



A Blueprint for Rebalancing the Chinese Economy

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THE IMPERATIVE TO REBALANCE

For the past several years China's top leadership has repeatedly described the country's current economic model as "uncoordinated, unsteady, imbalanced, and unsustainable." This language is in sharp contrast to what has been a decade of apparent success: high-speed economic growth and emergence into the ranks of middle-income countries. What accounts for this discontinuity between rhetoric and record? Chinese policymakers have correctly assessed that the country's economic growth over the past decade has been based on superelevated levels of investment and systematic suppression of private consumption. The resulting capital-intensive growth model has not generated adequate gains in consumption and employment and instead has built up significant distortions in the economy.

The longer these distortions accumulate, the greater the risk that the Chinese economy will face a sharp and wrenching correction, because overinvestment leads to unsustainable asset bubbles and large amounts of misallocated capital. China needs a different growth model for the next decade to sustain moderately fast growth. Chinese policymakers' gloomy rhetoric on the economy, therefore, is a justified acknowledgment that while economic growth over the past decade may have been fast, it has not been very healthy. The desire to move away from the excesses of the past decade and put the economy on a more sustainable growth path is the core objective of economic rebalancing.

The task of economic rebalancing is likely to demand much of the energy and attention of the new Xi Jinping–Li Keqiang administration. Rebalancing entails large changes in fundamental economic policies, such as removing lingering price controls and opening up the closed financial system. It will also bring about a shift away from the economic winners of the past decade, namely manufacturers and property developers, towards private consumers and the service sector. While a more balanced economic model will deliver more sustainable economic growth, it also requires a change in traditional modes of economic policymaking. Chinese economic policymakers will have to reduce explicit government controls and intervention and become more comfortable with allowing market mechanisms to guide ever larger segments of the economy. Despite these challenges, economic rebalancing is eminently achievable and should be tackled sooner rather than later.

POLICIES TO REBALANCE

Rebalancing an economy as large as China's is a long and complicated endeavor. Fortunately the policy prescriptions are relatively clear. The imbalances in the Chinese economy were created by distortions to three of the most fundamental prices in the economy: interest rate, exchange rate, and price of energy. An underdeveloped social safety net and high levels of income inequality have exacerbated these imbalances. Rebalancing policies should focus on allowing these key prices

to be more market-determined, and the government should increase social transfers and work towards a more equitable distribution of income. Most of these policy proposals are not new and have been analyzed in-depth in our previous work. The evolving nature of the Chinese economy, however, has changed the relative importance of various reform policies. Specifically, the decline in China's current account surplus and corresponding lower rates of foreign exchange market intervention have reduced the importance of exchange rate reform relative to interest rate reform. Moreover, new disclosures about high levels of income inequality in China have led us to explicitly address the relationship between income inequality and economic rebalancing.

The Interest Rate

The interest rate reflects the cost of capital and in China it has been kept at an artificially low level for almost a decade. The People's Bank of China sets the benchmark saving and lending rates. The central bank fixed interest rates at very low levels over the past decade as part and parcel of the policy of keeping the renminbi undervalued. If domestic interest rates were further liberalized, the costs incurred by the central bank to maintain a significantly undervalued exchange rate would increase dramatically. When the central bank intervenes in the foreign exchange market, buying up foreign exchange with domestic currency, it increases the domestic money supply.

Given the unprecedented scale of central bank intervention in the foreign exchange market between 2004 and 2011, without offsetting monetary actions by the central bank, domestic price inflation would have become a serious problem. To avoid this problem the central bank has sterilized a large share of these money supply increases by increasing the share of customer funds that banks must deposit at the central bank (the so-called required reserve ratio) and to a lesser extent by requiring banks to purchase central bank bills. The central bank pays interest on both required reserves and central bank bills, but the rates are set much below market rates, thus imposing an implicit tax on banks. To keep banks profitable and avoid a recurrence of the nonperforming loan crisis of the late 1990s, the People's Bank of China sets a ceiling on deposit rates and a floor on lending rates, in effect giving banks a guaranteed profit spread. This policy simply transfers the costs of sterilization to China's households, which have faced real deposit rates that have been on average negative since 2003.

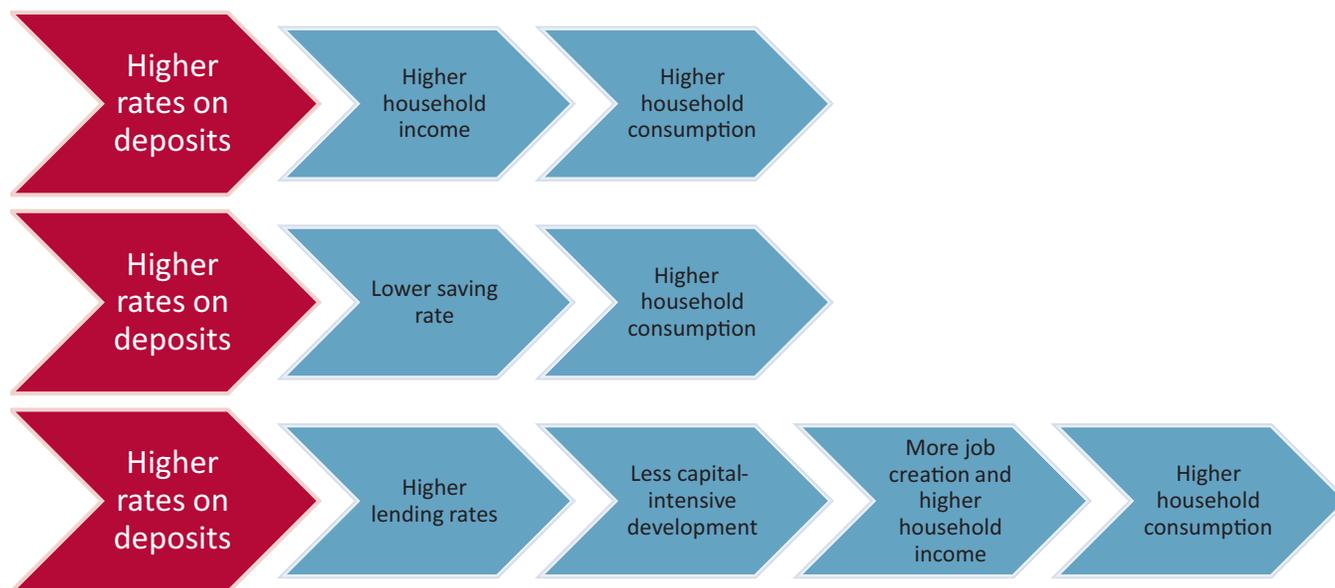
Another motivation to keep interest rates low has been the desire to discourage more hot money inflows. Already spurred by the expectation of further renminbi apprecia-

tion, a positive interest rate differential between China and the rest of the world would encourage even more speculative capital flows. The Chinese government fears a recurrence of the foreign capital inflows that destabilized the economies of Thailand and other Asian countries and resulted in the Asian financial crisis.

Market-determined interest rates would lead to a rise in deposit rates, and banks would have to pass part of the costs of funds to borrowers in the form of lending rates that on average would be higher in real terms than has been the case in recent years. This would narrow the spread between the return on capital and the bank lending rate and therefore likely reduce China's extraordinarily high rate of investment, thus contributing to the policymakers' goal of reducing China's dependence on investment as a source of economic growth.

Higher deposit rates would also promote consumption through three distinct channels. First, higher deposit rates translate directly into more income for households. Second, higher deposit rates likely will lower the saving rate. This counterintuitive effect is due to severe financial repression, which has reduced the return available to savers (Lardy 2008). Because Chinese households are target savers, seeking a set amount of funds for emergencies and expenses, a lower deposit rate actually causes households to save at higher rates (Nabar 2011). Finally, higher lending rates lead to less capital intensive economic development resulting in more job creation, higher household income, and ultimately higher levels of household consumption (figure 1).

