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# The Political Obstacles to Greater Exchange Rate Flexibility in China

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Summary. — An undervalued currency has arguably helped China pursue an East-Asian style export-led model of development, spurring economic growth and job creation. Recently, however, the undervalued exchange rate has exposed China to a raft of growing major financial and economic vulnerabilities, including an overheating of the domestic economy and renewed financial sector difficulties. Despite these risks, Chinese leaders have refused to significantly revalue the renminbi, suggesting that political objectives are taking precedence over economic optimality. I aim to glean insight into such political explanations by building upon present theories in political economy. © 2006 Elsevier Ltd. All rights reserved.

Key words — China, exchange rates, political economy, financial policy, economic development, Asia

#### 1. INTRODUCTION

Growing concerns about the economic and financial risks of an undervalued Chinese renminbi culminated in the Chinese authorities' announcement of a small revaluation of the currency peg last summer. Though arguably, an undervalued exchange rate has helped foster an East-Asian style export-led growth model of development in China, it has also increasingly exposed the domestic economy to economic overexpansion and renewed financial sector difficulties. Additionally, preserving the undervalued currency peg creates considerable hidden economic costs and social welfare distortions. For example, China has been earning a negative dollar return on its foreign reserve investments, while sacrificing tremendous alternative investment opportunities domestically.

In light of these economic costs, it begs the question of why the Chinese authorities have not pursued a larger revaluation. I argue that political objectives have taken precedence over economic optimality. I hypothesize that Chinese policymakers' ongoing reluctance to pursue greater exchange rate flexibility reflects their concerns about the profitability of the politically important export-oriented manufacturing sector. This sector has buoyed economic growth and generated large-scale employment, helping the

Chinese Communist Party (CCP) achieve its reform objectives. Indeed, the CCP has aimed to enhance employment and preserve sociopolitical stability through an export-oriented development strategy, while simultaneously reforming inefficient state-owned enterprises.

A larger revaluation could jeopardize job creation in coastal export zones, and therefore exacerbate adjustment problems associated with state sector reform. Hence, a large revaluation could threaten the CCP's reform strategy and, ultimately, its hold on power. Communist Party officials therefore remain reluctant to pursue such measures, despite massive foreign pressures. Domestic pressures from coastal regional governments have further contributed to this phenomenon. Benefiting from the success of coastal export zones, these regional governments have advocated for an extension of preferential exchange rate policies from the central government.

The present political economy literature predominately theorizes about exchange rate

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developments from a demand side interest group perspective, neglecting to explore such supply side themes. For example, it focuses on the export-oriented manufacturers that pressured politicians to abandon overvalued fixed exchange rates during the waning years of the ISI period in Latin America (Frieden & Stein, 2001). Basically, the majority of this literature builds upon Frieden's political economy model of exchange rates. It hypothesizes about how and why domestic socioeconomic groups influence government exchange rate decisions (Frieden, 1991).

Employing this model as a base, I offer some theoretical refinements aimed at improving its ability to generalize to other countries and historic time periods. Frieden's model of exchange rates policymaking treats the government as a largely neutral actor, channeling the preferences of interest groups into exchange rate policies. In contrast, I posit that government preferences, such as the CCP's concerns about employment and social stability, are also a crucial element in policy formation.

Frieden's work suggests that a country's manufacturing sector is an important determinant of its government's commitment to a currency peg. He finds that the larger a country's manufacturing sector, the greater its political influence, and thus the less likely the government is to maintain a currency peg (Frieden, Stein, & Blomberg, 2004). Interestingly, Frieden employs cases to support his hypothesis that all share a common characteristic: an overvalued currency. However, when we apply Frieden's theory more generally to countries outside of Latin America, we find a high prevalence of cases with undervalued, rather than overvalued currency pegs. In light of this global and historical variation, I suggest that the probability of maintaining a currency peg is conditioned on the valuation of the exchange rate. For example, in the case of China's undervalued exchange rate, the presence of a large and politically sensitive export-oriented manufacturing sector increases, rather than decreases, the likelihood that the government will maintain its commitment to a fixed exchange rate regime.

In the following pages, I will first illustrate that the renminbi, by definition, is undervalued. I next highlight how such undervaluation is sub-optimal from an aggregate welfare perspective, creating substantial domestic, economic, and financial risks. I then demonstrate how current political economy models of exchange rate

formation do not account for key supply side factors or condition for exchange rate valuation, leaving them unable to explain the case of China. Finally, I aim to build upon and refine these theoretical models to better explain developments in current Chinese exchange rate policy.

#### 2. UNDERVALUING EXCHANGE RATES AND ITS DANGERS

#### (a) Defining an undervalued exchange rate

I intend to demonstrate that the renminbi is generally undervalued. That said, I do not suggest that a renminbi revaluation alone will correct global payments imbalances, especially the large US current account deficit. Rather, am primarily concerned with addressing the domestic vulnerabilities of maintaining an undervalued currency. Moreover, I do not aim to precisely estimate the degree of China's exchange rate undervaluation. Many currency strategists and market economists have already done such calculations, estimating that the Chinese renminbi is about 15-50% undervalued, far more than implied by the 2.1% revaluation in July 2005 1 (though it should be noted that some actors, such as the IMF, have questioned the robustness of larger market estimates). <sup>2</sup>

Instead, I argue that the renminbi is generally undervalued, or below its equilibrium exchange rate level. Several different approaches for estimating equilibrium exchange rates currently exist. 3 I employ the underlying balance approach that the IMF often uses in its own analysis. This approach defines the equilibrium exchange rate as the rate that produces equilibrium in a country's balance of payments, where normal net capital flows 4 equal the underlying current account, leaving a country's international reserves unchanged (Goldstein, 2004). In China's case, steadily rising current and capital account surpluses over the last several years suggest that the current level of the exchange rate is lower than its equilibrium level. Such an undervaluation implies that a further renminbi appreciation would be needed to generate a deterioration in China's current account and restore balance between current and capital accounts.

A possible critique of this method suggests that current account imbalances reflect a savings-investment problem. Hence, there is no reason to suppose that China's saving (investment) rate would be lowered (raised) by a further renminbi revaluation (McKinnon, 2004). However, many theoretical models suggest that exchange rate adjustments *can* affect savings and investment behavior (Frenkel & Mussa, 1985). Though empirical evidence for a direct effect is admittedly limited, there exists substantial empirical support for an indirect effect on the current account, where relative price adjustments affect savings and investment behavior (Funke & Ruhwedel, 2001; Muscatelli, Stevenson, & Montagna, 1995).

The undervalued renminbi is a fairly recent phenomenon. During the early stages of the reform period, the Chinese currency was considered to be overvalued (Lardy, 2001). Even during the Asian crisis, the renminbi appreciated on an effective trade weighted basis because of the depreciation of other Asian currencies relative to the US dollar. Since 2001, however, the currency has reversed this trend, depreciating significantly on a trade weighted effective basis because of the dollar's steady decline since February 2002.

