

G R O U P   O F   T W E N T Y



# PEOPLE'S REPUBLIC OF CHINA SUSTAINABILITY REPORT<sup>1</sup>



Prepared by Staff of the

I N T E R N A T I O N A L   M O N E T A R Y   F U N D

<sup>1</sup> *Report 4 of 10.* At the request of the G-20, IMF staff has provided analyses and assessments of member's economies and policies in a set of reports for the Mutual Assessment Process (MAP). These reports serve as inputs for the Action Plan agreed by G-20 Leaders at the Cannes Summit. The 2011 Staff Reports for the 20 MAP consist of the following: (i) an Umbrella Report that provides an integrated summary of the component reports and an upside scenario for G-20 collective action; (ii) an Accountability Report that summarizes members' progress toward policy commitments since the Seoul Summit in 2010; (iii) a MAP Report providing analysis of members' medium-term macroeconomic and policy frameworks; and (iv) Sustainability Reports for seven members (China, France, Germany, India, Japan, United Kingdom, and United States)—identified by G-20 indicative guidelines—to assess the root causes and policy implications of key imbalances.

## EXECUTIVE SUMMARY

*G-20 indicative guidelines identified China as experiencing significant imbalances in private saving and the current account. These imbalances reflect extensive distortions, which have affected saving behavior in all the main sectors—households, firms, and the government. Rebalancing the economy consequently requires wide-ranging reforms, including strengthening social insurance, appreciating the exchange rate, and raising domestic interest rates. Such steps would improve welfare, both in China and the rest of the world. That is why the Chinese authorities have made these measures the crux of the nation's new Five-Year Plan.*

### **The roots of China's imbalances lie deep in the economy's structure.**

- Household saving is high, primarily because holes in the social safety net and credit rationing have forced families to accumulate funds for education, health, and old age.
- Corporate saving has been boosted by subsidized inputs (such as land, water, energy, and capital), lack of domestic competition for state-owned enterprises, and a lack of incentives for SOEs to pay dividends.
- Government saving is also high, partly because foreign exchange intervention (to limit appreciation and offset low domestic demand) has been sterilized at below-market interest rates, effectively transferring income from households to the budget.

### **Removing these distortions would benefit China and the rest of the world.**

- Rebalancing could re-equilibrate the distribution of income back toward households, allowing them to raise consumption from relatively low levels as a percent of GDP.

- Greater reliance on domestic demand would also have wider benefits, because it would offset the impact on world growth of slower domestic demand in major advanced economies and reduce the risks that arise from global imbalances.

### **Rebalancing China's economy requires a range of measures.**

- These include strengthening social safety nets; liberalizing and developing the financial system; increasing distributions from SOEs; removing factor cost distortions; and allowing greater competition in domestic markets.
- The exchange rate would need to appreciate, to redirect resources and prevent overheating as domestic demand accelerates.
- Most of these policies are already contained in China's new Five-Year Plan. But determined and sustained implementation will be needed to alter the deeply entrenched incentives to save.



# INTERNATIONAL MONETARY FUND

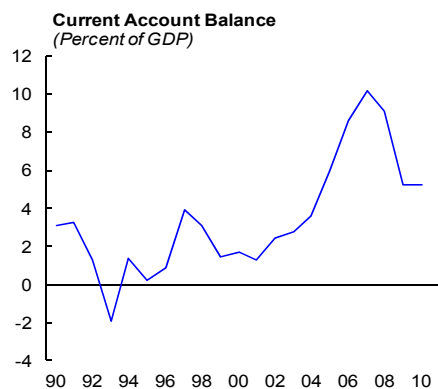
## PEOPLE'S REPUBLIC OF CHINA SUSTAINABILITY REPORT 2011<sup>1</sup>

*China's rapid growth has been accompanied by large external surpluses, reflecting an exceptionally high level of national saving. Behind this high saving lie a number of distortions, which have reduced welfare both in China and the rest of the world. To address this problem, policies will need to bolster social insurance, increase exchange rate flexibility, and liberalize domestic interest rates.*

### I. BACKGROUND

1. **China has followed an unusual development path, combining exceptionally rapid growth with large external surpluses.** Most other countries in the early stages of economic take off have run current account deficits, drawing on foreign saving to fund their abundant investment opportunities. But China has been different: it has run a current account surplus persistently for the past two decades. For some time, the surplus remained quite stable and modest, but in 2003 it suddenly began to surge, reaching 10 percent of GDP by 2007. A rising trade surplus accounted for over three-quarters of the rising current account balance, with the remainder largely due to a higher income surplus.<sup>2</sup> Since then, the current

account surplus has receded to about 5 percent of GDP. Still, it remains well above its 1990s levels and significantly above the G-20 average.



Source: IMF, World Economic Outlook.

