.3 | 5.3 | 8.0 | 7.1 | 7.6 | 7.8 |
| <i>United Kingdom</i> | 7.5 | 9.8 | 7.7 | 5.0 | 12.5 | 9.0 | 8.7 | 7.5 | 7.3 |
| <i>Canada</i> | 9.7 | 9.6 | 6.9 | 11.7 | 13.0 | 8.9 | 7.6 | 6.9 | 6.3 |
| <i>Total of above countries</i> | 8.5 | 8.9 | 6.8 | 9.1 | 11.7 | 8.3 | 7.4 | 6.8 | 6.3 |
| <i>European Union</i> | 6.0 | 8.7 | 8.1 | 5.5 | 8.4 | 9.0 | 8.5 | 8.0 | 7.8 |
| <i>Euro area</i> | 5.9 | 8.8 | 8.2 | 5.6 | 8.0 | 9.3 | 8.6 | 8.2 | 7.9 |
| <i>Total OECD</i> | 8.8 | 9.6 | 7.5 | 9.7 | 12.1 | 9.1 | 8.2 | 7.4 | 6.9 |
| GDP | | | | | | | | | |
| <i>United States</i> | 4.2 | 4.9 | 3.0 | 3.8 | 5.1 | 5.6 | 3.5 | 2.9 | 2.7 |
| <i>Japan</i> | 0.3 | 1.7 | 2.2 | 3.4 | -2.5 | 3.1 | 3.0 | 2.2 | 1.6 |
| <i>Germany</i> | 1.5 | 2.9 | 3.0 | 1.4 | 2.6 | 2.8 | 3.3 | 2.9 | 3.0 |
| <i>France</i> | 2.9 | 3.7 | 2.9 | 2.8 | 3.5 | 3.9 | 3.3 | 2.8 | 2.8 |
| <i>Italy</i> | 1.4 | 2.9 | 3.1 | 1.1 | 2.5 | 3.0 | 3.3 | 3.2 | 2.9 |
| <i>United Kingdom</i> | 2.1 | 2.9 | 2.3 | 1.6 | 3.6 | 2.9 | 2.4 | 2.3 | 2.2 |
| <i>Canada</i> | 4.2 | 4.3 | 3.0 | 4.6 | 4.8 | 4.4 | 3.5 | 2.9 | 2.7 |
| <i>Total of above countries</i> | 2.7 | 3.7 | 2.8 | 3.1 | 3.1 | 4.3 | 3.3 | 2.8 | 2.5 |
| <i>European Union</i> | 2.3 | 3.4 | 3.1 | 2.1 | 3.3 | 3.5 | 3.4 | 3.1 | 3.0 |
| <i>Euro area</i> | 2.3 | 3.5 | 3.3 | 2.2 | 3.2 | 3.6 | 3.6 | 3.3 | 3.1 |
| <i>Total OECD</i> | 3.0 | 4.0 | 3.1 | 3.3 | 3.5 | 4.4 | 3.5 | 3.1 | 2.9 |
| <i>Per cent of GDP</i> | | | | | | | | | |
| Current account balance | | | | | | | | | |
| <i>United States</i> | -3.7 | -4.5 | -4.4 | -3.3 | -4.0 | -4.5 | -4.4 | -4.4 | -4.4 |
| <i>Japan</i> | 2.5 | 2.6 | 2.9 | 2.6 | 2.3 | 2.5 | 2.6 | 2.8 | 3.0 |
| <i>Germany</i> | -0.9 | -0.5 | 0.4 | -0.6 | -1.3 | -0.7 | -0.4 | 0.2 | 0.7 |
| <i>France</i> | 2.6 | 2.5 | 2.6 | 2.9 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 |
| <i>Italy</i> | 1.0 | 1.6 | 2.2 | 1.3 | 0.8 | 1.4 | 1.8 | 2.1 | 2.3 |
| <i>United Kingdom</i> | -1.4 | -1.8 | -2.0 | -1.6 | -1.3 | -1.7 | -1.9 | -2.0 | -2.1 |
| <i>Canada</i> | -0.5 | 0.4 | 0.6 | -0.8 | -0.2 | 0.3 | 0.5 | 0.6 | 0.6 |
| <i>Total of above countries</i> | -1.1 | -1.5 | -1.3 | -0.9 | -1.3 | -1.5 | -1.5 | -1.4 | -1.3 |
| <i>European Union</i> | 0.3 | 0.3 | 0.6 | 0.5 | 0.1 | 0.3 | 0.4 | 0.5 | 0.6 |
| <i>Euro area</i> | 0.6 | 0.7 | 1.2 | 1.0 | 0.3 | 0.7 | 0.8 | 1.1 | 1.3 |
| <i>Total OECD</i> | -0.8 | -1.2 | -1.0 | -0.6 | -1.1 | -1.2 | -1.2 | -1.1 | -1.0 |
| <i>\$ billions</i> | | | | | | | | | |
| Current account balance | | | | | | | | | |
| <i>United States</i> | -340.8 | -444 | -461 | -301.4 | -380.2 | -442 | -447 | -457 | -465 |
| <i>Japan</i> | 107.0 | 118 | 134 | 108.9 | 105.2 | 117 | 118 | 129 | 139 |
| <i>Germany</i> | -19.8 | -11 | 8 | -12.7 | -26.9 | -14 | -7 | 3 | 14 |
| <i>France</i> | 37.7 | 32 | 34 | 41.3 | 34.1 | 33 | 32 | 34 | 35 |
| <i>Italy</i> | 12.0 | 17 | 24 | 14.9 | 9.2 | 16 | 19 | 23 | 25 |
| <i>United Kingdom</i> | -20.7 | -26 | -31 | -22.5 | -18.9 | -24 | -27 | -30 | -32 |
| <i>Canada</i> | -2.9 | 3 | 4 | -4.8 | -1.0 | 2 | 4 | 4 | 5 |
| <i>Total of above countries</i> | -227.5 | -310 | -286 | -176.3 | -278.6 | -313 | -308 | -294 | -278 |
| <i>European Union</i> | 25.7 | 25 | 48 | 46.2 | 5.3 | 23 | 28 | 42 | 54 |
| <i>Euro area</i> | 42.1 | 44 | 72 | 65.5 | 18.8 | 40 | 48 | 65 | 79 |
| <i>Total OECD</i> | -208.6 | -299 | -277 | -152.0 | -265.2 | -299 | -299 | -284 | -270 |

Source: OECD.