Over this time period, China has witnessed tremendous growth in its current and capital account surpluses (see Figures 1 and 2). <sup>5</sup> China's average current account surplus from 2001 to 2005 was about 3.6%, <sup>6</sup> while the country's average capital account surplus over the same period was 3.9%. Employing the basic definition of exchange rate equilibrium outlined above, substantial current and capital account surpluses signal that the exchange rate is below its equilibrium exchange rate. Despite ongoing

debate about the degree of undervaluation of the renminbi, it is difficult to argue that the renminbi is not at least moderately undervalued.

China's massive buildup of foreign exchange reserves (see Figure 3) since the Asian crisis provides further support for the imbalance in the country's balance of payments. <sup>7</sup> China has accumulated US\$592 billion (or an average increase of US\$148 billion per year) since 2001, raising China's overall reserves to an estimated US\$807 billion in 2005. To put these numbers in perspective, the estimated total stocks of foreign exchange reserves for 2004 in Argentina, Brazil, and Mexico are US\$25.5, US\$64.6, and US\$66.5 billion, respectively.

China's foreign exchange reserve accumulation also dwarfs that of other Asian economies, including an estimated US\$117 and US\$143 billion of reserve accumulation in Korea and Taiwan since 2001. As these figures imply, the authorities in these two countries have frequently intervened to contain appreciation pressures and maintain export competitiveness during periods of balance of payment surpluses.

Similarly, the substantial reserve accumulation in China suggests that the monetary authorities have conducted not only large scale, but also protracted, one-way exchange rate intervention in order to maintain the country's currency's peg to the US dollar. In other words, the substantial buildup of foreign exchange rate reserves signals that the Chinese authorities have purchased considerable amounts of US dollars (and sold renminbi) in order to prevent

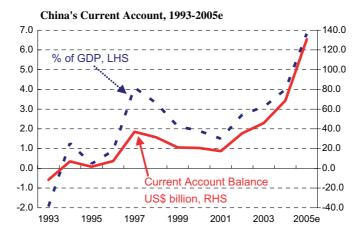


Figure 1. China's current account surplus widens sharply.



Figure 2. China's capital inflows strongly increase.

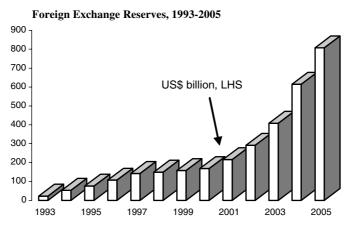


Figure 3. Foreign exchange reserves surge higher.

an appreciation of the renminbi. Only Japan, which has also been criticized for maintaining an undervalued exchange rate through sizeable exchange rate intervention, has kept pace with China, accumulating US\$449 billion in reserves since 2001.

If the exchange rate were at its equilibrium level, the authorities would not be intervening persistently and heavily to contain appreciation pressures. Rather, in order to maintain the fixed exchange rate close to its equilibrium level, the authorities would have intervened occasionally in a single direction for a relatively short duration. Hence, intervening in a single direction for such a long duration, and on such

a large scale suggests that the currency is indeed undervalued.

# (b) The economic and financial risks of an undervalued currency

The maintenance of an undervalued exchange rate has arguably helped boost export performance in China. Exports have grown, on average, by a vibrant 30% per year since 2001. Although the export sector was performing quite well before the currency became undervalued, export growth averaged only 15% during the previous decade. Similarly to its East Asian neighbors, China has utilized

the exchange rate as a tool to help promote export-oriented industrialization and spur economic growth and job creation. <sup>8</sup> There are, however, several major financial and economic risks to maintaining an undervalued exchange rate that presently confront Chinese authorities.

#### (i) Financial vulnerabilities

The major financial vulnerability of sustaining an undervalued exchange rate is the persistence of large capital inflows. Heavy capital inflows could impede Chinese efforts to curb credit expansion and improve the quality of bank lending. Ultimately, a financial overexpansion could result in a reversal of the progress made against its non-performing loan problem (Goldstein, 2003). For example, over the last several years, China has experienced a surge in domestic credit expansion. After rising by an annual average of 0.64 trillion RMB during the 1998–2001 period, the stock of loans outstanding increased by 1.9 trillion RMB in 2002 and an unprecedented 2.8 trillion RMB in 2004 (see Figure 4). 9 During previous bank-lending booms in the early 1990s, about 40% of loans extended wound up as non-performing (Goldstein, 2004). Despite some improvements in credit allocation since the early 1990s, a sharp increase in bank lending is unlikely to be sustainable and poses the risk of a renewed surge in bad debts.

In 2004, the Chinese authorities implemented market measures to help curb what they acknowledged as "excessively fast growth" in commercial bank loans in 2003. 10 These

measures included tightening interest rates, increasing reserve requirements for financial institutions, and conducting "sterilization" operations to mop up excess money market liquidity. <sup>11</sup> The Chinese authorities also used prudential regulations to tighten lending in sectors experiencing overinvestment (i.e., metals production, cement, automobiles, and real estate) and "moral suasion" to reduce credit growth to banks (International Monetary Fund, 2004).

Although data on bank loans outstanding in 2004 (see Figure 4) suggest that the rapid pace of growth in bank loans has decelerated, the IMF is more skeptical, questioning the extent to which credit growth has actually slowed. IMF economists point to the slower rise in the stock of outstanding loans as possibly reflecting an acceleration in the write-off of existing non-performing loans, rather than a credit slowdown. Moreover, monetary policy measures taken by the Chinese authorities have had little impact on interbank interest rates and excess reserves held by the banking system (International Monetary Fund, 2004). Hence, to the extent that credit growth has slowed, it is most likely due to administrative, rather than monetary policy measures.

If these administrative and monetary policy measures fail to rein in the rapid credit expansion, China risks a reemergence of systemic financial instabilities, which could ultimately threaten both bank reform and longer-term economic growth. Indeed, despite notable progress in bank reform in recent years, including a steady reduction in non-performing loans

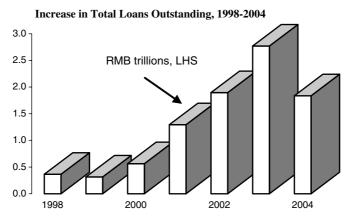


Figure 4. Domestic credit expands sharply.

(NPLs), the overall level of NPLs remains lofty ranging from official estimates of 25% to independent estimates reaching as high as 50% of GDP (Economist Intelligence Unit, 2004; Goldstein, 2004).

