

# THE US-CHINA-EUROPE ECONOMIC REFORM AGENDA

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# Introduction

China's rise as an economic power in the last quarter century has posed a range of challenges for the rest of the world, especially in the aftermath of the global financial crisis of 2007–09. To elucidate the issues and deepen understanding between China and the United States, the Peterson Institute for International Economics sent a delegation of ten senior staff to participate in the third annual China-US Economists Symposium, held May 17–18, 2014, in Beijing. Among the subjects they addressed were the prospect of secular stagnation in the advanced economies, the decline of potential GDP growth in China, China's credit boom, and the country's overall reform agenda. Also discussed were the controversial role of the International Monetary Fund as a crisis manager and the governance issues that remain a challenge for the Fund and its constituents 70 years after its establishment at Bretton Woods.

The China-US Economists Symposium was also attended by high-profile Chinese economists and policymakers drawn from the membership of the China Finance Forty Forum (CF40), a think tank located in Beijing. Members of Brussels-based think tank Bruegel also joined the event this year. The theme of the conference was "Reform: Challenges and Opportunities," focusing on the difficult structural reforms facing China, Europe, and the United States.

Other issues at the conference included the prospect of long-term stagnation in both emerging and advanced economies, the declining importance of state-owned enterprises in the Chinese economy, global coordination on financial reform, efforts by central banks to tackle inflation and asset bubbles, and the effectiveness of the G-20 in response to the global economic downturn.

Through vigorous debate and exchange of ideas, the conference participants came away with a better understanding of the challenges facing the United States, China, and Europe and new approaches that policymakers can consider in addressing these challenges. With this volume, the Peterson Institute is pleased to share the conference papers contributed by the Peterson Institute participants.

# 1

## Growing Out of Debt: Lowering the Credit-Intensity of Chinese Economic Growth

NICHOLAS BORST

The fall in China's large external surplus after 2007 was mirrored by an increase in investment and a growing dependence on credit to finance that investment. The shift toward a more investment-driven growth model is all the more remarkable given that the share of investment relative to GDP was already extraordinarily high. The corresponding increase in borrowing has caused China's credit-to-GDP ratio to soar during the past five years and has put stress on the financial system. Reducing these risks entails slowing the growth rate of credit to a more sustainable pace. Slower credit growth does not have to result in slower economic growth. The key to a successful restructuring is lowering the credit-intensity of economic growth, which can be done by reducing the role of investment in driving economic growth, improving the allocation of credit, and increasing the attractiveness of equity financing for enterprises. Taken together, these reforms could allow China to sustain economic growth without increasing the relative indebtedness of the economy.

The reliance of the Chinese economy on investment has grown throughout the past decade. Between 2001 and 2007, the investment share of GDP grew quickly from 36 percent to 42 percent. During the postcrisis period, investment grew even larger, reaching a peak of 48 percent of GDP in 2012. Figure 1 shows the enormous role of investment in driving Chinese GDP growth during the past several years. Between 2009 and 2013, investment was responsible on average for 58 percent of economic growth, adding an average of 5.2 percentage points to the GDP growth rate. Net exports, traditionally a strong contributor to growth, were actually a drag on growth during this period. During the 2009–13 period, net exports of goods and services shaved an average of 0.8 percentage points off the annual GDP growth rate. This contrasts sharply with the 1.2 percentage points on average net exports added to annual growth between 2000 and 2008. Consumption grew rapidly, adding 4.5 percentage points to the growth rate, but failed to keep pace with the even more rapid growth of investment.

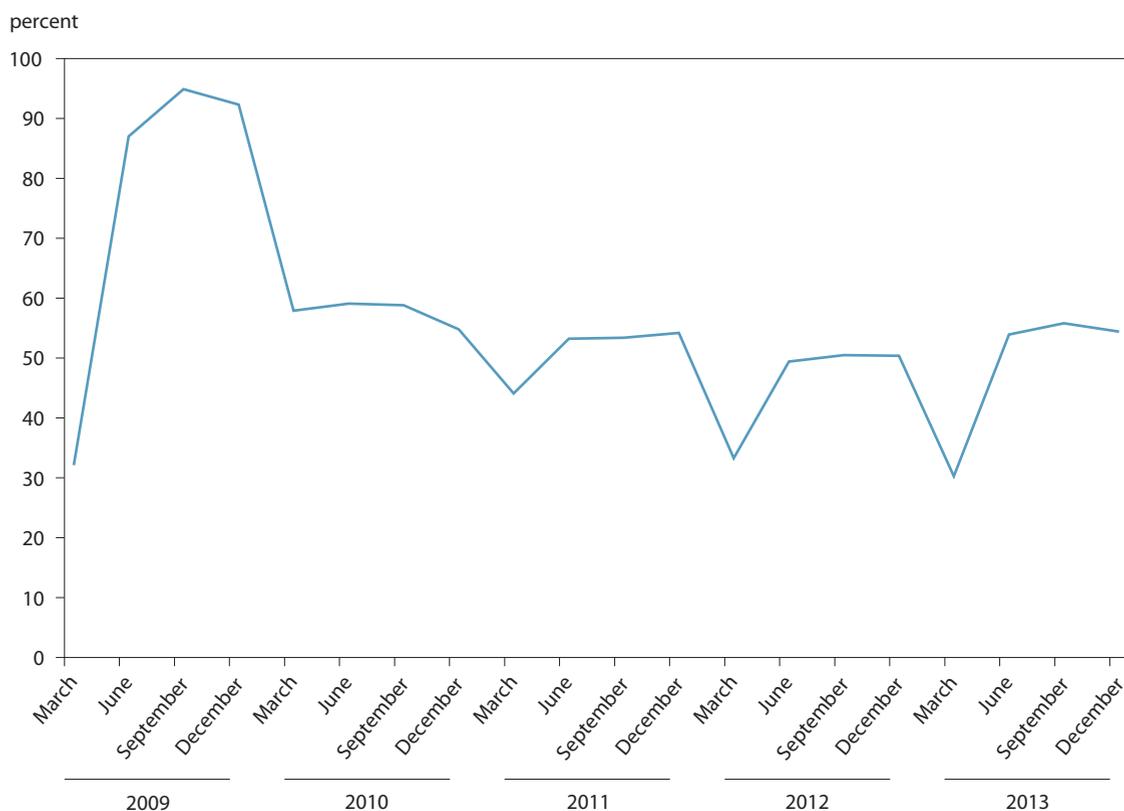
The growth of investment in China was fueled by a dramatic increase in borrowing by enterprises and households. During most of the 2000s, corporate investment in China relied on retained earnings. Firms saved a portion of their earnings to finance new projects without increasing indebtedness. Between 2000 and 2008, retained earnings financed 71 percent of all fixed asset investment. After the crisis, the growth in investment increasingly relied on additional borrowing. By 2011, the latest year for which data are available, the share of fixed asset investment financed by retained earnings had dropped to 54 percent. Figure 2 shows the sharp increase in the credit-to-GDP ratio for nonfinancial businesses, including local government financing vehicles, following the financial crisis.<sup>1</sup> Between the fourth quarter of 2008 and the third quarter of 2013, debt outstanding for nonfinancial corporations increased 168 percent and the business credit-to-GDP ratio increased by 52 percentage points. Households also borrowed heavily during this period, albeit from a relatively small base. Household debt increased by 234 percent between the

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1. Local government financing vehicles are an important but often exaggerated source of China's debt increase. As of 2013Q2, the outstanding stock of debt owed by these companies was 6.97 trillion renminbi. If we assume that these platform companies did not exist in any large number before 2007, then their share of the increase of credit to nonfinancial enterprises debt during the 2007–2013Q2 period is around 12 percent of the total.

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**Figure 1 Investment contribution to GDP growth**



Source: Wind Information Database, China National Bureau of Statistics.

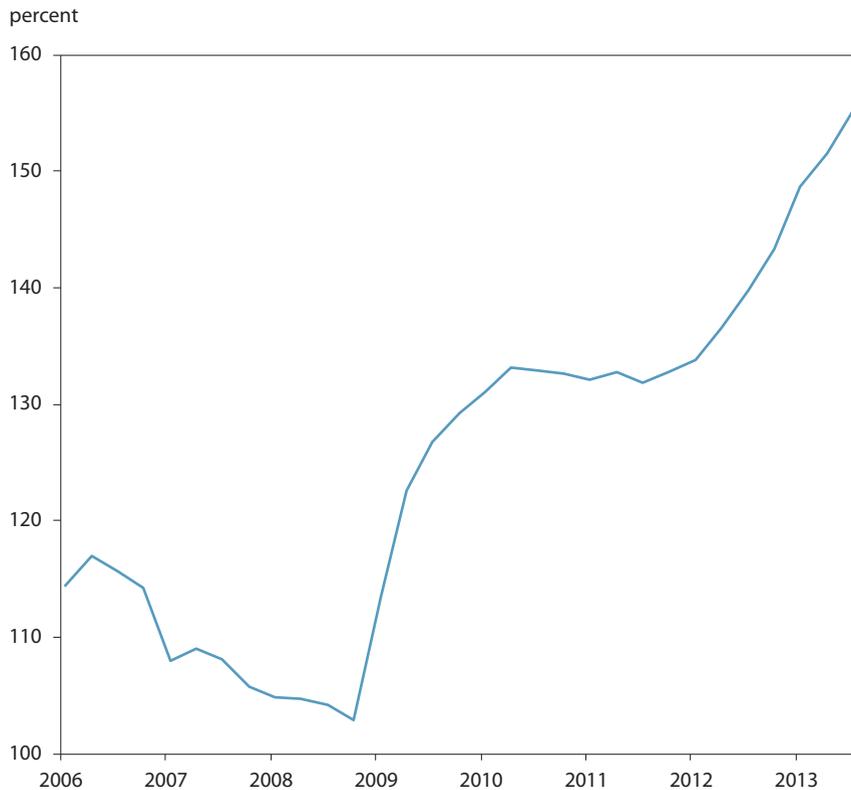
fourth quarter of 2008 and the third quarter of 2013, and the household credit-to-investment ratio increased by 16 percentage points. Household borrowing was mostly driven by mortgage loans and loans to sole proprietor businesses, which accounted for 49 percent and 35 percent, respectively, of the stock of loans to households at the end of 2013 respectively.<sup>2</sup>

Combining the borrowing of both enterprises and households reveals a significant increase in leverage after the financial crisis. Total credit to the real economy increased by 179 percent during this period, resulting in a 68 percentage point increase in the country's credit-to-GDP ratio. This represents a stark departure from the trend of the mid-2000s, when the credit-to-GDP ratio was relatively stable. Rapid increases in the credit-to-GDP ratio are strongly linked to subsequent financial distress (Drehmann et al. 2010). This is because when credit grows significantly faster than GDP it often means that borrowers are over-extending themselves. When the economy slows, many of the loans made may end up going bad because borrowers can no longer afford to service the debts they undertook during the boom period. What makes the current credit boom unique is that much of the borrowing has occurred outside of the traditional banking system through channels frequently labeled shadow banking, which includes trust loans, entrusted loans, and bankers' acceptances (Borst 2013). This represents a significant evolution of the Chinese financial system, where credit was previously extended almost entirely via bank loans. These changes carry risk as regulators have struggled to keep pace with the rapid evolution of the financial system.

