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Chinese Economy in the Aftermath of the Global Financial Crisis: Challenges to Macroeconomic Rebalancing

Shalendra D. **Sharma***
University of San Francisco

Abstract

When the global financial crisis erupted in the United States in the fall of 2008, the Chinese economy was seen to be relatively immune. However, this optimism proved misplaced. The contagion quickly spread to China, albeit, the overall impact was moderate – at least when compared to many other advanced and emerging market economies. How and why was China impacted by the financial crisis? In particular, what were the "transmission channels" via which the contagion spread into the Chinese economy? How has Beijing responded to the economic and sociopolitical challenges unleashed by the crisis, and how effective have been their responses been? Furthermore, what must Beijing do over the long-term to rebalance its economy and make it less vulnerable to domestic and external shocks? This paper addresses these interrelated issues.

Keywords: *global financial crisis, Chinese economy, economic rebalancing, stimulus*

JEL classification: *E32, E44, E52, F02*

1. Introduction[1]

Even as the global economy was gripped in the throes of a spiraling financial crisis following the collapse of Lehman Brothers in September 2008, China was among a handful of economies that conspicuously remained an outlier. Not only was the Chinese economy booming – notching an impressive 9.3 per cent growth in GDP in 2008, Beijing's top priority was to dampen the inflationary pressures and prevent the economy from overheating. To many analysts, such starkly divergent trajectories reflected by the world's largest and

second largest economy could be explained by a single fact: that the Chinese economy had tangibly "decoupled" from the American economy. More specifically, the China-centered trade integration in Asia and the massive ability within China's economy to generate a domestically driven demand meant that the Chinese economy had become decoupled or that its business cycle had become less synchronized with that of the advanced economies, notably the United States and Western Europe.[2] Predictably, this led observers to conclude that China was immune from an economic slowdown emanating from the US and Europe.

To others, China's immunity was due to the "cushion" Beijing enjoyed because of its substantial foreign exchange reserves. Beijing's holdings of US Treasury debt skyrocketed from about US$46 billion in 1998 to US$587 billion by 2008.[3] According to the US Treasury, China's investment in Treasury bonds totaled some US$585 billion in September 2008, compared to Japan, which held US$573.2 billion worth (Table 1). Moreover, in mid-2008, Beijing held the world's largest cash reserve of roughly US$2 trillion.[4] This was not counting an additional US$800 billion as Beijing also purchases US debt through third countries which are not recorded by the Treasury as being held by China. This meant that on the eve of the crisis China owned US$1 out of every US$10 in US public debt. This made Beijing the largest foreign

Table 1 Foreign Holders of US Treasury Securities (September 2008)

	US$ billion	Per cent of Debt Held by the Public
China	587.0	10.1
Japan	573.2	9.8
United Kingdom	338.3	5.8
Caribbean Banking Centers[a]	185.3	3.2
Oil Exporters[b]	182.1	3.1
Brazil	141.9	2.4
All Other	852.9	14.6
Total	2,860.7	49.0

Notes: [a] Caribbean banking centers include Bahamas, Bermuda, Cayman Islands, Netherlands Antilles, Panama and British Virgin Islands.
[b] Oil exporters include Ecuador, Venezuela, Indonesia, Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates, Algeria, Gabon, Libya and Nigeria.

Source: US Treasury. 2009. *Treasury Bulletin*, Table OFS-1.

holder of US government debt – indeed, the US government's leading foreign creditor – and the world's leading creditor nation, while the United States became the world's largest debtor.

Rather ironically, if earlier, vilified for creating the "global savings glut" seen as responsible for the crash of 2008, Beijing's formidable reserves were now seen as a source of much needed global liquidity in an increasingly capital scarce world.[5] Not surprisingly, it was suggested that the well-endowed and booming Chinese economy could serve as a potential "shock absorber" and "locomotive" to help drive the global economy out of its deep malaise (Dobson, 2009).

Others were upbeat because China (like the other major Asian economies, namely, Japan, India and South Korea) had only modest exposure to the "toxic" subprime loans and structured credit products originating in the United States as the Chinese financial sector does not trade much in derivatives (Lardy, 2010). The claim by the People's Bank of China (PBC, the country's central bank) that none of its massive US$2 trillion foreign reserves was invested in subprime debt was just a slight exaggeration as it is well known that a large percentage of China's reserves are invested in long-term US securities. It is estimated that the Bank of China held about US$8.9 billion of securities backed by US subprime loans, while the Industrial and Commercial Bank of China and China Construction Bank reported exposure was about US$2 billion each (*Caijing*, 2009; also Lee and Park, 2009: 17). Suffice it to note, these are extremely small debts. That is, even if the three Chinese banks exposure to risky subprime assets totaled US$12.9 billion it was still a mere 6 per cent of the US$199 billion in private foreign securities they held.

Furthermore, since China's banks rely extensively on deposits rather than wholesale funding and fund their loans through deposits rather than capital markets they were better insulated from the global credit crunch than Western banks – indeed, banks in much of the world.[6] Beijing's limited reliance on foreign capital to finance growth gave it further shield, and the country's corporate and banking sector balance sheets were relatively robust.[7] The ambitious and wide-ranging banking reforms of early 2000, which included bank recapitalization, the strengthening of corporate and supervision, and greater compliance with international best practices, had not only helped remove a large portion of the nonperforming loans of the banking sector (Table 2), but also led to higher risk-weighted capital adequacy ratios.[8]

This made China's once moribund banking system more solvent. Indeed, the major banks capital positions were strong on the eve of the crisis (Kwong, 2011; Riedel, Jin and Gao, 2007), and this explains why no financial institutions failed during the height of the crisis in 2008-09 (Woo and Zhang, 2011).

Table 2 Nonperforming Loans (% of commercial bank loans)

	1998	2003	2004	2005	2006	2007*
China***	28.5**	17.8	13.2	8.6	7.1	6.2
Hong Kong****	5.3	3.9	2.3	1.4	1.1	0.9
Germany	3.0	5.2	4.9	4.0	3.4	n/a
Japan	5.4	5.2	2.9	1.8	1.5	1.5
United States	1.0	1.1	0.8	0.7	0.8	1.1

Notes: * Data for Hong Kong, China; Rep. of Korea; Japan, Singapore, and the United States as of September 2007.
** Figure refers to 1999 data.
*** 1999–2001 data are for state-owned commercial banks only.
**** Reported nonperforming loans are gross classified loan ratio of retail banks.
Source: Lee and Park (2009: 19).

Equally important, China's low budget deficits, modest level of public debt (about 18 per cent of GDP in 2007 to nearly 40 per cent for the United States), and a largely closed capital account served as critical buffers to external shocks. More specifically, it not only meant that the spillover effects into the Chinese economy would be minimal, but also easier to contain. Although, it was well-known that Beijing had a potentially risky housing bubble problem, it was also felt that China's banks were far better prepared to withstand falling house prices than their American counterparts because Chinese buyers (unlike their American counterparts) are required to put down a minimum deposit of 20 to 30 per cent down-payment and as much as 40 per cent on second homes.

Also, rather counter-intuitively, although the Chinese economy has become deeply enmeshed into the global economy, it is still not fully integrated into the global financial system (Yao and Wu, 2011). In particular, China is still a minor player in the global financial system. For example, Chinese banks, some of which are large by global standards based on market capitalization and the size of their balance sheets, have only modest international presence. Furthermore, the RMB (or the renminbi[9]) denominated debt-market is shallow and the Chinese currency plays a relatively minor role in the global foreign exchange market. In fact, the RMB is hardly used outside China, except for a modest amount in Hong Kong, and Chinese capital markets are not a major source of financing for foreign borrowers. Overall, China's capital markets is small relative to the size of the domestic economy, and relies heavily on FDI rather than securities investment and other forms

of capital flows to access international capital markets.[10] Although there has been gradual liberalization, Beijing continues to heavily regulate many cross-border transactions and subjects portfolio capital flows to various restrictions. Namely, a cautious approach to financial sector liberalization has meant that portfolio flows are still largely channeled through large institutional investors via the QFII (Qualified Foreign Institutional Investors) and QDII (Qualified Domestic Institutional Investors) programs established in 2002. The QFII program is restricted to funds-management and securities companies with at least US$10 billion in assets, including the world's top 100 commercial banks. In addition, securities regulator of the QFII's home country must sign a "Memorandum of Understanding" and have a track-record of good relations with the China Securities Regulatory Commission (CSRC), while the QDII's must have assets of over five billion RMB.[11]

Finally, since the crisis was seen as related to factors specific to the US economy, especially problems associated with expansionary monetary policy that had kept US interest rates low for some years and led to a real estate bubble (rather than to systemic factors such as an oil shock or adverse trade relations), it was believed that the economic fallout would be mainly limited to the United States and that American authorities would, in short order, contain the crisis.