A continued credit expansion (2004 estimates of loan growth are still high by historical standards) risks reversing recent progress. Indeed, a resurgence of NPLs in the troubled banking sector would likely prompt a sharp curtailment of bank lending and a severe reduction in economic growth. In light of this financial vulnerability, it remains unclear why the authorities do not commit to employing a greater arsenal of policy tools to curb the credit boom, including some type of currency adjustment.

#### (ii) Economic vulnerabilities

Financial vulnerabilities are not the only concern stemming from maintaining an undervalued currency; there are also several economic vulnerabilities. Undeniably, there are some strong theoretical economic arguments, based on the notions of the time-inconsistency problem <sup>12</sup> and optimal currency areas, <sup>13</sup> to be made for sustaining a fixed exchange rate—or in China's case a tightly managed exchange rate. However, maintaining the pegged exchange rate at its present value poses key risks to China's domestic economy, including an overexpansion of economic activity.

An undervalued exchange rate spurs speculative capital inflows, an accumulation of foreign reserves under the fixed exchange rate, and a corresponding expansion of monetary aggre-

gates. The easier credit conditions foster both an increase in bank lending and overall investment activity, helping to stimulate economic growth. However, if an undervalued exchange rate is maintained for an extended period of time, the associated credit and investment expansion can potentially lead to an overheating domestic economy and inflationary pressures. Such trends have begun to emerge in China. After incurring several years of deflation, or negative inflationary growth, in the post-Asian crisis years, consumer price increases reached an estimated 3.9% year over year in 2004 (see Figure 5). 14 Inflation began to modestly subside in 2005, following a series of 2004 monetary policy measures aimed at providing for a soft landing. However, it is unclear whether such measures alone will be able to slow the booming economy, posing the risk of a hard landing in the real economy.

Such a hard landing scenario is made increasingly likely by the government authorities' staunch commitment to maintaining the currency peg at its present level. Indeed, the government's unwillingness to pursue more than a modest revaluation precludes using the exchange rate as an adjustment tool to help tighten credit conditions, curb inflationary pressures, and slow the booming economy. This leaves monetary policy as the primary policy tool for curbing a potentially overheating economy.

The authorities appear to prefer incremental adjustment through monetary policy, because they fear that a further revaluation

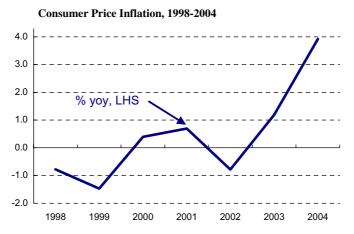


Figure 5. Inflation emerges in recent years.

may increase speculation of an abandonment of the peg and create pressures for a Japan-style 1980 asset appreciation and deflation crisis. <sup>15</sup> Indeed, according to the IMF's most recent Article IV consultation with China, "While acknowledging the need eventually for increased exchange rate flexibility, the (Chinese) authorities have strong reservations about making a move in the present circumstance. In particular, they were concerned that a move could exacerbate capital inflows" (International Monetary Fund, 2004).

However, relying solely on monetary policy for reining in inflationary pressures poses an important risk. Chinese officials have a history of using administrative, rather than market instruments (i.e., interest rates, reserve requirements) to restrain expansionary pressures, leaving policymakers with a significant amount of uncertainty regarding the effectiveness of monetary policy.

Another vulnerability of maintaining an undervalued exchange rate stems from the nature of the fixed exchange rate regime itself. The advent of currency crises across the globe over the last decade in Brazil, Argentina, Turkey, Russia, Emerging East Asia, and Mexico, has called into question the degree of longer-term exchange rate stability provided by a fixed exchange rate. The majority of these crises was associated with a country's attempt to prevent a devaluation, but there are also historical cases of fixed currency regimes (i.e., the Deutsche mark and the Swiss franc in the late 1960s) being revalued or floated upwards due to speculative inflows into the currency. This trend suggests that an undervalued fixed exchange rate regime is not necessarily any more stable economically than an overvalued fixed exchange rate regime (Williamson, 2004).

Finally, a key, yet more hidden economic cost to maintaining the undervalued currency peg is that it creates inefficiencies and distorts overall societal welfare. <sup>16</sup> In order to maintain the fixed exchange rate, the Chinese authorities have engaged in considerable foreign exchange intervention, accumulating enormous an amount of dollar reserves; the majority of which is invested in US treasury securities. In the prevailing low interest rate environment, US treasury bonds offer a meager return, relative to the expected returns on the equity claims that China has been exporting. Indeed, China has been earning a negative dollar return on its reserve investments in order to essentially provide an economic transfer in the form of a hyper-competitive exchange rate to the manufacturing sector. This policy sacrifices tremendous alternative investment opportunities domestically, including investment aimed at spurring consumer demand and economic development in the interior of the country. At the same time, the undervalued exchange rate reduces the actual purchasing power of domestic citizens, creating welfare losses for broader society.

These societal welfare losses, combined with the aforementioned economic risks, beg the question of why the Chinese authorities would not at least consider a significant revaluation of the fixed exchange rate regime, beyond the modest revaluation last summer.

#### (c) A political justification

China's reluctance to abandon its fixed exchange rate regime entirely is grounded in a justifiable economic concern, given the weakness of its domestic financial system. Policymakers fear that open capital markets and a floating exchange rate could generate large-scale capital flight and a sharp currency depreciation in response to negative developments (Goldstein & Lardy, 2003). Moreover, opening a domestic financial market too quickly may cause overcompetition in and instability of financial markets (Li, 2000).

However, it is less clear why the authorities are reluctant to allow for a more sizeable adjustment in the level of the currency peg (beyond the small revaluation last summer). Such a move would help attenuate financial and economic risks by tightening credit conditions and slowing the booming economy. Even the IMF, which questions the degree of renminbi undervaluation, stresses that "greater exchange rate flexibility remains in China's best interest, as it will improve the effectiveness of monetary policy in containing domestic demand and price pressures, and enhance the economy's ability to adjust to shocks" (International Monetary Fund, 2004).

Despite growing foreign pressure, China has not signaled a willingness to pursue increased currency flexibility. For example, the US has threatened China with Congressional legislation that imposes punitive tariffs upon its imports. <sup>17</sup> In response, Prime Minister Wen Jiabao stated in June 2005 that the authorities' objective was to "gradually establish a

market-based floating exchange rate system," though "in accordance with China's needs for reform and development." These statements do not appear to differ from Beijing's long-standing policy of eventually and gradually introducing more flexibility to the currency regime, but only after a more liberalized (i.e., two-way) capital flow can an environment be brought about so as to forestall any sizeable FX dislocation.

Consequently, the clear economic and financial risks to maintaining the currency peg at its present level raise the question of why the authorities are not willing to pursue a more economically optimal exchange-rate choice. I suggest that a politically driven rationale better explains the Chinese authorities' reluctance to pursue a one-time revaluation of its currency peg.