Given the rapid increase in credit, it should come as no surprise that authorities are taking steps to reduce excessive lending and borrowing. These efforts have focused on new administrative measures for banks to curb their off-balance sheet activities and raising interbank rates to punish banks that had become reliant on cheap wholesale financing to grow their loan books. These

2. The remaining 16 percent includes student tuition loans, car loans, home improvement loans, wedding loans, travel loans, and general consumer loans.

**Figure 2 Business credit to GDP**

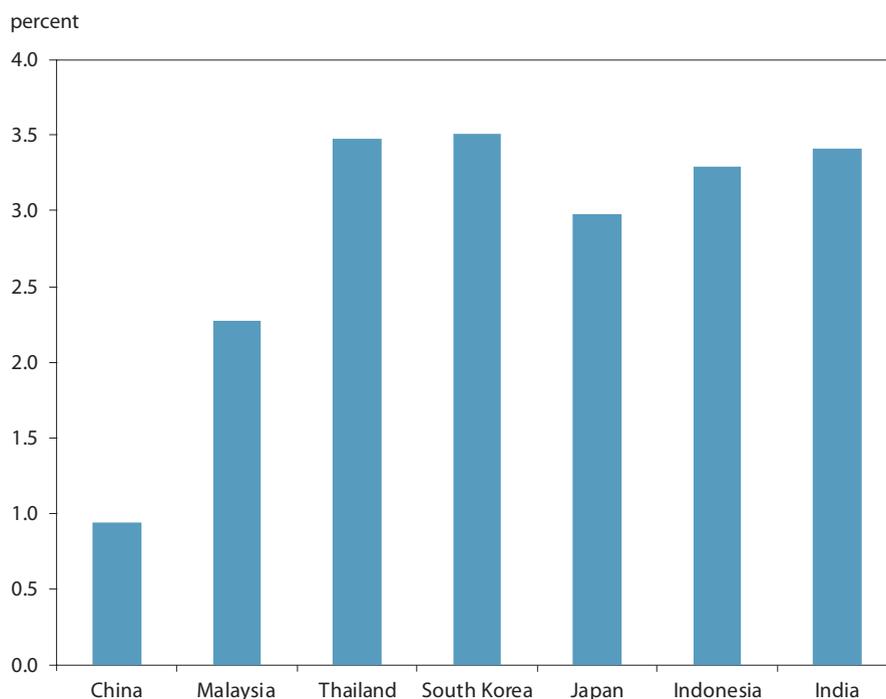


Source: Bank for International Settlements, China National Bureau of Statistics.

efforts have borne some results, particularly following the June 2013 interbank credit crunch when the central bank allowed rates to rise overnight into the double digits. The growth of new finance to the real economy, as measured by the People's Bank of China, decelerated from 23 percent year-on-year growth in 2012 to 10 percent year-on-year growth in 2013. Nevertheless, significant financial risks have accumulated as a result of the credit boom (International Monetary Fund 2014). To move toward safer financial footing, regulators will need to adhere to their commitment of slowing the pace of credit growth. This entails keeping the credit-to-GDP ratio relatively constant, or even declining, over the next several years as the country digests the effects of its credit boom. Without changes to the current growth model, a reduction in credit growth will undoubtedly have a negative effect on the economy. Therefore it is incumbent on policymakers to undertake reforms that will lessen the dependence of the economy on investment, improve the allocation of credit, and increase the number of noncredit financing channels available to enterprises. These reforms will lessen the negative impact of a slowdown in credit on China's economic growth rate.

Lowering the credit intensity of Chinese growth requires taking steps to reduce the outsized investment share of GDP. China's investment share of GDP is extraordinarily high, even by East Asian economy standards. The current level is 10 percentage points higher than the levels seen in Japan, South Korea, and Taiwan during similar periods of development (Dollar 2013). The increase in investment following the global financial crisis outstripped the financing capacity of corporate retained earnings, contributing to the sharp increase in borrowing. As a result, Chinese economic growth became increasingly tied to additional credit growth. Reducing investment requires addressing many of the underlying distortions that have pushed the economy toward a capital-intensive growth model (Lardy and Borst 2013). Free of these distortions, the investment share of GDP will decline and household consumption will return to a more normal role in growing the economy. Shifting toward a consumption-led growth model in China will reduce the credit-intensity of economic growth. This is because there is vast scope for Chinese households to reduce

**Figure 3 Real lending rates in Asia, 2007–12**



Source: World Bank.

their excessively high savings rate and thereby increase their consumption without taking on large quantities of new debt. This is in sharp contrast with many developed economies, where increases in household consumption are financed with new borrowing.

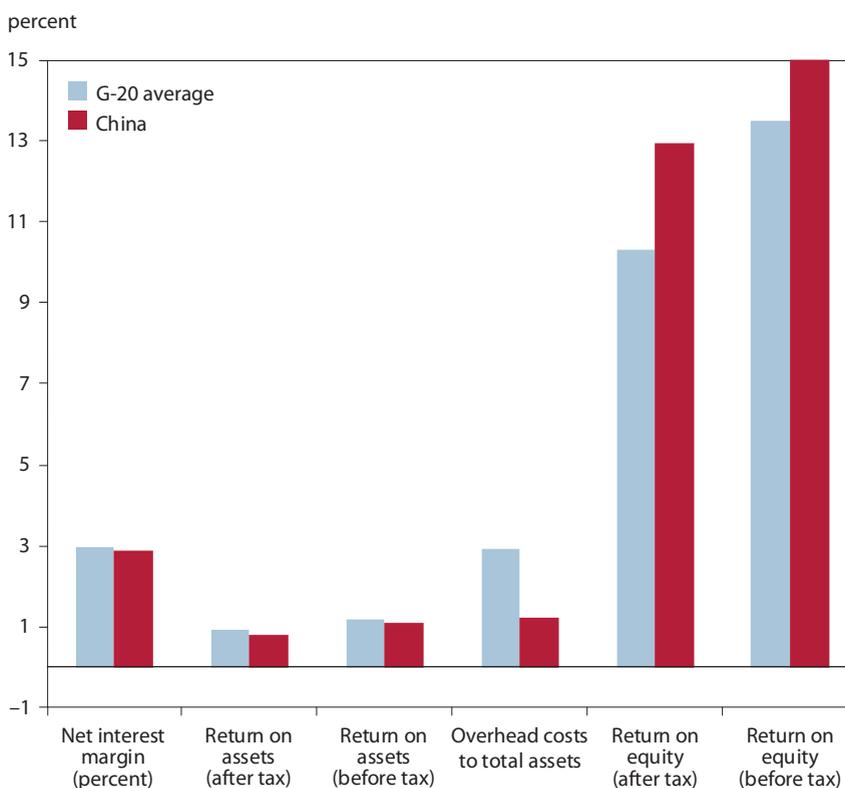
Artificially low interest rates, on both deposits and loans, are now the most important barrier to reducing the investment share of GDP.<sup>3</sup> For households, low interest rates on deposits induce them to invest excessively in real estate. Over the past decade, the central bank has set the benchmark deposit rate at or below inflation. Faced with such a low return, households have opted to put their savings into residential real estate, where prices have increased rapidly over the past several years. During the first half of 2012 more than 50 percent of housing purchases may have been for the purpose of investment.<sup>4</sup> This has led to a massive boom in residential real estate investment, which has grown to an extraordinary 12 percent of GDP as of the end of 2013. For enterprises, low lending rates in China create a structural “excess” demand for investment (World Bank 2013). Figure 3 shows a cross-section of real lending rates in Asia between 2007 and 2012. Although terms and conditions attached to lending rates vary by country, making perfect comparisons impossible, it is broadly clear that Chinese lending rates are exceptionally low compared to the rest of Asia. These low borrowing costs make various projects and investments financially viable that would otherwise not be in an environment of higher interest rates. For both households and enterprises, allowing interest rates to become more market-determined will help reduce excessive investment and thereby lower the credit-intensity of economic growth.

In addition to reducing the reliance of the economy on investment, improving the allocation of credit in China can also reduce the credit intensity of growth. A more efficient allocation of credit will ensure that the most productive borrowers receive financing, thereby increasing the economic impact of each additional unit of credit. Improving the allocation of credit in China requires fundamental structural reforms that address distortions to the cost of capital, rather than reforms aimed at improving the

3. The undervaluation of the exchange rate and price controls for energy inputs remain distortionary, but recent reforms have increased the degree to which these factors are market-determined.

4. This is an estimate by Li Gan, director of the China Household Finance Survey, conducted by the Southwestern University of Finance and Economics, <http://econweb.tamu.edu/gan/Report-English-Dec-2013.pdf>.