Progress on interest rate liberalization has been slow and uneven. Bank lending rates already have been largely liberalized, while deposit rates remain heavily controlled by the People's Bank. Liberalizing deposit rates will lead to higher lending rates as banks pass on the higher cost of funds to borrowers. There are concerns that higher rates could imperil China's corporate sector, which currently has debt equivalent to 100 percent of GDP. Deposit rates should, therefore, be liberalized gradually over several years, presumably starting with medium- and long-term deposits and later demand deposits, to give both corporations and banks time to adapt to an environment with market-determined interest rates. Currently, many fast-growing private firms are forced to borrow through informal channels because banks are reluctant to extend credit to them. Interest rate liberalization could actually lower borrowing costs for these firms because banks would have increased incentive to make loans to them. But higher interest rates would likely push some of the less efficient enterprises out of business. As long as this proceeds in a gradual and controlled manner, an increase in bankruptcies would actually be healthy. Banks are currently saddled with a

Figure 1 Links between higher real deposit rates and household consumption

Source: Authors' illustration.

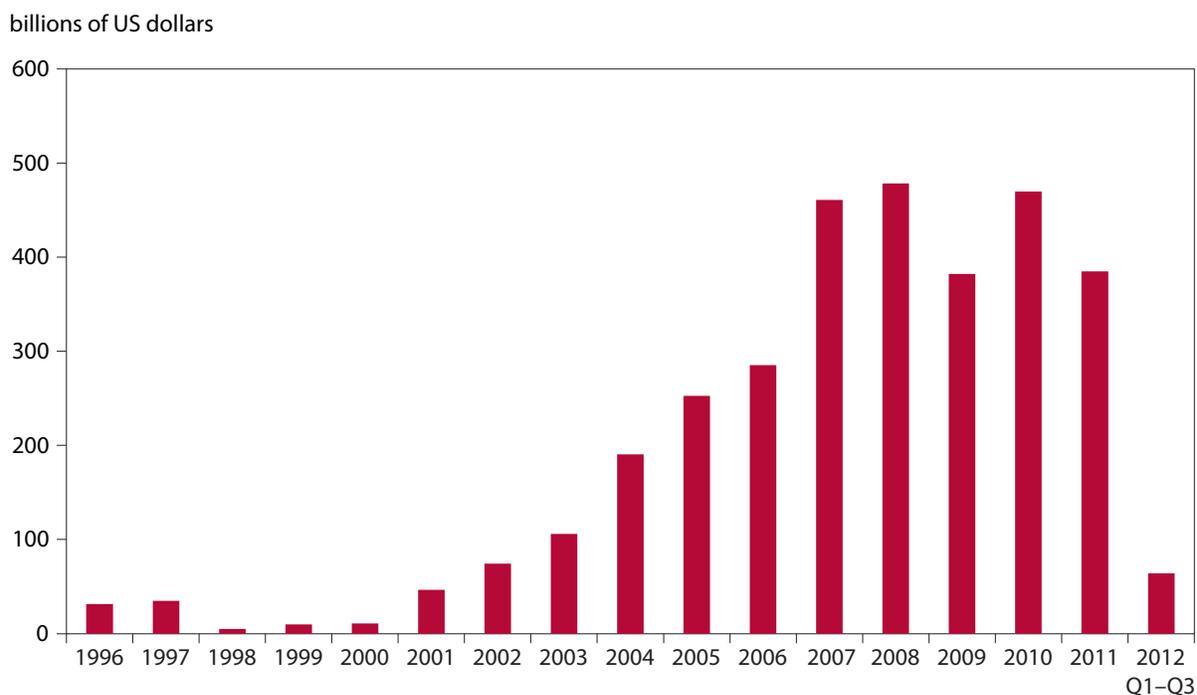
large number of special mention loans, loans that often have not yet defaulted because the bank has been pressured into providing new financing. Pruning these deadweight loans is a required step for banks to pay depositors higher, market-determined interest rates and not go bankrupt.

Japan offers a precedent for rebalancing achieved by narrowing the gap between the return on capital and bank lending rate. Tomoyuki Fukumoto and Ichiro Muto (2011) of the Bank of Japan identify reducing financial distortions as one of the principal factors behind Japanese economic rebalancing. Before the 1970s the bank lending rate in Japan was set significantly below the return on capital. This naturally provided significant incentives for high levels of investment and an unbalanced growth path. In the 1970s a variety of factors, ranging from slower urbanization to tight monetary policy, narrowed the difference between the return on capital and the bank lending rate. Financial reforms in the 1980s brought lending rates further in line with market fundamentals. The smaller gap between the return on capital and bank lending rates reduced firms' incentives to maintain high levels of investment and the economy subsequently grew in a more balanced way. GDP growth continued to be robust in Japan through most of the second half of the 1970s and the 1980s. A similar outcome likely would hold for China if the financial distortions that result in the underpricing of capital are reduced.

The Exchange Rate

Although China's current account surplus has declined significantly from the peak levels of 2007–08, it is still relatively large. Thus given China's persistent large current account surplus, a more market-based renminbi exchange rate almost certainly will lead to appreciation. This would contribute to economic rebalancing in two ways. First, by making exports more expensive and imports cheaper, currency appreciation would reduce the growth of exports and increase the growth of imports, cutting China's large global external surplus. On the domestic side, an appreciation of the currency would also decrease the profitability of the export-oriented manufacturing sector to the relative benefit of the service sector of the economy, which has languished since 2002. Secondly, a more flexible renminbi will mean less intervention in the foreign exchange market, a prerequisite for liberalizing interest rates.

The renminbi has been pegged to the dollar since 1994. This policy worked well in the second half of the 1990s when the US dollar was appreciating. Due to the peg of the Chinese currency to the dollar, the renminbi was also appreciating on average with respect to the currencies of China's trading partners. This appreciation roughly offset China's high productivity growth relative to the average of its trading partners. Thus China's external surplus, as measured by the

Figure 2 Foreign currency intervention, 1996 to 2012Q1–Q3

Source: State Administration of Foreign Exchange of the People's Republic of China, ISI Emerging Markets CEIC Database.

current account, was moderate, averaging 1.9 percent annually between 1995 and 1999.

Beginning in February 2001, the value of the dollar began to depreciate on a sustained basis (Lardy 2012, 94–106). The Chinese authorities appeared not to have paid sufficient attention to this directional change in the value of the dollar and did not alter the People's Bank of China's assignment of keeping the renminbi pegged at 8.28 vis-à-vis the dollar. As a result the renminbi began to depreciate steadily against the value of the currencies of its other trading partners, and China's trade surplus began to rise on a sustained basis. The central bank was thus forced to intervene in the foreign exchange market in increasing amounts to maintain the undervalued level of the renminbi. Even after the Chinese authorities changed the currency policy in July 2005 by allowing a one-time appreciation of 2.1 percent and introducing a tightly managed floating exchange rate system, China's external surpluses continued to expand.

At the time, some economists argued that this showed that China's trade balance was not very sensitive to changes in the value of the renminbi. In reality, China's surplus continued to expand as a share of GDP for two reasons. First, by mid-2005 the currency was undervalued significantly compared with the value that would have prevailed if the 1994–2000 pace of

appreciation against the currencies of China's trading partners on average had persisted. Second, given the level of undervaluation already present in mid-2005, an initial appreciation of 2.1 percent and the modest pace of appreciation afterwards were not large enough to slow the growth of external surpluses that followed in 2006 and 2007. Gradual appreciation was again abandoned between the fall of 2008 and summer of 2010 when China repegged its currency to the dollar due to concerns about the global financial crisis. As shown in figure 2, this set of policies resulted in the rapid buildup of foreign exchange reserves over the 2000s, leading to a total accumulation by 2011 in excess of \$3 trillion.

China's current account surplus in 2012 fell to 2.6 percent of GDP, down dramatically from the 10.1 percent peak in 2007.¹ This fall in the external surplus was made possible by the 30 percent appreciation in the real effective exchange rate since June 2005 and ongoing economic weakness in China's major export markets, particularly Europe. This drop in the current account surplus in part explains the ability of the central

1. State Administration of Foreign Exchange of the People's Republic of China, "Question and Answer Session on the 2012 Balance of Payments Situation," 2013, www.safe.gov.cn (accessed on February 1, 2013).

bank to significantly reduce its intervention in China's foreign exchange market in the first three quarters of 2012. Compared with an annual average of \$435 billion in 2007–11, central bank intervention in the foreign exchange market dropped dramatically to only \$64 billion in the first three quarters of 2012. Moreover, in 2012 there was substantial two-way movement in the value of the renminbi, and on some occasions the central bank actually appeared to be intervening in the market by selling foreign exchange to prevent a more sizeable depreciation of the currency. Thus in 2012 the value of the currency increasingly appeared to be determined by supply and demand in the market.