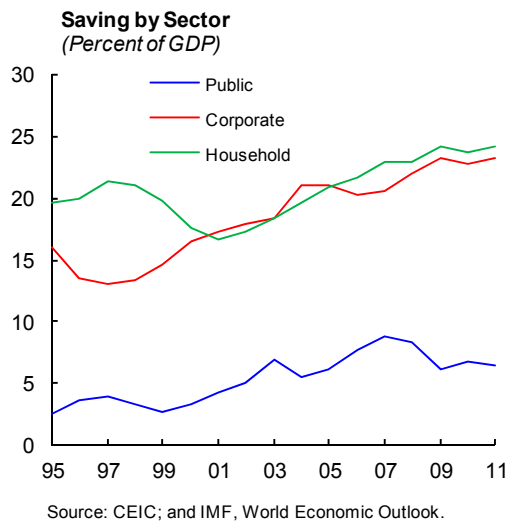
2. **The large current account surpluses reflect exceptionally high rates of saving.**

- *National saving as a percent of GDP has been rising steadily for the past two decades. Nearly half of the total has traditionally come from the household sector, but the contribution of corporate saving has increased very rapidly and is now almost equally*

<sup>1</sup> Prepared by Shaun Roache under the guidance of Josh Felman, with input from Derek Anderson and the support of Eric Bang, David Reichsfeld, and Anne Lalramnghakhleli Moses.

<sup>2</sup> This reflects, in part, rising net interest income receipts from accumulating net foreign assets comprised mainly of foreign exchange reserves.

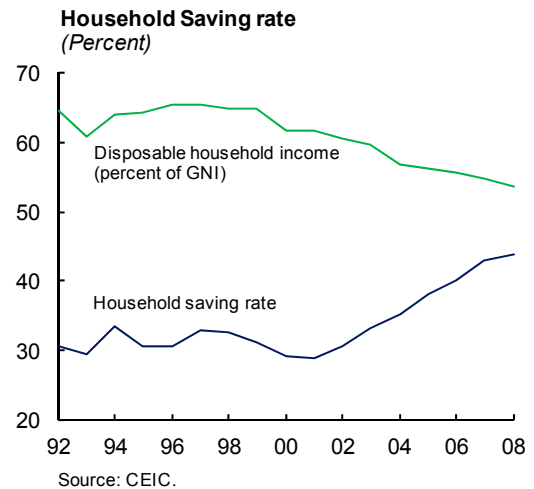
large, while public saving has also made a significant contribution. Saving by all three sectors as a percent of GDP is now among the highest in the G-20 (excluding oil exporters). As a result, the overall national saving rate now stands at 54 percent of GDP, more than double the average for the other G-20 countries (excluding oil exporters).



- *The rise in household saving as a percent of GDP has been particularly striking, because household incomes have actually been falling relative to GDP. Employment growth has been disappointing relative to the pace of economic growth, while rural wages and business incomes have stagnated, and capital income has been hit by a sharp decline in real deposit rates. These factors have more than offset a rapid rise in wages in the modern manufacturing sector.<sup>3</sup> Accordingly, the*

<sup>3</sup> The link between labor compensation in urban and rural areas is weakened by the household  
(continued)

rate of household saving has soared to extraordinary heights when measured relative to disposable income. As household saving has risen, the consumption share has fallen to less than one-third of GDP.

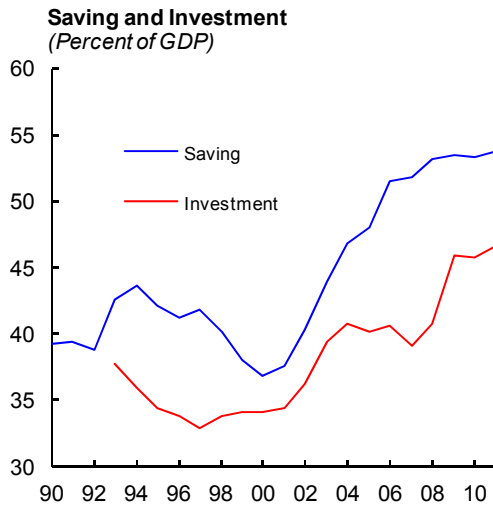


### 3. The rise in saving has been accompanied by a similar—but less pronounced—increase in the investment rate.

- *In fact, China's growth model has been remarkably capital-intensive, considering the country's abundance of labor. The capital stock has grown at an estimated 12 percent annual rate since 2000, far exceeding employment growth, which has averaged less than 1 percent per year.*

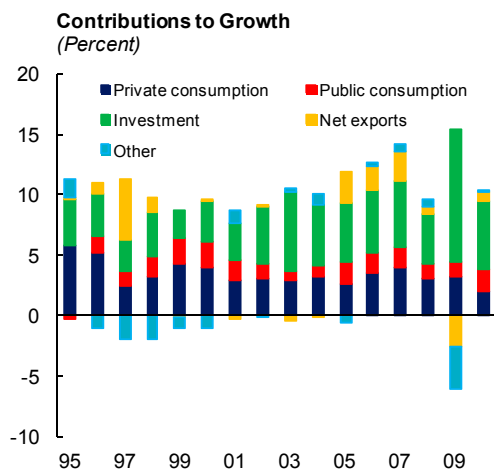
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registration system, which impedes labor mobility and sustains wage gaps, even after accounting for differences in productivity. As a result, the disparities between rural and urban incomes, as well as health and education outcomes, have widened significantly in recent years. See Meng and Zhang (2001).