**Figure 4 G-20 and Chinese bank performance metrics**

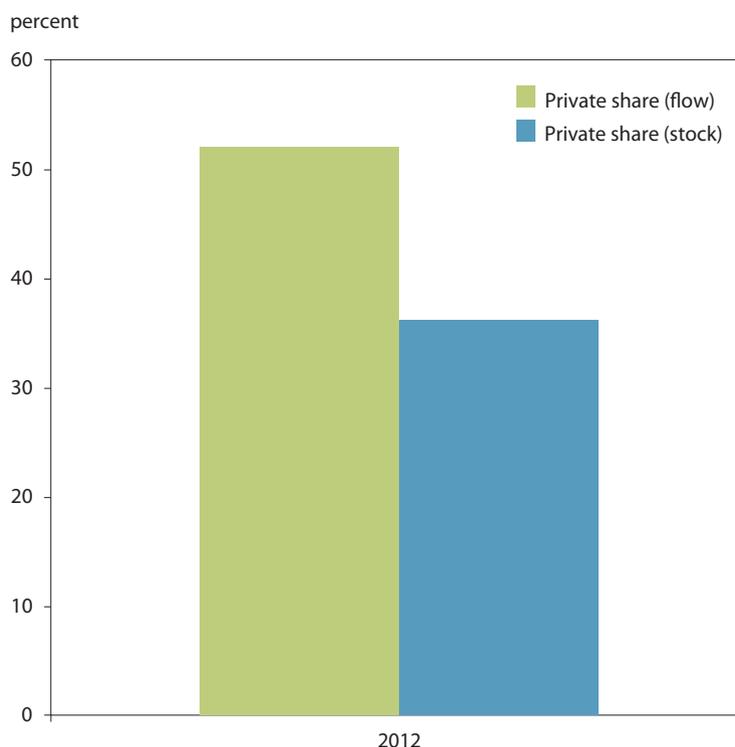


Source: World Bank Global Financial Development Indicators.

efficiency of financial institutions. After the Asian financial crisis and the cleanup of bad state-owned enterprise debt in the late 1990s and early 2000s, the Chinese banking system underwent a remarkable transformation. With improved balance sheets due to a government bailout, better corporate governance systems, and an improved regulatory framework, Chinese banks returned to health by the middle of the past decade. As a result, when benchmarked against banking systems in other countries, Chinese banks appear to be relatively efficient. Figure 4 shows the main performance metrics for Chinese banks relative to other G-20 countries. Chinese banks appear to be close to the average for most indicators and actually exceed the average on overhead costs and return on equity. On regulatory indicators, such as the capital adequacy ratio and nonperforming loan ratio, Chinese banks also compare favorably. Given the relatively efficient nature of the banking system, further banking reforms are likely to achieve only modest gains in capital allocation efficiency.

Reducing distortions to the cost of capital is the most efficient strategy for improving the allocation of credit in China. The low lending rate shown previously in figure 4 stems from the central bank's policy of maintaining a cap on the rates banks can pay to depositors. Given the competitive nature of the Chinese banking system, the low cost of funds for banks translates into low lending rates for borrowers. In a low lending rate environment banks have little incentive to make lending decisions based on risk analysis. Large and inefficient firms are able to borrow and pay back these artificially cheap loans, whereas in a market-determined interest environment many firms would be viewed as a poor credit risk. The result is that large enterprises and state-owned enterprises claim an outsized share of total lending. These trends have improved in recent years, with both private enterprises and small and medium enterprises, which are predominately private, having improved their access to credit. Figure 5 shows that while private enterprises' share of the overall stock of corporate loans is relatively small, they received more than 60 percent of the new loans made in 2012. Loans to small enterprises also showed modest improvement, increasing from 22 percent of total enterprise loan value in 2009 to 27 percent in 2012.

**Figure 5 Private enterprise share of total enterprise loans**



Source: China Financial Yearbook.

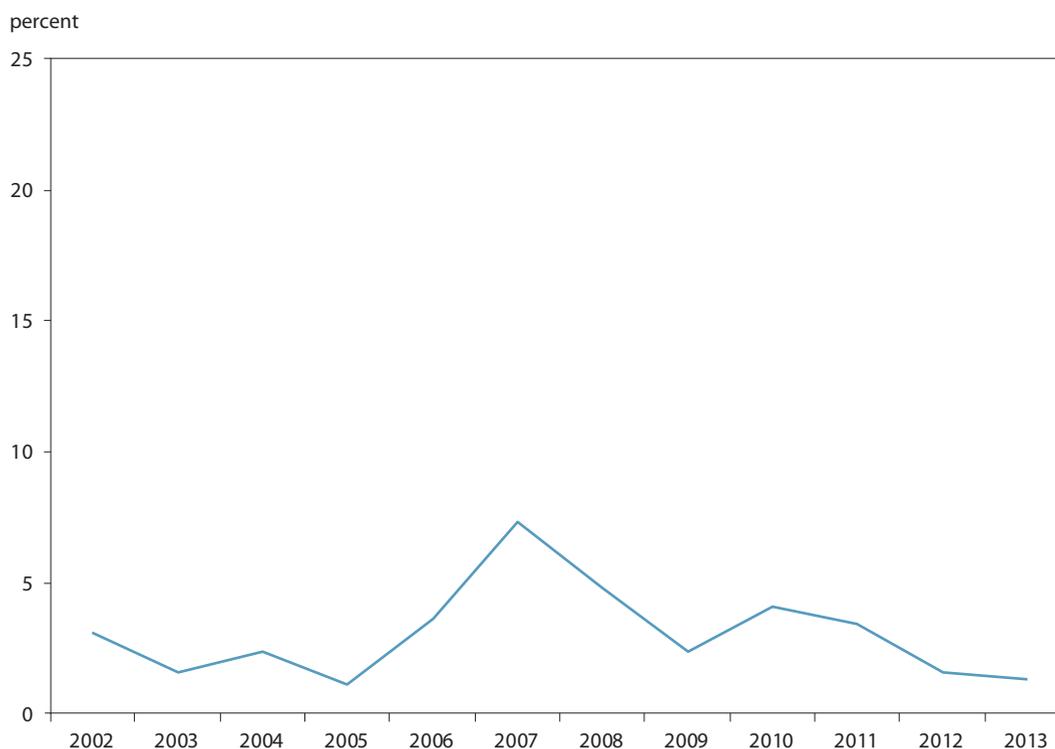
Once liberalized, deposit interest rates are likely to increase by a significant margin. Financial products that act as close substitutes for traditional deposits, called wealth management products, frequently offer interest rates more than 200 basis points higher than equivalent time deposits.<sup>5</sup> Invariably some of the higher cost will be borne by banks, but much will be passed to borrowers in the form of higher lending rates. Once lending rates increase, the trend of greater access to credit for private and small enterprises will accelerate. These enterprises are vastly more efficient than state-owned enterprises' counterparts, with an average return on assets that is twice as high (Lardy 2014, forthcoming). Moreover, many state-owned enterprises have a return on assets below the already low lending rate, making them a poor credit bet. Under liberalized funding costs, profit-oriented banks will allocate an increasing share of loans to private enterprises, which are a better credit risk given their high profitability. Increasing the share of loans available to small enterprises will have a similarly beneficial effect, allowing many of China's small private firms to grow and expand. Improving the allocation of credit will increase the economic benefit derived from each additional unit credit. Therefore a slower rate of credit growth does not necessarily have to become a drag on economic growth.

Finally, improving the attractiveness of equity financing in the economy will also reduce the credit-intensity of economic growth. One reason behind the rapid growth of credit in recent years is that the country's channels for equity financing remain relatively undeveloped. Figure 6 shows that during the mid-2000s new equity issuance by nonfinancial companies grew as a share of total financing to the real economy, approaching 8 percent in 2007. In recent years, this share has fallen dramatically, barely above 1 percent of new financing in 2013.<sup>6</sup>

5. This is broadly consistent with other estimates. Dong He, Honglin Wang, and Xiangrong Yu (2014) find that the natural interest rate is between 4 to 4.5 percent and that after liberalization large deposits, money market rates, short-term bond rates and small deposits are all likely to increase.

6. This number is for domestic equity issuances. Mainland companies have also raised funds in Hong Kong and overseas exchanges. Overseas fundraising is an important outlet given the state of domestic equity markets, but as a share of total funds raised it is relatively small. Since 2008, capital through overseas share issuance accounts for only 14 percent of the total amount of capital raised.

**Figure 6 Equity share of social finance**



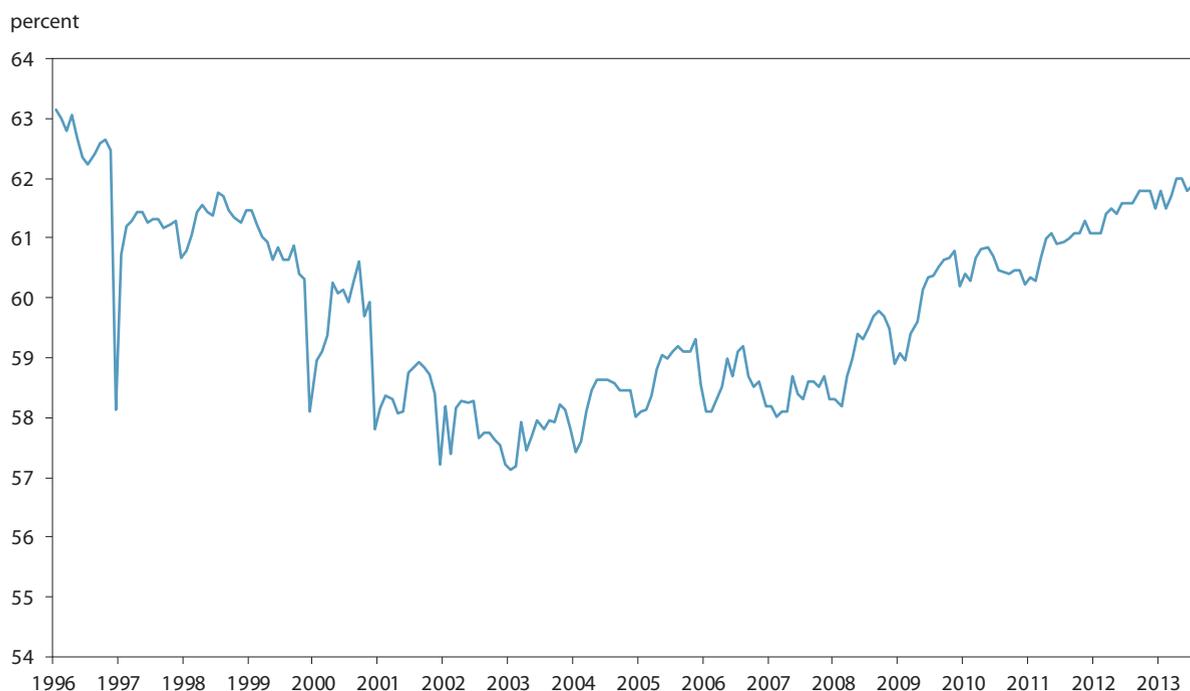
Source: Wind Information Database, China National Bureau of Statistics.