2. The Contagion Hits

However, China did not remain immune long – albeit, it has fared far better than most. In early December 2008, the RMB experienced its largest weekly decline against the US dollar since July 2005 (when the RMB's peg to the dollar was lifted), and China's foreign exchange notched a modest decline largely through valuation changes. It is important to note that the contagion caused a slowdown in China's economic growth – the Chinese economy never actually contracted. China's quarterly growth rate in 2008 was 10.6 per cent, 10 per cent, 9 per cent and 6.8 per cent – with an overall average of 9.3 per cent. Nevertheless, given its perceived immunity, how and why was China impacted? In particular, what were the "transmission channels" via which the contagion spread into the Chinese economy? How did Beijing respond to the economic and sociopolitical challenges unleashed by the crisis, how effective have been the response been, and what was Beijing do over the long-term to rebalance its economy and make it less vulnerable to external shocks?

At the outset it should be noted that contagion stemming from a financial crisis can be transmitted simultaneously via several channels – both broad and specific. Broadly, the rapid global spread of the crisis unambiguously underscores that in today's interconnected world no country is an island. Closely integrated financial and banking systems and deepening trade interdependence

has meant that even countries not directly exposed to the toxic subprime assets originating from the United States are extremely vulnerable to the financial contagion. This is in part because economic globalization not only creates deep and entwining linkages between economies, but also "convergence" amongst them. As such, troubles in one part, especially the largest part (the United States) will inevitably send waves which may become ripples in some places (China) and a tsunami in other places (Iceland).

Furthermore, global economic integration has generated unprecedented levels of capital flows. These funds now cross national borders, often at will, despite attempts by governments to control and regulate its movement. Such financially integrated markets also mean more rapid and powerful spillover across economies through both traditional and newer types of channels. For example, although spillovers through the traditional trade channel remains a central transmission mechanism (even though global trade patterns have become more diversified), financial spillovers have become more pronounced as the rising correlation of global equity prices and the potential for sudden capital flow reversals mean that shocks at the core can be transmitted rapidly throughout the entire global financial system. For example, China's stock markets are particularly vulnerable to swings in investor sentiment. Heightened anxiety over growing losses led foreign institutional investors (FIIs) to sell billions of their investment in Chinese companies to cover losses accrued in their home markets. As a result the Stock Exchanges took a beating – with the Shanghai stock market falling by 48 per cent between May and November 2008 (De Haan, 2010: 761).

Decoupling did not mean that a downturn in the American economy would have no impact on emerging market economies like China. Rather, a more nuanced version of the decoupling thesis – such as those articulated by the IMF did distinguish between the "effects" of a "moderate" slowdown in the United States to a "sharp slowdown or recession" (Akin and Kose, 2007; IMF, 2007). Specifically, "… most countries should be in a position to 'decouple' from the US economy and sustain strong growth if the US slowdown remains as moderate as expected, although countries with strong trade linkages with the United States in specific sectors may experience some drag on their growth. However, if the US economy experienced a sharper slowdown because of a broader-than-expected impact of the housing sector difficulties, the spillover effects into other economies would be larger, and decoupling would be more difficult" (IMF, 2007). As the crisis only became more severe – especially, after the collapse of Lehman Brothers – decoupling no longer guaranteed immunity.

Finally, as is well known, China's integration into the global economy exemplified by its export-led growth strategy has proven to be remarkably successful producing an unprecedented 10 per cent annual growth for the

past three decades (Lin, 2012). During this period, China has seen its share of world GDP rise to 13 per cent (in 2010) from less than 2 per cent in 1980 – even as its share of the world's population declined to 20 per cent from 25 per cent. Equally impressive, with real GDP per head increasing almost thirty-fold, hundreds of millions of people have been lifted out of abject poverty. On the eve of the reforms in 1978, the incidence of poverty in China was among the highest in the world. However, over the past three decades the proportion of people living in extreme poverty fell from some 53 per cent to below 5 per cent. This means that across China there were over 500 million fewer people living in extreme poverty than in 1978 (IMF, 2010; Lin, Cai and Li, 2003; World Bank, 2009). Few countries have grown so fast over such an extended period of time or reduced the incidence of poverty so sharply. However, with the onset of the crisis, China's heavy dependence on exports of goods and services now became a liability.

As Table 3 shows, China's exports of goods and services as a share of GDP rose sharply from 9.1 per cent in 1985 to 37.8 per cent in 2008.

Table 3 China's Exports of Goods and Services (as % of GDP)

Year	Percentage of Exports
1985	9.1
1990	14.2
1995	19.5
2000	23.4
2005	36.5
2008	37.8

Source: Economist Intelligence Unit.

In fact, in 2007, China not only replaced the United States to become the world's second largest exporter of merchandise goods (after the EU), its net exports (exports minus imports) contributed to a whopping one-third of its overall GDP growth in 2007. Most of the export industries were direct beneficiaries of foreign direct investment (FDI) which totaled some US$92.4 billion in 2008 – making China the third largest recipient of FDI after the EU and the United States (Xing, 2010). Also, according to Chinese government estimates, in 2007 over 80 million people depended on the "foreign trade sector" for employment – with some 28 million employed directly in enterprises engaged in exports. Therefore, on one hand, rapid and unprecedented changes in the structure of the Chinese economy have generated sustained economic growth, on the other, it has made growth highly

depended on the continuation of robust external trade and external capital flows (Arora and Cardarelli, 2011). This also meant that a global slowdown in demand would rapidly translate into a corresponding negative impact on economic growth.

As the United States, the EU and the Middle East account for a significant portion of China's exports, the sharp deterioration in demand with the onset of the financial crisis saw the value of China's exports fall by 16.7 per cent between October 2008 and November 2009 (IMF, 2010; OECD, 2010). According to a World Bank study, "since the onset of the crisis, exports shifted from 20 per cent annual growth to an annualized contraction of more than 25 per cent in early 2009" (Vincelette, 2010: 13). The most severely impacted have been the technology and capital-intensive exports, forcing several companies (both domestic and foreign) in these key sectors to shut down their factories and businesses. Such sharp export contraction also led to equally sharp declines in FDI – which "plunged to -35.52% in November 2008. The period of negative FDI growth lasted for nine months until September 2009" (Woo and Zhang, 2010: 354).

Cumulatively, these had a deleterious impact of the highly export-dependent Chinese economy. Indeed, with demand for Chinese exports evaporating some "67,000 small and medium-sized companies across China were forced to shut down in 2008" (Yang and Lim, 2010: 27). In Guangdong province some 6.7 million jobs were lost (De Haan, 2010: 763), and in China's key industrial provinces an estimated "20 million workers lost their jobs" (Overholt, 2010: 28). In addition, as many as 26 million of China's estimated 130 million migrant workers were left unemployed (Tan and Xin, 2009). No doubt, the authorities are cognizant of the fact that after years of double-digit growth anything less than at least 8 per cent a year growth could lead to further unemployment and social tensions. Indeed, Overholt (2010: 28) notes that "the loss of tens of millions of jobs supplemented another domestic trend, namely the rapid rise over the years in the number of the so-called 'mass incidents', or popular demonstrations. According to official statistics, these had risen from 8,700 in 1993 to about 40,000 in the year 2000, compounded by increasing size, violence, and effectiveness of the protests, with a further rise to 74,000 in 2004. Official statistics do not yet reveal the scale of the additional impact of the financial crisis, but there have been many widely publicized protests by workers losing their jobs."

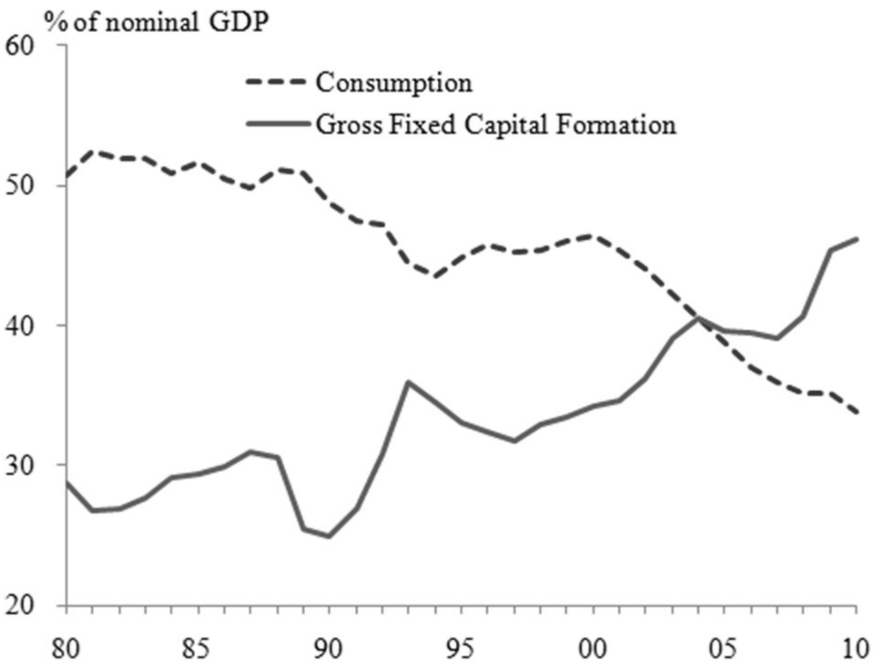
3. Beijing's Ambitious Response

The global financial crisis of 2007-08 which saw an abrupt and sharp shrinkage in external demand, the rise of protectionism in the advanced economies, and growing chorus of criticism of China's economic policies

from American lawmakers in both houses of Congress and the White House, only underscored what Beijing, itself, had come to recognize: that excessive dependence on exports was not a sustainable long-term strategy. That is, China's investment-driven and export-oriented development model, with exports accounting for 40 per cent of GDP, was becoming increasingly difficult to sustain (Morrison and Labonte, 2008). In fact, Lardy (2006: 1) points out that Chinese authorities have been increasingly concerned about the country's economic trajectory and as early as 2004 "China's top political leadership agreed to fundamentally alter the country's growth strategy by rebalancing the sources of economic growth".