# 3. THE POLITICAL ECONOMY APPROACH AND ITS SHORTCOMINGS

(a) The economic inefficiencies of the ISI period

The political economy literature on exchange rates explores such political justifications for currency policy, largely focusing on Latin America. During the import substitution industrialization (ISI) era, Latin American governments provided incipient domestic industries with a high degree of protection. They maintained overvalued currencies in order to spur industrial development. Latin American governments also implemented a raft of government restrictions, controls, and regulations to protect these industries. These regulations created many welfare losses for society, including the misallocation of resources to industries that were not based on Latin America's comparative advantage. This allowed many inefficient industries in Latin America to survive and precluded the development of other more productive sectors in the economy, such as agriculture (Edwards, 1995). Moreover, the industrial sector's growing political influence tended to exacerbate these trends (Edwards, 1995). Nonetheless, with the advent of economic liberalization and the dismantling of these protective policies in the 1970s and 1980s, the dynamics of interest group politics in Latin America began to transform. Increasingly, export-oriented manufacturers were left unprotected and began to pressure politicians for the abandonment of overvalued currency pegs and the pursuit of weaker real exchange rate levels (Frieden & Stein, 2001).

### (b) The politics of exchange rates amid liberalization: a demand side model

Frieden was one of the first political scientists to theorize about this period of Latin American exchange rate policy. He put forth a "demand side" framework to analyze how domestic socioeconomic groups formulate their preferences and influence government decisions about exchange rates (Frieden, 1991). In his model, Frieden employs a few key assumptions, based upon the Mundell-Fleming approach to balance of payments analysis. This approach specifies that a country can have at most two of the following conditions: a fixed-exchange rate, monetary policy autonomy, and capital mobility (Frieden, 1991). Hence, the Mundell–Fleming conditions create a policy dilemma: in a world of full capital mobility, policymakers can pursue one of two alternatives: a fixed exchange rate or independent monetary policy. 18

Ultimately, the choice of exchange rate regimes has key distributional consequences for different economic interest groups within society. For example, if policymakers decide to pursue a fixed exchange rate, this policy directly benefits international financiers and investors. These actors prefer currency stability because they engage in cross-border economic activity, which is particularly sensitive to exchange rate volatility. <sup>19</sup> In contrast, if policymakers decide to pursue a floating exchange rate, this policy benefits a different set of actors: producers of non-tradable goods and services (e.g., the real estate and health care industries) and producers of import-competing tradable goods for the domestic market. These actors are relatively indifferent about exchange rate volatility, are highly concerned about domestic macroeconomic conditions, and thus favor policymaking autonomy made possible by a floating exchange rate (Frieden, 1991). A similar interest group division occurs around the level of the currency, where a depreciated currency enhances the competitiveness of domestic tradable producers, 20 but decreases the purchasing power of consumers (and vice versa for an appreciated currency).

Building upon this approach, Frieden and Stein apply this logic to several country cases in Latin America (Frieden & Stein, 2001). Their model predicts that tradable producers (i.e. large manufacturers) will prefer a depreciated, floating rate, while those heavily engaged in cross-border activities (i.e. international financiers and investors) will prefer a fixed rate. Thus, the larger a country's tradable sector (as measured by the manufacturing sector), the greater its political influence, <sup>21</sup> and thus the less likely the government is to maintain a currency peg (Frieden & Stein, 2001; Frieden et al., 2004). Frieden and Stein found that controlling for economic factors, <sup>22</sup> a one percentage point increase in the size of the manufacturing sector is associated with a reduction of six months in the longevity of a country's currency peg (Frieden et al., 2004).

# (c) Shortcomings of the current political economy approach

The theory and evidence presented in Frieden and Stein's study is convincing for the cases discussed in the investigation. However, when the theory is generalized to other currency regimes outside of Latin America, it possesses two key shortcomings. First the authors treat the government as a largely neutral actor, channeling the preferences of interest groups into exchange rate policies. Though Frieden and Stein test for the explanatory power of such institutional factors as central bank independence and degree of political opposition, they do not allow the government to have its own unique preferences. For example, Frieden and Stein assume that wealth and influence of interest groups are the primary determinants of exchange rate policy. However, but in many cases, the state might have its own set of objectives, such as the CCP's emphasis on employment and social sta-

Second, the Latin American cases employed to support this hypothesis all share a common characteristic: an overvalued currency. For example, the Peruvian and Columbian cases support the authors' contention that there is an indirect relationship between the size of a country's manufacturing sector and the government's commitment to the regime. However, in both of these cases, volatility in the countries' fixed exchange rate regimes (i.e., some type of adjustment or abandonment of the peg) coincided with an underlying disequilibrium in which the exchange rate was widely perceived to be *overvalued*.

For example, in Colombia in 1965, a widening current account deficit and an unsustainable loss of foreign reserves under the fixed exchange rate regime prompted the central bank to float the currency, which depreciated by almost 90% before being fixed again during the second half of the same year (Jaramillo, Steiner, & Salazar, 2001). Similarly in 1987, Peru's supply of foreign reserves was depleting, against the backdrop of heavy capital outflows, a ballooning current account deficit, and a widening of the public deficit to 5.7% of GDP. Financial instability stemming from the overvalued exchange rate prompted the introduction of a new multiple exchange rate system in 1988 and ultimately, the floating of the exchange rate in August 1990 (Pasco-Font & Ghezzi, 2001).

In these two cases, the overvalued currency led the manufacturing sector to increasingly pressure the government to abandon the peg because of competitiveness concerns. 23 However, outside of this region, there are many notable historical cases of currency pegs (i.e., the Deutsche mark and the Swiss franc in the late 1960s) which have been considered undervalued, rather than overvalued. Assuming that an undervalued currency boosts export competitiveness, the presence of a large and politically sensitive export-oriented manufacturing sector for these cases instead increases the likelihood that a government will maintain its commitment to a fixed exchange rate regime. Thus, I suggest that the probability of maintaining a currency peg is conditioned on the valuation of the exchange rate.

#### 4. THE CASE OF CHINA

#### (a) Some theoretical refinements

In light of these shortcomings, I intend to offer some theoretical refinements using the case of China. My aim is to improve the ability of Frieden's model to generalize to regions outside of Latin America by expanding his model to account for key supply side factors, while simultaneously enhancing its demand side framework. I hypothesize that Chinese policymakers' ongoing reluctance to pursue greater exchange rate flexibility reflects their concerns about the profitability of the politically important export-oriented manufacturing sector.