Source: IMF, World Economic Outlook.

- From a demand perspective investment—not net exports—has been the primary contributor to the country's 10 percent average growth over the past two decades. The surge of investment has taken place in two waves, the first coming in the early 2000s as the country built up its heavy industries (such as steel, machinery, and chemicals) and the second following the global financial crisis, as the government's stimulus package set off a large construction boom.



Source: IMF, World Economic Outlook.

- Following these surges, investment now stands at 46½ percent of GDP, higher than in any other G-20 country.<sup>4</sup> Even so, it remains well below the level of national saving.

4. **China's model of growth, while resulting in important imbalances, has also lifted a remarkable number of people out of poverty.** Between 1981 and 2004, the proportion of China's population below the World Bank's defined poverty line fell from 65 percent to 10 percent, a decline of over half a billion people.<sup>5</sup> A fall in the number of poor of this magnitude over such a short period is without historical precedent.

#### A. Prospects

5. **Both the Chinese authorities and IMF staff expect that the surges in saving and investment will come to an end over the medium term.** The prospects for the current account depend on whether saving slows more than investment.

- Both expect that the current investment boom will fade as the macroeconomic stimulus unwinds and construction returns to a more normal pace.
- Assessments of the prospects for saving differ significantly, however. The Chinese authorities believe that the

<sup>4</sup> Based on IMF staff estimates for 2010 in the September 2011 WEO and excluding inventory accumulation.

<sup>5</sup> *An Assessment of Poverty and Inequality in China*, 2009, World Bank report no. 47349-CN.

wide-ranging reform agenda set out in the Five-Year Plan (Box 1) will rebalance the economy in favor of consumption. Accordingly, they expect that saving will decelerate at about the same pace as investment, so the current account surpluses would remain below 5 percent of GDP. As for the exchange rate, they emphasize progress made in increasing its flexibility, while noting the generally weak relationship between exchange rate movements and the current account.

- *In contrast, IMF staff perceives that the incentives to save have not yet changed sufficiently to alter fundamental behavior.* While the Five-Year Plan holds out considerable potential to

change this situation, it may take some time before a critical mass of measures is in place, and further time before the effects are felt. Accordingly, IMF staff expects the current account surplus to rise again as the investment boom fades, gradually reaching about 8 percent of GDP over the medium term. (This projection assumes that the saving rate falls only gradually, while the real effective exchange rate is maintained at current levels.) In other words, without additional and prompt action, large imbalances will reassert themselves.

6. **Accordingly, China was identified in stage 1 of the Sustainability Exercise as having significant imbalances in private saving and the current account.**

### **Box 1: How the Twelfth Five-Year Plan Targets a Rebalanced Economy**

China's Twelfth Five-Year Plan, covering the period 2011–16, sets out an ambitious reform agenda that—if implemented in a timely manner and sequenced appropriately—would move the economy much further towards a balanced growth path.

The agenda includes:

*Expanding domestic consumption*, to be achieved through: stronger social safety nets (including health and retirement programs); an increased supply of health services; and economic growth that is more labor-intensive and which can raise the growth rate of wage income, particularly for the lowest-paid (including raising the minimum wage).

*Rebalancing the sectoral structure.* One notable target is to raise the service sector's contribution by 4 percentage points of GDP to 47 percent, in part by liberalizing markets (including reducing barriers to entry), equalizing factor costs (including power, water, and heating) with the industrial sector, and improving the managed floating exchange rate regime based on market supply and demand. Enhanced environmental protection and safety may also moderate investment growth in heavy industry.

*Further liberalizing the financial sector and improving access.* Plans include market-based reform of interest rates, increasing capital account openness, and the strengthening of rural financial institutions to boost access to credit and other financial services.

## II. ROOT CAUSES OF IMBALANCES

*China's imbalances are rooted deep in the economy's structure. They can be traced back to the signature measure of the 1990s, the reform of state-owned enterprises (SOEs), which first paved the way for rising saving and external surpluses. Subsequent policies, together with distortions that have built up over the years, have resulted in an economic framework that has sustained high saving and exacerbated external imbalances.*

7. **By the 1990s, a reform of the SOEs was much needed.** In previous decades, agriculture had been liberalized and private enterprise allowed to flourish. But the manufacturing sector remained dominated by large state firms, which were absorbing the bulk of the country's saving yet were producing little economic return. In response, the government enacted a sweeping set of measures, aimed at improving SOE efficiency and profitability. Most notably, enterprises were relieved of their obligation to provide social services (such as medical insurance and pensions) to their employees and were instructed to operate instead on a commercial basis. In addition, many enterprises benefitted from capital injections and debt reductions.

8. **The reform proved remarkably successful.** The newly unshackled SOEs improved their efficiency significantly, becoming internationally competitive in many cases, particularly in heavy industries. This triggered an investment boom, which has led to a significant increase in China's industrial capacity—that is, the size of its tradable goods sector.