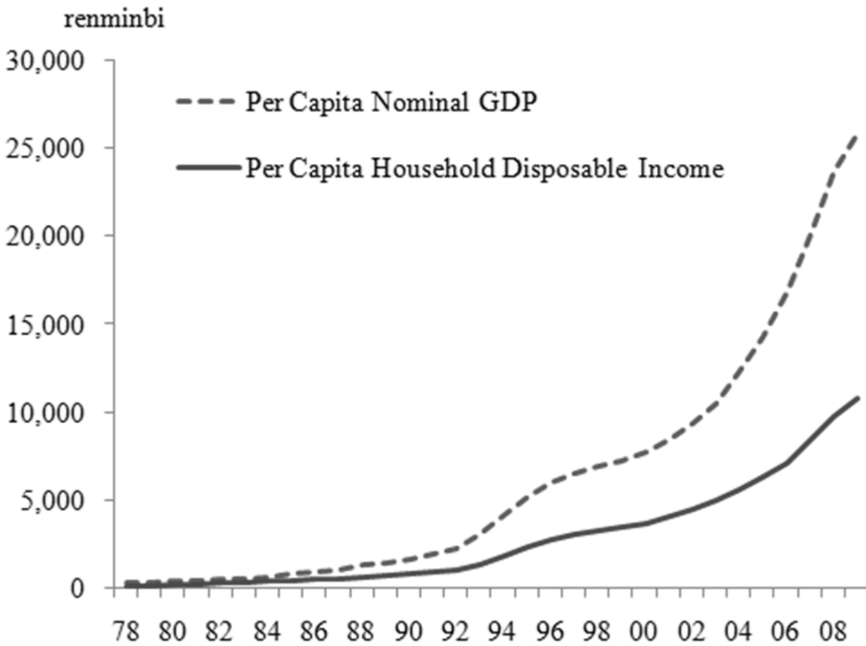
This is because China has developed two forms of macroeconomic imbalances: a "domestic imbalance" due to high-investment (hence, "investment-led growth"), and very low household consumption, and an "external imbalance," due to the country's export-led development strategy that relies heavily on exchange rate undervaluation and intervention in the foreign exchange rate markets to promote exports (Figures 1 and 2). The domestic imbalance has resulted in rapid and massive capital accumulation, imbalances between expenditure and production, and the overall income gains

Figure 1 Consumption and Investment in China (as % of nominal GDP)



Source: Fukumoto and Muto (2011: 4).

Figure 2 Per Capita GDP and Per Capita Disposable Income in China



Source: Fukumoto and Muto (2011: 5).

not percolating to the Chinese people in line with the growth in the country's GDP.[12] On the other hand, the external imbalance has generated a massive surplus in the current account of the balance of payments.

Premier Wen Jiabao, a strong proponent of macroeconomic rebalancing repeats the imperatives of rebalancing at every opportunity. At the influential National People's Congress in March 2007, Wen noted that "the biggest problem with China's economy is that the growth is unstable, unbalanced, uncoordinated and unsustainable." Again, in a keynote speech to the National People's Congress in March 2010, Wen unambiguously noted that a development strategy based on investments to facilitate exports cannot be sustained indefinitely. Rather, he pointed out that "unleashing domestic demand holds the key to long-term and steady development of China's economy." Wen noted that "expanding domestic demand is a … basic standpoint of China's economic development as well as a fundamental means and an internal requirement for promoting balanced economic development."[13] In other words, a transition or rebalancing away from exports and investment-driven growth towards "consumption-driven growth" was declared to essential to the long-term dynamism of the Chinese economy.

To guide this transition, or in Wen words, "put China's economy quickly on the path of endogenous growth," he pledged billions of renminbi would be invested in "human and social services" – especially, affordable housing, expanding educational opportunities and delivering a more comprehensive health and social welfare system.

Beijing – which had maintained a contractionary fiscal policy from 2001-07[14] now found itself in a good fiscal position (the fiscal balance as percentage of GDP in early 2008 was 0.7 and the debt-to-GDP ratio was only 20 per cent), to stimulate the economy (IMF, 2008: 46; World Bank, 2009). Coupled with this, Beijing's formidable "war-chest" of cash reserves totaling more than US$2 trillion gave it unprecedented policy flexibility – especially, in the area of fiscal policy by giving it the ability to boost the economy if it began to slow down.[15] As the strong headwinds emanating from the global contagion began to make its deleterious impact felt, Beijing did precisely this. On 11 November, 2008, the authorities announced a massive 4 trillion RMB (US$586 billion) "*duiying guoji jinrong jingji weiji de yilanzi jihua* 对应国际金融经济危机的一揽子计划" or "investment plan" to be spent over two years "to counter the negative effects of global financial crisis" (Table 4). Totaling some 14 per cent of China's GDP in 2008, it was arguably the biggest peacetime stimulus ever.

As Table 4 shows the stimulus package targeted seven core spending areas. General infrastructure included construction and expansion projects of high-speed railways, new expressways and highways, airports, city subways and nuclear power plants. Through targeted social spending the

Table 4 China's Stimulus Package (Total: RMB 4 trillion)

Infrastructure	*2.87*
General infrastructure	1.50
Reconstruction of Sichuan earthquake area	1.00
Rural area infrastructure	0.37
Technology and environment	*0.58*
Technology and structural adjustment	0.37
Energy savings and emission reductions	0.21
Social measures	*0.55*
Construction and renovation cheap houses	0.40
Social security and health	0.15

Source: National Development and Reform Commission (NDRC, 2009). <*http://www.ndrc.gov.cn*>.

authorities hoped to increase investment in the public health care system, education and subsidized housing, as well as to raise unemployment and other welfare benefits. To generate employment, the authorities announced plans to reform the value-added taxes (VAT), including increasing VAT rebates for export industries, and replacing other cumbersome taxation by a more simple corporate income tax.[16] The stimulus funds could be made available almost immediately, because as Woo and Zhang (2011: 679) note, unlike the United States or the UK, where the expansion of the monetary base was used to repair the "balance sheets of commercial banks … the expansion of the monetary base in China replaced export demand and externally financed investment demand with internally generated demand." Hence, Naughton (2009: 278) notes, "disbursement began almost immediately. The Chinese government and Communist Party sent an emergency directive to government departments at all levels, emphasizing the need to prop up domestic demand and start new construction projects. Literally within weeks, local governments throughout China were meeting to compile lists of shovel-ready projects that compiled with central government directives. As a result, resources began flowing through the pipeline by the end of 2008, and expanded government investment began to have a discernible impact on the economy during the first quarter of 2009".