There are two principal reasons why equity financing remains relatively undeveloped in China. First, equity markets remained hindered by excessive intervention by regulators. The performance of equity indices in China has been weak since the collapse of the stock bubble in the fall of 2007. Underperforming equity markets have convinced regulators to limit the flow of new firm listings in order to support flagging prices. By the end of 2013, this had created a waitlist of more than 700 firms that would like to undergo initial public offerings (IPOs) but had not yet received approval. Limiting the supply of new firms has done little to boost returns because underperformance of Chinese stocks stems from a mix of poor corporate governance, lingering effects of a price bubble, and the reform of the nontradable shares system for state-owned enterprises. In the first quarter of 2013, the China Securities Regulatory Commission restarted the IPO approval process. At the current pace, however, it will take many years to clear the backlog of firms.

The other factor behind the weakness of equity financing is the artificially low cost of borrowing. At the margin, using equity to finance new investments is unattractive given low lending rates. Figure 7 shows the liabilities relative to assets for 5,000 firms surveyed by the People's Bank of China on a monthly basis. It shows the increase in corporate debt levels over the past decade, particularly since 2007. The relative attractiveness of debt versus equity also explains why the funding that is raised on equity markets goes disproportionately to financial enterprises. In 2012, financial corporations accounted for 25 percent of market capitalization on the Chinese stock market, yet they raised 48 percent of equity funds that year. The reason financial enterprises dominate equity fundraising is because banks are forced to adhere to prudential leverage ratios, which limit their ability to take on new debt. As a result, their financing has been more balanced in terms of both debt and equity.

Chinese economic growth became significantly more credit-intensive after the global financial crisis. This stemmed from an extremely high investment share of GDP that was increasingly financed by new borrowing. The resulting credit boom was deemed too rapid by authorities, who have since taken steps to rein in borrowing. A declining credit growth rate does not have to coincide with slower economic growth. There are several reforms authorities can undertake that will help reduce the credit

**Figure 7 Liabilities to assets of 5,000 surveyed firms**



Source: People's Bank of China.

intensity of economic growth in China. The first is to lower the investment share of GDP. Over the past several years investment outgrew corporate savings and firms began to borrow more to finance new growth. Shifting toward a consumption-driven economic model will alleviate this problem as Chinese households have the scope to increase their consumption without taking on more debt. The second reform is to improve the allocation of credit by increasing the share of new loans, which are given to more productive private enterprises. This will mean that each additional unit of credit will have a greater impact on economic growth. The third reform is to improve the attractiveness of equity financing for Chinese corporations. Restrictive equity markets and the low price of debt relative to equity have suppressed the growth of equity financing in China. Addressing these problems will help resolve the overreliance of firms on borrowing for new financing. These reforms are achievable by policymakers within the near term and will help ensure that a less credit-intensive growth model continues to deliver a moderately fast rate of economic growth.

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# 2

## China's Economic Reforms and Growth Prospects

NICHOLAS R. LARDY

The emerging consensus among commentators on the Chinese economy is that China is in for a credit crisis or a period of much slower economic growth. China boosted its economic growth during the global financial crisis via a massive stimulus program, financed almost entirely by an increase in bank lending. That has led to an unprecedented increase in leverage. When you include off-balance sheet credit and credit extended by nonbanks, the ratio of private credit to GDP has jumped by over 60 percentage points, from 125 percent at the end of 2008 to 190 percent at the end of 2013. Jonathan Anderson (2014) notes that this increase is “one that is not only huge by Chinese historical standards but also places China near the top of the emerging market league tables in terms of the five-year increase in credit penetration.”<sup>1</sup>

The critique of the credit-driven growth of recent years has two dimensions. First, while the stimulus allowed China to achieve growth averaging well over 9 percent in 2009–11, growth has since slumped to under 8 percent even as credit has continued to expand, leading to the conclusion that credit has been massively misallocated. Second, credit increases of the magnitude seen in China have frequently been a harbinger of financial crises in other economies, typically triggered by a sudden stop in credit growth or the collapse of an asset bubble. Indeed some claim that “a financial crisis in China has become inevitable.”<sup>2</sup>

Others argue that China's authorities must now engineer a multiple-year slowdown in credit growth to reduce the risk of a financial crisis. But inevitably, it is argued, this moderation in credit growth will slow the growth of the Chinese economy, perhaps dramatically and for a prolonged period of time. One well-known analyst forecasts that China's average growth in the decade ending in 2023 will average no more than 3 to 4 percent.<sup>3</sup>

The central arguments of this paper are that these pessimistic arguments exaggerate the likelihood of a financial crisis and overlook the growth-enhancing potential of the reforms endorsed by the Chinese Communist Party at the Third Plenum in November 2013.

There are several reasons to believe that the probability of a financial crisis in China is low. First, all of the credit is domestic in origin, meaning China is not vulnerable to a sudden stop in foreign funding, as occurred in several countries at the time of the 1997 Asian financial crisis. Second, China's bank credit boom is largely financed by deposits rather than through the wholesale market, which is more vulnerable to sudden stops. Most important, on a net basis China's systemically important banks finance very little of their lending by accessing funds through the interbank market.<sup>4</sup> Third, China's financial system has almost no securitization of loans or other assets. Securitized assets were a major source of financial instability in the United States and other advanced economies during the global financial crisis. Fourth, China has a national savings rate of around 50 percent, far and

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1. Jonathan Anderson, “China's Biggest Corruption Case and the ‘Virtual’ Credit Economy,” Emerging Advisors Group, April 1, 2014, 2.

2. Prasenjit Basu, “China's Crisis Is Coming—The Question Is Only How Big It Will Be,” *Financial Times*, April 28, 2014, 7.

3. Michael Pettis, “Rebalancing and Long-term Growth,” September 3, 2013. Available at [www.carnegieendowment.org](http://www.carnegieendowment.org) (accessed on April 29, 2014).

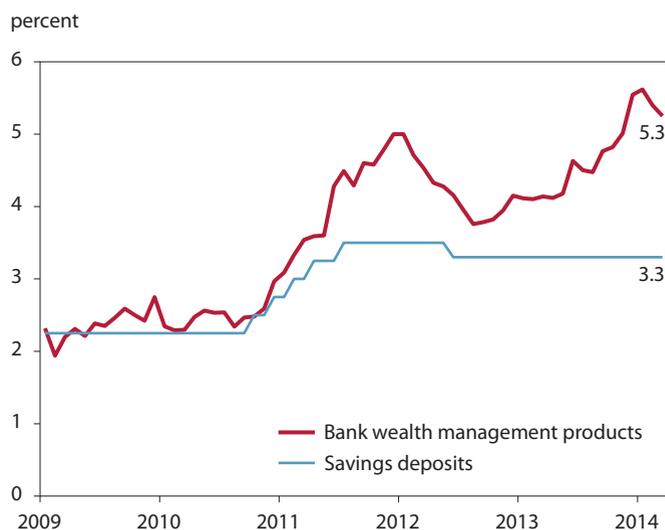
4. In 2013, ICBC net interbank borrowing and repurchase agreements outstanding totaled RMB –518,672 million (2.7 percent of total assets). Industrial and Commercial Bank of China Limited, *2013 Annual Results Announcement*, March 27, 2014, available at [www.icbc.com.cn](http://www.icbc.com.cn).

**Figure 1 Real deposit rate, 1997–2013**



Sources: People's Bank of China, [www.pbc.gov.cn](http://www.pbc.gov.cn); National Bureau of Statistics, [www.stats.gov.cn](http://www.stats.gov.cn) (accessed on February 28, 2014); ISI Emerging Markets, CEIC Database.

**Figure 2 Interest rate on bank wealth management products versus traditional savings deposits, 2009–March 2014**



Sources: People's Bank of China, [www.pbc.gov.cn](http://www.pbc.gov.cn); ISI Emerging Markets, CEIC Database.

away the highest in the world, which makes financing a large credit buildup more feasible. Finally, it should be noted that because of its strong external position, China is not vulnerable to the capital outflows that, in many emerging market economies, have accompanied the so-called tapering in the pace of asset purchases by the US Federal Reserve. Several of these economies have been forced to raise interest rates in an attempt to reduce these outflows, but are likely to suffer slower growth as a result.

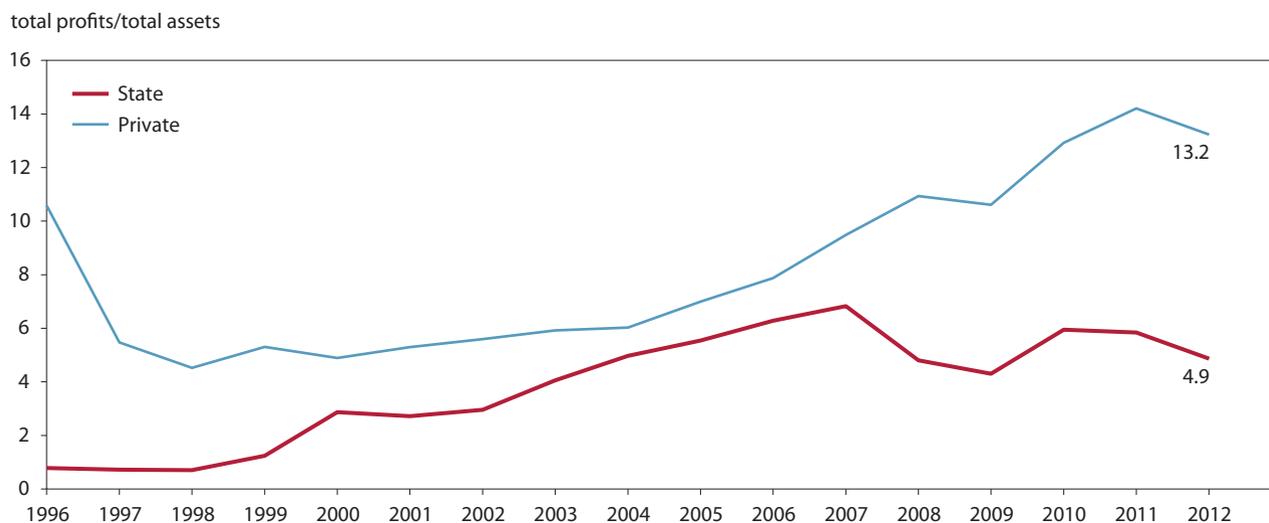
The key growth-enhancing reforms endorsed at the Third Plenum are the adoption of market-oriented liberalization of deposit rates and the elimination of state monopolies except in the case of natural monopolies. China's central bank has long set a ceiling on the rates that banks can pay on deposits. The bank's use of this authority has resulted in a sharp decline in real deposit rates since 2004, as reflected in figure 1. Figure 2 provides evidence that the return on deposits offered outside of normal banking channels, for example via wealth management products and money market funds, is substantially higher than bank deposit rates. This suggests that liberalization of bank deposit rates will lead to significantly higher real rates. And if banks have to pay more on their liabilities they will seek to earn more on their assets, meaning bank lending rates are likely to rise. This increase is likely to be positive for China's economic growth.