Annex Table 55. **Semiannual price, cost and unemployment projections**

Percentage changes from previous period, seasonally adjusted at annual rates

| | 1999 | 2000 | 2001 | 1999 | | 2000 | | 2001 | |
|-------------------------------------------------------|------|------|------|------|------|------|------|------|------|
| | | | | I | II | I | II | I | II |
| Private consumption deflator | | | | | | | | | |
| United States | 1.6 | 2.4 | 2.2 | 1.6 | 2.1 | 2.8 | 2.1 | 2.1 | 2.5 |
| Japan | -0.5 | -0.3 | 0.0 | -0.5 | -0.8 | -0.4 | 0.3 | -0.1 | -0.1 |
| Germany | 0.8 | 1.5 | 1.5 | 0.8 | 1.1 | 1.8 | 1.3 | 1.5 | 1.5 |
| France | 0.7 | 1.3 | 1.5 | 0.7 | 0.9 | 1.4 | 1.5 | 1.5 | 1.6 |
| Italy | 2.2 | 2.6 | 2.3 | 2.1 | 2.8 | 2.6 | 2.4 | 2.3 | 2.1 |
| United Kingdom | 2.4 | 2.5 | 2.8 | 2.1 | 2.6 | 2.4 | 2.7 | 2.9 | 2.8 |
| Canada | 1.2 | 2.2 | 2.1 | 0.6 | 1.9 | 2.4 | 2.2 | 2.1 | 2.1 |
| Total of above countries | 1.1 | 1.8 | 1.7 | 1.1 | 1.5 | 2.0 | 1.7 | 1.7 | 1.8 |
| Total OECD less high inflation countries ^a | 1.2 | 1.9 | 1.9 | 1.1 | 1.5 | 2.2 | 2.0 | 1.9 | 2.0 |
| European Union | 1.6 | 2.1 | 2.1 | 1.6 | 1.9 | 2.2 | 2.1 | 2.1 | 2.1 |
| Euro area | 1.4 | 2.0 | 2.0 | 1.4 | 1.7 | 2.1 | 1.9 | 2.0 | 1.9 |
| Total OECD | 2.8 | 3.2 | 2.5 | 2.9 | 2.8 | 3.6 | 2.8 | 2.4 | 2.4 |
| GDP deflator | | | | | | | | | |
| United States | 1.5 | 2.1 | 2.3 | 1.6 | 1.4 | 2.4 | 2.2 | 2.3 | 2.3 |
| Japan | -0.9 | -0.8 | -0.1 | -0.4 | -1.8 | -0.5 | -0.1 | 0.1 | -0.4 |
| Germany | 1.0 | 0.6 | 1.4 | 1.1 | 0.1 | 0.7 | 0.9 | 1.5 | 1.6 |
| France | 0.3 | 1.0 | 1.6 | 0.2 | 0.3 | 1.0 | 1.5 | 1.6 | 1.8 |
| Italy | 1.5 | 2.2 | 2.2 | 1.3 | 1.5 | 2.5 | 2.4 | 2.1 | 1.9 |
| United Kingdom | 2.9 | 3.0 | 3.2 | 2.4 | 3.1 | 2.9 | 3.1 | 3.2 | 3.2 |
| Canada | 1.7 | 2.9 | 2.3 | 2.4 | 3.3 | 2.9 | 2.5 | 2.3 | 2.1 |
| Total of above countries | 1.0 | 1.4 | 1.8 | 1.1 | 0.8 | 1.7 | 1.7 | 1.8 | 1.7 |
| Total OECD less high inflation countries ^a | 1.1 | 1.6 | 1.9 | 1.2 | 0.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| European Union | 1.5 | 1.8 | 2.2 | 1.5 | 1.3 | 1.8 | 2.0 | 2.2 | 2.2 |
| Euro area | 1.2 | 1.5 | 1.9 | 1.2 | 0.9 | 1.6 | 1.8 | 2.0 | 2.0 |
| Total OECD | 2.5 | 2.8 | 2.5 | 2.6 | 2.4 | 3.1 | 2.7 | 2.5 | 2.3 |
| Unit labour cost (total economy) | | | | | | | | | |
| United States | 2.2 | 1.6 | 2.9 | 2.4 | 1.0 | 1.4 | 2.5 | 3.2 | 2.9 |
| Japan | -1.3 | -1.6 | -1.5 | -3.7 | 3.4 | -3.4 | -2.6 | -1.3 | -0.6 |
| Germany | 0.7 | -0.6 | 0.0 | 1.0 | -1.1 | -0.4 | -0.6 | 0.2 | 0.4 |
| France | 0.9 | 0.8 | 1.7 | 0.9 | 0.6 | 0.6 | 1.3 | 1.7 | 1.9 |
| Italy | 2.4 | 1.0 | 1.0 | 4.3 | 1.2 | 1.2 | 0.5 | 1.1 | 1.4 |
| United Kingdom | 4.1 | 3.7 | 3.8 | 4.3 | 2.2 | 4.2 | 4.2 | 3.7 | 3.7 |
| Canada | 0.3 | 1.4 | 2.0 | 0.5 | 1.1 | 1.4 | 1.6 | 2.0 | 2.2 |
| Total of above countries | 1.4 | 0.8 | 1.6 | 1.3 | 1.3 | 0.5 | 1.1 | 1.8 | 1.8 |
| Total OECD less high inflation countries ^a | 1.4 | 1.1 | 1.8 | 1.5 | 1.3 | 0.8 | 1.3 | 1.9 | 1.9 |
| European Union | 2.0 | 1.3 | 1.7 | 2.6 | 0.9 | 1.4 | 1.4 | 1.7 | 1.8 |
| Total OECD | 3.1 | 2.0 | 2.3 | 3.2 | 2.6 | 1.8 | 2.0 | 2.4 | 2.3 |
| Per cent of labour force | | | | | | | | | |
| Unemployment | | | | | | | | | |
| United States | 4.2 | 4.0 | 4.2 | 4.3 | 4.2 | 4.0 | 3.9 | 4.1 | 4.3 |
| Japan | 4.7 | 4.8 | 4.8 | 4.7 | 4.7 | 4.8 | 4.8 | 4.8 | 4.8 |
| Germany | 9.0 | 8.5 | 7.7 | 9.0 | 9.0 | 8.6 | 8.3 | 7.9 | 7.4 |
| France | 11.1 | 9.8 | 8.8 | 11.3 | 10.9 | 10.2 | 9.5 | 9.0 | 8.5 |
| Italy | 11.5 | 11.0 | 10.5 | 11.7 | 11.4 | 11.1 | 10.9 | 10.6 | 10.4 |
| United Kingdom | 5.9 | 5.7 | 5.8 | 6.0 | 5.9 | 5.7 | 5.7 | 5.8 | 5.9 |
| Canada | 7.6 | 6.8 | 6.6 | 7.9 | 7.3 | 6.8 | 6.7 | 6.6 | 6.6 |
| Total of above countries | 6.2 | 5.8 | 5.7 | 6.3 | 6.1 | 5.9 | 5.8 | 5.7 | 5.7 |
| European Union | 9.2 | 8.5 | 7.9 | 9.3 | 9.1 | 8.7 | 8.3 | 8.0 | 7.7 |
| Euro area | 10.1 | 9.2 | 8.5 | 10.2 | 9.9 | 9.4 | 9.0 | 8.7 | 8.3 |
| Total OECD | 6.6 | 6.3 | 6.1 | 6.7 | 6.6 | 6.3 | 6.2 | 6.1 | 6.1 |

a) High inflation countries are defined as countries which have had, on average, 10 per cent or more inflation in terms of the GDP deflator during the 1990s on the basis of historical data. Consequently, Greece, Hungary, Mexico, Poland and Turkey are excluded from the aggregate.

Source: OECD.

Annex Table 56. Contributions to changes in real GDP in major OECD countries
As a per cent of real GDP in the previous period, seasonally adjusted at annual rates