From a supply side perspective, allowing the Chinese government to have its own preferences, rather than mirroring those preferences of key interest groups, improves the real world explanatory power of Frieden's model. The CCP possesses a clear political benefit to maintaining the undervalued exchange rate: it increases the competitiveness of the export manufacturing sector by subsidizing the country's foreign-invested companies located in coastal regions. The authorities extend benefits to the coastal manufacturing sector to help absorb mounting job losses stemming from the restructuring of the inefficient state-owned sector. These policies have thus helped preserve the social stability that underpins the CCP's legitimacy. While the exchange rate is rarely a "targetable" instrument of redistribution (Gowa, 1988), <sup>24</sup> the geographic concentration of export manufacturing in the coastal areas of China allows the authorities to employ the exchange rate in such a manner.

China's thriving manufacturing sector has been vital to the country's robust economic expansion; it has grown in real terms by an average of 11.4% per year from 1993 to 2002. 25 This sector's success has helped ensure high levels of employment and social stability, at a time when other more traditional stateowned sectors (many of which have been located in the interior) have suffered from mounting financial debts, insolvency, and job losses. <sup>26</sup> Thus, the authorities are unlikely to pursue a large-scale exchange rate revaluation that jeopardizes job growth in the export sector and ultimately risks undermining social stability. For example, even in the wake of last July's small revaluation, Chinese exporters vehemently complained about narrowing profit margins (Financial Times, 2005). In contrast to Latin America, these pressures within the manufacturing sector make the authorities' commitment to the regime more, rather than less resolute.

Regarding the demand side perspective, the Chinese government faces a significantly weaker tradeoff between export competitiveness and exchange rate stability than in many of the Latin American cases. The authorities can maintain the exchange rate at an undervalued level, placating the concerns of wealthy, local coastal authorities looking to enhance the profitability of foreign invested companies in their regions. At the same time, however, the currency remains pegged to the US dollar, which

maintains exchange rate stability and appeases the interests of those heavily engaged in crossborder activities (i.e., domestic financiers and investors).

#### (i) Accounting for supply side factors

A supply side perspective suggests that government elites advance a national interest that is distinct from interest group pressures. Frieden's model of exchange rates should be extended to include such elite preferences.

For example, the Chinese government has pursued an export-led development strategy in the spirit of other East Asian economic policy successes. <sup>27</sup> A key component of this strategy over the last several years has been avoiding a significant revaluation of the renminbi, which has effectively created a hyper-competitive exchange rate.

An undervalued exchange rate has complemented China's other economic reform policies throughout the 1990s. The country extended deregulation and preferential trade and investment oriented policies to coastal regions, through such initiatives as the Coastal Development Strategy (CDS) and special economic zones (SEZs). Though at first, the CDS and SEZs were experimental, they increasingly became a primary feature of government policy. These liberalization policies produced significant economic and social stability benefits prompting the CCP to increasingly, though somewhat reluctantly, support the foreign invested private sector. <sup>29</sup>

Against the backdrop of these earlier policies, substantial foreign direct investment (FDI) flowed into China in the 1990s, helping to modernize the coastal manufacturing sector and bolster overall national levels of economic growth and employment. The foreign invested sector incrementally became one of the pillars of the Chinese economy. For example, exports by processing and assembly operations increased 82-fold between 1996 to 2000, from US\$6.3 million to US\$526 million (Huang, 2003). By 2004, foreign invested companies accounted for 31% of Chinese industrial output and 55% of national exports (O'Neil, 2004).

Ultimately, the economic gains provided by the foreign invested sector helped meet the CCP's key goals, including its historic emphasis on economic growth as a pillar of the reform process. Both Deng Xiaoping and Jiang Zemin perceived economic growth to be a "rising tide

#### Urban vs. Rural Employment, 1993-2003 260.0 500.0 240.0 480.0 Rural Employment Million Persons, RHS 220.0 460 0 Urban Employment, Million Persons, LHS 200.0 440.0 180.0 420.0 1993 1995 1997 1999 2001 2003

Figure 6. Boon in urban employment offsets rural job loss.

that [would] lift all boats" (Asian Wall Street Journal, 2004). 30

In addition to boosting economic growth, the foreign-invested sector has also offset socio-economic dislocations and job losses in the ailing state-owned enterprise (SOE) sector. Many of these SOEs are located in the interior, rural provinces, contributing to a divergence between urban coastal and rural interior employment (see Figure 6). 31

SOEs have become some of the least dynamic enterprises in China. For example, in the 1970s, state-owned enterprises accounted for around 80% of manufacturing output in China, SOEs accounted for a mere 15.6% of industrial output by 2002. 32 (Economist Intelligence Unit, 2004). Moreover, soft budget constraints, state support for failing firms, and centrally determined and inefficient investment have produced mounting financial debts and job losses in the state-owned sector. For example, despite a generous infusion of subsidized credit from the banking sector into SOEs, weak profit incentives among SOEs led to the accumulation of "massive financial losses and huge unfunded explicit and implicit liabilities on their balance sheets" (Huang, 2003). By the middle of 1999, much of the state-owned sector was "operating on the verge of insolvency," with an estimated US\$200 billion in bad debts (Breslin, 2000).

Given the ongoing and extensive financial difficulties in the state-owned sector, some scholars suggest that the CCP has survived predominately because of its embrace of foreign

capital and economic reform. Accordingly, reform has propelled economic development forward and provided large-scale employment growth, helping to maintain social stability (Gallagher, 2002). In this regard, the Chinese leadership sees maintaining employment—particularly in the urban centers along the coast, where much of the development of the foreign invested manufacturing sector has occurred—as a "prerequisite for maintaining social stability, and perhaps even its grip on power" (Breslin, 2000).

Urban job growth has provided new job creation to offset job losses in the state sector. Indeed, during 1990–99, China's foreign invested private sector created 59.9 million jobs. At the same time, state-owned enterprises shed 17.7 million jobs, and urban collectives, which were mostly wholly owned subsidiaries of SOEs, cut another 18.4 million jobs <sup>33</sup> (Huang, 2003). Moreover, many SOEs still owed workers RMB millions of unpaid entitlements.

Against this backdrop, disaffected workers had created numerous organizations, considered illegal by the government, to organize resistance and protests against unemployment. Chinese leaders thus feared that further increases in unemployment would magnify such social instability (Liew, 2002).

Chinese authorities targeted jobs in urban centers because these areas included both urban workers and many of the former laid-off employees from the traditional state-owned sectors, who had migrated to the cities to take advantage of employment opportunities. Indeed, by the mid-1990s, many of China's workers from its poorest provinces had immigrated to urban centers. In 1996, people with rural registrations accounted for almost 30% of the new urban workforce (Breslin, 2000).

Given the CCP's preoccupation with employment and social stability, it is not surprising that officials are hesitant to adjust currency policy. A significant renminbi revaluation could make exports less competitive and risk undermining the vibrancy of the export-oriented manufacturing sector. A low (undervalued) exchange rate in China may generate sufficient employment in its sizeable tradable goods sector to ensure social stability (Goldstein, 2004). Such a supply side explanation helps to shed light on the observed positive relationship between the size of the manufacturing sector and the government's strong commitment to the undervalued currency.