But won't higher lending rates reduce the rate of investment, inevitably slowing economic growth? Not necessarily. I believe that the overlooked result of higher rates is that more bank lending will flow to the private sector, where, on average, return on assets is more than twice as high as in state firms.<sup>5</sup> Data on return on assets in the industrial sector are shown in figure 3. Returns of private industrial firms have always been higher than state firms and the margin has widened significantly since 2006. By 2012 the returns of private firms were about two and a half times those of state firms.<sup>6</sup> For the service sector data are far less complete,

5. In this paper "state firms" refers to the universe of traditional state-owned companies and state firms that have been corporatized but the state remains the majority or dominant shareholder.

6. The data on private firms shown in figure 3 is for registered private firms only. However, I believe that these returns reflect returns in the broader universe of privately controlled firms, including limited liability and shareholding limited companies where the majority or dominant owner is private. In 2007, a year for which complete data are available, the gap between the return on assets in the narrow universe of registered private industrial firms, 9.5 percent, and the universe of industrial firms in other registration categories that are privately controlled, 8.3 percent, is relatively small. The return for the entire universe of domestic private firms was 8.9 percent. Thus using returns of registered private firms as a proxy for all private firms overstates returns by 0.6 percentage points, or only 7 percent (= 9.5/8.9).

**Figure 3 Return on assets of state and private enterprises, 1996–2012**



Sources: National Bureau of Statistics, *China Statistical Yearbook 2013*. National Bureau of Statistics, [www.stats.gov.cn](http://www.stats.gov.cn) (accessed on February 28, 2014).

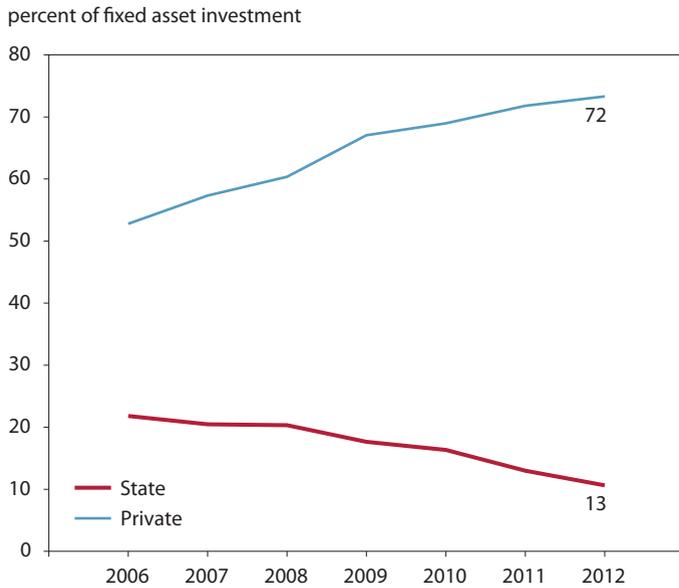
but based on the 2008 economic census, which provides data on 10 of 14 service subsectors, the return on assets of state firms, 3.4 percent, was half the 6.6 percent returns of nonstate firms. In short, state firms in both the industrial and service sectors already earn substantially less than their cost of capital.<sup>7</sup> This undoubtedly in part explains why in 2010, 2011, and 2012, banks loaned 50 percent more funds to privately controlled companies than to state firms (Lardy 2014, forthcoming). The margin in favor of lending to privately controlled firms is likely to increase as bank lending rates rise.

The elimination of state monopolies is likely to magnify the growth-enhancing effect of deposit rate liberalization. In manufacturing, outside of the petroleum and tobacco industries, privately controlled firms have faced few barriers to entry and have largely displaced state and collective firms. In 1978 state and collective firms accounted for 100 percent of manufacturing output. But by 2011 their share had fallen to only 21 percent, while the share of privately controlled firms, including foreign firms, had risen from zero in 1978 to almost 80 percent. The falling share of state firms is explained by two factors. First, their return on assets has been persistently below that of private firms. Because most investment in China in the past two decades has been financed from retained earnings, state firms (relative to private firms) have been less able to reinvest. Second, as already noted, banks have increasingly provided loans to the more productive private sector, so lending to state firms has fallen in relative terms.

This transformation is reflected in figure 4, which shows that the composition of fixed investment in manufacturing has been largely transformed. By 2012 privately controlled firms accounted for almost three-quarters of investment, and the share of investment by state firms had fallen to only 11 percent. In contrast, in the service sector, where there are still numerous barriers to entry by private firms, the share of investment undertaken by state firms, shown in figure 5, has declined only slightly in recent years and is fully four times the share of state investment in manufacturing.

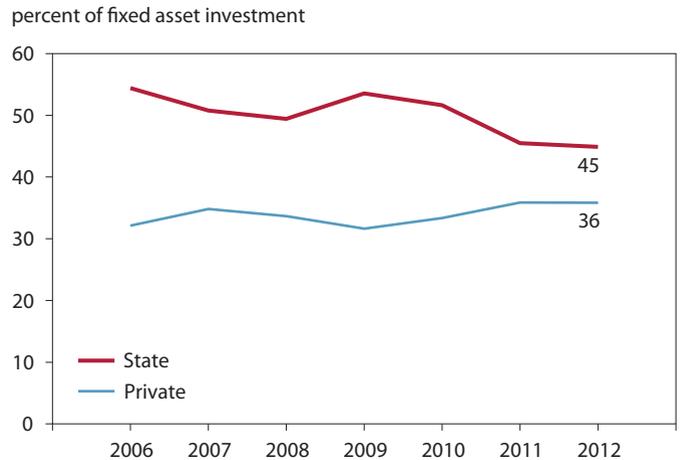
7. Typically the cost of capital for firms is calculated as a weighted average of the cost of debt and the cost of equity, the latter measured by the return that an investor would expect from holding a company's shares. But in China few companies are listed on the stock exchanges and the corporate bond market is extremely small. Thus, other than retained earnings, most capital in the corporate sector comes from bank loans. So the interest rate on a one-year loan is assumed to be a reasonable estimate of the cost of capital. To the extent that state firms rely on funds from nonbank lenders in the shadow banking sector, where interest rates for borrowers are typically higher, the approach adopted here understates the degree to which the return on assets of state firms falls below the cost of capital.

**Figure 4 Investment in manufacturing by ownership, 2006–12**



Sources: National Bureau of Statistics, *China Statistical Yearbook 2013*. National Bureau of Statistics, [www.stats.gov.cn](http://www.stats.gov.cn) (accessed on February 28, 2014).

**Figure 5 Investment in services by ownership, 2006–12**



Sources: National Bureau of Statistics, *China Statistical Yearbook 2013*. National Bureau of Statistics, [www.stats.gov.cn](http://www.stats.gov.cn) (accessed on February 28, 2014).

In summary, the credit-driven growth path of the recent past in China is clearly not sustainable. But a financial crisis is not inevitable. China needs to moderate the growth of credit. If at the same time deposit interest rates are liberalized and previously state monopolized industries, particularly those in services, are opened up to private investment, more funds will flow to private firms. Since these firms have returns on assets that on average are more than twice those of state firms, this reallocation of credit will be growth-enhancing and allow China to maintain fairly rapid economic growth with a substantially lower share of resources devoted to investment as compared with recent years.

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# 3

## Reforming Natural Resource Management

CULLEN S. HENDRIX AND MARCUS NOLAND

The 21st century commodity boom, during which real prices for most globally traded commodities more than doubled, has catalyzed a gold rush-like frenzy of exploration effort. This has led to radical upward revisions of proven oil and natural gas reserves and mineral deposits in many “legacy” (long-time) exporters (Iraq, Saudi Arabia, and Venezuela), as well as discoveries by much smaller or nonlegacy exporters. Countries across West Africa (Ivory Coast, Ghana, and Liberia); East and Southern Africa (Kenya, Mozambique, and Uganda); and Southeast Asia (Cambodia, Myanmar, and Vietnam) have seen their proven energy and mineral reserves increase significantly. Mongolia has emerged as one of the world’s fastest-growing economies, driven by surging output from huge copper, gold, and coal mining projects. Even Afghanistan, a minor trader whose most lucrative export is fruits and nuts, is now estimated to have more than a trillion dollars’ worth of mineral deposits. Where these deposits are found, massive inflows of investment capital typically follow. More often than not, however, this investment capital and the vast natural resources it exploits do not catalyze broad-based, inclusive growth. With its rise as an economic, political, and military force, China is poised to exert critical influence on the fortunes of resource-based economies around the globe—and to create anxiety for the incumbent powers as well.

Over the years, concerns about the role of resources and development have sharpened in a number of ways. They concern the possibility that, despite recent trends, natural resource products have experienced long-term declines in price; that the prices of these commodities are unusually volatile, complicating planning and giving rise to boom-bust cycles; and that by drawing in money and attention, temporary booms may undermine, perhaps irreparably, other segments of the economy. What these propositions, all of which are debatable, suggest is that countries in which resource extraction plays a central role in economic life are effectively running uphill, at a long-term relative disadvantage in terms of economic performance in relation to more diverse, balanced economies.

It is not just that the focus on resource extraction may put these countries on a disadvantageous long-term economic trajectory. As a group, their political histories are disproportionately characterized by instability and conflict. One possible explanation for this phenomenon is that the presence of “lootable” resources heightens competition for control of the state or enables the continuation of less than best practices with respect to governance. Another is that weak political institutions have retarded the development of more complex forms of transactions and forced an implicit reliance on extraction in economic life. In either case, the potentially deleterious impact of natural resources on development is captured in the phrase “the resource curse.”