| | 1997 | 1998 | 1999 | 2000 | 2001 | 1999 | | 2000 | | 2001 | |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | | | I | II | I | II | I | II |
| United States | | | | | | | | | | | |
| Final domestic demand | 4.0 | 5.5 | 5.6 | 5.7 | 3.1 | 6.0 | 5.4 | 6.8 | 3.7 | 3.0 | 2.7 |
| Stockbuilding | 0.5 | 0.1 | -0.4 | -0.1 | 0.1 | -1.0 | 0.5 | -0.5 | 0.0 | 0.1 | 0.1 |
| Net exports | -0.3 | -1.3 | -1.2 | -0.8 | -0.2 | -1.5 | -0.9 | -0.9 | -0.3 | -0.2 | -0.1 |
| GDP | 4.2 | 4.3 | 4.2 | 4.9 | 3.0 | 3.7 | 5.0 | 5.5 | 3.4 | 2.9 | 2.7 |
| Japan | | | | | | | | | | | |
| Final domestic demand | 0.1 | -2.4 | 0.5 | 1.2 | 1.9 | 3.7 | -2.5 | 2.4 | 2.5 | 1.8 | 1.3 |
| Stockbuilding | 0.1 | -0.6 | 0.1 | 0.1 | 0.2 | 0.6 | -0.2 | 0.2 | 0.4 | 0.2 | 0.1 |
| Net exports | 1.4 | 0.5 | -0.3 | 0.3 | 0.2 | -0.9 | 0.1 | 0.5 | 0.1 | 0.2 | 0.2 |
| GDP | 1.6 | -2.5 | 0.3 | 1.7 | 2.2 | 3.4 | -2.5 | 3.1 | 3.0 | 2.1 | 1.6 |
| Germany | | | | | | | | | | | |
| Final domestic demand | 0.3 | 1.7 | 1.7 | 2.0 | 2.3 | 2.4 | 1.1 | 2.3 | 2.3 | 2.2 | 2.3 |
| Stockbuilding | 0.4 | 0.7 | 0.4 | -0.2 | -0.1 | 0.2 | 0.4 | -0.6 | 0.0 | -0.2 | -0.2 |
| Net exports | 0.8 | -0.3 | -0.7 | 1.1 | 0.9 | -1.3 | 1.1 | 1.2 | 1.0 | 0.9 | 0.8 |
| GDP | 1.5 | 2.2 | 1.5 | 2.9 | 3.0 | 1.3 | 2.6 | 2.8 | 3.2 | 2.9 | 3.0 |
| France | | | | | | | | | | | |
| Final domestic demand | 0.6 | 3.2 | 3.2 | 3.2 | 2.8 | 3.1 | 3.2 | 3.2 | 3.0 | 2.7 | 2.7 |
| Stockbuilding | 0.1 | 0.7 | -0.5 | 0.1 | 0.0 | -0.6 | -0.7 | 0.5 | 0.1 | 0.0 | 0.0 |
| Net exports | 1.3 | -0.6 | 0.2 | 0.4 | 0.1 | 0.3 | 1.0 | 0.2 | 0.2 | 0.1 | 0.1 |
| GDP | 1.9 | 3.2 | 2.9 | 3.7 | 2.9 | 2.8 | 3.5 | 3.9 | 3.3 | 2.8 | 2.8 |
| Italy | | | | | | | | | | | |
| Final domestic demand | 2.1 | 2.3 | 2.0 | 2.0 | 2.4 | 2.4 | 1.5 | 2.1 | 2.3 | 2.4 | 2.4 |
| Stockbuilding | 0.3 | 0.6 | 0.4 | -0.2 | 0.0 | 0.9 | -0.6 | -0.1 | -0.1 | 0.0 | 0.0 |
| Net exports | -0.6 | -1.3 | -1.0 | 1.1 | 0.8 | -2.3 | 1.6 | 0.9 | 1.1 | 0.7 | 0.6 |
| GDP | 1.8 | 1.5 | 1.4 | 2.9 | 3.1 | 1.0 | 2.5 | 2.9 | 3.3 | 3.1 | 2.9 |
| United Kingdom | | | | | | | | | | | |
| Final domestic demand | 3.5 | 4.1 | 4.3 | 3.6 | 3.0 | 4.8 | 3.5 | 3.7 | 3.4 | 2.9 | 2.8 |
| Stockbuilding | 0.3 | 0.0 | -0.6 | 0.1 | 0.0 | -1.3 | 0.3 | 0.1 | 0.0 | 0.1 | 0.0 |
| Net exports | -0.3 | -2.1 | -1.7 | -0.9 | -0.8 | -2.1 | -0.3 | -1.0 | -1.0 | -0.7 | -0.6 |
| Compromise adjustment | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| GDP | 3.5 | 2.2 | 2.1 | 2.9 | 2.3 | 1.6 | 3.5 | 2.8 | 2.4 | 2.3 | 2.2 |
| Canada | | | | | | | | | | | |
| Final domestic demand | 4.8 | 2.6 | 3.8 | 4.1 | 3.1 | 4.3 | 4.8 | 3.9 | 3.5 | 3.0 | 2.7 |
| Stockbuilding | 0.7 | -0.4 | 0.1 | 0.3 | 0.0 | 0.8 | 0.7 | 0.2 | 0.0 | 0.0 | 0.0 |
| Net exports | -1.7 | 1.0 | 0.2 | -0.1 | -0.1 | -0.5 | -1.0 | 0.2 | 0.0 | -0.1 | 0.0 |
| Error of estimate | 0.2 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| GDP | 4.0 | 3.1 | 4.2 | 4.3 | 3.0 | 4.6 | 4.7 | 4.3 | 3.5 | 2.9 | 2.7 |
| Total of above countries | | | | | | | | | | | |
| Final domestic demand | 2.5 | 3.1 | 3.7 | 3.9 | 2.7 | 4.6 | 2.9 | 4.6 | 3.1 | 2.7 | 2.4 |
| Stockbuilding | 0.4 | 0.1 | -0.1 | 0.0 | 0.1 | -0.2 | 0.2 | -0.2 | 0.1 | 0.1 | 0.0 |
| Net exports | 0.2 | -0.8 | -0.9 | -0.1 | 0.0 | -1.3 | -0.1 | -0.2 | 0.0 | 0.0 | 0.1 |
| GDP | 3.1 | 2.4 | 2.7 | 3.7 | 2.8 | 3.0 | 3.0 | 4.3 | 3.2 | 2.7 | 2.5 |
| Total of smaller countries | | | | | | | | | | | |
| Final domestic demand | 4.5 | 1.8 | 3.4 | 4.4 | 4.3 | 3.7 | 4.3 | 4.4 | 4.4 | 4.2 | 4.1 |
| Stockbuilding | -0.2 | -0.3 | 0.6 | 0.1 | 0.0 | 1.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.1 |
| Net exports | 0.3 | 0.9 | -0.3 | 0.1 | -0.1 | -0.9 | -0.2 | 0.3 | 0.1 | -0.1 | -0.2 |
| GDP | 4.6 | 2.4 | 3.7 | 4.7 | 4.2 | 3.9 | 4.8 | 4.7 | 4.4 | 4.1 | 3.9 |
| Total OECD | | | | | | | | | | | |
| Final domestic demand | 3.0 | 2.8 | 3.6 | 4.0 | 3.1 | 4.4 | 3.3 | 4.6 | 3.4 | 3.0 | 2.8 |
| Stockbuilding | 0.2 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.3 | -0.1 | 0.1 | 0.1 | 0.0 |
| Net exports | 0.2 | -0.4 | -0.7 | -0.1 | 0.0 | -1.2 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| GDP | 3.4 | 2.4 | 3.0 | 4.0 | 3.1 | 3.2 | 3.4 | 4.4 | 3.5 | 3.1 | 2.8 |

Note: Components may not add up to GDP due to rounding.

Source: OECD.