However, to many observers, Beijing's expectations for its massive stimulus to generate a much-needed domestic consumption, and thereby rebalance the economy unduly skewed towards exports, was puzzling as "social measures" represented a mere 5 per cent of the package. This was correctly viewed as simply insufficient to stimulate domestic consumption. Moreover, the stimulus package was seen as contradictory in that it subsidized exports and targeted infrastructure despite the fact that China already has overcapacity in industrial production and infrastructure (De Haan, 2010; McKissack and Xu, 2011). Given this, the concern was that the multiplier effects of the stimulus would be much lower than expected. Indeed, it was suggested that a more prudent way to stimulate domestic consumption would have been send tax rebates directly to mid-and low-income families as these rebates would produce faster and targeted results. Equally perplexing, the stimulus package did little to improve the social safety net – which stands at less than 1 per cent of GDP. Chinese citizens are prodigious savers because they are justly concerned about the prohibitively high medical, education and housing costs and lack of social security and other safety-nets when they retire. This is particularly true for poorer households who try their best to save because they fear the consequences of serious illness, unemployment and old age in a country lacking effective government safety nets.[17]

In order to discourage precautionary savings and boost consumption, on January 21, 2009, Beijing announced additional spending of some

RMB850 billion over three years. This was designed to improve health care provision by initially covering some 200 million uninsured citizens with the goal of achieving universal coverage by 2020, and improving access to primary health care in underserviced areas. Also, beginning in February 2009, a pension plan for rural workers was initiated and the level of pensions to the elderly poor modestly increased. To encourage spending by rural households, the authorities' unveiled the "household appliances going to the countryside" (*jiadian xiaxiang* 家电下乡) and "exchanging old for new" (*yi jiu huan xin* 以旧换新). Under these initiatives, rural residents would receive subsidies and rebates on purchases of goods such as refrigerators, TVs and washing machines for four years. Furthermore, to help the struggling property sector, minimum down-payments was reduced from 30-40 per cent of a home's value to 20 per cent and the transaction tax waived for properties held for at least two years. The 12th Five Year Plan (2011-16), further committed to construct 36 million low-income housing units by 2016. However, a recent IMF study (Ahuja *et al*., 2012: 12), notes that "there are few signs in the data that the initiatives to build out the social safety net and increase the provision of social housing have led precautionary savings to decline or have created sufficient momentum for household consumption to reverse the secular decline as a share of GDP that has been seen over the past several years."

Arguably, without effective privatization of state and collective-owned land and state assets the stimulus efforts may be a one-time boost only. As noted, spending by Chinese households as a percentage of GDP remains significantly below private spending levels in other emerging economies. However, China's private consumption has failed to grow, not because Chinese consumers do not like to purchase goods and spend on vacations, but because most do not own property and collateral asset. Rather, most households are wage-earners who have not felt enough "wealth effect" to boost their consumption levels. Unless these concerns are effectively dealt with, consumers will not be spending their rainy day savings anytime soon. It also means that financial stimulus is a one-time shot designed to alleviate immediate problems in the economy by giving it a boost. More sustained growth must come less from government-backed capital infusion, but from balanced growth, including productivity growth.

Between 2001 and 2007, Beijing maintained a fairly contractionary or tight monetary policy to control inflation and cool the asset-price bubbles (World Bank, 2008). However, once the contagion spread to China, the PBOC quickly adopted what it called a "moderately loose" (but in reality, a highly expansionary monetary policy) to support their highly expansionary fiscal policy. Specifically, beginning in the fourth-quarter of 2008, the central bank began to pump substantial volumes of liquidity into the banking

Table 5 Monetary Indicators, 2008-2009

	2008				2009	
	Q1	Q2	Q3	Q4	Q1	Q2
M1	18.0	14.0	9.2	9.0	17.0	24.8
M2	16.2	17.3	15.2	17.8	25.4	28.4
Bank Loans	14.8	14.1	14.5	18.8	29.8	34.4

Note: M1 = money supply; M2 = M1 plus quasi money.
Source: Vincelette *et al*., World Bank Study (2010: 16).

system, and the lending limits of commercial banks were scrapped in early November 2008 to provide even more loans. These easy-credit policies had predictable results – massive credit expansion. As Table 5 shows, broad money (M2) grew 28.4 per cent in the second quarter of 2009 – a significant increase over the end of 2008. Yu (2009: 10) notes that "in the first half of 2009, bank credit increased by 7.3 trillion RMB, which was above the official target for the full year… In contrast, the annual increases in bank credit in 2006 and 2007 were 3.18 trillion yuan and 3.63 trillion yuan respectively".

In addition, to ease bank lending, the deposit reserve requirement ratio (RRR, which is the amount of bank reserves over the sum of deposits and notes) was lowered four times in 2008 – from 17.5 per cent to 14 per cent – giving banks more funds to lend. The central bank cut the benchmark interest rate on a five-year loan from 7.47 per cent in September 2008 to 5.31 per cent in December 2008 – where it remained as to June 2010. In similar fashion, rates for mortgage loans were sharply reduced. Lardy (2010: 2) estimates that "the combined effect of a reduction in the benchmark five-year loan rate and the adjustment in the mortgage factor meant that the interest rate a potential home buyer would pay on a mortgage with a term of five or more years was reduced by two-fifths, from 6.66 to 4.16 per cent. This meant that the monthly payment on a 20-year mortgage was reduced by 18.6 per cent. For property investors the 40 per cent minimum down payment on a mortgage, introduced in the fall of 2007, was scaled back to 20 per cent. And the compulsory penalty interest rate that applied to property investors, which had been set at 1.1 times the benchmark rate starting in September 2007, was eliminated". Not surprisingly, such an aggressive easing of credit led to a massive increase in bank lending – totaling some 30 per cent of GDP in 2009 (Figure 3).

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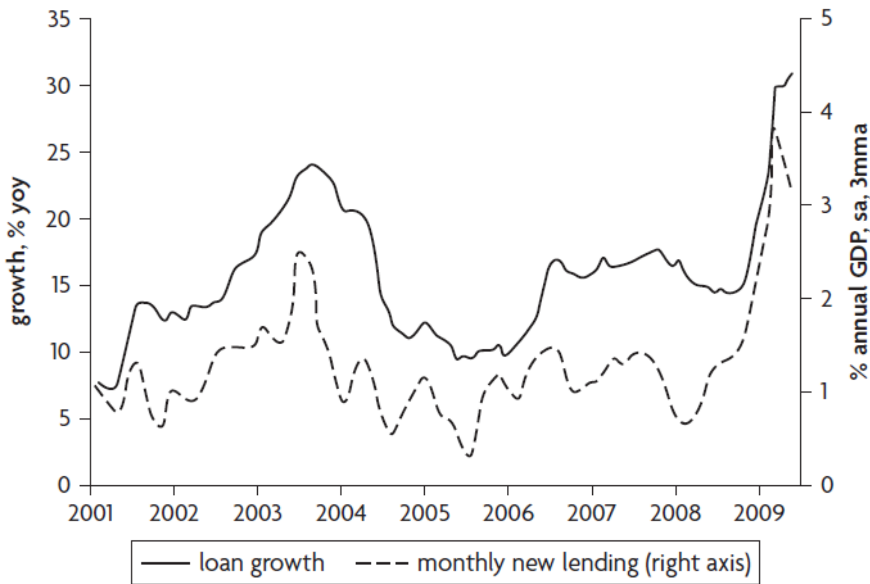
Figure 3 New Banking Lending



Note: mma = monthly moving average, sa = seasonally adjusted.
Source: Vincelette *et al*., World Bank Study (2010: 17).

4. The Outcomes: Intended and the Unintended

China's massive fiscal program, complemented by accommodative monetary policies and unprecedented bank lending played an essential role in helping the economy emerge from the crisis relatively quickly. A dynamic computable general equilibrium model developed by Diao, Zhang and Chen (2012) to assess the impact of the 4 trillion yuan stimulus package on China's economic growth shows that GDP growth rate in 2009 could have fallen to 2.9 per cent without the stimulus mainly as a result of the sharp decline in exports of manufactured goods. The revitalization of domestic demand not only helped GDP to recover by the second-quarter of 2009, but also boost intraregional trade. Yet, China's credit expansion during 2009-10, was one of the highest in the world. Bank-financed investment has resulted in massive credit growth (some 9.95 trillion yuan in lending was granted in 2009 alone), carries inherent risks.

China experienced this explosive bank financed credit boom, in large part, because of the peculiar nature of the country's political institutional arrangements. For example, Beijing (the central government) financed only about 29 per cent (or 1.18 trillion yuan) of the stimulus by mainly issuing

central government bonds. The bulk was financed by local governments borrowing from commercial banks, the corporate bond market and via local financing vehicles (LFVs). Created by local governments (by pooling public assets such as land into LFV and using it as a vehicle to raise capital), the LFVs were explicitly designed to circumvent the no-borrowing constraint imposed on local governments by Beijing in 2006. However, lacking the necessary checks and balances to ensure prudent borrowing, the LFVs have amassed huge debts (Shih, 2010). Moreover, although reforms in the banking sector have weakened the monopoly of state banks, and non-state banks have increased in both number and the range of services they offer, the "big four" state-owned commercial banks[18] still dominate (Table 6), directing bulk of the credit to state owned enterprises at very low cost. In addition, the government also holds significant equity stakes in the remaining shareholding commercial banks, including the rural cooperative banks and credit societies (which are technically not state-owned). Beijing still maintains tight control over the banking sector, while regional banks are effectively controlled by local governments as they tend to be the major shareholders. Such pervasive state presence gives it tremendous clout, and predictably, bank lending still very much based on government directives rather than purely economic considerations.[19]

Moreover, like the central government, provincial/municipal and local governments can also raise funds via off-balance sheet vehicles such as the