There are, however, several reasons to believe that significant intervention by the People's Bank of China may not yet be a thing of the past. In the second half of 2011, economic fears brought about by a slowdown in the Chinese economy and the European crisis put downward pressure on the exchange rate and reduced the need for intervention. These concerns have since abated and thus the upward pressure on the exchange rate has returned. Related to the concerns, foreign currency deposits in domestic banks started increasing rapidly at the end of 2011 and the beginning of 2012 as Chinese corporations no longer felt compelled to immediately convert their overseas earnings into renminbi. These deposits increased by 58 percent (\$149 billion) between 2011Q3 and 2012Q2, dramatically reducing the need for intervention by the central bank. But in the second half of 2012 the buildup of foreign currency deposits in the Chinese banking system abruptly stopped, as firms no longer expected much of a chance of renminbi depreciation.

Given these factors, it may be too soon to declare that the value of the renminbi is now more or less at equilibrium. Indeed, according to the most recent fundamental equilibrium exchange rate analysis by William R. Cline and John Williamson (2012), despite the decline in China's external surpluses, the renminbi remains somewhat undervalued. Moreover, this degree of undervaluation may increase if the future pace of managed appreciation does not keep pace with rapid Chinese productivity increases. This problem can be avoided if the rate of intervention in the foreign exchange market is phased out so that the value of the renminbi is primarily determined by market forces.

The Price of Energy

The third price distortion that must be corrected is the cost of energy. Price controls on electricity, gasoline, and other liquid fuels act as an implicit subsidy to China's industrial sector, which consumes two-thirds of energy production. This subsidy

led to a more capital-intensive form of growth at the expense of the service sector. Removing these subsidies would help eliminate the incentives for an overly capital-intensive growth pattern and gradually increase the wage share of GDP as the more labor-intensive service sector develops more rapidly.

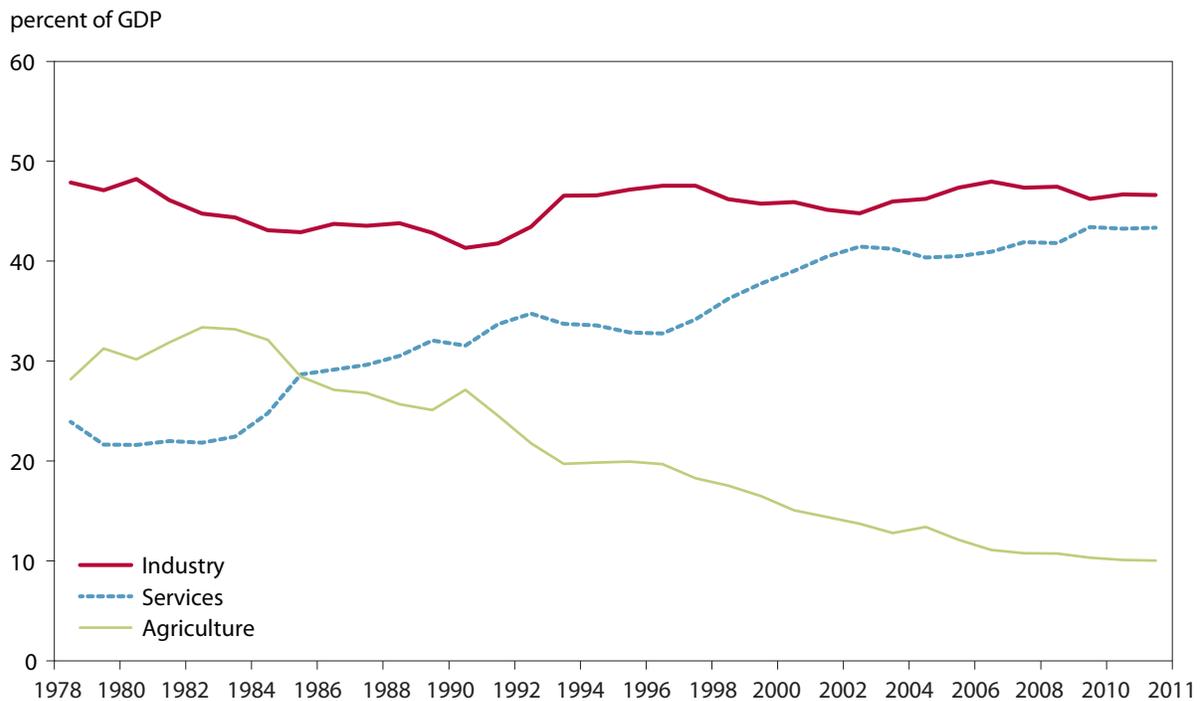
The price distortions for gasoline and other liquid fuels come in the form of the National Development and Reform Commission's (NDRC) price-setting mechanism for crude oil. The current mechanism adjusts the domestic price of crude oil when there is a change in price greater than 4 percent that is sustained for 22 working days. At a basic level, such a system is a reasonable way to adjust prices without giving in to the excessive price volatility in the global oil market. The problem, however, stems from the limits the NDRC places on the pass through from changes in the price of crude oil to the prices of refined petroleum products. When the price of crude oil is less than \$80 per barrel, there is full pass through, including a profit margin that provides for a return on capital. However, when the crude oil price rises above \$80 per barrel, full pass through is abandoned, thus reducing the profit margins of China's refining companies. When the price of crude oil increases above \$130 per barrel, retail prices are capped (i.e., no cost pass through). As a result of these restrictions, the refining units of the major state-owned oil companies operate at a loss when the price of crude oil is high. Both Sinopec and PetroChina posted losses on their refining operations in 2007, 2008, 2011, and the first half of 2012.²³ These losses coincided with the price of crude oil being above the \$80 threshold for extended periods. Moreover, this problem of insufficient cost pass through may continue as oil analysts are widely predicting that the global crude oil price will stay above \$100 for the next 12 months.⁴

Price distortions are also present in the electricity sector. The NDRC's pricing mechanism raises the rates paid to elec-

2. China Petroleum & Chemical Corporation, United States Securities and Exchange Commission Form 20-f, 2011, http://english.sinopec.com/download_center/reports/2011/20120426/download/Sinopec2011-20F.pdf (accessed on December 18, 2012); *2012 Interim Annual Report*, http://english.sinopec.com/download_center/reports/2012/20121129/download/2012082719.pdf (accessed on December 18, 2012).

3. China National Petroleum Corporation, *2007 Annual Report*, www.petrochina.com.cn/resource/EngPdf/xwygg/ew_20090415_annual_report.pdf (accessed on December 18, 2012); *2008 Annual Report*, www.petrochina.com.cn/Ptr/Investor_Relations/Periodic_Reports/Annual_Report/2007en.htm (accessed on December 18, 2012); *2011 Annual Report*, www.petrochina.com.cn/Resource/Petrochina/img/2012bg/2011ndbg_en.pdf (accessed on December 18, 2012); *2012 Interim Report*, www.petrochina.com.cn/Resource/pdf/xwygg/2012interimreportEn.pdf (accessed on December 18, 2012).

4. Javier Blas, "Shale revolution will not dent \$100 oil," *Financial Times*, January 1, 2013, www.ft.com/intl/cms/s/0/7680572a-5030-11e2-a231-00144feab49a.html.