Annex Table 57. Contributions to changes in real GDP in other OECD countries

As a per cent of real GDP in the previous period

| | 1998 | 1999 | 2000 | 2001 | | 1998 | 1999 | 2000 | 2001 |
|-----------------------|-------|------|------|------|-----------------------|------|------|------|------|
| Australia | | | | | Mexico | | | | |
| Final domestic demand | 4.5 | 4.9 | 3.6 | 3.8 | Final domestic demand | 5.7 | 4.2 | 5.3 | 5.7 |
| Stockbuilding | 1.7 | 0.3 | -0.1 | 0.0 | Stockbuilding | 0.2 | -0.8 | 0.0 | 0.0 |
| Net exports | -1.3 | -1.0 | 0.8 | 0.4 | Net exports | -1.1 | 0.3 | -0.5 | -0.7 |
| GDP | 5.1 | 4.4 | 3.9 | 3.7 | GDP | 4.8 | 3.7 | 4.8 | 5.0 |
| Austria | | | | | Netherlands | | | | |
| Final domestic demand | 2.8 | 2.2 | 2.4 | 2.7 | Final domestic demand | 3.9 | 3.9 | 3.6 | 3.7 |
| Stockbuilding | -0.1 | -0.1 | -0.2 | 0.0 | Stockbuilding | 0.1 | -0.3 | 0.1 | 0.1 |
| Net exports | 0.7 | 0.6 | 0.9 | 0.4 | Net exports | -0.3 | 0.0 | 0.6 | 0.2 |
| GDP | 2.9 | 2.2 | 3.0 | 3.1 | GDP | 3.7 | 3.6 | 4.3 | 4.0 |
| Belgium | | | | | New Zealand | | | | |
| Final domestic demand | 3.1 | 2.8 | 2.8 | 2.9 | Final domestic demand | 0.5 | 4.8 | 3.0 | 2.8 |
| Stockbuilding | 0.8 | -1.0 | 0.4 | 0.1 | Stockbuilding | -0.7 | 1.1 | -0.1 | 0.0 |
| Net exports | -1.2 | 0.8 | 0.4 | 0.2 | Net exports | -0.4 | -2.1 | 1.3 | 0.2 |
| GDP | 2.7 | 2.5 | 3.6 | 3.2 | GDP | -0.6 | 3.9 | 4.2 | 3.0 |
| Czech Republic | | | | | Norway | | | | |
| Final domestic demand | -2.6 | -1.1 | 1.1 | 2.2 | Final domestic demand | 3.5 | 0.3 | 0.6 | 2.1 |
| Stockbuilding | -0.8 | 0.8 | 0.0 | 0.1 | Stockbuilding | 1.4 | -1.3 | -0.2 | 0.0 |
| Net exports | 1.1 | 0.1 | 0.3 | 0.1 | Net exports | -3.3 | 2.0 | 3.0 | 0.6 |
| GDP | -2.3 | -0.2 | 1.4 | 2.3 | GDP | 2.0 | 0.9 | 3.4 | 2.8 |
| Denmark | | | | | Poland | | | | |
| Final domestic demand | 3.8 | 0.5 | 1.2 | 1.5 | Final domestic demand | 6.6 | 5.6 | 5.7 | 5.3 |
| Stockbuilding | 0.3 | -1.0 | 0.0 | 0.0 | Stockbuilding | 0.1 | 0.0 | 0.1 | 0.0 |
| Net exports | -1.6 | 2.1 | 1.0 | 0.9 | Net exports | -1.8 | -1.6 | -0.7 | -0.4 |
| GDP | 2.5 | 1.6 | 2.2 | 2.4 | GDP | 4.8 | 4.0 | 5.0 | 4.8 |
| Finland | | | | | Portugal | | | | |
| Final domestic demand | 4.1 | 2.4 | 3.0 | 2.9 | Final domestic demand | 6.9 | 5.8 | 5.2 | 4.9 |
| Stockbuilding | 0.8 | -0.7 | 0.0 | -0.1 | Stockbuilding | 0.5 | 0.1 | 0.0 | 0.0 |
| Net exports | 1.1 | 2.0 | 2.4 | 2.1 | Net exports | -3.5 | -3.0 | -1.7 | -1.6 |
| GDP | 5.0 | 3.5 | 5.4 | 4.8 | GDP | 3.9 | 3.0 | 3.6 | 3.4 |
| Greece | | | | | Spain | | | | |
| Final domestic demand | 3.5 | 3.5 | 3.6 | 4.1 | Final domestic demand | 4.8 | 4.9 | 4.3 | 4.1 |
| Stockbuilding | -0.1 | 0.0 | 0.0 | 0.0 | Stockbuilding | 0.1 | 0.1 | -0.1 | 0.1 |
| Net exports | 0.3 | -0.3 | 0.2 | -0.2 | Net exports | -1.0 | -1.2 | 0.2 | -0.3 |
| GDP | 3.7 | 3.2 | 3.8 | 3.9 | GDP | 4.0 | 3.7 | 4.3 | 3.9 |
| Hungary | | | | | Sweden | | | | |
| Final domestic demand | 5.9 | 4.6 | 5.0 | 5.3 | Final domestic demand | 3.2 | 3.8 | 3.6 | 3.8 |
| Stockbuilding | 1.9 | -0.2 | 0.1 | 0.1 | Stockbuilding | 0.3 | -0.5 | -0.2 | 0.1 |
| Net exports | -2.9 | 0.1 | 0.1 | -0.3 | Net exports | -0.5 | 0.5 | 1.3 | -0.8 |
| GDP | 4.9 | 4.5 | 5.2 | 5.0 | GDP | 3.0 | 3.8 | 4.4 | 3.0 |
| Iceland | | | | | Switzerland | | | | |
| Final domestic demand | 12.2 | 5.1 | 5.4 | 1.9 | Final domestic demand | 2.4 | 2.3 | 2.7 | 2.7 |
| Stockbuilding | 0.1 | -0.1 | 0.1 | 0.0 | Stockbuilding | 1.7 | -0.1 | 0.1 | 0.0 |
| Net exports | -7.7 | -0.6 | -1.8 | 0.8 | Net exports | -2.0 | -0.5 | 0.0 | 0.0 |
| GDP | 4.7 | 4.4 | 3.7 | 2.7 | GDP | 2.1 | 1.7 | 2.8 | 2.6 |
| Ireland | | | | | Turkey | | | | |
| Final domestic demand | 8.1 | 7.1 | 7.2 | 7.1 | Final domestic demand | -0.2 | -6.2 | 5.2 | 5.6 |
| Stockbuilding | 0.2 | -0.4 | 0.0 | 0.0 | Stockbuilding | 0.9 | 2.1 | 0.0 | 0.0 |
| Net exports | 0.6 | 1.3 | 2.7 | 1.0 | Net exports | 2.6 | -0.9 | -1.0 | -1.7 |
| GDP | 8.9 | 8.7 | 9.9 | 8.0 | GDP | 3.1 | -5.0 | 4.2 | 3.9 |
| Korea | | | | | European Union | | | | |
| Final domestic demand | -13.5 | 6.4 | 7.5 | 5.0 | Final domestic demand | 3.1 | 3.0 | 2.9 | 2.9 |
| Stockbuilding | -5.5 | 4.8 | 1.7 | 0.3 | Stockbuilding | 0.4 | -0.1 | -0.1 | 0.0 |
| Net exports | 12.3 | -0.8 | -0.7 | 0.7 | Net exports | -0.9 | -0.6 | 0.5 | 0.3 |
| GDP | -6.7 | 10.7 | 8.5 | 6.0 | GDP | 2.7 | 2.3 | 3.4 | 3.1 |
| Luxembourg | | | | | Euro area | | | | |
| Final domestic demand | 1.9 | 3.8 | 2.9 | 3.0 | Final domestic demand | 2.8 | 2.7 | 2.8 | 2.8 |
| Stockbuilding | 0.0 | 0.0 | 0.0 | 0.0 | Stockbuilding | 0.5 | 0.0 | -0.1 | 0.0 |
| Net exports | 3.0 | 1.2 | 2.7 | 2.3 | Net exports | -0.5 | -0.4 | 0.8 | 0.5 |
| GDP | 5.0 | 4.9 | 5.6 | 5.3 | GDP | 2.7 | 2.3 | 3.5 | 3.3 |

Note: Totals may not add up due to rounding and/or statistical discrepancy.

Source: OECD.