Table 6 China's Banking Sector

	Total Assets in RMB (billions)	State Ownership (per cent)
Five Big Banks		
1. Industrial and Commercial Bank of China	9,757.2	51
2. China Construction Bank	7,555.5	48
3. Agricultural Bank of China	7,100.0	100
4. Bank of China	6,951.7	70
5. Bank of Communications	268.3	26
Three Policy Banks		
1. China Development Bank	3,821.2	100
2. Agricultural Development Bank of China	1,354.7	100
3. Export-Import Bank of China	566.7	100

Source: Chinese Banking Regulatory Commission (CBRC), Annual Report, 2008.

credit-related wealth management products (CWMPs), credit-related trust products (CTPs), and as noted, via the newly allowed bond issuance backed by central government credit to finance stimulus and related spending programs. In fact, the central government clearly stipulated that only 1.18 trillion RMB (out of the 4 trillion RMB) of stimulus spending would be funded by Beijing. In other words, local governments had to fund the bulk of the spending. Local governments usually do this with Beijing's backing – which instructs state-owned banks to provide loans "guaranteed" by local governments. This explains why state-run banks lend so generously and without delay and local governments borrow so generously and often. Yet, as we know from the 2008 global crisis, placing loans off-the-books into off-balance sheet vehicles does not eliminate counterparty risk from the system. Rather, it just places it elsewhere – in this case, on the central government.

As Yu (2009: 12) notes, this is, in part, because "local governments have an insatiable appetite for grandiose investment projects. Investment led by local governments is likely to lead to a sub-optimal allocation of resources". In fact, in early 2012, the National Audit Office announced that "it had uncovered 531 billion yuan (US$83.8 billion) in irregularities involving local government debt, which amounted to 10.7 trillion yuan as of the end of 2010".[20] Similarly, as Naughton (2009: 280) points out, that "in order to move such a huge volume of credit, banks have inevitably turned to large, especially state-run companies to take up the loans. State firms enjoy implicit government guarantees for these loans… The result is that the share going to China's private sector, already low, has dropped further. Loans to households for all purposes – consumption as well as household business – made up only 15 per cent of the increased lending in the first half of 2009, down from a 2007 peak of nearly one-third of all lending… The long-term objective of creating a more diverse and resilient economy, less dependent on large state-run firms, has been seriously set back". Indeed, a number of analysts including Naughton (2009), Bremmer (2010) and Huang (2011) have noted that China's stimulus program may have inadvertently served to further enhance the role of the state in the economy at the expense of the private sector. Hence, there are legitimate concerns about the commercial viability and soundness of many of these investments. If economic conditions deteriorate and these investments fail and put the repayment of the underlying debt in doubt, China will once again face the spectre of a sizable non-performing loans problem in the banking sector, unsustainable asset-price inflation (especially, in real estate and equity markets), and excess capacity. Indeed, the IMF (2011) has correctly warned that such rapid and massive credit expansion also carries the real potential to distort and exacerbate the country's already skewed growth patterns – that is further imbalance the growth pattern.

5. The Imperative of Rebalancing

There are no guarantees that the normal business cycle can fundamentally rebalance China's economy. During the Asian financial crisis, robust growth and demand in the advanced economies helped support Asia's recovery. However, this time, the US, Japan, and Western Europe are in recession, if not difficult economic times, and their business confidence and consumption, on which China and other Asian countries (indeed, the world) depends are still reeling from massive deleveraging, crashing equity prices, and tight credit markets. The precipitous fall in asset prices (equity, bond, and housing markets) has dramatically eroded the net worth of households in the advanced economies. According to an IMF study "during the first three quarters of 2008 alone, the value of household financial assets decreased by about 8 per cent in the United States and the United Kingdom, by close to 6 per cent in the euro area, and by 5 per cent in Japan. As global equity markets plunged in the last quarter of 2008, household financial wealth declined further – for example, by an additional 10 per cent in the United States. At the same time, the value of housing assets also deteriorated in line with falling house prices, especially in the United States and the United Kingdom". More precisely, "the losses in household wealth during 2008 were about US$11 trillion in the United States (US$8.5 trillion in financial assets and US$2.5 trillion in housing assets) and were estimated at US$1.5 trillion in the United Kingdom (US$0.6 trillion in financial assets and US$0.9 trillion in housing assets)" (Brooks, 2009). Such unprecedented loss of household wealth coupled with growing financial liabilities in the advanced economies will inevitably force many households to deleverage their balance sheets and engage in more precautionary savings. This means that US consumers who have long served as the locomotive – not only for the US economy, but for the global economy – will not be able to serve in that role. In addition, as the government support for consumer spending winds down, it will further depress consumption.

Table 7 illustrates that as consumers in the advanced economies abruptly cut back on spending in 2008 demand for exports sharply fall. Both sales of labour-intensive manufacturing products as well as higher value-added goods such as computers and related equipment and automobiles have fallen since September 2008 in all Asian countries for which data are available.

If these current trends are any indication of the potential long term trends, export-dependent economies are at risk of a structural decline in demand from the advanced economies. In other words, not only the era of easy credit to finance consumer durables may be over, the over-leveraged households in the United States and elsewhere in the rich economies are saving more (Feldstein, 2008). If these "course corrections" hold, the export growth could be structurally lower and China's (and Asia's) export-led growth strategy

Table 7 Collapse of Exports (Value, % Change)

Country	2007	2008				2009[a]
		Q1	Q2	Q3	Q4	Q1
World	**15.1**	**22.1**	**25.2**	**21.0**	**-9.5**	**-29.1**
China	25.7	21.4	22.4	23.0	4.3	-19.7
India	21.5	37.6	37.1	25.5	-12.8	-24.1
Malaysia	2.7	9.9	20.8	16.8	-7.5	-22.2
Thailand	7.4	13.5	16.5	23.7	-9.7	-16.2
Philippines	6.4	2.8	5.5	4.1	-22.3	-39.9
Viet Nam	23.8	28.7	31.8	37.6	5.7	3.4
Cambodia	14.1	97.2	45.8	5.3	-3.3	—
Lao PDR	12.1	36.2	15.7	42.7	4.9	—
Bangladesh	11.1	17.5	8.6	19.3	12.5	10.6
Pakistan	2.9	20.9	25.9	19.0	1.7	-17.9
Sri Lanka	18.0	9.3	6.8	5.4	-3.5	-10.7

Notes: [a] First quarter figures are estimates using latest available data. Data for PRC are actual values.
"—" indicates data not available.

Source: Asian Development Bank (ADB 2009). *Report to the Second Global Review on Aid for Trade: Aid for Trade in the Asia and the Pacific: An Update*. June, Asian Development Bank: the Philippines, p. 3.

may no longer be as critical as in the past. If global demand for Chinese produced goods remains suppressed for the foreseeable future, China and the Asian region's longer-term recovery will mean that its traditional reliance on export-promotion as the driver for growth will have to diminish.[21] This means the need to rebalance growth away from exports and toward domestic demand in order to adjust to the structural shifts taking place in the global economy. Although, for export-dependent economies like China a boost in global demand is essential for recovery, domestic policy reorientation is also essential for long-term sustainability. As noted earlier, this could be partly achieved by building stronger social safety systems that reduces the need for precautionary savings to meet needs related to health, education, and retirement. Beijing, by effectively reducing imbalances can significantly aid in the recovery of the global economy, but also push the Chinese economy towards a more sustainable path.

Over two years (2007-09), China's current-account surplus (a broad measure of its international trade in goods and services) was reduced by

half. By end of 2011, the current account surplus fell to 2.8 per cent of GDP from 10 per cent in 2007. Beijing also posted a US$31.5 billion trade deficit in February 2012. What explains this? Is it because China's economy is rebalancing externally and domestic consumption is expanding? No doubt, there is some evidence that domestic demand is rising relative to exports – but to what extent is unclear. However, internal or domestic rebalancing remains static as China still has very low household consumption-to-GDP (about 30 per cent in 2011). According to the data compiled by the IMF (see Ahuja *et al*., 2012: 20), the decline in China's external surplus is not "due to consumption rising as a share of GDP or national savings falling". Rather, it is due to a combination of factors, including a much weaker global demand, very high levels of domestic investment, and a sharp increase in commodity prices relative to Chinese manufactured goods. Stated bluntly, the Chinese economy is still overly dependent on exports and large-scale infrastructure investment.