Figure 3 Composition of GDP, 1978–2011

Source: National Bureau of Statistics of the People's Republic of China, ISI Emerging Markets CEIC Database.

tricity generators if the price of coal increases by more than 5 percent over six months. However, as in the case of crude oil, when the coal price spikes the NDRC is often reluctant to follow through with a commensurate increase in electricity prices paid by power users⁵. Even when electricity generators have been allowed to charge higher rates to the power distribution companies, the distribution companies have been limited in their ability to pass along the cost increases to the final consumer. When coal prices increased in 2007, 2008, 2010, and 2011, the NDRC failed to raise electricity prices sufficiently to offset rising costs of inputs, causing a decline in the profits of thermal power producers. For example, in 2011 the five largest thermal electricity producers, which account for around half of installed capacity, reported a combined loss of 15.1 billion renminbi on their electric power production businesses (China State Electricity Regulatory Commission 2011). This loss represents a direct subsidy to users of electric power, but the actual subsidy is far greater because these

5. There appears to be some progress towards reforming price controls for coal and electric power. At the end of 2012, authorities announced a series of measures to reduce the degree of price control in coal contracts and increase the degree of cost pass-through in electricity tariff rates. The ultimate significance of these changes will depend on how fully they are implemented. Past efforts at reform in this area have been incomplete.

firms operate with approximately zero return on assets. Even after state subsidies and profits from other lines of business, the “big five” electricity producers reported only 18.5 billion renminbi in profits, a paltry .61 percent return on assets. The low return on assets earned by these large state-owned enterprises acts as an indirect subsidy to industrial firms, which consume fully three-quarters of China’s electric power output. Even a standard of 5 percent return on assets, conservative for a high-growth economy like China, would imply that these power firms undercharged their end users by 133.4 billion renminbi in 2011. The number would likely be even larger if small producers were included in the calculation.

In both electricity and liquid fuels, the central government has been unwilling to pass along the full magnitude of cost increases and has instead imposed losses or low rates of return on state-owned enterprises. This makes energy-intensive industries, primarily manufacturers, more profitable than the service sector, leading to a rising share of investment in manufacturing and industry and a falling share of investment in services. In the 1980s and 1990s China’s service sector grew so rapidly that its share of GDP rose by an average of one percentage point per year, reaching 41.5 percent in 2002 (figure 3). With the onset of severe financial repression and other distortions in 2003, the service sector stagnated,

growing by less than two percentage points between 2002 and 2011. China's service sector share of the economy remains a full ten percentage points lower than what is typical for other emerging markets. Energy price distortions have resulted in a more capital-intensive growth path, which has rewarded capital at the expense of labor and led to a drop in the wage share of GDP. This distortion has lowered consumption levels and exacerbated income inequality.

Social Transfers and Income Redistribution

The effort to unwind economic imbalances in China can be hastened by a greater emphasis on transfers and redistribution, which will bring down the saving rate and put more money in the hands of those most likely to consume. First, the Chinese government needs to continue to build out the social safety net in order to reduce precautionary saving by households. The lack of a safety net encourages households to save large amounts to deal with emergencies. A more robust social safety net will lessen the need for precautionary saving, lowering the household saving rate and increasing private consumption.

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The Chinese government has declared its intention to build a comprehensive pension and healthcare delivery system by 2020, which includes increasing benefits for rural and migrant workers as well as improving portability for all workers. While recent rural pension and health insurance programs have high participation rates, the benefits provided so far are fairly low. In fact, China spends only 5.7 percent of its GDP on health, pensions, and other forms of social protection, less than half the level that is typical for countries at similar levels of development (IMF 2012). A build out of the social safety net that is financed by new fees and taxes on households may not significantly alter consumption patterns. Instead, a large share of the financing should come from requiring state-owned enterprises to pay higher dividends and putting those funds towards pension and medical insurance systems. Chinese central state-owned enterprises earned more

than a trillion renminbi in net profits in 2011, yet only 82.3 billion renminbi was paid out to the state capital management budget (Ministry of Finance of the People's Republic of China 2012). Even worse, much of the dividends paid out were recycled back into restructuring underperforming state-owned enterprises and other subsidies, rather than being used for the benefit of Chinese citizens. Raising dividend requirements and putting these funds towards the social safety net will help reduce economic imbalances.

In addition to building out the social safety net, addressing China's high levels of income inequality will contribute to lowering the saving rate. The release of official Gini coefficient⁶ statistics was delayed for almost a decade as the National Bureau of Statistics worked to harmonize income measurement between rural and urban areas. In 2013, officials released revised annual Gini coefficients going back to 2003. The new data revealed that despite the populism of the Hu Jintao-Wen Jiabao administration, income inequality remained high throughout the last decade. During this period, the Gini coefficient hovered between .47 and .49, meaning that inequality in China is worse than in Russia and the United States and roughly on par with Nigeria and Mexico.

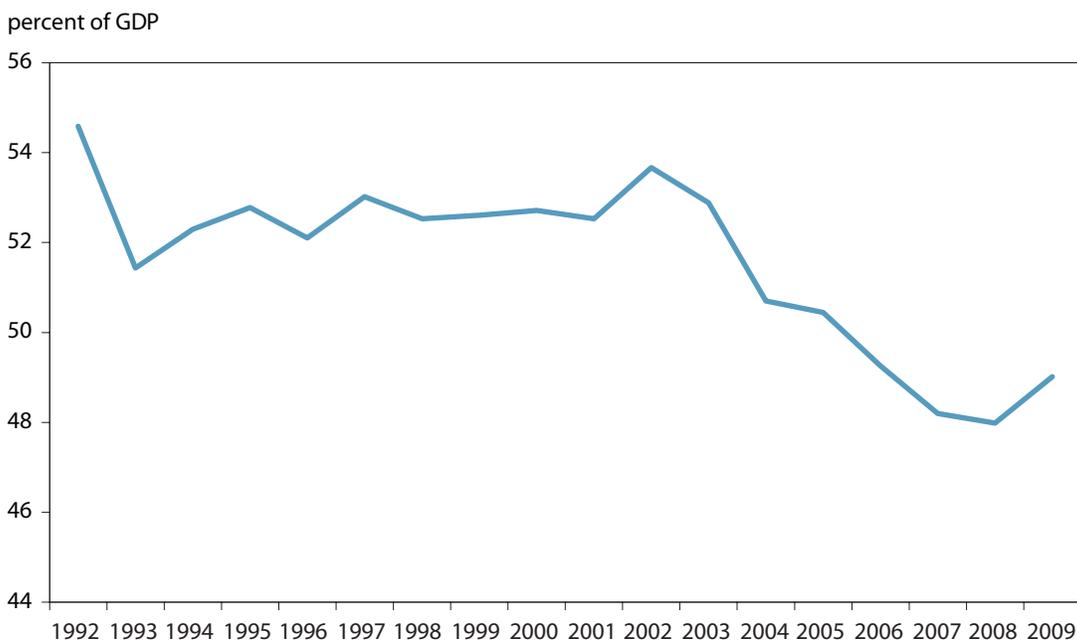
Innovative survey work done by the Southwest University of Finance and Economics in the China Household Finance Survey (CHFS) suggests that income inequality may be even higher than these estimates. If this survey's results are accurate, China's Gini coefficient in 2010 is actually .61, placing it amongst the most unequal countries in the world.⁷ The survey finds that the top 5 percent of households in China account for 62 percent of total savings. The bottom 55 percent of households have little or no savings. This is in stark contrast to the National Bureau of Statistics data, which show that even the second decile of earners in urban China are saving 20 percent of their income.⁸ According to the CHFS, those in the 90th percentile have an average saving rate of 61 percent and those in the 95th percentile save an average of 69 percent.

Even if one does not accept the extreme level of income inequality shown in the CHFS, it still follows that upper income groups hold a significant portion of total savings. Improvements in the social safety net are unlikely to dramatically alter the saving behavior of these high-income groups because they do not rely on the social safety net. Lower income

6. A commonly used measure of inequality, the Gini coefficient varies between 0 (complete equality) and 1 (complete inequality).

7. China Household Finance Survey and Research Center, Southwest University of Finance and Economics, *China Household Income Differences Report*, 2013, <http://chfs.swufe.edu.cn/upload/shourubupingdeng.pdf> (accessed on January 31, 2013).