9. **At the same time, the subsequent evolution of policies produced the**

**imbalances that characterize the economy today.** In effect, the SOE reform transferred resources from the household sector (and the government) to firms. In and of itself, this was hardly decisive. As the SOEs improved their productivity, the returns would normally have flowed back to households and the government, thereby restoring the distribution of income and minimizing any consequences for imbalances. But this did not happen. Instead, the imbalances only grew larger, reflecting a complex variety of factors. In part, the evolving growth model brought to the fore some existing distortions (such as the failure of SOEs to pay dividends). In part, SOE reform created new ones (such as the lack of a social safety net). Also important was the government reaction (such as its foreign exchange policy). All of these factors acted to preserve and even intensify the imbalances.

### A. Corporate Saving

*The high levels of corporate saving are partly the product of market forces, but importantly the result of sizeable distortions—to the prices of factor inputs, product market competition, and dividend policy.*

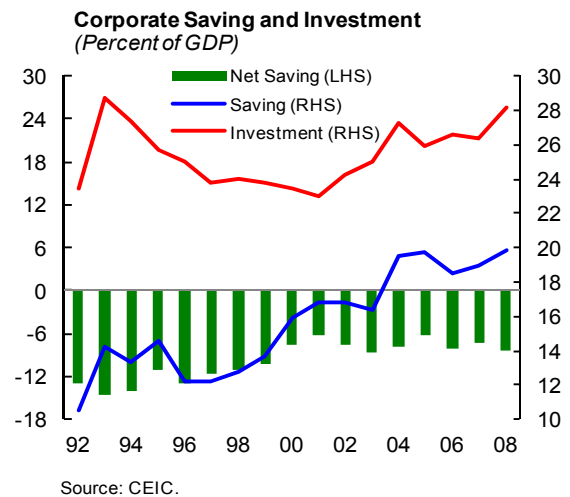


10. **The SOE reforms initially produced a sharp rise in corporate saving.** As firms improved their efficiency and expanded their operations, profits soared and investment followed. In most cases, the increase in capital intensity would have eventually driven down rates of return, causing profitability to subside. Remarkably, the opposite has occurred: the corporate saving rate has continued to increase for nearly two decades (though at a diminished pace since 2005).

11. **Several factors explain why, some related to market forces at work in the economy.** For example, the composition of the economy has been changing, as the SOEs that have encountered diminishing returns have been giving way to an even more efficient private sector. Over the past few decades, the locus of global manufacturing activity has shifted to China, as the country has become the “workshop of the world”. This shift has boosted profits not only in China but in companies throughout the world, as both sides have benefitted from the specialization allowed by international trade.

12. **Another factor sustaining profitability may be the abundant supply of labor.** The large reservoir of poorly-paid rural workers may have depressed manufacturing wages, preventing them from rising in line with productivity, and allowing firms to capture the benefits as profits. This may be a key reason why the labor share of income has fallen. Official data on the manufacturing sector, however, shows that wages have

risen rapidly, essentially in line with productivity.



13. **Other factors are directly related to policy distortions:**

- *Subsidized factor input prices.* Factor inputs, such as land, water, energy, and capital, have increasingly been subsidized in recent years, effectively transferring growing amounts of public resources to the corporate sector. Studies estimate the total value of China's factor market distortions has now reached almost 10 percent of GDP.<sup>6</sup>
- *Market power of SOEs.* Profits in key sectors have not been competed away by other firms, because the policy framework has encouraged large SOE “national champions” that enjoy significant domestic market power.<sup>7</sup>

<sup>6</sup> China: Article IV Staff Report, July 2010. See also the related China Spillover Report, July 2011.

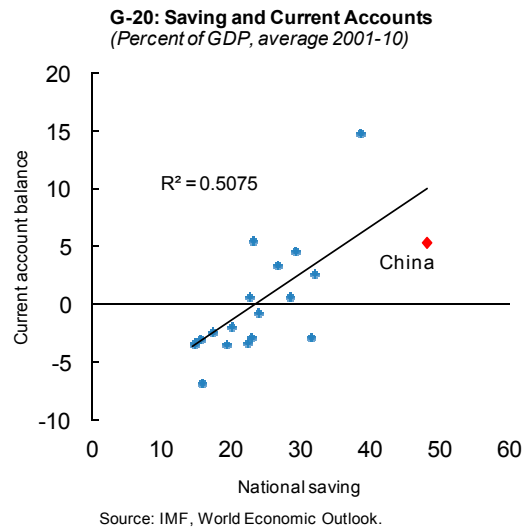
<sup>7</sup> Song, Storesletten, and Zilibotti, 2011; Tyers and Lu, 2008.



- *Dividend policy.* Finally, the increase in profits has largely been saved, since SOEs have had no incentive to pay dividends, nor have they really been forced to do so. (In some cases, dividends have been paid out to state administrators, which have then recycled them back to the firms.)