Annex Table 58. Household saving, net wealth and indebtedness^a

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States | | | | | | | | | | | | | |
| Saving ratio | 8.2 | 7.3 | 7.8 | 7.5 | 7.8 | 8.3 | 8.7 | 7.1 | 6.1 | 5.6 | 4.8 | 4.5 | 3.7 |
| Net wealth | 484.5 | 486.2 | 489.9 | 502.2 | 479.8 | 492.7 | 483.3 | 488.2 | 479.8 | 507.2 | 528.8 | 563.1 | 594.7 |
| Net financial wealth | 265.4 | 262.9 | 266.0 | 275.4 | 262.6 | 281.1 | 278.7 | 286.0 | 280.1 | 308.3 | 329.5 | 361.0 | 388.7 |
| Real assets | 219.0 | 223.3 | 223.8 | 226.8 | 217.2 | 211.6 | 204.7 | 202.2 | 199.7 | 199.0 | 199.3 | 202.1 | 206.1 |
| Financial assets | 344.7 | 344.8 | 349.0 | 360.0 | 348.3 | 367.6 | 363.7 | 372.9 | 369.4 | 400.1 | 423.4 | 456.3 | 487.3 |
| Corporate equities | 52.9 | 50.3 | 54.0 | 60.9 | 52.8 | 70.6 | 76.3 | 84.8 | 78.0 | 96.3 | 106.3 | 121.1 | 137.4 |
| Liabilities | 79.3 | 81.9 | 82.9 | 84.6 | 85.7 | 86.5 | 85.1 | 86.9 | 89.3 | 91.9 | 93.9 | 95.3 | 98.7 |
| Home mortgages | 50.2 | 53.8 | 55.4 | 57.1 | 59.2 | 60.7 | 60.2 | 60.8 | 61.4 | 61.7 | 62.7 | 63.5 | 66.3 |
| Japan | | | | | | | | | | | | | |
| Saving ratio | 15.6 | 13.8 | 13.0 | 12.9 | 12.1 | 13.2 | 13.1 | 13.4 | 13.3 | 13.7 | 13.4 | 12.6 | 13.4 |
| Net wealth | 636.9 | 758.3 | 797.3 | 866.4 | 849.0 | 775.7 | 697.6 | 680.6 | 668.9 | 659.9 | 646.2 | 633.7 | 646.3 |
| Net financial wealth | 184.0 | 202.4 | 222.6 | 251.6 | 222.2 | 221.5 | 210.3 | 216.5 | 224.1 | 232.7 | 235.7 | 233.9 | 260.3 |
| Real assets | 452.9 | 555.9 | 574.7 | 614.8 | 626.8 | 554.2 | 487.3 | 464.1 | 444.8 | 427.1 | 410.5 | 399.8 | 386.0 |
| Financial assets | 275.7 | 303.3 | 330.1 | 363.1 | 338.7 | 336.6 | 320.9 | 326.5 | 334.6 | 344.5 | 344.8 | 341.2 | 373.9 |
| Corporate equities | 41.8 | 52.4 | 70.2 | 89.9 | 58.1 | 54.4 | 34.7 | 32.7 | 36.2 | 35.4 | 32.8 | 25.0 | 21.7 |
| Liabilities | 91.6 | 100.9 | 107.5 | 111.5 | 116.5 | 115.1 | 110.6 | 110.0 | 110.5 | 111.7 | 109.1 | 107.3 | 113.6 |
| Home mortgages | 37.1 | 40.1 | 42.7 | 45.8 | 47.8 | 48.0 | 48.7 | 50.4 | 52.1 | 53.8 | 53.9 | 55.3 | 50.2 |
| Germany^b | | | | | | | | | | | | | |
| Saving ratio | 10.4 | 13.6 | 16.0 | 14.1 | 16.1 | 12.2 | 12.0 | 11.8 | 11.0 | 10.3 | 9.9 | 9.5 | 9.1 |
| Net wealth | .. | .. | .. | .. | 518.2 | 472.8 | 469.7 | 484.3 | 495.1 | 506.3 | 516.7 | 527.5 | 537.6 |
| Net financial wealth | 177.6 | 170.3 | 171.8 | 178.0 | 124.7 | 116.2 | 115.5 | 122.9 | 124.4 | 130.9 | 136.1 | 145.3 | 156.7 |
| Real assets | .. | .. | .. | .. | 386.0 | 349.8 | 347.3 | 353.8 | 363.4 | 368.5 | 373.5 | 374.2 | 379.0 |
| Financial assets | 194.2 | 186.6 | 188.0 | 195.1 | 199.0 | 183.8 | 183.1 | 194.2 | 199.4 | 208.5 | 217.2 | 230.3 | 237.5 |
| Shares ^c | 14.8 | 10.4 | 12.2 | 14.5 | 11.0 | 9.8 | 8.9 | 11.3 | 10.9 | 11.7 | 13.8 | 19.0 | 20.5 |
| Liabilities | 16.6 | 16.3 | 16.2 | 17.1 | 66.7 | 60.9 | 60.8 | 63.7 | 67.8 | 70.7 | 74.0 | 77.0 | 79.0 |
| Building loans | 10.7 | 10.8 | 10.9 | 11.6 | 51.1 | 45.7 | 45.4 | 48.3 | 52.3 | 55.2 | 58.4 | 61.3 | 63.3 |
| France | | | | | | | | | | | | | |
| Saving ratio | 11.8 | 10.0 | 11.3 | 11.6 | 12.6 | 13.5 | 14.7 | 15.2 | 14.8 | 15.9 | 14.8 | 16.0 | 15.6 |
| Net wealth | 445.5 | 430.1 | 443.9 | 451.5 | 420.0 | 441.1 | 437.8 | 466.9 | 452.7 | 449.6 | 474.1 | 498.0 | 520.4 |
| Net financial wealth | 133.9 | 119.8 | 139.5 | 156.9 | 131.3 | 151.1 | 156.3 | 189.8 | 178.3 | 180.0 | 200.7 | 225.2 | 249.4 |
| Real assets | 311.5 | 310.3 | 304.4 | 294.6 | 288.8 | 290.0 | 281.5 | 277.2 | 274.4 | 269.6 | 273.4 | 272.9 | 270.9 |
| Financial assets | 202.7 | 198.4 | 225.9 | 245.5 | 220.0 | 235.0 | 238.4 | 267.1 | 254.3 | 251.9 | 274.5 | 299.4 | 324.4 |
| Corporate equities | 71.3 | 64.9 | 91.1 | 109.7 | 87.7 | 103.3 | 102.3 | 121.9 | 101.9 | 90.4 | 103.4 | 119.5 | 140.3 |
| Liabilities | 68.8 | 78.6 | 86.4 | 88.5 | 88.8 | 83.9 | 82.1 | 77.4 | 76.0 | 71.9 | 73.8 | 74.3 | 75.0 |
| Medium- and long-term credit | 46.7 | 50.4 | 52.7 | 52.1 | 52.1 | 50.9 | 48.4 | 51.9 | 50.6 | 48.8 | 49.4 | 49.4 | |
| Italy^b | | | | | | | | | | | | | |
| Saving ratio | 20.2 | 19.5 | 18.4 | 17.0 | 18.4 | 18.7 | 18.4 | 17.2 | 17.2 | 16.6 | 16.0 | 14.6 | 13.4 |
| Net wealth ^d | 330.9 | 334.2 | 355.7 | 417.1 | 430.9 | 435.5 | 447.4 | 487.5 | 468.6 | 469.0 | 464.4 | | |
| Net financial wealth | 152.8 | 152.8 | 162.5 | 195.6 | 196.3 | 202.4 | 207.0 | 229.2 | 224.1 | 224.9 | 226.4 | 258.0 | 285.7 |
| Real assets ^d | 178.1 | 181.5 | 193.2 | 221.5 | 234.6 | 233.2 | 240.3 | 258.3 | 244.5 | 244.1 | 238.1 | | |
| Financial assets | 162.8 | 163.4 | 174.3 | 223.9 | 225.4 | 232.2 | 237.7 | 261.0 | 256.0 | 257.2 | 259.2 | 283.9 | 313.3 |
| Corporate equities | 22.1 | 16.0 | 17.0 | 48.7 | 46.0 | 47.9 | 47.9 | 54.4 | 49.3 | 53.2 | 50.1 | 70.2 | 95.3 |
| Liabilities | 10.0 | 10.6 | 11.7 | 28.3 | 29.1 | 29.8 | 30.6 | 31.8 | 31.9 | 32.3 | 32.8 | 25.9 | 27.6 |
| Medium- and long-term credit | 6.8 | 7.6 | 8.5 | 13.0 | 13.7 | 14.3 | 14.4 | 14.9 | 15.2 | 15.7 | 15.9 | 17.9 | 19.5 |
| United Kingdom^b | | | | | | | | | | | | | |
| Saving ratio | 7.9 | 5.8 | 4.1 | 5.9 | 7.7 | 9.7 | 11.8 | 11.2 | 9.6 | 10.5 | 9.7 | 9.6 | 6.3 |
| Net wealth | 579.5 | 620.8 | 694.2 | 704.4 | 619.8 | 594.9 | 560.0 | 597.4 | 557.2 | 572.5 | 573.9 | | |
| Net financial wealth | 220.2 | 221.5 | 220.7 | 244.4 | 212.2 | 223.3 | 236.4 | 280.7 | 256.9 | 284.8 | 296.6 | 343.2 | 364.3 |
| Real assets | 359.4 | 400.8 | 476.2 | 463.0 | 411.5 | 373.8 | 325.4 | 315.9 | 299.2 | 285.4 | 278.9 | | |
| Financial assets | 320.1 | 325.2 | 332.9 | 360.9 | 329.3 | 338.4 | 346.5 | 387.7 | 365.0 | 392.2 | 402.8 | 449.7 | 475.0 |
| Domestic equities | 38.3 | 51.8 | 49.4 | 55.6 | 57.0 | 59.8 | 61.7 | 74.1 | 70.6 | 76.3 | 80.9 | 96.9 | 94.4 |
| Liabilities | 100.0 | 103.7 | 112.3 | 116.5 | 117.1 | 115.0 | 110.2 | 107.1 | 108.1 | 107.3 | 106.2 | 106.5 | 110.7 |
| Mortgages | 63.7 | 91.8 | 100.7 | 105.0 | 106.0 | 103.7 | 99.6 | 97.0 | 98.5 | 97.4 | 96.7 | 96.9 | 100.7 |
| Canada | | | | | | | | | | | | | |
| Saving ratio | 11.9 | 10.3 | 10.7 | 11.5 | 11.5 | 11.7 | 11.4 | 10.3 | 7.7 | 7.5 | 5.2 | 2.8 | 2.4 |
| Net wealth | 405.1 | 416.3 | 417.4 | 422.6 | 416.1 | 424.8 | 436.5 | 452.5 | 474.2 | 478.6 | 491.2 | 496.3 | 493.5 |
| Net financial wealth | 170.2 | 169.6 | 166.2 | 169.5 | 168.3 | 175.7 | 184.7 | 194.8 | 207.2 | 214.4 | 224.2 | 228.6 | 226.3 |
| Real assets | 234.9 | 246.7 | 251.2 | 253.2 | 247.9 | 249.1 | 251.8 | 257.7 | 267.0 | 264.2 | 267.0 | 267.7 | 267.2 |
| Financial assets | 252.3 | 258.7 | 258.5 | 263.8 | 265.2 | 273.1 | 284.3 | 296.5 | 312.8 | 321.0 | 334.4 | 341.5 | 342.3 |
| Equities | 59.8 | 63.8 | 60.4 | 58.5 | 58.2 | 60.8 | 62.8 | 71.7 | 79.8 | 80.0 | 88.5 | 95.4 | 101.8 |
| Liabilities | 82.1 | 89.2 | 92.3 | 94.3 | 97.0 | 97.4 | 99.7 | 101.7 | 105.6 | 106.6 | 110.2 | 112.9 | 116.1 |
| Mortgages | 51.4 | 55.7 | 58.0 | 60.0 | 61.7 | 64.0 | 66.9 | 68.5 | 71.1 | 71.5 | 73.6 | 74.5 | 75.5 |

a) Households and private unincorporated enterprises. The series are expressed as a percentage of household nominal disposable income. Assets and liabilities refer to year-end nominal values. Real assets and net wealth include durable goods for the United States, Germany, Italy, the United Kingdom, and Canada.

b) Beginning in 1987, 1989 and 1990, the financial accounts statistics for the United Kingdom, Italy and Germany, respectively, are constructed with a new methodology. They are, therefore, not comparable with the historical series.

c) Quoted and unquoted.

d) Do not include the real assets of private unincorporated enterprises.