8. National Bureau of Statistics of China, *China Statistical Yearbook 2012*, Beijing: China Statistics Press.

Figure 4 Wage share of GDP, 1992–2009

Source: National Bureau of Statistics of the People's Republic of China, ISI Emerging Markets CEIC Database.

groups, on the other hand, have a higher marginal propensity to consume, so government policy must also concentrate on increasing their income through further reducing fees and increasing direct transfers.

The most effective way to reduce inequality would be to adopt a more market-based interest rate, exchange rate, and energy prices, which will help increase the wage share of GDP and thereby reduce the enormous gains that have accrued to capital owners over the past decade and worsened inequality. Figure 4 shows the considerable decline in the wage share of GDP after the emergence of severe economic distortions in 2003. A more balanced economic growth model should help the wage share of GDP to recover to levels more typical for emerging markets, around 55 percent. In addition, the government should increase the progressiveness of taxes in China, which relies too much on indirect, and therefore regressive, tax collection. Finally, further reforms to the *hukou* household registration system would reduce inequality between rural and urban areas and improve the living standards of China's migrant workers.

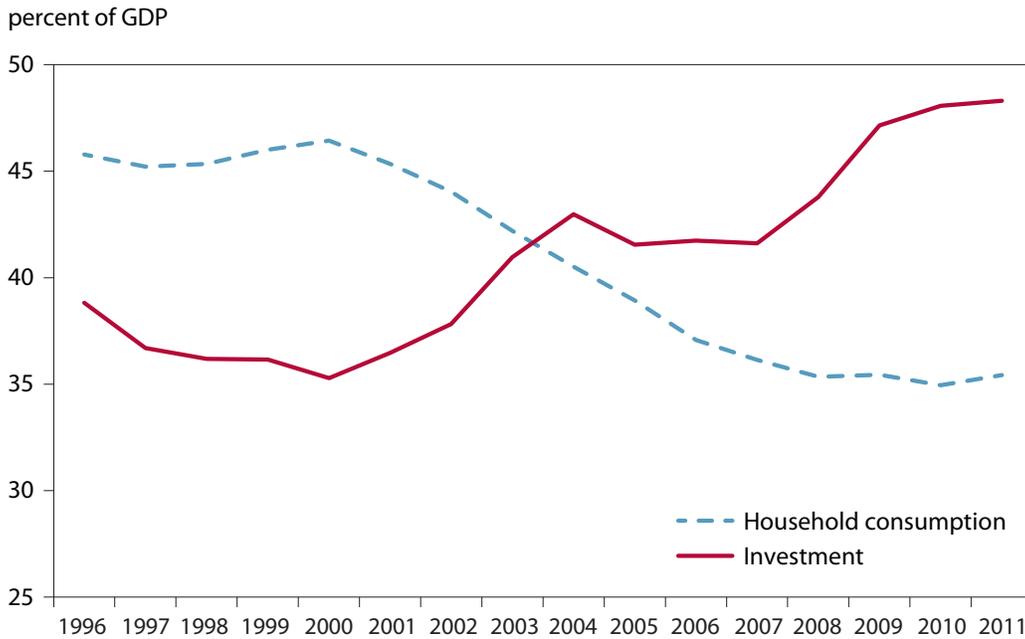
The core of economic rebalancing is removing the distortions that pushed the economy in an unbalanced direction in the first place. These distortions are the misalignment of the fundamental prices, the exchange rate, interest rate, and price of energy. The lack of a social safety net and high levels

of income inequality are important contributors to China's extremely high household saving rates. Bringing these prices back into alignment while increasing social transfers and adopting other policies to improve the distribution of income will boost consumption and establish more sustainable sources of economic growth for the future.

THE ARITHMETIC OF REBALANCING

Investment as a share of GDP, particularly residential property investment, must begin to significantly decline in order to put China on a more sustainable growth path. It is unlikely that any country can productively invest over 40 percent of its GDP over any significant period. China's investment has now exceeded this threshold every year since 2003, hitting a peak of 48 percent in 2011 (figure 5). Given that the growth of investment must slow, to sustain China's growth at a reasonably fast pace over the medium term, the share of private consumption expenditure in GDP must increase relative to its current depressed level. While in the past net exports have provided a boost to growth, it is now unlikely that net exports will ever again contribute as much to growth as was the case in the mid-2000s. In the short term, the continued economic weakness in Europe and modest recovery in the United States will keep export growth tepid. Over the long term, China's

Figure 5 Household consumption and investment share of GDP, 1996–2011



Source: National Bureau of Statistics of the People’s Republic of China, ISI Emerging Markets CEIC Database.

increasing reliance on energy imports will reduce net exports. Given these factors, how much does the Chinese economy need to rebalance to be on a more sustainable footing and how quickly can this rebalancing be achieved?

Rebalancing Targets

At 48 percent of GDP in 2011, China’s level of investment is extraordinarily high. A recent International Monetary Fund (IMF) study concluded that reducing investment by 10 percentage points of GDP would bring China’s economy back in line with fundamentals (Lee, Syed, and Liu 2012). This implies that in order to move towards a more balanced economic structure, China should take actions to lower its investment share of GDP to somewhere in the high 30s. A reasonable goal would be to return to an investment share of GDP similar to that in 2002, 38 percent. The year 2002 was just before the onset of severe financial repression, which significantly worsened China’s economic imbalances. This level of investment is still relatively high compared with the experience of other Asian nations. The investment share of GDP in Japan, South Korea, Thailand, and Taiwan peaked briefly at 39, 40, 43, and 39 percent, respectively, before declining. There are, however, good reasons to believe that even after rebalancing, investment in China could still remain compara-

tively high. If rapid urbanization continues for the next several decades and changes to household registration allow migrants to become full urban residents, a relatively high investment share of GDP of 35 to 40 percent could be sustained as Chinese cities continue to build out infrastructure.

If reversing existing imbalances is the prerequisite for maintaining reasonably rapid economic growth over the medium term, what is the likely optimal pace of this reversal? As already suggested, rebalancing policies will reduce and eventually eliminate the distortions that have biased growth towards profits at the expense of wages, towards manufacturing at the expense of services, and in favor of coastal regions at the expense of the interior. Unwinding these distortions rapidly would likely be quite costly because moving labor, capital, and other factors of production to new sectors is not without friction. Thus it is likely to be less disruptive to economic growth if imbalances are reduced by reallocating factors of production at the margin, leading, for example, the service sector to grow more rapidly than manufacturing, rather than by moving existing factors of production out of manufacturing into services.

Thus, given that China’s large imbalances built up over the course of a decade, it seems reasonable to expect that they could be unwound, without a major disruption to economic growth, in a similar time frame. The 10 percentage point adjustment in the investment share of GDP implies a one

percentage point per year structural adjustment. Specific imbalances within the overall trend of excessive investment also must be addressed. Specifically, residential real estate investment needs to decline as a share of GDP in order to reduce the risk of a housing bubble. Urban residential real estate investment reached 9.4 percent of GDP in 2011, a level that is far too high to be sustained. A more sustainable level for a rapidly urbanizing developing country like China would be something around 7 percent of GDP.⁹

In the paragraphs below, we sketch out what we believe is a feasible rebalancing scenario. This scenario begins with the assumption that the Chinese leadership places a high priority on maintaining reasonably rapid real economic growth—7.5 percent per annum—and that it wishes to reduce the overall share of investment in GDP to a more sustainable 38 percent, including a reduction in housing investment to 7 percent of GDP.¹⁰ Given these assumptions, the growth of investment would have to fall substantially from its 13.9 percent average annual real growth over the past decade to 8 percent over the next several years and then to only 3 percent by the closing years of the decade of adjustment. The pace of investment in urban residential real estate growth will also have to slow considerably to 3 percent by 2019–22, in order to meet the target of 7 percent of GDP.

A reduction in investment growth will necessarily reduce GDP growth if no offsetting measures are taken to boost growth in other areas. There may also be a secondary effect of a negative drag on consumption as slowing growth in investment-dependent industries leads to lower wage growth

and job creation. The only way to prevent GDP growth from declining precipitously while still achieving economic rebalancing is an offsetting increase in consumption. This increase in the household consumption growth rate, however, will not be automatic. To boost consumption growth in the context of a negative drag from declining investment, policymakers will have to vigorously pursue a proconsumption agenda, the core of which is liberalizing interest rates, reducing exchange rate intervention, reducing energy subsidies, and increasing social transfers and reducing income inequality.