#### (ii) Enhancing the demand side framework

The Chinese government's present exchange rate policy has considerable domestic redistributional consequences. It transfers narrow rents to the foreign invested and export-led manufacturing sector at the cost of the welfare of those citizens remaining in the interior. While the Communist Party's emphasis on the importance of economic growth, employment, and social stability partly explains why the government might pursue such distortionary policies, there is a complementary demand side explanation.

Building upon Frieden's earlier work, the likelihood of maintaining the peg is correlated with the size, wealth, and influence of the manufacturing sector. However, by extension of Frieden's model, I hypothesize that this probability is conditioned on the valuation of the exchange rate. Hence, a sizeable manufacturing sector, interacted with an undervalued (overvalued) exchange rate, will decrease (increase) the likelihood that a peg is adjusted or abandoned. In the case of China's undervalued currency, the coastal manufacturing sector's growth has raised the wealth and influence of local authorities in coastal regions. These authorities have pressured the central government for continued preferential exchange rate and trade policies, decreasing the probability of a potentially harmful revaluation.

Within the large body of collective action and interest group literature in political science

and economics, a recurring theme is industry's collective action advantage over other societal groups. In this case, the collective action problem may provide a rationale for the Chinese government's inefficient policies. According to collective action theory, interest groups, or in this case regional coastal governments, attempt to influence the central government through their wealth and influence, <sup>34</sup> at the expense of broader societal welfare. Broader welfare is sacrificed because of the difficulty that the public, or in this case regional interior governments, have in overcoming the collective action problem (Olson, 1982; Stigler, 1971). 35 Similarly, Acemoglu has suggested that interest groups that become substantially richer in a given political regime (as the coastal regional governments have in China) will use their political power to prevent entry by new groups (interior regional governments), creating significant economic distortions (Acemoglu, 2004).

Given that these theories are generally applied to the private sector in the developed world, their direct relevance to China is limited by the country's lack of influential interest group associations and its underdeveloped civil society. <sup>36</sup> Indeed, few channels of private sector influence exist in China because of the lack of a formal civil society, the large structural and ideological distance between the business elite and the state authority, and weak horizontal ties between managers of foreign invested companies (Pearson, 1997).

However, foreign managers do often cultivate personal ties with regional officials, with the aim of affecting economic policies (Pearson, 1997). For example, the Coastal Development Strategy (CDS), launched in 1987, offered regulatory and legal benefits to foreign invested firms. At the same time, local officials' provinces prospered from the accompanying growth of industrial capacity and job creation. Thus, local officials in the coastal provinces often allied with foreign invested firms to pressure the central government for an extension of CDS policies to their provinces <sup>37</sup> (Gallagher, 2002). In exchange, the central government would benefit both from the political support offered to them by the coastal provinces (Zweig, 2002) and the broader, economic and employment gains which accompanied the extension of the CDS during the late 1980s and early 1990s.

While coastal regions benefited economically from liberalized trade and investment, the CDS Total Foreign Investment: Coastal vs. Interior

#### (1995-2003, US\$ Billion) 250.0 Foreign Investment in Coastal Guangdong Province, LHS 240.0 40.0 Foreign Investment in Western Interior 230.0 30.0 Sichuan Province, RHS 20.0 220.0 210.0 10.0 200.0 2001

1999 Figure 7. Coastal foreign investment surges ahead of interior.

policy also produced an unfortunate side effect, exacerbating economic inequality between the inland and coastal regions. Lacking the same preferential policies for foreign investors as the coastal regions, interior provinces found it difficult to compete for foreign investment, causing the historic gap between these regions of China to broaden during the mid-1990s. Eventually, amid intense pressure from the local interior governments and growing social uncentral government extended preferential policies associated with the Coastal Development Strategy to all provinces in 1994 (Gallagher, 2002; Zweig, 2002). However, total foreign investment in the interior provinces continued to significantly lag total foreign investment in the coastal provinces throughout the rest of the 1990s and early part of the next decade (see Figure 7). <sup>38</sup>

1995

1997

Similar to the Coastal Development Strategy, China's undervalued exchange rate may be viewed as an extension of benefits to coastal provincial governments at the expense of the welfare of interior provinces. Foreign invested manufacturers concentrated along China's coast gain from greater export competitiveness, despite the cost incurred by the interior for maintaining an undervalued currency. China's exchange rate policy essentially amounts to an economic transfer from the interior to coastal regions. To maintain this policy, the government earns a negative dollar return on foreign reserve investments and sacrifices tremendous alternative investment opportunities domestically, including infrastructure projects and consumer-oriented policy incentives aimed at the economic development of the interior of the country.

2003

Given this policy's delivery of considerable economic benefits to coastal regional governments, it is likely that local coastal authorities, in concert with foreign investors, pressured the central government for preferential exchangerate policies. A politically determined Chinese exchange rate would be in line with Zweig's previous findings. Zweig noted that during CDS expansion, foreign investors and local officials lobbied the central government to soften its foreign exchange regulations (Zweig, 2002). The CDS expansion brought a large amount of foreign capital into regional government coffers, empowering local communities along the coast and undermining the central government's control over its foreign exchange rate regime (Zweig, 2002). For example, Zweig highlights that regional governments and foreign investors "demanded the right to expatriate profits and called for new regulations that clearly stipulated the terms under which they could sell in the domestic market; the central state then often responded to these demands" (Zweig, 2002).

In conclusion, the Chinese government's strong commitment to the undervalued currency likely reflects the power and influence of the country's regional coastal governments and by extension, the country's manufacturing sector. Similarly to Frieden's model, wealth equals political influence. However, in contrast to Frieden's Latin American cases, the undervalued exchange rate compels these groups to pressure the government to maintain, rather than abandon the currency peg.

# 5. A ROAD MAP FOR FUTURE RESEARCH

My aim is to offer some theoretical refinements to the current political economy models of exchange rates. I have expanded the scope of the model to include supply side forces and honed its demand side factors to condition for the valuation of the exchange rate. The next step in the research process is to gather evidence to adjudicate between the relative explanatory power of supply-side and demand-side forces. I suggest designing an ordered probit statistical test that adds the following data to Frieden and Stein's model (Frieden, Ghezzi, & Stein, 2001). First, I would code the dependent variable of exchange rate regime on a spectrum from floating to fixed, employing the classification scheme from the IMF's Exchange Arrangements and Exchange Restrictions. This multinomial dependent variable would account for any incremental change the exchange rate regime from fixed to freely floating (i.e., a move to a crawling peg system). I would then add both my demand-side and supply-side independent variables to the model in order to improve its robustness. <sup>39</sup>

Regarding demand side variables, I would extend the model to include an interest groupexchange rate valuation interaction term. Frieden. Ghezzi, and Stein utilize the size of three different tradable sectors (agriculture, manufacturing, and mining) as a proxy for their relative influence over exchange rate policy. Though I agree with the authors' assumption that an economic sector's size and wealth is a fairly accurate gauge of their influence over government policy, I anticipate that the goal of such influence can vary depending upon the market valuation of the exchange rate. Hence, my interaction term can better explain whether such interest groups prefer a floating or fixed exchange rate regime by considering the interrelation between exchange rate valuation (undervalued vs. overvalued) and the sector's share of GDP. While Frieden, Stein, and Blomberg find that the larger a country's manufacturing share, the less likely the government is to maintain a currency peg (Frieden et al., 2004), I would instead anticipate that such an outcome would be conditioned on the valuation of the exchange rate. Basically, my theoretical prior is that manufacturing exporters would be more likely to pressure for an abandonment of a peg if the exchange rate were overvalued than undervalued.