The implications are greatest for the commodity producers themselves, ranging from complications for macroeconomic management to the potential encouragement of political authoritarianism and, in the extreme, the precipitation of violent civil conflict. For outsiders, the resource curse presents long-term challenges with respect to coping with violence in exporting states and its facilitation of unwanted transborder phenomena, including terrorism, drug trafficking, and illegal migration and human trafficking, as well as more basic concerns about access to critical energy resources.

These issues have drawn established powers into the domestic affairs of resource-exporting states in the past, and interventions have not always been altruistic in nature. From Allende in Chile to Lumumba in Zaire (now the Democratic Republic of the

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Congo), the historical record is littered with US and Western involvement in, or support of, coups against elected leaders whose political platforms threatened Western business interests. The combination of valuable resources and weak institutions, which may encourage violent domestic conflict, may attract the attention of outside powers with less lofty motives. In contemporary times, among the shifting justifications for the US invasion of Iraq (and Iraq's earlier invasion of Kuwait) was the control of oil. If China were to become involved in the domestic politics of countries in which it holds large equity stakes in natural resources, it would not be the first major power to have done so.

China's rise occurs against the backdrop of attempts by the West—broadly encompassing Western nongovernmental organizations (NGOs), Western governments, and the multilateral institutions that Western governments dominate, such as the World Bank—to formulate new ways of better managing the resource curse. These initiatives—for example, the Kimberley Process Certification Scheme (KPCS) with regard to “conflict” or “blood” diamonds and the Extractive Industries Transparency Initiative (EITI)—can be regarded as a way to assuage troubled consciences, act as a precommitment mechanism to forestall more damaging forms of intervention, and promote more humane and rational uses of these resources. Whether they can be effective, and crucially what role China will play with respect to these efforts, remain open questions.

Exporting states' aspirations are sometimes revisionist in nature: Believing that they have not received their just rewards under the status quo, they seek to weaken, circumvent, or otherwise undermine the liberal, rules-based international order that has prevailed since the end of World War II, in both its economic and political dimensions. China's emergence as a major importer and investor in extraction, and its willingness to accommodate exporters shunned by the West—Iran, Sudan, and, until recently, Myanmar—potentially undercut international efforts to encourage greater transparency and improved management of natural resource wealth, as noted above, as well as Western diplomatic initiatives, including economic sanctions.

This issue is of particular salience for US policy toward Africa. By some estimates, China has surpassed the United States as the single largest provider of aid to the continent, and Chinese outward foreign direct investment is heavily targeted at the extractive sector. The resource boom may have catalyzed a “new scramble for Africa.” The last scramble for Africa ended badly, with European powers shooting it out in World War I. Although the war started in the Balkans, it was preceded by an intense naval arms race, motivated in large part by securing access to colonies (and commodities) around the world. The potential that this resource boom will occasion a geopolitical confrontation between the United States and China must be considered.

These concerns have elicited a variety of policy responses to various facets of these issues. The West African civil wars of the 1990s generated two related policy initiatives: KPCS, to eradicate trade in conflict diamonds, and the Diamond Development Initiative (DDI), to address broader development concerns, particularly with respect to small-scale alluvial diamond mining. The role of diamonds in fueling violent political conflict has been attenuated, but this attenuation may be temporary; it is unclear how much of the decline in conflict stems from policy and how much reflects other factors and is subject to reversal. Immediate concern has shifted from civil war to the issue of militarized forced production in Zimbabwe.

The Extractive Industries Transparency Initiative aims to strengthen governance, transparency, and accountability by encouraging companies to report payments and governments to report revenue in oil, gas, and mining. Recently, the United States has sought to construct a Kimberley-like certification process for certain minerals believed to have fueled mass violence in the Democratic Republic of the Congo and surrounding areas.

Reflecting on the 21st century commodity boom, *Confronting the Curse: The Economics and Geopolitics of Natural Resource Governance* (2014) offers policymakers a valuable primer/guided tour of the economics and politics of one of the more curious findings/nonfindings in economics: that valuable natural resources, such as oil, natural gas, and other mined commodities, are not, in the main, associated with better development outcomes and may even retard long-run rates of economic growth and discourage political development. It argues that the resource curse lies in the deeper political economy of institutions, rather than in economic management per se. In addition to offering an extended discussion of remedial policy options, the study reports exciting new findings in several areas:

■ *China's engagement in Africa is not as "rogue" as conventional wisdom suggests.*

China's emergence as a major global trader, investor, and provider of development assistance could be heralded as good news: Trade and financial integration tend to pacify relations between states, raising the opportunity costs associated with conflict and creating vested domestic interests in both that prefer peace to war. However, not all observers are cheerful about China's rise. Indeed, the prevailing conventional wisdom is highly skeptical, if not downright contemptuous. Moisés Naím has called Chinese development assistance "rogue aid," claiming, "It is development assistance that is nondemocratic in origin and nontransparent in practice; its effect is typically to stifle real progress while hurting average citizens."<sup>1</sup> Stefan Halper alleges that China's economic rise is "marginalizing the values that have informed Western progress for 300 years."<sup>2</sup> This skepticism is fueled by the popular belief that China's engagement with the developing world is primarily about securing access to valuable natural resources.

Hyperbolic statements aside, the factors that shape China's foreign policy have not been subjected to rigorous empirical analysis. Are China's 21st century investment, aid, and security ties disproportionate to nondemocratic countries? If so, does this pattern reflect an affinity for authoritarian governments, or is China interested only in natural resources? Our book (2014) tests these claims against the empirical record using data on foreign direct investment (FDI), development assistance, and arms transfers to Africa. The key points are three.

First, while Chinese FDI overwhelmingly targets the extractive sector, the predominant form of investment has involved equity stakes and long-term contracts with comparatively minor players. These investments have helped to grow reserve estimates for most key mineral commodities, rather than simply shuffling ownership of a "fixed" stock of natural resources. Second, we find less powerful evidence of a resource-seeking bias in its aid allocations. Using new media-sourced data on Chinese development assistance programs in Africa, we find weak evidence that China's aid goes disproportionately to countries with large stocks of mineral wealth, but that the main driver of Chinese aid allocations appears to be related to diplomatic recognition of Taiwan. Finally, we find only weak evidence that Chinese arms transfers flow disproportionately to resource-rich countries, while resource-rich countries enjoy larger volumes of arms flows from other major powers, including the United States. With respect to Africa, China's engagement is not as "rogue" as conventional wisdom suggests.

■ *High oil prices embolden more bellicose foreign policies in exporting countries.*

While most research on the resource curse has been confined to its domestic economic and political effects, our book also addresses the effects of oil-exporter status and oil prices on international affairs. Mineral exporters, energy exporters in particular, are characterized by what has been called "unbalanced globalization"—a high degree of economic integration but comparatively poor integration in the international organizations in which global governance takes place. Unbalanced globalization has practical effects for both adherence to international norms, such as norms governing human rights, and participation in global environmental governance. The empirical record regarding conflict is more nuanced than the standard "resource wars" hypothesis: Oil-exporting states behave more aggressively than nonexporting states, but this belligerence rarely intensifies into actual armed conflict. Moreover, we present new evidence that this dynamic is amplified by high prices. Generally, oil endows exporting countries with a freer hand with which to pursue their aims. Recent developments in Ukraine immediately spring to mind.

■ *Good governance initiatives in extractives were born in the West, but the key to their long-term viability resides in the East.*

If the resource curse has pernicious effects for local governance institutions, can global civil society help? Our book addresses global good governance initiatives, including the Kimberley Process Certification Scheme and the Extractive Industries Transparency Initiative, and their potential role in militating against the resource curse by heightening transparency and local civil society involvement in resource governance. What is striking about these multilateral initiatives is that they did not arise out of any textbook economic analyses of natural resource management, but are rather the product of political campaigns initiated by Anglophone NGOs. As such, their particulars reflect the political strategies adopted by the NGO community, particularly the

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1. Moisés Naím, "Rogue Aid," *Foreign Policy* (2007): 95–96.

2. Stefan Halper, "Beijing's Coalition of the Willing," *Foreign Policy* (2010): 100–102.

tactic of “naming and shaming,” which may be effective with respect to globally recognized brands and politically accountable democratic governments but may be less effective when applied in different circumstances.

We conclude that the effectiveness of these initiatives has varied depending on the industry structure, the vulnerability of major extractive firms to shaming, the relative importance of participants sensitive to human rights concerns, geological and other considerations that affect the availability of alternative sources of supply, the technical ability to implement certification procedures, and the political interests of the dominant powers. Importantly, our book argues that the initial success of these initiatives was dependent on Western consumers’ willingness to shun certain producers because of their human rights practices. As the global market for high-value mined commodities—particularly gold, diamonds, and other gemstones—has gravitated east toward illiberal consumer bases (the Gulf states, China), the continued success of these initiatives will depend on those new consumers’ adopting Western consumer values. Whether this will occur is an open question.

Institutional reform and development are more difficult to achieve but also more fundamental to economic growth and shared prosperity than any specific policy intervention. One solution may be to encourage partnership between Western and non-Western entities for joint exploration and development, effectively entangling non-Western producers in the emerging policy regime while maintaining a stake for more norm-constrained Western firms. Joint partnerships are also attractive to host countries for two reasons. First, they promote greater transparency. In a single firm–host government arrangement, the multinational corporation has little incentive to make private information public, and the costs of monitoring the terms of the agreement fall entirely on the host-country government and civil society, which is nascent in many new and emerging producers. The involvement of Western firms in developing mineral resources, even with minority stakes, draws the attention of Western civil society groups and offloads some of the costs of monitoring compliance with both international law and the specific terms of agreements with host countries onto interested third parties. Although some governments may not view this enhanced scrutiny as a good thing, for governments seeking to minimize the political effects of the resource curse, it is likely to help. Moreover, this scrutiny is likely to have positive spillovers for domestic civil society in host countries, which can benefit from tapping into broader, more financially established activist networks, often with issue-specific technical expertise.

Second, joint partnerships dilute the political influence of the multinational corporation’s home-country government by pitting its interests against the interests of other major powers. For this reason, host-country governments may find that joint Western–non-Western partnerships provide them with greater insurance against multinational corporations meddling in domestic affairs and, paradoxically, more policy autonomy.

The 21st century has witnessed a profound transformation in the nature of global commodity markets, with new producers and consumers rising to prominence. Are these changes a blessing or a curse? Whether new producers are able to harness this newly discovered bounty to benefit all of their citizens remains an open question.