The key question becomes what pace of consumption growth would be required to generate the target 7.5 percent growth of GDP, and is this achievable? As shown in figure 6 and table 1, the growth rate of consumption expenditure (private and government) would have to gradually rise over the decade, reaching 10 percent per year in the final years.¹¹ For the period as a whole, consumption expenditure would have to grow an average of 9.7 percent annually in real terms or 2.2 percentage points more rapidly than real GDP growth.

What sort of change is this relative to the previous growth trends? Over the five-year period 2007–11, real GDP growth averaged 10.5 percent annually, while real consumption expenditure and its subcomponent of private consumption expenditure grew at 9.7 and 9.5 percent, respectively. This implies a change in the growth differential of consumption relative to GDP of around 3 percentage points to achieve the targets outlined above.

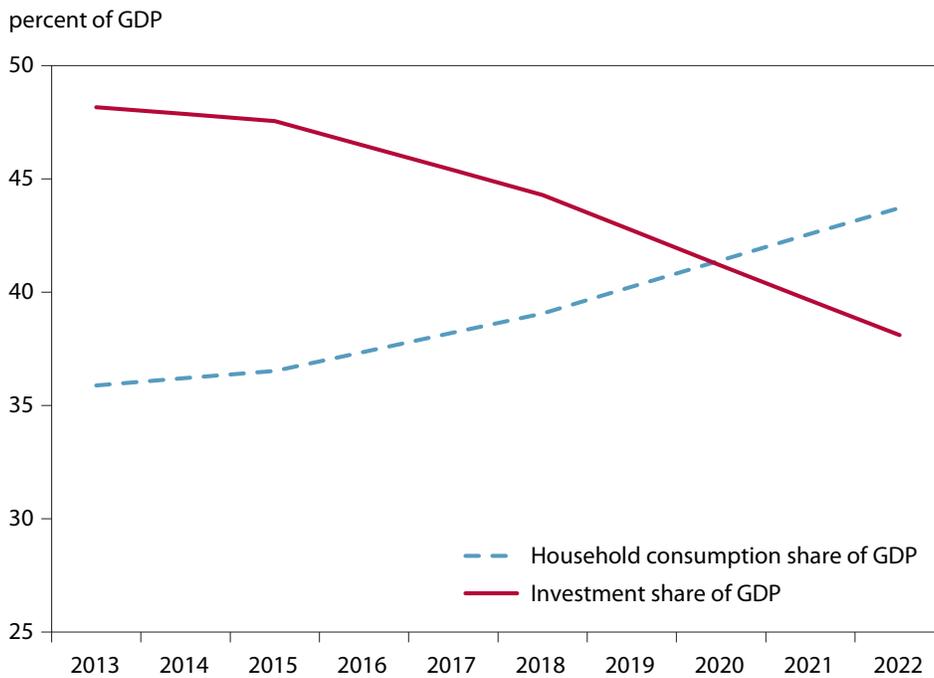
Chinese policymakers may be tempted to fall back on external demand as a way to keep growth high. As already noted, net exports, however, are unlikely to provide China much cushion during the economic rebalancing process. Even when more normal growth resumes in China's major markets the contribution of net exports to China's growth will be negligible if China continues to allow market forces to play a greater role in determining the exchange rate. Thus the rebalancing scenario outlined above assumes very modest growth of net exports over the next decade. There are secondary effects from net exports on consumption and investment, but these are difficult to forecast and may not have much of an impact on the overall pace of rebalancing. All of this implies that new sources of growth during the period of economic rebalancing will have to come from increased domestic consumption demand and not growing exports.

9. There is a considerable uncertainty over the sustainable long-run level of residential real estate investment in China. The current level of 9.4 percent (investment by real estate developers) is more than twice the peak of residential real estate investment in Taiwan during its period of rapid growth and urbanization. The research firm Dragonomics estimates that the sustainable growth of urban housing construction in China is around one billion square meters per year for the next decade (Gatley and Yao 2012). Gan Li (2012) of the Southwest University of Finance and Economics estimates that per year incremental demand for urban housing over the next five years is around 5.8 million units. Compared with current levels of production both estimates show that China is overproducing housing (and by extension overinvesting in housing). The range of sustainable investment implied by these numbers is between 4.7 and 7.8 percent. Our estimate of 7 percent is on the high side but reasonable given expectations of continued urbanization and upgrading of the housing stock.

10. Annual GDP growth of 7.5 percent was the official target for 2012, and reports suggest that it is also the goal for 2013. This number is slightly above the 7 percent target set forth in the 12th Five-Year Plan. A similar forward-looking analysis was performed by Martin Wolf in "Two Cheers for China's Rebalancing," *Financial Times*, April 3, 2012, www.ft.com/intl/cms/s/0/6d5d71c2-7cb0-11e1-8a27-00144feab49a.html#axzz2IoF1vV4h. Wolf sets a target GDP growth rate of 7 percent and a target consumption growth rate of 9 percent. He concludes that these goals are unachievable without significant reforms that boost consumption while investment growth slows.

11. The assumption that government consumption will grow as quickly as household consumption is based on the expectation that continuous strengthening of the social safety will require increased government consumption. Final government consumption includes expenditures on public goods and services as well as social transfers in kind from governments to households for services like health care, housing, and education.

Figure 6 Rebalancing scenario, 2013–22



Source: Authors' calculations.

Table 1 Rebalancing targets

Condition	Average annual growth rate, 2013–22 (percent)
Target GDP	7.50
Target net exports	1.70
Target investment (excluding urban residential real estate)	5.10
Target urban residential real estate investment	4.20
Required consumption ^a	9.70

a. Required consumption is the rate at which consumption will have to grow over the period to achieve the desired rate of GDP growth, 7.5 percent.

Source: Authors' calculations.

Can economic rebalancing be achieved more quickly than the 10-year timeframe outlined above? Many economists argue that unwinding these imbalances rapidly is desirable due to their potential to trigger an economic crisis. Moreover, many believe that China needs to maintain a high growth rate to ensure social stability. The problem with unwinding these imbalances more quickly, in five years perhaps, is that it requires a lurching correction in investment growth. To use one hypothetical scenario, to grow GDP at 10.7 percent while reducing the investment share of GDP to 38 percent, investment growth

must decline to 6 percent immediately and consumption growth must increase to 15.5 percent. Even if policymakers embrace a more modest target for GDP growth, 7.5 percent, investment growth is still required to drop to the low single digits while consumption continues to grow at 12 percent in order to rebalance in five years. Regardless of policy changes, it is very unlikely that consumption growth could accelerate that quickly in the face of a significant drag from plummeting investment. Others may argue that a more gradual rebalancing path is ideal for China given the difficulties of such a transition. Too gradual a transition, however, exposes the Chinese economy to the risk of a sharp correction for an undesirably long period. The sense of urgency China's leaders have when describing the need to rebalance is well justified. Rebalancing over ten years is a good compromise between an overly ambitious five-year transition and one that stretches out many years more than a decade.

An Achievable Goal?

At first glance, the targets set for consumption and investment growth in our hypothetical rebalancing scenario appear difficult to achieve. There will inevitably be some disruption as China shifts out of an excessively industrial growth model towards faster growth in the service sector. One fear often

raised is that such a transformation will lead to a dislocation in employment and wages, undermining any prospect of raising private consumption growth. There is a misperception that the service sector is inferior to manufacturing in generating good high-paying jobs. In fact, the opposite is true. For each unit of output or capital input, the service sector on average generates higher levels of employment than the more capital-intensive industrial sector. Moreover, while the average wage in the manufacturing sector was 36,665 renminbi in 2011,

Rebalancing over ten years is a good compromise between an overly ambitious five-year transition and one that stretches out many years more than a decade.

the average wage in the service sector was 46,720 renminbi. Thus there is no manufacturing wage premium, so employment growth more focused on services will lead to a rise rather than a decline in the wage share of GDP.¹² With any large change some amount of disruption will occur. However, rebalancing over a decade is gradual enough that the manufacturing sector can continue to grow, albeit at a slower pace. New entrants to the labor force who would have previously been absorbed into manufacturing will instead find jobs in a growing service sector.