Sources: United States, Federal Reserve Board, Flow of Funds Accounts, Balance Sheets for the U.S. Economy; Japan, Economic Planning Agency, Annual Report on National Accounts; Germany, Deutsche Bundesbank, Ergebnisse der gesamtwirtschaftlichen Finanzierungsrechnung der Deutschen Bundesbank; France, INSEE, 25 ans de Comptes de Patrimoine (1969-1993) and Rapport sur les Comptes de la Nation; Italy, Banca d'Italia, Supplementi al Bollettino Statistico; Ando A., Guiso L., Visco I. (1994), Saving and the Accumulation of Wealth; OECD Financial Accounts of OECD countries; United Kingdom, Central Statistical Office, United Kingdom National Accounts, Financial Statistics; Canada, Statistics Canada, National Balance Sheet Accounts.

For Saving ratio, see Annex table 26.

Annex Table 60. **Central government financial balances**
Surplus (+) or deficit (-) as a percentage of nominal GDP

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------------------------------|------|------|------|------|------|------|------|-------------|------|
| | | | | | | | | 2000 | 2001 |
| United States | -4.4 | -3.2 | -2.6 | -1.9 | -0.5 | 0.6 | 1.1 | 2.0 | 2.2 |
| excluding social security ^a | -5.1 | -4.0 | -3.5 | -2.7 | -1.6 | -0.6 | -0.3 | 0.4 | 0.5 |
| Japan ^{b,c} | -2.8 | -3.7 | -4.1 | -4.4 | -3.9 | -5.6 | -6.9 | -6.4 | -6.1 |
| Germany | -1.9 | -1.2 | -1.5 | -2.2 | -1.7 | -1.5 | -1.3 | -1.2 | -1.5 |
| France | -4.9 | -4.9 | -4.2 | -3.7 | -2.8 | -3.0 | -2.5 | -2.3 | -2.1 |
| Italy | -9.3 | -9.0 | -7.5 | -6.9 | -2.9 | -2.7 | -1.4 | -1.0 | -0.6 |
| United Kingdom | -8.2 | -6.7 | -5.5 | -4.7 | -2.0 | 0.2 | 1.1 | 1.1 | 1.0 |
| Canada | -4.6 | -3.7 | -3.1 | -1.3 | 1.0 | 1.1 | 1.1 | 1.5 | 1.3 |
| Total of above countries | -4.5 | -3.9 | -3.5 | -3.0 | -1.6 | -1.2 | -1.0 | -0.4 | -0.3 |

a) OECD estimates, derived from fiscal year data converted to a calendar year basis.

b) For the fiscal years beginning April 1 of the year shown.

c) The 1998 deficit would have risen by 5.4 percentage points of GDP if account were taken of the assumption by the central government of the debt of the Japan Railway Settlement Corporation and the National Forest Special Account.

Source: OECD.

Annex Table 61. **Maastricht definition of general government gross public debt**
As a percentage of nominal GDP

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Projections | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|
| | | | | | | | | 2000 | 2001 |
| Austria | 61.6 | 64.6 | 68.4 | 68.3 | 63.9 | 63.5 | 64.9 | 64.3 | 63.4 |
| Belgium | .. | .. | .. | 128.3 | 123.0 | 117.4 | 114.3 | 109.8 | 104.8 |
| Denmark | .. | .. | .. | 65.1 | 61.4 | 55.8 | 52.5 | 47.9 | 43.9 |
| Finland | 56.0 | 58.0 | 57.2 | 57.1 | 54.1 | 49.0 | 47.1 | 42.2 | 37.3 |
| France | .. | .. | 54.6 | 57.1 | 59.2 | 59.5 | 58.8 | 57.7 | 56.4 |
| Germany | 47.1 | 49.4 | 57.1 | 59.8 | 60.9 | 60.7 | 61.0 | 61.1 | 60.8 |
| Greece | .. | .. | 108.7 | 111.3 | 108.5 | 105.4 | 104.4 | 103.8 | 100.3 |
| Ireland | .. | .. | .. | 74.1 | 65.3 | 55.6 | 51.9 | 42.9 | 33.5 |
| Italy | 118.1 | 123.8 | 123.2 | 122.1 | 119.8 | 116.3 | 114.9 | 111.3 | 107.3 |
| Luxembourg | .. | .. | .. | 6.2 | 6.0 | 6.4 | 6.2 | .. | .. |
| Netherlands | .. | .. | .. | 75.3 | 70.3 | 67.0 | 63.7 | 59.7 | 56.5 |
| Portugal | .. | .. | .. | 63.6 | 60.3 | 56.5 | 56.8 | 57.4 | 55.8 |
| Spain | .. | .. | .. | 68.0 | 66.7 | 64.9 | 63.5 | 61.5 | 57.9 |
| Sweden | .. | .. | .. | 76.0 | 75.0 | 72.4 | 65.5 | 55.3 | 49.5 |
| United Kingdom | .. | .. | .. | 52.6 | 50.8 | 48.4 | 45.9 | 42.6 | 39.9 |

Note: Debt figures are based on ESA95 definitions. For the period 1996-99, they are provided by Eurostat, the Statistical Office of the European Communities. Where available, debt figures for years prior to 1996 are provided by National Authorities as well as GDP figures for the whole period. The 2000 to 2001 debt ratios are projected forward in line with the OECD projections for general government gross financial liabilities and GDP.

Source: OECD.

Annex Table 62. Monetary and credit aggregates: recent trends and targets

Annualised percentage change, seasonally adjusted

| | | Annual change (to 4th quarter) | | | | | Latest twelve months | | From target base period | Current target or projection |
|----------------|-----------------|--------------------------------|------|------|------|------|----------------------------|-------------|----------------------------------|------------------------------------|
| | | 1995 | 1996 | 1997 | 1998 | 1999 | | | | |
| United States | M2 | 3.9 | 4.5 | 5.7 | 8.5 | 6.1 | 6.0 | (Apr. 2000) | 7.0 | 1-5 |
| | M3 | 6.1 | 6.8 | 8.9 | 11.0 | 7.4 | 8.3 | (Mar. 2000) | 10.2 | 2-6 |
| | BL ^a | 10.7 | 6.1 | 8.6 | 9.8 | 4.5 | 8.4 | (Mar. 2000) | | |
| Japan | M2+CD | 3.0 | 3.3 | 3.3 | 4.5 | 3.1 | 1.9 | (Mar. 2000) | | |
| | BL ^a | 1.7 | 0.4 | 1.2 | -1.0 | -0.6 | -1.9 | (Feb. 2000) | | |
| Euro area | M2 | 4.1 | 5.1 | 3.9 | 5.5 | 6.4 | 5.5 | (Mar. 2000) | | |
| | M3 | 4.9 | 4.5 | 4.6 | 4.8 | 6.9 | 7.6 | (Mar. 2000) | 9.4 | 4.5 |
| | BL ^a | .. | .. | .. | .. | 6.6 | 7.1 | (Mar. 2000) | | |
| United Kingdom | M0 | 5.5 | 6.9 | 6.6 | 5.2 | 9.2 | 8.1 | (Mar. 2000) | | |
| | M4 | 9.3 | 10.3 | 5.4 | 8.6 | 3.2 | 2.7 | (Feb. 2000) | | |
| | BL ^a | 13.7 | 11.7 | 12.6 | 5.4 | 8.5 | 8.6 | (Feb. 2000) | | |
| Canada | M2 | 3.9 | 2.3 | -1.4 | 1.2 | 4.1 | 4.9 | (Mar. 2000) | | |
| | BL ^a | 6.9 | 8.3 | 7.2 | 3.4 | 8.7 | 7.9 | (Feb. 2000) | | |

a) BL= Commercial bank lending.

Source: OECD.