14. **But all this raises a question: if these distortions have boosted profits, why haven't they had a similarly powerful effect on investment?**<sup>8</sup> In countries where capital controls allow interest rates to be determined domestically, higher saving normally reduces interest rates and spurs investment. China's real interest rates have declined, but the rise in investment, until recently, has been smaller than the rise in saving. The likely reason is that as the level of investment increases, implementation costs (managerial and otherwise) rise even more rapidly, putting a brake on this activity. And China's rate of investment is remarkably high—at 45 percent of GDP, it is the highest in the G-20 by far, implying that the "adjustment costs" (i.e., of further increases in investment) are exceptionally high.<sup>9</sup> Accordingly, countries with unusually high levels of gross national

saving tend to have positive *net* saving; i.e., current account surpluses.



## B. Household Saving

*Household saving has been affected by three key distortions: large holes in the social safety net, credit rationing and interest rate distortions, and, to a lesser extent, the household registration system.*

### 15. The 1990s SOE reform affected household saving in two key ways.

- *Dismantled social safety nets.* The removal of SOEs' social obligations shifted much of the burden of providing for sickness and old age onto households. They responded by increasing their precautionary saving, a phenomenon that has only intensified in recent years as the population has begun to age.

<sup>8</sup> Ferri and Liu, 2010; Huang and Tao, 2010.

<sup>9</sup> For this reason, investment is quite insensitive to the marginal value of additional capital (represented by Tobin's Q, the ratio of the market value of an asset to its replacement cost). For example, estimates of the elasticity of investment to Q often range between 0.01-0.05.

- *Housing privatization.* The related privatization of the housing stock has led younger households to increase their saving to accumulate the funds required to purchase property. A growing population of young workers must now save for the substantial down payments required for a property purchase.<sup>10</sup> As the economy has boomed and housing prices have increased, saving requirements have grown commensurately.

**16. These changes interacted with distortions from financial sector restrictions and controls:**

- *Credit rationing and interest rate distortions.* With interest rates being held below market levels, loan demand has long been high and banks have been forced to ration credit. In these circumstances, banks have preferred to lend to SOEs that benefit from implicit state guarantees. Accordingly, saving has been the only way for most households to insure against risks, smooth their consumption in the event of unanticipated expenditures, or purchase housing.<sup>11</sup> Rationing has also forced smaller businesses to self-fund

investment projects. At the same time, low real interest rates reflecting controls have reduced household deposit income (see the following section).

- *Household registration system.* Finally, labor income itself has been held back, in part, because the household registration system has fragmented the labor market, so that demand for labor in the fast-growing coastal provinces has had only limited effects on wages inland. Empirical research has found significant evidence that rural migrants are segregated from their urban counterparts in terms of job opportunities and wages, although labor market competition between the two groups is increasing.<sup>12</sup>

**17. In recent years, China has been repairing the social safety net, but still more needs to be done.** Significant resources have been allocated to improving the pension, healthcare, and education systems. A new rural pension scheme has been launched, pension benefits have been made portable, subsidies for health insurance increased. But gross social transfers are still well below international comparators, and large gaps in the net consequently remain. For example, the health system still creates a strong incentive for precautionary saving because out-of-pocket expenses are high

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<sup>10</sup> The increasing number of households and rising demand for upgraded property relative to the supply of pre-SOE reform housing stock mean that privatization should increase aggregate household saving.

<sup>11</sup> Though mortgages have become increasingly common in recent years.

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<sup>12</sup> Knight and Yueh (2009); Wu (2005).

and coverage for catastrophic illnesses is limited.

### C. Policy Response: Adapting to High Saving

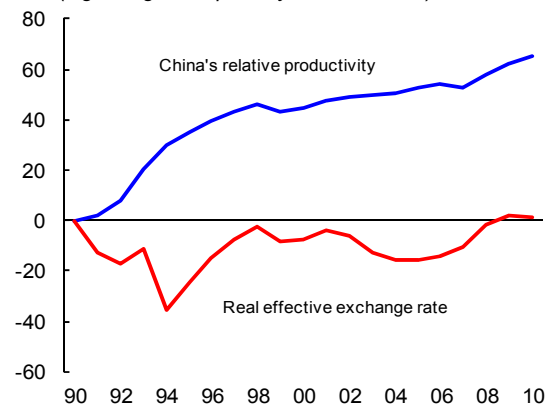
*The government has reacted to rising saving by encouraging exports, so that aggregate demand will be sufficient to sustain output close to potential.* To do this, they have intervened on the foreign exchanges and accumulated reserves, thereby keeping the exchange rate at a low (i.e., depreciated) level. In effect, this approach has allowed the economy to adapt to high levels of saving. Moreover, the way in which this intervention has been sterilized has transferred income to the government, reinforcing domestic saving and thereby sustaining the imbalances.