Another concern often raised is whether consumption can possibly grow fast enough to offset declining investment. Some economists argue that it will be near impossible for consumption to grow more quickly than the rates seen over the past decade.¹³ As investment slows, consumption will invariably be dragged down along with it. Thus rebalancing can be achieved only at dramatically slower rates of GDP growth. This prediction may not hold true for China for a couple of reasons. First, consumption has grown much faster than many economists believe, with real final consumption expenditure growing at an average of 8.5 percent annually over the past decade and real household consumption an average of 9.5 percent annu-

12. Informal labor is an area of concern for this analysis. Wages are likely to be lower for informal laborers than formal laborers. Moreover, while informal labor is present in both the service and manufacturing sectors, it is likely to be more prevalent in the service sector. This could reduce the average wage of the service sector. Data on informal labor by its very nature are spotty and therefore accurate analysis is difficult.

13. "Lardy vs. Pettis—Debating China's Economic Future," *The Wall Street Journal—China Real Time Report*, November 2, 2012, <http://blogs.wsj.com/chinarealtime/2012/11/02/lardy-vs-pettis-debating-chinas-economic-future> (accessed on December 28, 2012).

ally since 2007 (Barnett, Myrvoda, and Nabar 2012). This rapid growth was achieved despite systemic policy distortions that have suppressed consumption. Therefore there is good reason to believe that consumption can grow even faster if policymakers enact proconsumption reforms.

Second, the example of Taiwan shows that it is possible for consumption growth to outpace GDP even when GDP is growing rapidly. Although no other economy is a perfect economic comparator for China given its size and the magnitude of its economic imbalances, Taiwan achieved a considerable degree of economic rebalancing over the course of a decade beginning in the mid-1980s, suggesting that it should be possible for China to do the same.

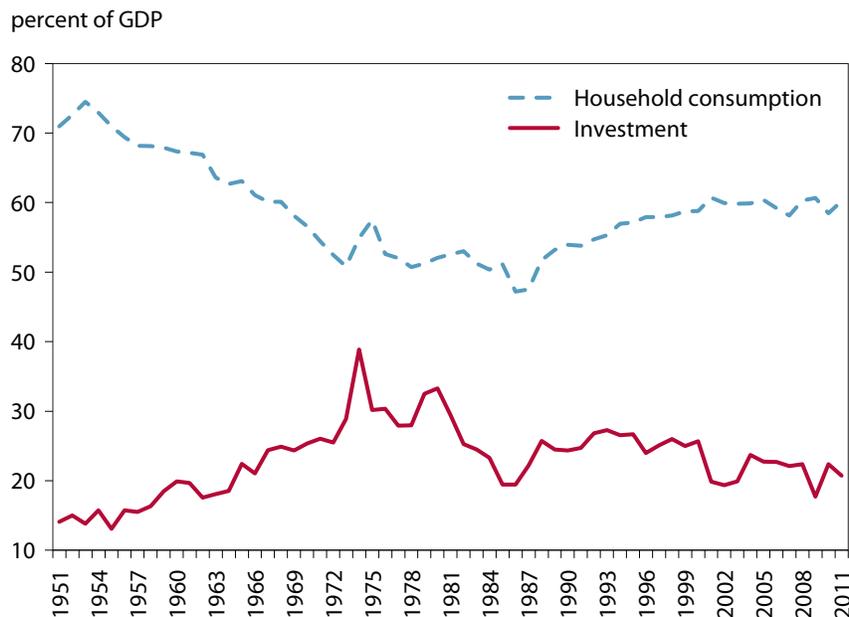
As shown in figure 7, Taiwan had a relatively unbalanced growth model during the early stages of its development, with the household consumption share of GDP steadily declining from 75 percent in the early 1950s to 47 percent in 1986. Rebalancing in Taiwan began in the mid- to late 1980s. The fundamental driver of rebalancing in Taiwan during this period was a high rate of private consumption growth that outpaced GDP. This was achieved through several important economic reforms that altered the country's growth model. Over the subsequent two decades, the household consumption share of GDP recovered to 60 percent. During the first decade of rebalancing (1987–96), real growth in private consumption expenditure was on average 9.1 percent annually, while real GDP grew at a rate of 7.5 percent. This differential of 1.6 percentage points is similar to China's 2.2 percentage point target to sustain relatively rapid economic growth.

Admittedly, investment in Taiwan continued to grow rapidly during this period. Real investment growth was 10.1 percent.¹⁴ However, because investment was growing from a smaller base than household consumption, its share of GDP remained relatively unchanged, from 22 percent at the beginning of the decade to 24 percent by the end. In this respect rebalancing is a more difficult task for China because investment growth must slow relative to its previous pace in order for rebalancing to occur.

The policy mixture that produced Taiwan's period of economic rebalancing significantly overlaps with many of the policies recommended for China in this policy brief. First, Taiwan allowed its currency to become substantially more market-determined. In the late 1970s a more liberalized exchange rate regime was implemented, and the currency saw

14. In Taiwan, GDP growth during this period was less than the appropriately weighted average growth in consumption and investment because of a negative drag from the external sector. Taiwan went from a large external surplus in 1987 to deficits in the subsequent years. Net exports declined annually by an average of 21 percent.

Figure 7 Taiwan's household consumption and investment shares of GDP, 1951–2011



Source: Statistical Information Network of the Republic of China.

30 percent appreciation versus the US dollar during the mid-1980s (Miller 2012). Additionally, in the early to mid-1980s the Taiwanese government promoted capital market, interest rate, and financial liberalization. Also important, but beyond the scope of this policy brief, during this time Taiwan implemented significant state-owned enterprise reform and abandoned many restrictions on imports. The combined effect of these policies removed many of the implicit subsidies that favored investment over consumption and the industrial sector over the service sector. As shown in figure 8, the service sector expanded from a 54 percent share of the economy in 1986 to 70 percent a decade later. During the same period the industrial share of the economy declined from 40 to 26 percent.

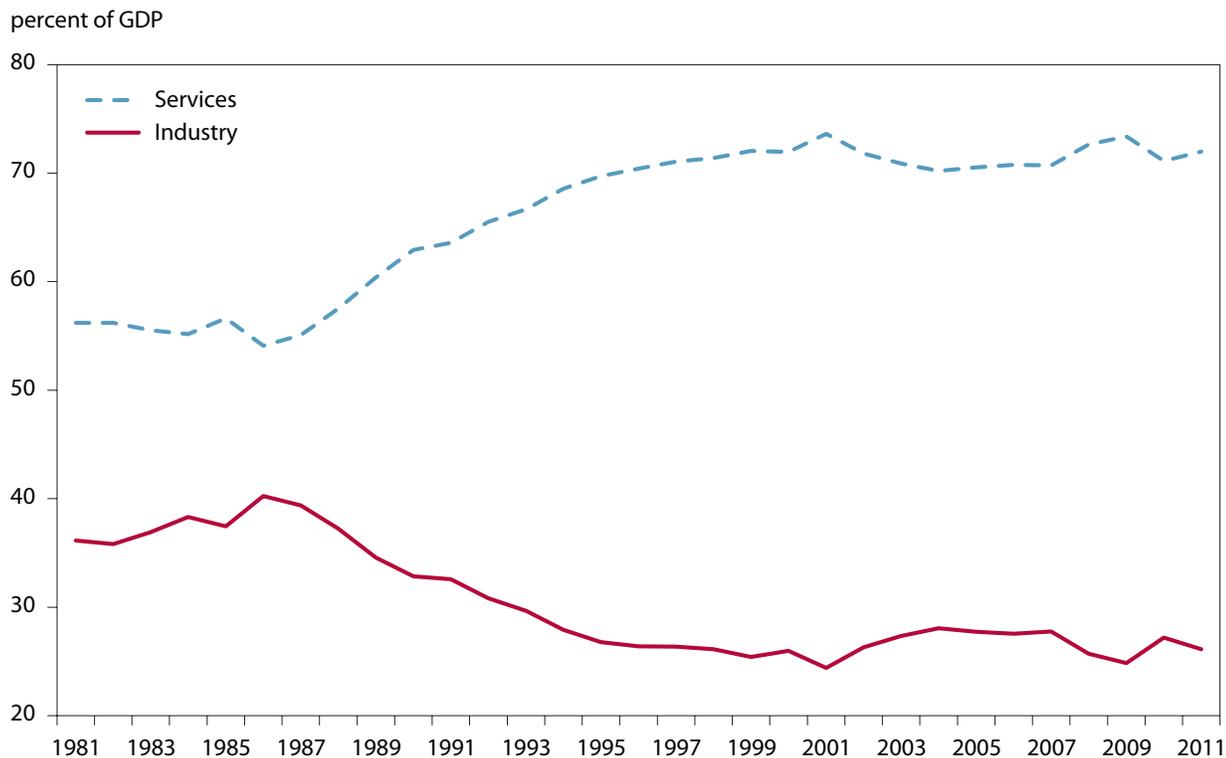
The Taiwanese experience is not a perfect model for China. Chinese suppression of consumption and levels of financial distortion have led to a more unbalanced model of economic growth than was ever seen in Taiwan. In some ways this means that the challenge of rebalancing will be more difficult in China as the imbalances that need to be unwound are larger. The speed of investment growth needs to slow significantly in China, while in Taiwan, due to smaller imbalances, no rapid adjustment in investment was required. Though the challenges may be greater, there are reasons to be optimistic. Household consumption and the service sector in China have been suppressed for so long that the potential exists for