Although, it is worth reiterating that Beijing has viewed rebalancing away from exports and investment and towards domestic consumption as a long-term goal, and in all fairness, such structural changes takes time, Beijing must make domestic rebalancing a top priority. Indeed, the crash of 2008, and the fact that China's two largest export destinations (the United States and the Eurozone) are already in various stages of a massive deleveraging underscores that a growth strategy based on exports cannot be sustained indefinitely. It is in Beijing's interest that it moves expeditiously towards rebalancing focused on domestic consumption immediately. Failure to do so could very well determine if China's economic "landing" or whether its economy will slow gradually or decline abruptly and sharply after the stimulus-fueled growth of the past three years begins to run-out its course. Of course, an immediate action Beijing can take to facilitate rebalancing towards domestic consumption is to adopt a sustained policy of external rebalancing by allowing its undervalued currency to appreciate faster. As the next section argues, revaluation of the RMB to rebalance the US-China trade is essential for sustained global recovery.

6. Rebalancing Through Currency Reforms

Since a close relationship exists between monetary policy and international trade, domestic monetary stimulus and central bank interventions in foreign exchange markets can help to boost exports. To this end, Beijing has regularly intervened in international exchange markets to prevent the RMB from appreciating relative to other currencies, particularly, the US dollar. Certainly, Beijing's maintenance of an artificially low exchange rate is tantamount to erecting import tariffs and maintaining export subsidies – at least, as far as the trade account is concerned. In turn, this policy has enabled Beijing to

accumulate large global and bilateral trade surpluses. However, this strategy has also angered Beijing's trading partners, namely the United States, which has long claimed that Beijing deliberately "manipulates its currency" and engages in "mercantilist" practices to give itself an unfair advantage in global trade.

It is useful to reiterate that to the United States, the origins and persistence of its massive trade deficit with China is due to Beijing's mercantilist economic policies (Tables 8 and 9). The US contention regarding China's mercantile behavior is rather straight-forward: Beijing engages in gratuitously unfair trade practices via outright protectionism, and most perniciously, by deliberately manipulating its currency. Specifically, in maintaining an undervalued exchange rate, Beijing has been able to dramatically increase its export growth and pile-up large current account surpluses – the latter by aggressively intervening in foreign exchange markets to keep its currency from appreciating. This in turn has resulted in a massive build-up of foreign exchange reserves (Goldstein and Lardy, 2005). However, if Beijing allowed market-forces to determine the value of its currency, its current account surpluses would be much lower and American trade balances much healthier.

Not surprisingly, American manufacturers with the backing of lawmakers in Congress have long argued that the artificially low yuan has placed American companies at a huge competitive disadvantage *inter alia* contributing to the bankruptcy of US companies and the loss of tens of thousands of American jobs.[22] The contention is that the yuan is so

Table 8 US Merchandise Trade with China, 1980-2007 (US$ billion)

Year	US Exports	US Imports	US Trade Balance
1980	3.8	1.1	2.7
1985	3.9	3.9	0
1990	4.8	15.2	-10.4
1995	11.7	45.6	-33.8
2000	16.3	100.1	-83.8
2001	19.2	102.3	-83.1
2002	22.1	125.2	-103.1
2003	28.4	152.4	-124.0
2004	34.7	196.7	-162.0
2005	41.8	243.5	-201.6
2006	55.2	287.8	-232.5
2007	65.2	321.5	-256.3

Source: US Congressional Research Service (2008: 2) in Morrison (2008).

Table 9 US Merchandise Trade Balances with Major Trading Partners, 2007 (US$ billion)

Country/Trading Group	US Trade Balance
World	-791.0
China	-256.3
European Union (EU27)	-107.4
Organization of Petroleum Exporting Countries (OPEC)	-127.4
Japan	-82.8
Canada	-64.7
Mexico	-74.3
Association of Southeast Asian Nations (ASEAN)	-50.6

Source: US Congressional Research Service (2008: 2) in Morrison (2008).

undervalued (by some accounts as much as 40 per cent) that it amounts to an unfair trade subsidy. This unfair advantage permits a flood of cheap Chinese-made goods into the United States, but makes American products expensive in China.[23] Thus, it is claimed that if the yuan was traded at its true market worth the bilateral imbalance between the two countries would be substantially reduced, if not altogether eliminated. This is because China's exports to the United States would become more expensive in dollars and would therefore decrease, while China's imports from the US would become less expensive in yuan and therefore increase. To make matters worse, China's unwillingness to allow the yuan to appreciate has, in turn, made other Asian Pacific Rim countries reluctant to allow their currencies to appreciate because of their fear of losing further export sales to China.[24] As US trade deficit with China soared to record level in first-quarter 2005, the Bush administration came under intense pressure to take unilateral action to address the problems associated with the artificial undervaluation of the yuan. US Treasury Secretary John Snow called for an immediate Chinese exchange rate adjustment, but many other lawmakers called for punitive tariffs on cheaply priced Chinese imports unless China sharply revalued its currency.

In May 2005, the US Senate by a margin of 67 to 33 voted to consider a proposal to impose a 27.5 per cent tariff on all imports from China unless Beijing stopped inflating its currency. In May 2005, the US decided to reimpose quotas on seven categories of clothing imports from China limiting their growth to no more than 7.5 per cent over a 12-month period. On 23rd June 2005, the Bush administration, which until then had insisted that diplomacy was working in getting China to allow the yuan's value to be set by currency markets rather than controlled by the government, finally warned

China that it could be cited as a "currency manipulator" and face economic sanctions unless it switched to a flexible exchange system. Labeling China's currency policies "highly distortionary," the Bush administration warned that it was going to closely monitor China's progress towards adopting a flexible exchange system.

It seems that the unrelenting pressure worked. On 21st July 2005, Beijing made a big monetary shift in more than a decade by revaluing the yuan and dropping the currency's peg to the US dollar by announcing that the yuan's exchange rate would become "adjustable, based on market supply and demand with reference to exchange rate movements of currencies in a basket" composed of the dollar, the yen, the euro, among few other key currencies.[25] This was an important, albeit modest shift. From 1994 to July 2005 the value of the yuan was pegged to the US dollar at a rate determined by the People's Bank of China. The yuan traded within the range of 8.27 to 8.28 to the dollar because the People's Bank maintained this peg by buying dollar-denominated assets in exchange for the yuan in order to reduce excess demand for the yuan. As a result, the exchange rate between the yuan and the dollar remained largely the same – despite changing market conditions. When Beijing abandoned the peg by moving to a system that now linked the yuan to a basket of currencies, it effectively raised the yuan's value by 2.1 per cent.[26] This meant that prior to the revaluation US$1 bought 8.28 yuan, following revaluation US$1 would buy roughly 8.11 yuan. Beijing made it clear that it had set tight parameters on how much the yuan could rise. Clearly, the aim was to make sure that the yuan did not float by a big margin, but appreciate[27] by a modest 2 per cent by moving within a tight range of 0.3 per cent band against a group of foreign currencies which make up China's top trading partners.[28] Thus, unlike a true floating exchange rate, the yuan was allowed to fluctuate by only 0.3 per cent on a daily basis against the basket. However, this modest and gradual appreciation (called "managed float") allowed China to continue to accumulate foreign reserves – implying that if the yuan was allowed to free float, it would appreciate much more rapidly – by some account by another 20 to 30 per cent. The fact that from July 2005 to June 2008 the yuan appreciated by 14.4 per cent in terms of the US dollar (or from 8.35 to 6.6 to the dollar), but much less in real effective terms (since most other major currencies have appreciated against the dollar) despite China's large and growing trade surpluses, barely managed to placate the critics.

However, in July 2008, in the midst of a global financial meltdown Beijing resumed its earlier practice of pegging the RMB (or in other words, suspending its policy of allowing the yuan to strengthen), to revive its faltering export-dependent economy. From September 2008 to June 2010, Beijing kept the RMB stable against the dollar at 6.83 yuan to the dollar – in effect, preventing the renminbi from appreciating by putting in place a

de facto peg against the US dollar. However, during the height of the global recession the voices of the critics of China's currency became muted, because among other things, the artificially low yuan allowed the United States (as well as other cash-strapped countries), to borrow large sums from China to stimulate their economies. In fact, rather ironically, Beijing's currency and trade policy actually helped to stimulate the US, indeed, the global economy. Specifically, by purchasing US securities (in particular, Treasuries), Beijing was indirectly helping the United States to fund its massive budget deficits and skyrocketing debts. High demand from China not only boosts the value of fixed-income securities (and thereby, keeps US interest rates low), it also makes it much cheaper for Washington to borrow – and in the process keep its domestic mortgage and related consumer loan rates rather low.

By 2010, with the global economy on the mend (but, job growth in advanced economies still stagnant), calls for China to let its currency float more freely grew again. Nobel laureate Paul Krugman (2010), who kept his powder-dry during the depth of the crisis, fired the first salvo when he scathingly noted that "China has become a major financial and trade power. But it doesn't act like other big economies. Instead, it follows a mercantilist policy, keeping its trade surplus artificially high. And in today's depressed world, that policy is, to put it bluntly, predatory". According to Krugman's "back-of-the-envelope" calculations, China's weak-yuan policy cost 1.4 million American manufacturing jobs. Of course, the US is not alone in its criticism. Beijing's policy has also resulted in a large depreciation of the yuan against the euro – making it extremely hard for the beleaguered euro-zone countries to compete with Chinese exporters.