#### 18. As higher saving has pushed up the current account balance, the authorities have reacted in a variety of ways.

- *Exchange rate appreciation.* To a certain extent, the exchange rate has been allowed to appreciate. The real effective exchange rate (REER) during the first eight months of this year has been about 13 percent higher than the average for the previous two decades. This is a significant amount. But it falls far short of what might be expected, given the evolution of China's economy over this period, particularly its productivity gains relative to trading partners. And while market forces have played a growing role in exchange rate determination since 2005, it is striking that there has

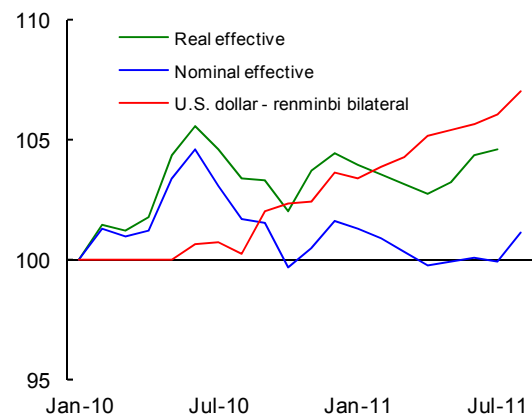
been almost no appreciation of the real effective exchange rate so far this year, despite an unusually large increase in international reserves. One possible explanation is that the real exchange rate has had to remain low so that weak domestic demand could be offset by high external demand, thereby keeping aggregate output close to potential. According to Fund staff estimates, this leaves the REER substantially below the level consistent with medium-term fundamentals.

**Relative Productivity and the Real Exchange Rate 1/**  
(log change multiplied by 100 from 1990)



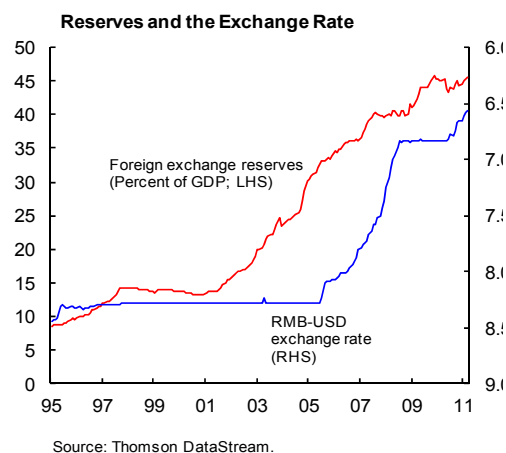
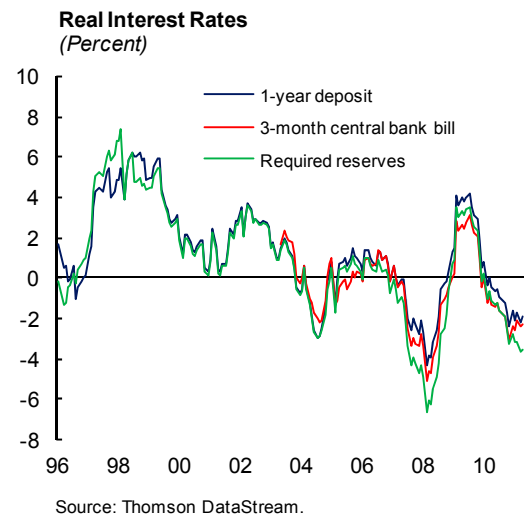
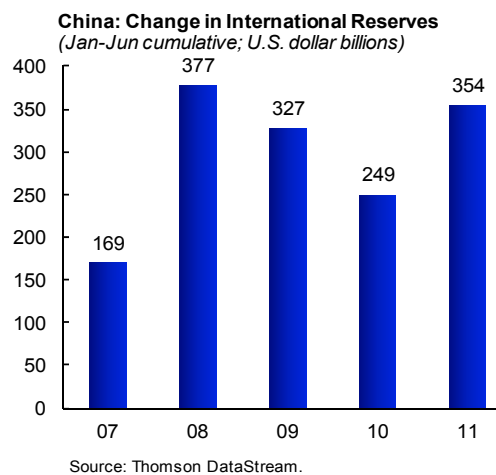
Source: IMF staff estimates.  
1/ Relative productivity of tradables-nontradables in China (relative to trading partners).

**China - Recent Exchange Rate Developments**  
(Jan 2010=100, + = appreciation)



Source: Thomson DataStream.

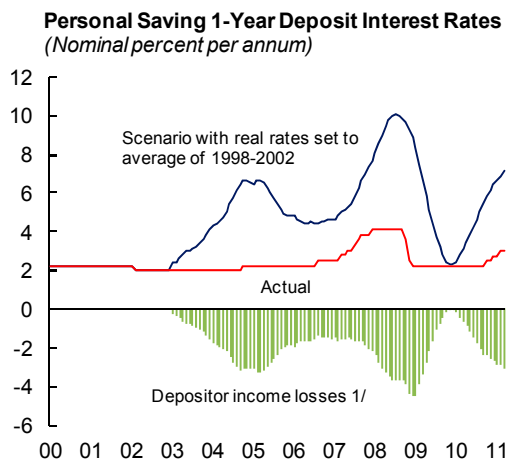
- Massive sterilization.** China has responded to the large current account surpluses by purchasing foreign exchange and sterilizing the proceeds. As a result, reserves now exceed \$3 trillion, nearly half of GDP, while sterilization instruments account for almost the same amount. Since reserves began rising sharply in 2001, the required reserve ratio on domestic renminbi deposits has been ratcheted higher on more than 30 occasions to reach its current 21 percent. The central bank has also issued a large quantity of short-term bills.
- Distorted interest rates.** This sterilization has been achieved at below-market interest rates. Key interest rates declined in real terms after the surpluses started to accelerate in the early 2000s. In fact, real rates on required reserves (the key sterilization instrument), central bank bills, and deposits have been very low for most of the subsequent period and negative when the current account surplus was at its peak. Savers have been unable to respond by shifting funds abroad, because of extensive capital controls.