enormous catch up growth. To put it simply, China spent the last decade saving and investing much more than it needed to. Now in the coming decade China can catch up on the consumption it should have been enjoying all along. The case of Taiwan proves that it is possible for private consumption expenditure to grow more rapidly than GDP for an extended period. With the right mix of policies, the high rates of private consumption growth achieved by Taiwan whilst rebalancing should also be achievable for China.

THE POLITICAL CHALLENGE?

A common refrain is that political reform in China is necessary to break the current deadlock on economic reform.¹⁵ This argument, advanced by many inside and outside China, states that the growing power of vested interests has strangled economic reform over the past decade. It follows that dramatic political reforms will cleanse policymaking of these roadblocks and open up space for economic reform to resume. Given the glacial pace of political reform in China, proponents of this

15. Mxin Pei, "Political Reform Is Needed First," *New York Times*, November 22, 2012, www.nytimes.com/roomfordebate/2012/11/22/dawn-of-a-new-china/china-needs-political-reform-more-than-economic-reform (accessed on December 19, 2012).

Figure 8 Composition of Taiwan's GDP, 1981–2011

Source: Statistical Information Network of the Republic of China.

viewpoint understandably are pessimistic about the prospects for further economic reform.

The political barrier to economic reform argument has some validity but is significantly overstated. In certain policy areas vested interests are strong and have successfully resisted reform. A clear example is state-owned enterprise dividends. Despite intense pressure by the Ministry of Finance and the State Council, dividends paid by state-owned enterprises starting in 2007 have increased only marginally and most are ultimately recycled back into the state sector. State-owned enterprises and their supervisory body, the State-Owned Asset Supervision and Administration Commission (SASAC), represent a vested interest that has successfully resisted needed reform. Other examples of vested interests resisting policy reforms include local governments ignoring central government housing purchase restrictions and resisting land acquisition reforms designed to increase compensation to peasants.

With respect to the key reforms needed for rebalancing, the case that vested interests are organized and able to resist reform is a lot less clear. The economic imperative for rebalancing is clear and shared widely amongst Chinese economists

and policymakers. A brief survey of recent official economic policy documents is a testament to this point. In late 2010, the 12th Five-Year Plan (2011–15) included several core elements of rebalancing, including increasing consumption, interest rate liberalization, and opening the capital account (NDRC 2010). In September 2012, the People's Bank of China and China Banking Regulatory Commission released a financial reform plan calling for a more market-oriented exchange rate, interest rate liberalization, and opening the capital account.¹⁶ The change of leadership in China in the fall of 2012 also offered hope for economic rebalancing. In his opening speech to the 18th Party Congress in November 2012, Hu Jintao reiterated the need for interest rate, exchange rate, and capital account liberalization. Hu's speech reportedly was drafted by a group of high party officials led by his successor, Xi Jinping. Thus the speech almost certainly reflects the views of China's incoming top leadership. Moreover, one

16. "China Releases Financial Reform Plan," *Xinhua News*, September 17, 2012, http://news.xinhuanet.com/english/china/2012-09/17/c_131856012.htm (accessed on December 19, 2012).

of Xi Jinping's first actions after taking office was to travel to the southern province of Guangdong, paying homage to Deng Xiaoping's famous Southern Tour, which reignited economic reform in the 1990s.

Unlike reforms that rely on the cooperation of local governments or the many thousands of state-owned enterprises, the critical policy instruments needed to achieve economic rebalancing are centrally controlled. Rather than forcing changes that may be resisted by subordinate actors,

As rebalancing increasingly becomes seen as a necessity to sustain economic growth, economic reforms will begin to be implemented with increased urgency.

most of these reforms simply require that the central government stop actively interfering with the market. The People's Bank of China, with approval from the State Council, can immediately move forward with liberalizing interest rates, the exchange rate, and the capital account. With respect to the interest rate, the dynamic of market competition would force all banks, even the large state-owned commercial banks, to begin offering competitive rates in order to hold on to deposits. This, in turn, is likely to put upward pressure on lending rates, which, in turn, will contribute to a reduction in the investment share of GDP. A more market-oriented renminbi simply requires the People's Bank of China to further reduce its intervention in the foreign exchange markets. More market-determined prices for energy simply require modifying NDRC's price-setting rules so that the changing market prices for oil and coal are fully reflected in prices paid by final users of refined petroleum products and electricity.

The policy changes needed to increase social transfers and income redistribution require cooperation from subordinate actors and thus are more difficult. However, these policy changes should still be achievable given their immense public popularity. Improving the social safety net requires cooperation by local governments, but it will be difficult for them to obstruct these popular programs. The rapid roll out of the rural medical and pension programs and the rates of participation rates suggest a strong base of support and the ability for the central and local government to work together on this issue. Chinese citizens frequently cite inequality as one of their highest concerns, and the NDRC has been working on a plan to address it the issue since 2004. The details of the plan that have emerged so far emphasize cracking down on monopoly sectors, increasing state-owned enterprise divi-

dends, and providing more support for lower income groups. Public support for these proposals is likely to be strong, and vested interests will have a hard time resisting these policies if the central leadership vigorously and publicly promotes them.

The reforms needed for economic rebalancing are largely already government policy. Moreover, the central government can achieve many of these policies directly without interference by other actors. The ones that it cannot are extremely politically popular and should be difficult for any vested interest to resist. Therefore, there is no obvious reason why fundamental political reform has to precede economic reform. The slow pace of reform in the Hu Jintao–Wen Jiabao era stemmed from the top leadership's weak commitment to restructuring. The tremendous speed of economic growth over the past decade provided little incentive for policymakers to actually move forward with the difficult task of rebalancing. Rocking the boat is always difficult, especially when one's country is posting the highest GDP growth rates ever achieved by a large economy. It is only with the economic slowdown in 2012, which led to the lowest pace of expansion in a decade, that the rebalancing agenda took on greater urgency. As is the case with most political systems, difficult changes are made only when they are forced by necessity. The Communist Party continues to derive much of its legitimacy from the rising living standards made possible by sustained economic growth. As rebalancing increasingly becomes seen as a necessity to sustain economic growth, economic reforms will begin to be implemented with increased urgency. Political reform in China is certainly desirable and could be helpful in addressing a wide variety of social ills, but it is not a prerequisite to achieving a more balanced economy. Instead, a renewed commitment to economic reform by the top leadership, akin to the large reform push led by Zhu Rongji in the 1990s, is needed to break the policy deadlock and put the Chinese economy back on a more sustainable footing.

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