Annex Table 63. **Export market growth and performance in manufactured goods**

Percentage changes from previous year

| | Import volume | | | | Export market growth ^a | | | | Export volume | | | | Export performance ^b | | | |
|------------------------------|---------------|-------|------|------|-----------------------------------|------|------|------|---------------|------|-------|------|---------------------------------|------|-------|------|
| | 1998 | 1999 | 2000 | 2001 | 1998 | 1999 | 2000 | 2001 | 1998 | 1999 | 2000 | 2001 | 1998 | 1999 | 2000 | 2001 |
| United States | 13.0 | 14.5 | 11.7 | 7.9 | 4.2 | 7.5 | 11.6 | 8.7 | 3.2 | 4.9 | 7.5 | 8.7 | -1.0 | -2.4 | -3.7 | 0.0 |
| Japan | -5.9 | 13.1 | 9.3 | 5.4 | 1.9 | 9.8 | 13.0 | 9.3 | -1.6 | 1.8 | 8.6 | 5.3 | -3.4 | -7.3 | -3.8 | -3.7 |
| Germany | 14.0 | 0.6 | 8.9 | 6.9 | 8.7 | 5.9 | 10.5 | 8.8 | 9.2 | 1.5 | 11.2 | 9.4 | 0.4 | -4.2 | 0.6 | 0.5 |
| France | 13.5 | 4.9 | 11.7 | 10.6 | 9.2 | 5.0 | 10.4 | 8.6 | 9.3 | 3.4 | 12.4 | 10.2 | 0.1 | -1.5 | 1.8 | 1.5 |
| Italy | 11.7 | 6.1 | 8.1 | 8.1 | 9.0 | 4.5 | 10.6 | 8.8 | 1.6 | -0.3 | 11.7 | 10.2 | -6.8 | -4.6 | 1.0 | 1.3 |
| United Kingdom | 11.1 | 6.1 | 10.3 | 8.1 | 9.3 | 6.1 | 10.6 | 8.7 | 2.5 | 2.0 | 7.8 | 6.1 | -6.2 | -3.8 | -2.5 | -2.3 |
| Canada | 7.9 | 11.3 | 10.8 | 7.5 | 11.7 | 13.4 | 11.7 | 8.0 | 9.8 | 13.5 | 10.3 | 6.9 | -1.7 | 0.1 | -1.2 | -1.0 |
| Total of the above countries | 10.9 | 9.0 | 10.6 | 7.8 | 6.7 | 7.3 | 11.3 | 8.8 | 4.4 | 3.2 | 9.6 | 8.2 | -2.1 | -3.8 | -1.5 | -0.6 |
| Australia | 5.4 | 8.1 | 5.4 | 6.5 | -4.9 | 11.1 | 13.3 | 9.1 | -1.5 | 6.9 | 10.8 | 9.3 | 3.5 | -3.8 | -2.2 | 0.2 |
| Austria | 8.0 | 4.7 | 7.0 | 7.6 | 11.5 | 3.8 | 10.0 | 8.4 | 10.1 | 4.3 | 10.2 | 9.0 | -1.3 | 0.5 | 0.1 | 0.6 |
| Belgium ^c | 9.8 | 1.0 | 10.9 | 8.0 | 10.5 | 4.7 | 10.1 | 8.6 | 6.5 | 4.1 | 11.3 | 8.2 | -3.6 | -0.6 | 1.1 | -0.4 |
| Czech Republic | 11.0 | 8.4 | 12.2 | 7.8 | 10.3 | -0.5 | 9.0 | 7.7 | 14.3 | 10.3 | 13.8 | 9.2 | 3.6 | 10.8 | 4.4 | 1.4 |
| Denmark | 5.1 | 2.3 | 5.3 | 4.7 | 10.5 | 3.5 | 9.1 | 8.0 | 2.5 | 6.5 | 7.7 | 7.7 | -7.2 | 2.9 | -1.3 | -0.2 |
| Finland | 12.4 | 4.1 | 6.5 | 6.2 | 8.4 | 3.7 | 9.8 | 8.3 | 7.0 | 7.7 | 11.3 | 9.6 | -1.4 | 3.9 | 1.3 | 1.2 |
| Greece | 0.4 | 5.0 | 6.4 | 7.0 | 9.8 | 1.4 | 9.3 | 8.0 | 3.7 | 5.3 | 9.5 | 7.5 | -5.5 | 3.8 | 0.2 | -0.5 |
| Hungary | 27.4 | 16.9 | 14.7 | 15.1 | 10.4 | 1.1 | 9.0 | 7.6 | 26.4 | 20.8 | 18.1 | 16.8 | 14.5 | 19.6 | 8.4 | 8.5 |
| Iceland | 27.9 | 7.0 | 7.0 | 3.9 | 9.4 | 5.4 | 9.6 | 7.4 | -6.9 | 5.3 | -15.0 | 3.2 | -14.9 | 0.0 | -22.4 | -3.9 |
| Ireland | 18.1 | 13.3 | 15.8 | 11.5 | 10.2 | 5.9 | 10.3 | 8.3 | 26.4 | 15.0 | 16.9 | 11.5 | 14.7 | 8.6 | 6.0 | 2.9 |
| Korea | -34.9 | 34.8 | 37.9 | 16.3 | 3.6 | 8.0 | 11.1 | 8.6 | 20.6 | 9.5 | 20.0 | 14.0 | 16.4 | 1.4 | 8.0 | 5.0 |
| Mexico | 15.0 | 14.6 | 14.7 | 10.3 | 12.0 | 12.4 | 11.4 | 7.9 | 12.2 | 15.5 | 13.4 | 9.1 | 0.2 | 2.8 | 1.8 | 1.1 |
| Netherlands | 7.4 | 5.1 | 9.3 | 8.4 | 10.4 | 3.9 | 10.2 | 8.4 | 10.7 | 7.2 | 10.9 | 9.0 | 0.2 | 3.1 | 0.7 | 0.6 |
| New Zealand | 1.1 | 15.5 | 6.8 | 6.1 | 1.8 | 9.6 | 9.2 | 7.4 | 0.8 | 4.5 | 8.2 | 7.6 | -0.9 | -4.6 | -0.9 | 0.1 |
| Norway | 11.7 | -3.5 | 1.2 | 4.4 | 9.1 | 4.8 | 9.8 | 8.2 | 6.9 | 6.9 | 8.3 | 6.5 | -2.0 | 2.0 | -1.4 | -1.6 |
| Poland | 20.7 | 4.1 | 8.5 | 9.2 | 10.7 | 1.6 | 9.3 | 7.7 | 15.9 | -0.6 | 7.7 | 10.1 | 4.7 | -2.1 | -1.4 | 2.2 |
| Portugal | 15.6 | 11.0 | 10.0 | 9.5 | 11.7 | 5.5 | 10.9 | 9.3 | 5.9 | 6.8 | 10.5 | 10.0 | -5.2 | 1.2 | -0.4 | 0.7 |
| Spain | 14.8 | 15.5 | 17.3 | 14.7 | 10.6 | 4.3 | 10.0 | 8.7 | 7.0 | 8.3 | 16.0 | 13.6 | -3.3 | 3.8 | 5.4 | 4.6 |
| Sweden | 12.0 | 3.0 | 8.2 | 8.9 | 9.0 | 4.9 | 9.4 | 7.9 | 8.5 | 5.8 | 10.4 | 5.6 | -0.4 | 0.9 | 0.9 | -2.1 |
| Switzerland | 10.2 | 11.1 | 10.7 | 7.4 | 8.6 | 5.0 | 10.2 | 8.4 | 5.3 | 4.9 | 10.8 | 8.1 | -3.1 | -0.1 | 0.6 | -0.2 |
| Turkey | -1.5 | -4.1 | 12.0 | 8.2 | 9.3 | 1.7 | 9.5 | 8.0 | 10.5 | 15.5 | 7.8 | 2.1 | 1.2 | 13.6 | -1.6 | -5.5 |
| Total of smaller countries | 6.7 | 8.4 | 12.3 | 9.6 | 9.0 | 5.4 | 10.3 | 8.3 | 11.1 | 8.1 | 13.3 | 10.0 | 1.9 | 2.5 | 2.7 | 1.5 |
| Total OECD | 9.4 | 8.8 | 11.1 | 8.4 | 7.4 | 6.8 | 11.0 | 8.7 | 6.5 | 4.8 | 10.9 | 8.8 | -0.8 | -1.8 | -0.1 | 0.1 |
| China | 12.3 | 20.6 | 15.0 | 13.2 | -0.5 | 8.8 | 11.9 | 8.5 | 8.4 | 9.5 | 13.2 | 11.3 | 9.0 | 0.7 | 1.2 | 2.6 |
| Dynamic Asia ^d | -11.3 | 6.5 | 13.7 | 10.0 | 3.4 | 10.3 | 12.0 | 9.1 | 3.9 | 8.8 | 12.7 | 7.9 | 0.5 | -1.3 | 0.6 | -1.0 |
| Other Asia | 13.6 | 7.5 | 7.2 | 6.7 | 6.3 | 7.3 | 10.8 | 8.3 | 7.4 | 7.1 | 11.6 | 9.1 | 1.0 | -0.1 | 0.7 | 0.7 |
| Latin America | 6.7 | -12.0 | 6.9 | 7.8 | 7.2 | 2.3 | 10.2 | 8.3 | 6.7 | 2.1 | 8.5 | 8.6 | -0.4 | -0.2 | -1.5 | 0.3 |
| Africa and Middle-East | 6.0 | -1.3 | 7.7 | 8.4 | 6.8 | 6.0 | 10.5 | 8.4 | 4.5 | 3.3 | 8.5 | 8.5 | -2.1 | -2.5 | -1.8 | 0.1 |
| Central and Eastern Europe | 1.3 | -18.6 | 6.5 | 5.5 | 6.8 | -0.2 | 9.8 | 8.1 | -3.0 | 4.0 | 6.3 | 3.6 | -9.2 | 4.2 | -3.1 | -4.2 |
| Total of non-OECD countries | -0.8 | 2.0 | 11.1 | 9.4 | 3.8 | 7.9 | 11.5 | 8.8 | 4.6 | 7.7 | 11.8 | 8.4 | 0.7 | -0.2 | 0.2 | -0.3 |
| World | 6.6 | 7.0 | 11.1 | 8.7 | 6.6 | 7.0 | 11.1 | 8.7 | 6.1 | 5.5 | 11.1 | 8.7 | -0.5 | -1.5 | 0.0 | 0.0 |
| <i>Memorandum item</i> | | | | | | | | | | | | | | | | |
| European Union | 11.8 | 4.6 | 10.1 | 8.7 | 9.4 | 5.1 | 10.3 | 8.6 | 7.4 | 3.4 | 11.3 | 9.2 | -1.8 | -1.6 | 0.8 | 0.5 |