On 3rd April 2010, the Obama administration announced that it would delay publication of the semiannual exchange rate report to Congress (due on April 15th), containing the international economic and exchange rate policies of America's major trading partners. The report was eagerly awaited because it would officially state the Obama administration's position on China's exchange rate policy, in particular, whether Treasury Secretary Timothy Geithner would declare China a "currency manipulator." Instead, striking a measured tone, Geithner tactfully noted that "China's inflexible exchange rate has made it difficult for other emerging market economies to let their currencies appreciate. A move by China to a more market-oriented exchange rate will make an essential contribution to global rebalancing". Geithner noted that "the best avenue for advancing US interests at this time" is via discussions in multilateral and bilateral forums, including that of the G20 finance ministers and central bank governors in late April; the semiannual Strategic and Economic Dialogue between the United States and China in May; and during the meeting of G20 leaders and finance ministers in June.[29] To further assuage Beijing, on April 7th, Geithner made an impromptu

75-minute stopover at the VIP terminal of Beijing airport (on his trip to India) to meet with Vice Premier Wang Qishan (China's leading finance official) to "exchange views on US-China economic relations and the global economy".[30]

No doubt, the Treasury's conciliatory message was intended to deescalate tensions that had been brewing for months between Beijing and Washington. In fact, the latest round of the war of words began during Geithner's confirmation hearing (in January 2009), for Treasury Secretary when he bluntly stated that both he and "President Obama – backed by the conclusions of a broad range of economists – believe that China is manipulating its currency".[31] Geithner's tough rhetoric brought nods of approval from the members of the Senate Finance Committee – many of who have long rallied against Beijing's alleged malpractice and were now hoping for a firm stance against China from the new Obama administration. However, to the markets, Geithner's tone signaled a potential confrontation between the world's largest and second largest economy. The already jittery markets responded almost immediately as investors became concerned that China may scale-back its purchase of US debt if the new administration pushed Beijing to further revalue its currency: the dollar promptly fell, the price of gold jumped by US$40, and the price of Treasury debt was driven further down.[32] Although Geithner tried to gloss over his remarks by stating that what he actually meant was for China to adopt "market exchange rates," it only brought a short respite to this sensitive subject.

Rather abruptly, on 19th June 2010, Beijing relaxed its exchange-rate policy by making the yuan a bit more flexible. The People's Bank ruled out any large one-time revaluations. Not surprisingly, by early August 2011, the yuan/dollar exchange rate was 6.44 – a modest appreciation. Clearly, it would be prudent for Beijing to adopt a much more flexible exchange rate. After all, China's emphasis on exchange rate stability in the face of rising current account surpluses has not only generated intense protectionist pressures in the United States and elsewhere, it has also forced the People's Bank to accumulate massive foreign exchange reserves with negative domestic consequences.

Specifically, by keeping the RMB from rising against the US dollar not only means that China's central bank has to print more money to keep interest rates low, such a strategy can also exacerbate inflationary pressures if more money ends up chasing too few goods. It also means that China has fallen into a "dollar trap" – borrowing at higher cost and lending the money back to the United States for low to zero return. Because the bulk of these securities have been (and are) purchased when interest rates were (are) at historically low rates, means that these securities would lose value when rates eventually increases. It also means that Beijing is exposed to large capital losses on its

foreign reserve holdings (which are mostly held in US dollars) as the RMB appreciates. Inflation would further exacerbate this problem. Indeed, there is broad consensus that if the US Federal Reserve continues to print money (and thereby further debase the dollar) to pay down its debt, inflationary pressures would become a pervasive problem. This would mean that Beijing paid a "premium" for US securities, but will be paid back with dollars that are worth far less. Although, Beijing is now prudently moving more of its reserves into securities with shorter maturities (which are less vulnerable to rising interest rates and inflation), the fact is that the bulk of their reserves would lose value.

Rather, than locking such huge foreign currency reserves (the fruit of years of hard work and sacrifice by the Chinese people) in investments like Treasury securities (to arguably finance the consumption of ungrateful foreigners), Beijing would be better-off utilizing these resources to improve the living conditions of its people by investing in education, health care, housing, social security, and other human needs. Domestic exchange rate appreciation can greatly facilitate this as it will provide price incentives to shift resources toward production for domestic use and by raising real household income. Indeed, a meaningful appreciation of the exchange rate would immediately spur domestic consumption as it would give Chinese consumers real purchasing power – something China needs to expand and sustain. Finally, if Beijing's oft-stated goal of making the RMB a global reserve currency (or even more modestly, increase the use of the RMB in international trade and finance), is to be realized, a meaningful loosening of foreign-exchange controls, especially in the capital account and allowing the RMB to be freely trade (in effect, revaluation), is essential. Of course, the US should be cautious regarding its wishes. After all, China could strengthen its currency by reducing its currency reserves. This would mean reducing or "unloading" its huge stockpile of US securities. This, in turn, would drive down the price of securities – thereby, sharply increasing interest rates – making it more costly for the United States to finance its deficit and debt, not to mention that the borrowing rates of American consumers could also see a sharp spike.

7. Postscript

By early 2012, pressures for the yuan to appreciate eased substantially after China's trade became more balanced – that is, the once huge trade surpluses have dwindled. In a surprise move, Beijing announced that effective 16th April 2012, the central bank would allow the yuan to rise or fall by 1 per cent instead of the previous limit of 0.5 per cent. Certainly, doubling the size of the yuan's trading band against the dollar moved China a step away

from its investment and export-based growth model – albeit, such a timid step will hardly make consumption the key driver of growth anytime soon. Rather, pressure on the yuan to appreciate has been reduced as China's trade surplus and capital inflows have shrunk with the yuan approaching a seemingly equilibrium level against the dollar.[33] It is important to note that even as the central bank allows the market to play more of a role in the yuan's daily movements, such a modest widening of the trading band will greatly limit how much the yuan can rise and fall from the official rate the central bank will set each day. Also, this does not mean that Beijing will necessarily allow faster appreciation of the yuan in the coming weeks or allow the yuan to eventually float freely.[34] Indeed, in late May 2012, the renminbi dropped further against US dollar than in any other time since it was allowed to appreciate in 2005. Visibly upset, the Obama administration released a report two days later criticizing Beijing's decision and demanding that the Chinese authorities release data on the scale of its foreign exchange market interventions (US Department of Treasury, 2012). Although, the report did not explicitly label China as a "currency manipulator," Mitt Romney, the Republican presidential nominee, made it clear that if he was elected president, he would label China a currency manipulator on his first day in office. Clearly, unless Beijing fundamentally reforms its currency policy, the issue will remain a thorn in Sino-US relations. Of course, there is hope that China's ambitious 12th Five Year Plan is committed (at least on paper) to dramatically rebalance the domestic economy by raising household income, expanding social services and boosting consumption. This is in the interest of both the Chinese and the global economy.

Notes

* Dr Shalendra D. Sharma (PhD University of Toronto) is Professor in the Department of Politics at the University of San Francisco. He also teaches in the MA program in the Department of Economics. Sharma is the author of *Global Financial Contagion: Building a Resilient World Economy after the Subprime Crisis* (New York: Cambridge University Press – forthcoming 2013), *China and India in the Age of Globalization* (Cambridge University Press, 2009), *Achieving Economic Development in the Era of Globalization* (Routledge, 2007), *The Asian Financial Crisis: Meltdown, Reform and Recovery* (Manchester University Press, 2003), *Democracy and Development in India* (Lynne Rienner Publishers, 1999) which won the Choice Outstanding Academic Title for 1999, and editor of *Asia in the New Millennium: Geopolitics, Security and Foreign Policy* (Institute of East Asian Studies, UC Berkeley, 2000). Sharma has also published numerous articles in leading journals. Sharma was the recipient of USF's University-wide Distinguished Teaching Award for 1996/1997 and the University-wide Distinguished Research Award for 2002/2003. During 2006-2007 he was a

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Visiting Professor at Universiteit Leiden, the Netherlands. <*Email: sharmas@ usfca.edu*>