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# 4

## Rebalancing China's Tax Policy

RYAN RUTKOWSKI

### INTRODUCTION

Over the past decade China's economic growth model has been based on large-scale capital investment and bias toward industrial expansion. This capital-intensive growth model raises the risk of a sharp correction caused by unsustainable asset price bubbles and misallocations of capital. Chinese policymakers now aim to achieve more balanced economic growth by raising the share of economic output generated by household consumption and services. In order to achieve this goal they must reform economic policies—including fiscal, financial, exchange rate, and price reforms—favoring the current growth model. Unfortunately, the current structure of tax policy works against these goals.

This paper will address three misalignments between China's tax policies and rebalancing objectives. An incomplete transition to value-added taxes (VATs) and low environmental taxes create distortions favoring the industrial sector over services. A property tax system heavily reliant on transactions encourages excessive investment in residential property. Finally taxes on the wealthy are too low and limit the effectiveness of tax policy in reducing inequality.

The next stage of tax reforms should change these incentives. Since 2012, policymakers have actively experimented with reforms to the turnover tax on services and a recurring property tax in certain regions. The VAT in services is now being gradually rolled out nationwide. The State Council and the Ministry of Finance have also indicated they will pursue an expansion of environment-related taxes. Future adjustments to an excise tax on consumption along with a potential nationwide rollout of a recurring property tax will address inequality. If the central government is successful at instituting these reforms, tax policy will augment rebalancing of the domestic economy.

### TAX POLICIES THAT FAVOR THE INDUSTRIAL SECTOR OVER THE SERVICE SECTOR

The consumption and environmental taxes that now favor the industrial sector must be rebalanced towards the service sector. Although China's service sector has witnessed a significant rise in its share of GDP, there is still substantial room for growth. Figure 1 shows that China's service sector as a share of GDP is still below what is typical for developing economies.

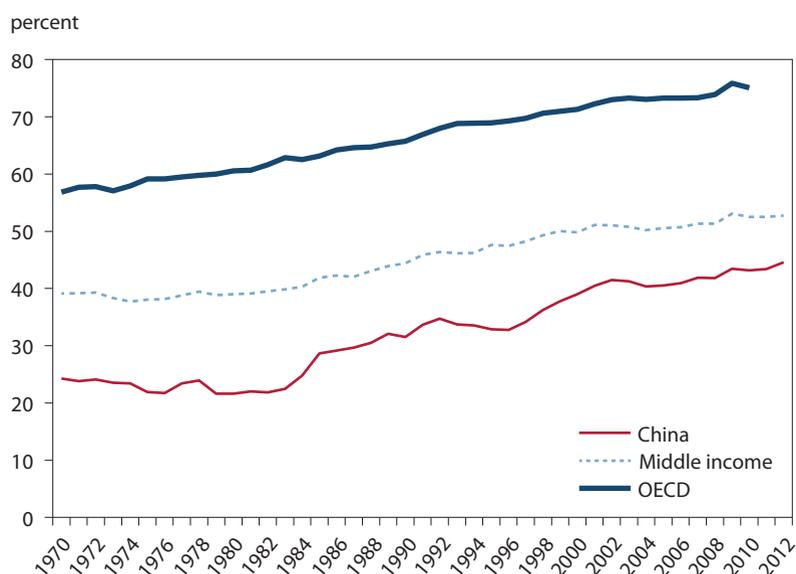
#### Value-added tax reform

China relies on VATs (增值税) as a major source of tax revenue.<sup>1</sup> Following the 1994 tax reforms a VAT was imposed only on the industrial sector, while a turnover tax (also sometimes called the business tax (营业税)) was maintained in the service sector. A turnover tax and a VAT are both indirect taxes on the consumption of goods or services. They are indirect because they are taken out of a firm's revenue rather than a direct tax at the point of sale. The VAT rate is higher than turnover tax but allows

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1. The average country in the Organization for Economic Cooperation and Development (OECD) receives one-fifth of its revenue from value-added taxes (OECD 2012, 65).

**Figure 1 Services value-added output as share of GDP, 1970–2012**



OECD = Organization for Economic Cooperation and Development

Source: World Bank, *World Development Indicators*, <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed on April 2014).

firms to deduct the cost of capital investment and intermediate inputs.<sup>2</sup> This feature makes the VAT more efficient than other consumption taxes.<sup>3</sup>

Maintaining a dual consumption tax system disadvantages service sector growth in four ways. First, a dual consumption tax system discourages industrial firms from outsourcing services to specialized service providers. The VAT allows a deduction for intermediate inputs for the production of goods. But because the services sector maintains a turnover tax, manufacturing companies cannot deduct the value of services used in production. This creates an incentive for manufacturing firms to vertically integrate services rather than outsourcing. The effect of this tax can be seen most clearly in the sluggish development of modern services in China.<sup>4</sup> For example, steel groups have traditionally run their own transport and logistics divisions rather than outsourcing to specialized firms.

Second, the dual consumption tax system creates distortions favoring investment in industry over services. Following a shift to a consumption-based VAT in 2009, industrial firms have been allowed to deduct capital expenditures from value-added tax liabilities but no like deductions were allowed for the service sector.<sup>5</sup> If the service sector had been allowed the same deductions it is possible that investment in the sector would have been at least 5 percent higher over the last five years.<sup>6</sup>

2. The VAT on industry is 13 to 17 percent whereas the business taxes charge 3 to 5 percent on services. Small-scale industrial producers with sales less than RMB 500,000 per year pay a turnover tax of 3 percent instead of the VAT, <http://www.chinatax.gov.cn/n8136506/n8136608/n8138877/n8139027/8357269.html> (accessed on June 25, 2014).

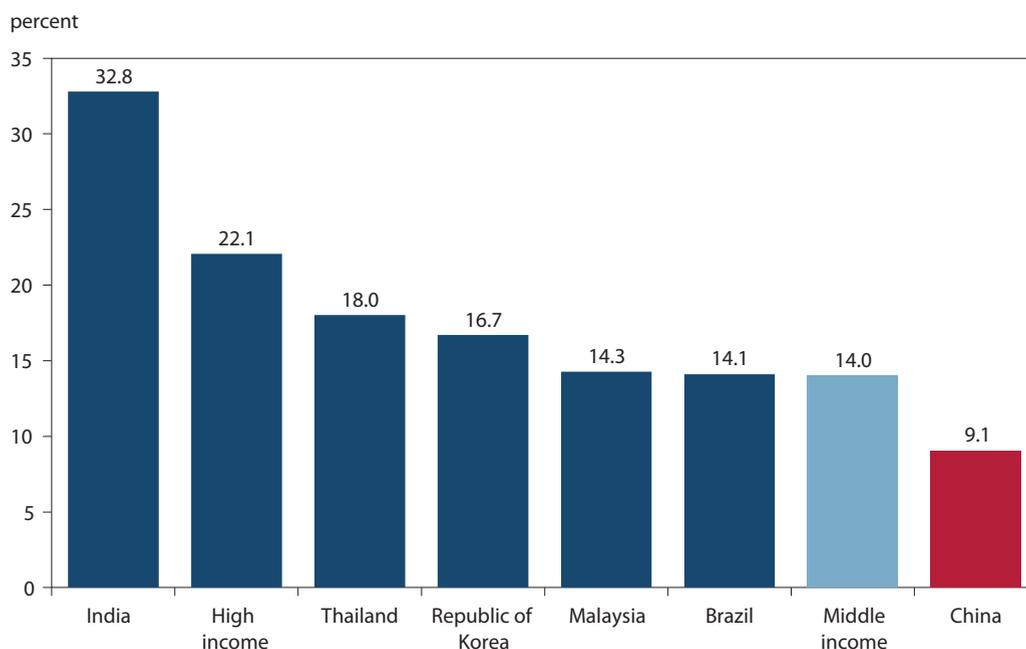
3. A turnover tax on sales revenue creates a serious problem known as “cascading effect,” or a tax-on-tax. It generates accumulated distortions rising from the first stage of production to the point of sale because the inputs at each stage are taxed multiple times (Minh Le 2003, 4).

4. Modern services include business and leasing services, technical services and scientific research, financial services, and information transmission, software, and IT services. Modern services have strong linkages with other areas of the economy including manufacturing. Increased levels of competition in the service sector have a positive impact on manufacturing productivity (Jensen 2011, 20). However, in China modern services comprise only about 8 to 12 percent of the Chinese economy compared with 17 to 25 percent in advanced economies in the OECD (Park and Shin 2012, 17).

5. Beginning in 2004 the Ministry of Finance allowed some industrial firms to deduct capital expenditures in addition to intermediate goods. By 2009 all industrial firms were allowed to make deductions for capital expenditures. Close to three-fourths of deductions used to calculate VAT are for capital expenditures, <http://www.chinatax.gov.cn/n6669073/n6669118/11952224.html> (accessed on June 25, 2014).

6. The estimate assumes 73 percent of the difference between a 6.8 percent VAT on services and a 3 percent turnover tax would be used for capital expen-

**Figure 2 Services' share of total exports, 2012**



Source: World Bank, *World Development Indicators*, <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed on April 2014).

Third, the dual tax system increases the cost of services relative to industry. Deductions for capital expenditures and intermediate inputs allow industrial firms to reduce their effective tax liability thus reducing the final cost of goods sold. For example, the effective VAT paid by industrial firms in China has been close to 3 percent for the past two decades while the turnover tax rate for services is closer to 5 percent.<sup>7</sup> As a result the final prices of services are higher than they would otherwise be if using a VAT similar to industrial goods.

Fourth, industrial firms can apply for a VAT rebate on exports, whereas service sector firms receive no rebate on turnover taxes for service exports. This contributes to the low level of Chinese services exports relative to other middle income economies like Malaysia, Thailand, or India shown in figure 2.