The key omitted supply side variable I suggest adding to current political economy models is the government's requirements for staying in power. 40 Although I admit that determining a proxy for such a variable could be fairly case dependent, I would suggest that a measure of geographic employment differentials (i.e., a measure of the ratio of coastal to interior regional employment) would serve as a relatively accurate indicator of the social stability underpinning CCP legitimacy. My theoretical expectation is that the higher the disparity between coastal and interior employment, the less likely the government would be to abandon an undervalued currency peg. The government would not want to risk undermining economic growth and competitiveness of the coastal manufacturing sector through a large-scale revaluation, given the sector's importance to employment and social stability. That said, if economic growth and development in the interior were to close this employment gap, the authorities might be more likely to pursue a large-scale revaluation.

#### 6. CONCLUSION

# (a) The advantage of the political-economic approach

The above discussion highlights the advantages of utilizing a political-economy approach to understand the Chinese authorities' commitment to an undervalued exchange rate peg. In viewing present policy purely from an economic perspective, the Chinese leadership's refusal to further revalue the currency appears to be surprisingly sub-optimal, given the associated economic and financial vulnerabilities.

In contrast, the political-economy approach offers a political justification for this sub-optimality. Despite its economic inefficiencies, the interaction of two key political mechanisms explains the Chinese government's reluctance to pursue a large-scale revaluation. From a supply side perspective, the government does not want to risk pursuing a large-scale revaluation that might undermine the growth of the coastal manufacturing sector. This sector has been able to absorb heavy job losses stemming from the

restructuring of the state-owned sector. Hence, it has preserved the social stability that underpins the legitimacy of the Communist Party. From a demand side perspective, the manufacturing sector's strong performance has boosted the wealth and influence of coastal regional governments, spurring them to advocate for an extension of preferential exchange rate policies to their regions from the central government.

(b) Policy implications: will the Chinese revalue the renminbi again?

Employing the above political-economy approach to China suggests two key implications moving forward. First, it highlights how quickly the Chinese government's commitment to the peg could wane with a sharp, unexpected shift in global or domestic economic conditions. For example, if the renminbi were to swing from an undervalued to overvalued state due to market concerns about the long-term health of the country's financial system, regional coastal governments' support of the fixed exchange rate regime could rapidly dissipate—instead prompting local officials to lobby for a competitiveness-enhancing devaluation.

Second, monitoring supply side, ideological shifts in internal Communist Party politics may help broaden our understanding of the domestic political determinants of exchange rate policy within China. An understanding of such determinants may glean an insight into the likelihood that the Chinese government will revalue the renminbi. For example, the tide appears to be shifting in China, with the recent emergence of a new political leadership. Faced with a widening income gap between the coast-

al and interior regions of China, the newly appointed President Hu Jintao and Prime Minister Wen Jiabao have been advocating a reorientation of government investment, infrastructure projects, and policy preferences toward the interior—highlighting a new emphasis on "a balance between domestic development and opening to the outside world" (Kuhn, 2004). Accordingly, there appears to be a growing willingness among the new leaderships to pursue redistributive policies in China, even with some cost to export driven growth in the coastal regions. In this regard, the authorities have emphasized their intention to increasingly spur domestic consumption. Indeed, People's Bank of China Governor Zhou Xiaochuan highlighted in a recent speech that "we hope our economy will be driven by domestic consumption" and that China needs to "do more to encourage its people to spend instead of save" (Kurtz, 2005).

Although a large-scale revaluation remains unlikely, these political developments suggest that there may be scope for another modest, near-term revaluation of China's undervalued exchange rate. 41 Chinese leaders may want to redistribute some rents from the coastal manufacturing sector to the interior, without significantly risking economic growth and stability. Nevertheless, the horizon for a complete abandonment of the currency peg is longer-term. Ultimately, it depends upon the government's progress in restoring financial system stability and restructuring the state-owned enterprise sector. Without such reform, the government is unlikely to freely float the exchange rate and risk potential capital flight and social instability in response to any negative developments in these ailing sectors.

#### **NOTES**

- 1. On July 20, 2005, the People's Bank of China announced a 2.1% revaluation and a shift in its defacto peg to the US dollar to a defacto peg against a basket of currencies.
- 2. However, in its 2005 Article IV consultation for China, the IMF states that the strengthening external balance points to an increasing undervaluation of the renminbi.
- 3. These approaches include purchasing power calculations and simulation exercises using multi-country general equilibrium levels.

- 4. "Normal" net capital flows are typically calculated as an average of actual net capital flows over the recent past in order to smooth out any sharp year-to-year fluctuations.
- 5. Current account, capital account, and nominal GDP data used in the above figures were attained from the International Monetary Fund's *International Financial Statistics* and the Economic Intelligence Unit's Country Database.
- Projection for China's 2005 current account surplus is provided by Economic Intelligence Unit's Country Database.

- 7. Official foreign exchange reserve data used in facts and figures above were attained from the International Monetary Fund's *International Financial Statistics* and the Economic Intelligence Unit's Country Database.
- 8. However, there are key differences in development strategies between China and its East Asian neighbors. The governments of Japan and Korea strongly limited foreign direct investment, choosing to keep their domestic economies closed, while China's political leadership instead opted for greater integration with the global economy, allowing substantial amounts of inward foreign direct investment, totaling US\$306 billion during 1990–2000 (see Gallagher, 2002).
- 9. Official loan data were attained from the People's Bank of China's Sources and Uses of Credit Funds of Financial Institutions.
- 10. The People's Bank of China highlighted these concerns in its *Monetary Policy Report for 2003*, issued in March 2004.
- 11. The central bank "sterilizes" an increase in the money supply by selling securities to banks through either open market operations in government bonds or central bank bills. According to the IMF, the PBC sterilized about two-thirds of its foreign exchange purchases in the first half of 2004, compared to only about one-third of inflows in 2003.
- 12. The time inconsistency problem is one in which an ex-ante government commitment to a policy (i.e., low inflation) is no longer optimal ex-post (i.e., the government prefers to raise output and employment above its natural level), creating a credible commitment problem. A fixed exchange rate can thus be effective in enhancing the government's commitment to low inflation. (see Bernhard, Broz, & Clark, 2002).
- 13. The central notion motivated the idea of an optimal currency area that exchange rate stability can produce benefits to heavily internationalized economies. According to this theory, the main advantage of exchange rate stability is to lower exchange rate risk and transaction costs that can hamper international trade and investment (see Bernhard *et al.*, 2002).
- 14. Consumer price data were attained from the International Monetary Fund's *International Financial Statistics* and the Economic Intelligence Unit's Country Database.
- 15. This rationale provides a possible economic explanation for why the authorities opt to maintain an undervalued currency.