1. I would like to thank the two anonymous reviewers of this journal for their thoughtful comments and Cass Krughoff and Li Li at the University of San Francisco for their very able research assistance. All remaining errors are mine.
2. Akin and Kose (2007) argue that decoupling is part of the process of globalization. Drawing on data from 106 countries (which they divide into developed, emerging and low-income), they measure how the correlation between economies has shifted over time even as cross-border flows have expanded. They find that even as growth has become more synchronized among the developed and emerging economies, over the past two decades, economic activity in emerging economies has decoupled from that of the developed economies.
3. Office of Management and Budget (2008), Mid-Session Review, Budget of the U.S. Government, Fiscal Year 2009, July 2008. <*www.whitehouse.gov/omb/budget/fy2009/pdf/09msr.pdf*>
4. At the end of 2010, China held an estimated US$2.85 trillion worth of foreign reserves. This is equivalent to 48 per cent of China's 2010 GDP.
5. Specifically, before the crisis broke, in an important speech, titled "The Global Saving Glut and the US Current Account Deficit", Ben Bernanke, the Federal Reserve chair, offered a novel explanation for the rapid rise of the US trade deficit in recent years. To Bernanke, the source of the problem was not America, but Asia – especially China and the booming economies of East and Southeast Asia. He argued that if in the mid-1990s, these economies were significant importers of capital by borrowing abroad to finance their ambitious development, in the aftermath of the Asian financial crisis of 1997-98, they made a sharp volte-face. Cognizant of the fact that absence of foreign hard currency reserves had made them vulnerable, they began to protect themselves (taking the IMF's advice) against future crisis not only by amassing huge war chests of foreign assets. Amidst a global economic downturn, these savings now provided as a source of stability.
6. In fact, China did not experience a credit crunch.
7. In 2007, China was the largest next exporter of capital – that is, some 21 per cent of all exported capital. IMF (2008c: 169)
8. In 1998, the central government issued some 270 billion yuan of treasury bonds to recapitalize the large state banks, in addition to creating 4 asset management companies or "bad banks" for these banks to transfer their nonperforming loans (Ma, 2007).
9. The RMB is also known as the yuan. Hence, the term RMB and the yuan are used interchangeably.
10. Beijing is also quite selective about FDI and only encourages foreign companies to invest in China using the so-called Greenfield FDI.
11. The CSRC is the executive arm of the State Council Securities Committee which was established in 1992 to regulate China's securities and futures market.
12. That is, although overall the living standard of the masses has greatly improved it has not improved in line with the growth of China's GDP.

13. Wen Jaibao, 2010, “Consolidate the upward momentum and promote sustained growth”, 13th September, available at <*http://www.ccchina.gov.cn/en/NewsInfo.asp?NewsId=25436*>.
14. According to the World Bank (2008b: 12), “during 2001-07, when growth was high and rising, fiscal policy was appropriately contractionary. In 2005, the fiscal policy stance was officially adjusted to ‘prudent’. In 2006 and 2007, fiscal contraction was particularly sizable”.
15. Office of Management and Budget (2008), Mid-Session Review, Budget of the US Government, Fiscal Year 2009, July 2008. <*http://www.whitehouse.gov/omb/budget/fy2009/pdf/09msr.pdf*>
16. China uses both the business tax (BT) and value added tax (VAT) in its turnover tax system. The VAT applies to the sale of goods and the BT is primarily levied on taxable services. Often, this leads to some industries to be double-taxed. In October 2011, Beijing announced that the VAT will eventually replace the BT, and Pilot Programs to this effect were launched on January 1st, 2012 for selected industries in Shanghai.
17. Furthermore, the absence of sophisticated financial intermediation contributes to high level of savings. For example, private companies are forced to save a significant proportion of their earnings to finance future investment as access to bank lending can be unpredictable. Also, the relative lack of consumer credit fosters precautionary savings.
18. China’s “big four” state-owned banks include, the Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Bank of China (BOC), and the Agricultural Bank of China (ABC). Geiger (2008) notes that the “Big Four” control some 80 per cent of the entire banking sector’s assets, have around 70 per cent of the total deposit and provide over 80 per cent of the total lending.
19. This is a remarkable transformation from the one-time Soviet-style mono-bank system, under which the PBOC controlled almost four-fifths of all bank deposits and provided 93 per cent of all loans (Sharma, 1999).
20. <*http://www.forbes.com/sites/kenrapoza/2012/01/31/china-debt-burden-safe-sound-says-wen/*>
21. China’s dependence on exports was vividly illustrated when in May 2009 Beijing introduced a “buy Chinese clause” that discriminates against foreign businesses.
22. From its peak in early 1998, the United States has lost over 3.3 million manufacturing jobs. While not all of the job loss can be attributed to China, the US manufacturing sector, despite significant productivity growth could not overcome the huge trade advantage China gained by having an undervalued currency. The decline in manufacturing employment has led both Democratic and Republican senators to threaten the Chinese with substantial tariffs on Chinese imports to offset the Chinese currency advantage. For details, see Hufbauer and Wong (2004).
23. Some economists claim that the yuan is anywhere from 15 per cent to 40 per cent undervalued against the dollar, making Chinese exports to the United States cheaper and contributing to China’s trade surplus with the United States.

Of course, no one really knows the true extent of the under-valuation. This is because in not letting the market decide a currency's value means the nominal exchange rate – literally the number of units of one currency you can get for one unit of another – is essentially made up. It is whatever the government chooses it to be, so long as the regime can be feasibly maintained. For a good overview, see Keidel (2011); Lardy (2005); Subramanian (2010a); and Makin (2007). For a dissenting view, see Lin, Dinh and Im (2010).

24. Indeed, following the Chinese revaluation, Malaysia responded by shifting its own currency regime from a dollar peg to a basket peg. However, given the very small initial change in the yuan's value, most countries in the region seems to be waiting for a more substantial yuan revaluation before taking action.
25. Revaluation is the resetting of the fixed value of a currency at a higher level
26. Both flexible and floating exchange rates have distinct advantages – albeit, no single exchange rate regime is appropriate for all countries in all circumstances. A fixed exchange rate which pegs the value of a currency to a stronger foreign currency like the US dollar or the euro has advantages for developing countries seeking to build confidence in their economic policies. On the other hand, countries with fixed exchange rates are seemingly more vulnerable to currency crises. As economies mature and become more closely aligned with the international financial markets, exchange rate flexibility seems more advantageous.
27. When a currency increases in value, it experiences appreciation. When it falls in value and is worth fewer US dollars, it undergoes depreciation. Thus, when a country's currency appreciates (rises in value relative to other currencies), the country's goods abroad become more expensive and foreign goods in that country becomes cheaper. Conversely, when a country's currency depreciates, its goods abroad become cheaper and foreign goods in that country become more expensive.
28. Both the central bank governor Zhou Xiaochuan and Premier Wen Jiabao noted that the revaluation should be viewed as the first in what is expected to be a series of steps over years to shift the yuan toward even greater flexibility as China increases its participation in the world trading system. See, People's Bank of China (2005), "Public Announcement of the People's Bank of China on Reforming the RMB Exchange Rate Regime", July 21st. <*http://www.pbc.gov.cn/english/detail.asp?col=6500&id=82*>
29. "Statement of Treasury Secretary Geithner on the Report to Congress on International Economic and Exchange Rate Policies", April 3, 2010, United States Department of the Treasury, No. TG-627. <*http://www.ustreas.gov/press/releases/tg627.htm*>
30. Bill Powell (2010), "Why Geithner Made A Surprise Stop in Beijing", *Times*, April 8th <*http://www.time.com/time/world/article/0,8599,1978666,00.html?xid=rss-fullworld-yahoo*>; and Keith Bradsher (2010), "China Seems Set to Loosen Hold on Its Currency", April 8th, *The New York Times*. <*http://www.nytimes.com/2010/04/09/business/global/09yuan.html?ref=business&src=me&pagewanted=print*>
31. In his written statement to the Senate panel, Geithner noted then senator Obama's support for "tough legislation to overhaul the US process for determining currency

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manipulation and authorizing new enforcement measures so countries like China cannot continue to get a free pass for undermining fair trade principles". However, the Obama administration quickly backtracked from Geithner's statement and declined to label China a "currency manipulator." Rather, the administration noted that while it still believes that the yuan is undervalued, it also recognizes that China has taken steps to rebalance its economy and enhance exchange-rate flexibility. See, Lori Montgomery and Anthony Faiola (2009), "Geithner Says China Manipulates Its Currency," *The Washington Post*, January 23rd, p. A08. <*http://www.washingtonpost.com/wpdyn/content/article/2009/01/22/AR2009012203796.html*> Also, "Statement by Treasury Secretary Timothy Geithner on Release of Semi-Annual Report to US Congress on International Economic and Exchange Rate Policies", April 15th, 2009. <*http://www.treas.gov/press/releases.tg90.htm*>

32. Treasury securities (or Treasuries) are the debt financing instruments of the US government. There are four types of marketable treasury securities: Treasury bills, Treasury notes, Treasury bonds, and Treasury Inflation Protected Securities (TIPS).
33. As noted, China's current account surplus dropped sharply from about 10 per cent of GDP in 2007 to around 2.8 per cent in 2011. A surplus between 2.5 and 4 per cent of GDP is widely seen as when a currency has reached its fair value or "equilibrium".
34. This is because the daily trading band limits intraday fluctuations, and the central bank is not constrained on how it sets the daily official exchange rate.

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