- *Implicit transfers from households to government.* As a result, sterilization has resulted in a large transfer from households (depositors) to the government (borrowers).<sup>13</sup> Since 2003, annual household interest earnings have been up to 4 percentage points of GDP lower than if real interest rates had been maintained at their 1998–2002 average.<sup>14</sup>

that might have been consumed, thereby adding to national saving. The process was only reversed in the wake of the global financial crisis, when the government decided to shift its fiscal stance and stimulate the economy.

19. **In summary, key elements of the policy response have actually helped sustain the imbalances.**



Sources: CEIC; Thomson Datastream; and IMF staff estimates

1/ Annualized household interest income loss in percent of GDP for scenario with real interest rates at 1998-2002 average compared to actual deposit interest rates. Nominal rate calculated as the real rate plus the 2-year trailing average inflation rate.

- *Increased national saving.* This process of sterilization-and-transfer reinforced the current account surplus in the period leading up to 2008, because the government effectively saved funds

<sup>13</sup> Corporations have benefitted much less, because they have large deposits as well as loans, a reflection of their high saving rate.

<sup>14</sup> Note that the peak transfers occurred in 2008, close to when the current account surplus reached its peak (2007).

### III. ASSESSMENT OF IMBALANCES

*China's growth model has been based on high domestic saving, counterbalanced by high external demand and equilibrated by a low real exchange rate. In many respects, it has been remarkably successful, delivering rapid growth and lifting millions out of poverty. But as the authorities recognize, the model ultimately needs to change.*

**20. The removal of key distortions would bring two critical benefits to China (see section IV below for details):**

- *Higher household consumption.* Rebalancing could re-equilibrate the distribution of income back toward households, allowing them to raise their consumption share from its current low level (as a percent of GDP), which is less than half the level in most other G-20 countries. Rebalancing could also address rising inequality between rural and urban households, since it is the former that particularly lack social insurance, access to credit and other financial services, and the ability to supply labor to fast-growing industries.
- *Enhanced macroeconomic control.* Rebalancing could enable the monetary policy framework to move away from quantitative controls (which have the side-effect of shifting transactions away from the regulated banking system) toward a market-based framework that can aim more efficiently at inflation and financial stability targets. It would also allow broader financial sector reforms that would end credit rationing and improve the allocation of the nation's saving.

**21. A reduction in China's imbalances would also benefit the global economy.**

Typically, the rest of the world would respond to an increase in saving by a large country such as China by reducing interest rates. This would have the advantage of bolstering domestic demand, thereby maintaining output at potential. But in the current circumstances advanced countries do not have this option: their interest rates are already so low they cannot decrease them if desired global saving increases. In other words, they are in a liquidity trap.<sup>15</sup> In this case, large current account surpluses in some countries can lead to low aggregate demand and lower output in other countries.<sup>16</sup> Conversely, if China were able to rebalance its economy toward domestic demand, this could increase global output.

**22. That said, global rebalancing needs to be a multilateral exercise—as emphasized in the G-20 MAP.**

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<sup>15</sup> Blanchard and Milesi-Ferretti (2011).

<sup>16</sup> In principle, these countries could use fiscal policy to sustain domestic demand, but in the current circumstances the room for fiscal policy is severely curtailed by debt sustainability concerns.

## IV. HOW TO ADDRESS IMBALANCES?

*To rebalance its economy, China needs to address the underlying structural factors that contribute to its high saving and current account surpluses. Most of the needed measures are already contained in the Five Year Plan. But implementation will be key, and in some cases (such as the exchange rate) more needs to be done.*

### A. Policy Priorities

#### 23. **Strengthen social safety nets.**

Recent analysis by IMF staff indicates that higher government social spending allows households to reduce their precautionary saving, with important income, insurance, and distributional (and welfare) effects. In particular, a sustained 1 percentage point of GDP increase in government social spending would allow households to increase their consumption ratio by up to 1¼ percentage points of GDP.<sup>17</sup> Accordingly, China should continue to improve access to high quality healthcare, reduce out-of-pocket expenses, and bolster coverage for catastrophic illness. It would also be important to consolidate the complex and fragmented patchwork of various national, provincial, government and occupational pension schemes for migrant and rural workers.

#### 24. **Increase exchange rate flexibility.**

Boosting domestic consumption, including through social safety net reforms, would increase domestic demand. To avoid overheating, and a possibly disruptive real exchange rate appreciation through higher

domestic inflation, the nominal exchange rate should be allowed to appreciate on a multilateral basis (that is, in nominal effective terms). This would also change firms' incentives, encouraging them to rebalance their investment away from the export-focused tradable sector and towards the domestic service sector. Moreover, by allowing the exchange rate to absorb more of the ongoing appreciation pressures, it would also reduce the need for sterilization. Interest rates could then be allowed to rise to market levels, reducing the implicit tax on households and allowing them to raise their consumption.<sup>18</sup>

<sup>17</sup> Baldacci, Callegari, Coady, Ding, Kumar, Tommasino, and Woo (2010) and Barnett and Brooks (2010).