a) The calculation of export markets is based on a weighted average of import volumes in each exporting country's market, with weights based on manufacturing trade flows in 1995.

b) Export performance is calculated as the percentage change in the ratio of export volumes to export markets.

c) Including Luxembourg until 1994.

d) Dynamic Asia include Chinese Taipei; Hong Kong, China; Indonesia; Malaysia; Philippines; Singapore and Thailand.

Sources: OECD; Direction of trade data - United Nations Statistical Office; OECD, *Foreign Trade by Commodities*.

Annex Table 64. **Geographical structure of OECD trade**

Percentage of nominal GDP

| Area or country | Source/destination | Source of imports | | | | | | Destination of exports | | | | | |
|------------------------------------|--------------------|-------------------|--------------|--------------|--------------|--------------|--------------|------------------------|--------------|--------------|--------------|--------------|--------------|
| | | 1962 | 1972 | 1982 | 1992 | 1998 | 1999 | 1962 | 1972 | 1982 | 1992 | 1998 | 1999 |
| OECD ^a | OECD | 5.85 | 7.76 | 10.13 | 10.67 | 13.20 | 12.96 | 5.60 | 7.60 | 9.78 | 10.49 | 13.29 | 13.02 |
| | <i>of which:</i> | | | | | | | | | | | | |
| | European Union | 3.33 | 4.54 | 5.71 | 6.14 | 7.31 | 7.03 | 3.31 | 4.42 | 5.90 | 6.26 | 7.54 | 7.21 |
| | United States | 1.19 | 1.25 | 1.61 | 1.64 | 2.22 | 2.13 | 0.82 | 1.35 | 1.64 | 1.83 | 2.64 | 2.72 |
| | Other | 1.33 | 1.97 | 2.81 | 2.89 | 3.68 | 3.81 | 1.46 | 1.82 | 2.23 | 2.40 | 3.10 | 3.09 |
| | Non-OECD | 2.27 | 2.28 | 4.46 | 3.03 | 3.88 | 4.02 | 2.26 | 2.17 | 4.05 | 2.92 | 3.63 | 3.36 |
| <i>of which:</i> | | | | | | | | | | | | | |
| DAEs + China ^b | 0.23 | 0.34 | 0.75 | 1.19 | 1.84 | 1.93 | 0.26 | 0.37 | 0.74 | 1.14 | 1.41 | 1.41 | |
| OPEC | 0.63 | 0.77 | 2.07 | 0.69 | 0.59 | 0.63 | 0.31 | 0.39 | 1.37 | 0.53 | 0.46 | 0.40 | |
| United States | OECD | 1.80 | 3.45 | 4.94 | 5.74 | 7.03 | 7.50 | 2.22 | 2.93 | 4.22 | 5.07 | 5.54 | 5.49 |
| | <i>of which:</i> | | | | | | | | | | | | |
| | European Union | 0.69 | 1.15 | 1.45 | 1.60 | 2.01 | 2.12 | 0.96 | 1.13 | 1.69 | 1.70 | 1.71 | 1.64 |
| | Other | 1.11 | 2.30 | 3.49 | 4.13 | 5.02 | 5.38 | 1.26 | 1.80 | 2.53 | 3.37 | 3.83 | 3.86 |
| | Non-OECD | 0.99 | 1.03 | 2.55 | 2.67 | 3.40 | 3.57 | 1.46 | 1.08 | 2.29 | 2.01 | 2.23 | 1.99 |
| | <i>of which:</i> | | | | | | | | | | | | |
| DAEs + China ^b | 0.14 | 0.30 | 0.72 | 1.45 | 2.03 | 2.09 | 0.12 | 0.18 | 0.54 | 0.83 | 0.94 | 0.90 | |
| OPEC | 0.24 | 0.21 | 0.90 | 0.49 | 0.39 | 0.44 | 0.17 | 0.21 | 0.67 | 0.33 | 0.29 | 0.22 | |
| Japan | OECD | 5.43 | 4.21 | 4.72 | 3.38 | 3.86 | 3.59 | 4.19 | 5.68 | 6.68 | 5.54 | 6.11 | 5.85 |
| | <i>of which:</i> | | | | | | | | | | | | |
| | European Union | 0.90 | 0.73 | 0.79 | 0.91 | 1.03 | 0.99 | 0.98 | 1.42 | 1.82 | 1.80 | 1.88 | 1.73 |
| | United States | 2.97 | 1.95 | 2.21 | 1.40 | 1.76 | 1.54 | 2.30 | 2.95 | 3.33 | 2.58 | 3.11 | 2.94 |
| | Other | 1.56 | 1.53 | 1.71 | 1.07 | 1.08 | 1.07 | 0.90 | 1.30 | 1.53 | 1.16 | 1.12 | 1.17 |
| | Non-OECD | 3.84 | 3.62 | 7.36 | 2.89 | 3.50 | 3.55 | 3.90 | 3.88 | 6.03 | 3.60 | 4.08 | 3.80 |
| <i>of which:</i> | | | | | | | | | | | | | |
| DAEs + China ^b | 1.09 | 0.76 | 1.45 | 1.25 | 1.97 | 2.03 | 1.26 | 1.52 | 2.11 | 2.39 | 2.86 | 2.81 | |
| OPEC | 1.11 | 1.50 | 4.45 | 1.04 | 0.91 | 0.94 | 0.52 | 0.61 | 1.97 | 0.50 | 0.39 | 0.31 | |
| European Union ^c | OECD | 10.27 | 12.37 | 16.61 | 16.39 | 20.46 | 20.50 | 9.52 | 12.29 | 15.73 | 15.67 | 21.49 | 21.61 |
| | <i>of which:</i> | | | | | | | | | | | | |
| | European Union | 6.91 | 9.25 | 12.10 | 12.31 | 15.06 | 15.03 | 6.76 | 9.11 | 12.13 | 12.31 | 16.21 | 16.18 |
| | United States | 1.66 | 1.36 | 1.92 | 1.46 | 2.08 | 2.07 | 0.94 | 1.28 | 1.48 | 1.25 | 2.09 | 2.25 |
| | Other | 1.69 | 1.75 | 2.60 | 2.62 | 3.32 | 3.40 | 1.82 | 1.90 | 2.11 | 2.11 | 3.19 | 3.18 |
| | Non-OECD | 4.00 | 3.53 | 5.88 | 3.23 | 4.22 | 4.39 | 3.24 | 2.94 | 5.26 | 3.01 | 4.21 | 3.97 |
| <i>of which:</i> | | | | | | | | | | | | | |
| DAEs + China ^b | 0.26 | 0.27 | 0.54 | 0.91 | 1.49 | 1.58 | 0.25 | 0.23 | 0.41 | 0.61 | 0.93 | 0.91 | |
| OPEC | 1.15 | 1.30 | 2.65 | 0.66 | 0.56 | 0.59 | 0.52 | 0.56 | 1.98 | 0.67 | 0.61 | 0.56 | |

a) OECD includes Korea from 1988. Trade data for Greece and Turkey in 1999 are OECD estimates.

b) DAEs are the Dynamic Asian Economies (Chines Taipei; Hong Kong, China; Malaysia; Philippines; Singapore and Thailand).

c) Trade data for Greece in 1999 are OECD estimates.

Source: OECD.

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