- 16. In contrast to Latin America's ISI policies, Chinese development policies have at least targeted labor-intensive industries where the country possesses a comparative advantage, which has helped spur high levels of economic growth.
- 17. Senators Charles Schumer and Lindsey Graham are co-sponsors of a bill that threatens to impose a 27.5% tariff on Chinese imports unless there is a shift to greater currency flexibility.
- 18. For example, an attempt by monetary authorities to ease interest rates will lead to an outflow of financial capital (as investors search for higher returns abroad). Under a floating exchange rate regime, the currency will depreciate, allowing for easier credit conditions and enabling the monetary policy to be effective. However, under a fixed exchange rate regime, domestic interest rates must rise in order to offset the financial outflows and maintain a constant level of currency, thus tightening credit conditions and inhibiting the effectiveness of independent monetary policy.
- 19. Predictable exchange rates reduce the risk attached to cross-border economic activity, though it should be noted that under flexible exchange rate regimes, economic agents still have the option of hedging against these risks in forward markets.
- 20. This analysis assumes that a weaker exchange rate produces higher earnings for producers of goods for export. However, there are limitations to this assumption. For example, a firm possessing a high-import content of its exports may be more or less indifferent toward the level of the exchange rate.
- 21. This study assumes that the manufacturing sector's influence on policymakers is proportional to its share of the country's GDP.
- 22. Such economic factors include hyperinflation and trade openness. For further details, see footnotes 12 and 13
- 23. In both of these cases, the manufacturing sector initially supported an overvalued exchange rate because, in an environment of trade protection (i.e., export subsidies), an appreciated currency actually reduced the domestic prices of imported inputs and machinery (see Pasco-Font & Ghezzi, 2001). However, with the onset of liberalization and elimination of protectionist policies, the manufacturing sector tended to instead support an abandonment of the currency peg.
- 24. Generally, the reason that the exchange rate is rarely a "targetable" instrument of redistribution is that,

unlike trade policy, it is a very blunt instrument, affecting all tradables and non-tradables producers in a country in fairly uniform ways (see Gowa, 1988).

- 25. Calculated from EIU 2004 Country Profile.
- 26. Most of the state firms in China's inland provinces are loss making (see Shiu, 2003).
- 27. See footnote 8.
- 28. Such policies included employment, social welfare, and management enterprise reforms. For example, foreign invested companies were granted significantly more flexibility and managerial autonomy regarding the hiring, firing, term of employment, and non-wage benefits granted to Chinese workers (see Gallagher, 2002).
- 29. Given its historic commitment to public ownership, the Chinese authorities were initially wary of international private capital. However, at the end of the Cultural Revolution in the late 1970s, the Chinese policymakers decided to allow FDI into the country because of a vast domestic shortage in capital, technology, modern industrial equipment, and managerial know-how. Thus, the Chinese leadership hoped that FDI could supplement a primary socialist state owned domestic economy (see Gallagher, 2002).
- 30. The success of the foreign invested sector and simultaneous underperformance of SOEs prompted the Communist Party to become increasingly accepting of the private sector. At the 15th Party Congress in 1997, the Party announced a policy of "grasping the big and letting go of the small." "Grasping the big" signified restructuring and consolidating China's largest SOEs, while "letting go of the small," meant that the government vowed support for privatization of small SOEs (see Huang, 2003).
- 31. Urban and rural unemployment data were retrieved from CEIC's China economic database.
- 32. The extent of this fall is somewhat misleading. During the 1990s, the government sold some shares in government firms, which were reclassified as stateholding rather than state-owned enterprises. If these are included, the decline in SOE contribution to industrial output is far less extreme. In 2002, state-owned and state-holding firms accounted for 40.8% of industrial output.
- 33. A few other statistics which further convey the scope of the problem are total employment in the state-

- owned sector peaked at 109.6 million in 1995 and shrunk to 69 million by 2002. In the state-owned manufacturing sector, the decline was even more pronounced, falling from a peak of 35.26 million workers in 1991 to 9.8 million workers in 2002. Additionally, agricultural employment has declined from a peak of about 390.98 million in 1991 to about 365 million in 2001 (see Goldstein, 2004).
- 34. In Stigler's theory, the industry is able to gain political influence with the government through promises of campaign contributions and votes. However, given that China is not a democratic country, the type of political influence that occurs must be more indirect, with the industry likely influencing the central government through intermediaries—local provincial governments—who gain influence with the authorities by offering the central government political support.
- 35. According to Olson's collective action theory, rational individuals within large, heterogeneous groups, such as consumers groups, will not act to achieve the common or group interest. However, in this case, rather than the size of the group itself, the inhibiting factors are more likely to be the regional interior provinces' lower income levels, limited political influence, and lack of resources.
- 36. There are civil society organizations that exist in China, such as the Chinese Association for Enterprises with Foreign Investment (CAEFI); however, most foreign sector managers do not consider CAEFI to be a serious channel in which to have their complaints addressed (see Pearson, 1997).
- 37. Regional leaders often competed to have their locality declared open to foreign investment in order to receive the favorable opportunities and policies (i.e., exemption from import duties, tax rebates on exports, and exclusion from labor regulations). They expended enormous energy and funds lobbying leaders to internationalize their locality (see Zweig, 2002).
- 38. I use Sichuan province, the most populated Western province, as a benchmark for foreign investment in interior regions and Gaungdong province, one of the most populated Eastern provinces, as a benchmark for foreign investment in coastal regions. The data were retrieved from CEIC's China economic database.
- 39. Though not discussed here, I would clearly want to control for such economic factors as hyperinflation and trade openness.

- 40. It should be noted that Frieden, Ghezzi, and Stein do account for some supply side variables in their study, including institutional variables (i.e., central bank independence) and political variables (i.e., political instability and degree of political opposition).
- 41. The present market activity supports this notion that the currency is likely to endure another one-time adjustment in the coming year, with investors building in about a 5% appreciation into the 12-month non-deliverable forward (NDF) price.

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