<sup>18</sup> China 2011 Article IV IMF staff report.



## Box 2. Processing Trade and Rebalancing in China<sup>1</sup>

A recent note by UNCTAD, prepared for the G20, emphasized the role of processing trade in China's external imbalances.<sup>2</sup> It argues that, because of the large role that processing plays in China's external commerce, exchange rate appreciation may not have much impact on reducing imbalances.<sup>3 4</sup> As evidence, UNCTAD claims that China's real effective exchange rate based on unit labor costs (REER-ULC) has appreciated strongly since 1994, but rebalancing has not yet occurred. How valid are these arguments?

Certainly, processing trade is important. Nearly half (though the proportion is diminishing) of China's exports are processed goods that use imported technology, raw materials, and intermediate inputs. This means that gross exports significantly overstate the domestic value added in China's export activities.

This indeed matters for rebalancing. The greater the proportion of processing in total trade, the smaller the impact of real exchange rate (RER) changes on trade volumes because such changes only affect the competitiveness of domestic value added operations, rather than total gross exports. However, a second opposing effect is that domestic services are used as an intermediate input in manufacturing exports—for example, transportation and financial intermediation. The competitiveness of these services will also factor into the competitiveness of manufactured exports, increasing trade sensitivity to the RER.

In fact, these two effects largely seem to cancel each other out. Recent IMF staff analysis suggests that for a given reduction in China's trade surplus as a percent of GDP, the presence of processing trade alone would increase the required multilateral RER appreciation by around 50 percent (relative to a "gross trade" baseline model), as implied by the UNCTAD analysis. But the additional required appreciation is reduced to 7 percent when account is taken of domestic service sector inputs into manufactured exports. Similar offsetting effects are found for the relatively smaller processing trade sector in the United States. This means that traditional "gross trade" models still provide useful insights into the RER adjustment that would be consistent with external rebalancing in China.

But what of the claim that the REER-ULC has appreciated by 40 percent between 2000 and 2010, without a noticeable impact on China's external imbalances? In fact, IMF measures show no such appreciation; UNCTAD's figures seem to stem from flawed or incomplete wage data. For example, the claim of deteriorating competitiveness is difficult to square with the steady rise in corporate saving (essentially, profits). Also, if wages have been outstripping productivity, then the labor share of income should be rising, not falling. So, most likely there has not actually been a sharp appreciation of the REER-ULC.

In the end, as other IMF studies indicate, the effects of multilateral exchange rate appreciation on the current account are likely to be broadly similar in China to those in other countries.

<sup>1</sup> This box draws on Bems (2011).

<sup>2</sup> UNCTAD, 2011, Background Note on Processing Trade and China's External Imbalances. See also WTO, 2011, Measuring Trade in Value Added and its Implications for Understanding Global Imbalances.

<sup>3</sup> Empirical estimates of this ratio for China range between 0.50-0.70. In comparison, for the world as a whole the ratio is estimated at 0.75.<sup>1</sup>

<sup>4</sup> At one point, the note emphasizes a different – and entirely valid point -- that a *bilateral* appreciation against the U.S. dollar will not have much impact on imbalances, if it does not translate into an REER appreciation (e.g., if the renminbi just "follows the dollar down").

25. **Liberalize and develop the financial system.** This would provide households and firms with a broader range of financing possibilities, again allowing them to increase their consumption and investment. Recent IMF staff estimates suggest that financial sector reform, together with an appreciated real exchange rate and more developed capital markets, would have a significant impact on external imbalances.<sup>19</sup> For example, the expansion of nonbank financial intermediation, including a well-functioning bond market, could facilitate growth in private pensions and insurance, reducing the need for households to save (and effectively help the government expand the safety net).

26. **Raise distributions from the profits of state-owned enterprises.** Majority state-owned publically listed Chinese enterprises pay dividends to stockholders but have not distributed significant amounts to the government. Raising the current payout rate of zero to 15 percent (as announced in 2007 but not yet implemented) would bring China closer into line with international comparators and reduce gross corporate saving. If the proceeds are, in turn, consumed by the government or transferred to households, this would boost aggregate consumption.

27. **Improve labor mobility by liberalizing the household registration system.** This would ease labor market constraints in fast-growing regions, and spur more labor-intensive growth in these parts of the country. At the same time, it would improve incomes in rural areas, thereby helping to narrow the wide rural-urban income inequalities.

28. **Remove factor cost distortions and allow greater competition in domestic markets.** The costs of major factor inputs, such as land, energy, and water need to be raised to market levels, to ensure a more efficient allocation of resources and a more appropriate pricing of externalities. Steps should also be taken to reduce barriers to entry. Both steps would help scale back the corporate saving that arises from redistribution, rather than competition and market forces.

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<sup>19</sup> Geng and N'Diaye (forthcoming).

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