Chinese policymakers have already begun removing these distortions by shifting the service sector to a VAT; as more sectors are converted to the VAT these distortions should gradually dissipate. In January 2012 the Ministry of Finance began a reform with a pilot program in Shanghai.<sup>8</sup> The turnover tax was replaced with a VAT for a selected group of services. This pilot program was expanded nationwide in August 2013. The coverage is expected to expand to include railway, post, and telecommunications before the end of 2014. There is already evidence that shifting to the VAT is supporting growth in modern services. Large manufacturing firms have responded by spinning off their service units.<sup>9</sup> Existing service firms are also reinvesting a larger share

ditures. When Jiangsu implemented a VAT on certain services on October 1, 2012, it found that in service sectors including R&D and technology, logistic auxiliary services and tangible movable property leasing, fixed assets tax deducted accounted for 73 percent of all taxes deducted. See *People's Daily*, "VAT Pilot Program Helps Jiangsu Reduce Taxes of RMB 10 Billion over Nine Months," October 16, 2013, <http://www.chinatax.gov.cn/n2925/n2953/c463008/content.html> (accessed on June 24, 2014).

7. The effective tax rate is calculated by dividing VAT payable over sales revenue for firms covered in the National Bureau of Statistics' industrial sector survey.

8. See *China Daily*, "Shanghai to Pilot VAT Reform," November 18, 2011, [http://www.chinadaily.com.cn/business/2011-11/18/content\\_14116541.htm](http://www.chinadaily.com.cn/business/2011-11/18/content_14116541.htm) (accessed on June 24, 2014).

9. Longteng Special Steel, XCMG Group, Tasly Diyi Pharmaceutical, Nanjing Chenguang, and Feida Carbon have separated or are separating main business from auxiliary business. See *People's Daily*, "VAT Pilot Program Helps Jiangsu Reduce Taxes of RMB 10 Billion over Nine Months," October 16, 2013, <http://www.chinatax.gov.cn/n2925/n2953/c463008/content.html> (accessed on June 24, 2014).

of their revenues. A software company in Beijing was able to reduce its effective VAT rate even lower than the previous rate under the turnover tax thanks to deductions for fixed assets.<sup>10</sup> However, tax authorities will need to add more sectors.<sup>11</sup> Most notably the real estate sector remains absent from the VAT reform. Real estate is the largest source of revenue for the current business tax, and the second largest tertiary sector. The stated objective of Finance Minister Lou Jiwei is to convert all services to VATs by the end of 2015. At the current pace of implementation the goal is achievable but could be delayed by concerns related to rising financial stress in financial institutions and real estate firms.<sup>12</sup>

## Environment-related taxes

The incidence of environment-related taxes and levies has tripled since 1994. China has developed a number of environment-related taxes, including a tax on the sale of natural resources,<sup>13</sup> taxes on the use and ownership of vehicles,<sup>14</sup> and an excise tax on specific goods including taxes on refined oil products.<sup>15</sup> Since 2003 China has also expanded its longstanding system of local pollution levies dating back to the 1980s. Figure 3 shows that China's environment-related taxes and levies as a share of GDP are actually relatively high, only just below the average for OECD countries.

However, figure 4 shows that environment-related taxes are still very low relative to the cost of environmental degradation. The gap between the cost of environment pollution and the tax rate is an effective subsidy to polluters, which are disproportionately in the industrial sector. Environment-related taxes were only enough to cover half the cost of investments in environmental cleanup over the past decade. And today the total value of environment-related taxes is still lower than the value of investment in environmental cleanup. Yet even raising the value of environment-related taxes to the level of investment in cleanup would not be enough to take into account all the negative externalities associated with pollution. A study by the World Bank and China's State Environmental Protection Administration (2007) has found that the health costs of air and water pollution in China were as high as 4.6 percent of GDP; if nonhealth effects were added the impact would rise to 5.8 percent of GDP. This suggests that the incidence of environment-related taxes has significant room for further expansion.

Future tax reforms should aim to raise the incidence of environment-related taxes, especially taxes on industrial emissions. Tax authorities are experimenting with converting the existing resource tax on coal from an ad quantum tax to an ad valorem tax. Changing the resource tax on oil and natural gas to an ad valorem tax in 2011 led to a 67 percent increase in revenues.<sup>16</sup> The scope of the excise tax on consumption of specific goods is also likely to increase. In 2009 China introduced a fuel excise tax, higher rates on vehicles with a large engine size, and taxes on certain resource intensive products like disposable chopsticks

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10. Weifang New Beihai Software Technology Company is a new high-tech enterprise. On August 1, 2013, it converted from a turnover tax to a VAT. After converting to a VAT payer, the manager of the firm, Wang Weikai, was concerned that his tax liabilities would increase. Actually in the end after deducting for fixed assets, fuel, and office supply expenditures, his effective VAT rate was 3.95 percent, or 1.05 percentage points lower than what he paid for the turnover tax. See *People's Daily*, "Converting from a Turnover Tax to a Value-added Tax: Magic of Upgrading (营改增'玩转升级魔方)," September 12, 2012, [http://www.mof.gov.cn/zhengwuxinxi/caijingshidian/renminwang/201309/t20130912\\_988490.html](http://www.mof.gov.cn/zhengwuxinxi/caijingshidian/renminwang/201309/t20130912_988490.html) (accessed on June 24, 2014).

11. Rail, post, and telecommunications sectors will be added in 2014. Financial services, construction, and entertainment services will likely be added in 2015.

12. Estimates show that an 11 percent VAT on financial services would lead to a 1.75 percent reduction in operating profits of banks. See *Xinhua*, "Outline of Financial Services Turnover Tax Reform to Value-Added Tax Revealed: 11 Percent Value-added Tax or a 1.75 Percent Shock to Profits," April 9, 2014, [http://news.xinhuanet.com/fortune/2014-04/09/c\\_11110152552.htm](http://news.xinhuanet.com/fortune/2014-04/09/c_11110152552.htm) (accessed on June 25, 2014).

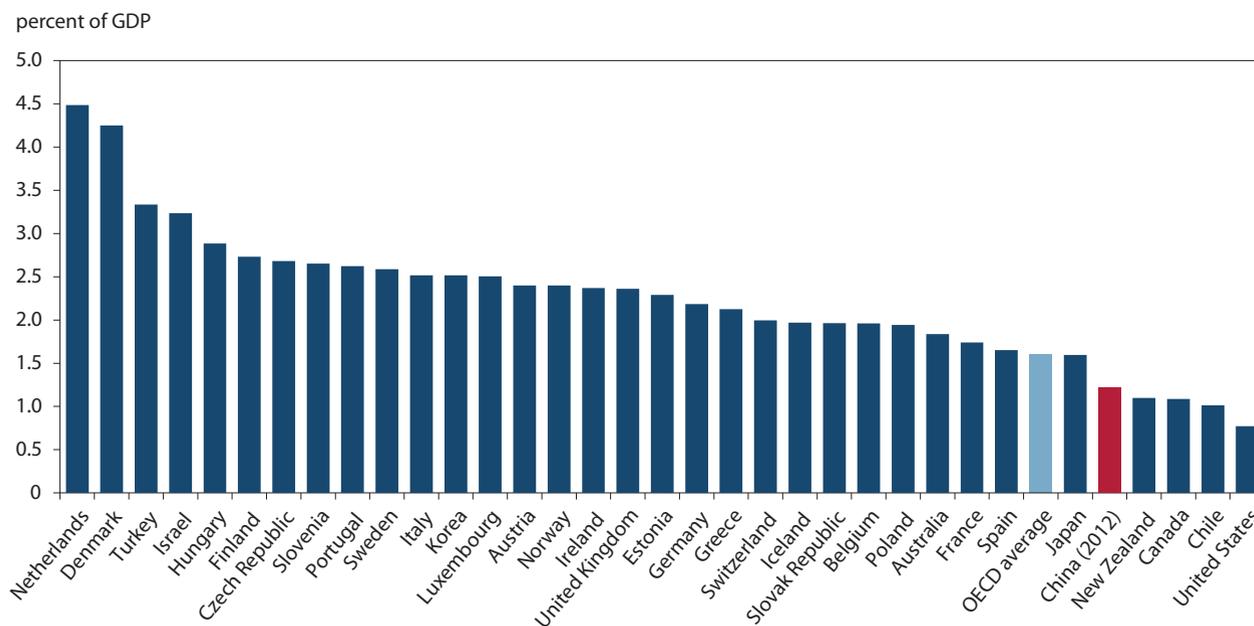
13. The resource tax (资源税) is a consumption tax on the sale of oil/gas products, coal, ferrous and nonferrous metal ores, and rare earth metals. Only the tax on oil/gas products is a 5 to 10 percent tax on the value of sales, known as an ad valorem tax, while the other categories face a fixed 0.3 to 60 yuan tax per ton known as an ad quantum tax.

14. China has a vehicle tax (车辆购置税), which is a 10 percent tax paid by buyers of vehicles on the value of sale. It also has a vehicle and vessel tax (车船税), which is a recurring tax on the owner of commercial vehicles or ships. For example, passenger vehicles capable of holding more than 20 passengers pay between RMB480 to RMB660 per year. Ships pay RMB3 to RMB6 per ton depending on their net tonnage.

15. Refined oil products are a component of China's excise tax on consumption of specific goods (消费税). Producers of refined oil products pay RMB0.1 to RMB0.28 per gallon for the sale of refined oil products such as petro, aviation fuel, and diesel.

16. In 2011, the ad valorem tax on oil and natural gas was expanded nationwide and existing ad quantum taxes were expanded to include coking coal and rare earth metals. The change led to increased resource tax revenue. In the two years following the change resource tax revenue grew faster than GDP, expanding at 67 percent.

**Figure 3 Environment-related tax revenue by country, 2008**



Sources: Organization for Economic Cooperation and Development and author's calculations.

and hardwood flooring.<sup>17</sup> Some have suggested the tax may soon expand to include more environmentally harmful products like disposable plastic bags, lead-acid batteries, and fertilizers and pesticides. These measures would help address rising pollution at the household level but do little to address serious problems in air pollution mostly stemming from heavy industry and electric power production. China is the largest emitter of sulfur dioxide in the world, and now exceeds the United States in nitrous oxide emissions (Hill 2013, 6). However, experiments at market-based approaches to controlling emissions have largely failed. And the current levies on environmental pollutants are too low to have a material impact on polluters in the industrial sector, and plagued by problems with monitoring and enforcement at the local level.<sup>18</sup> Chinese legislators recently revised the environmental protection law in order to bolster monitoring and enforcement,<sup>19</sup> but these measures could be strengthened further with the adoption of the proposed environmental protection tax (环保税). The new tax, by converting China's existing system of local pollutant discharge fees into a national tax, could improve collection and make it easier to set higher national rates. If a carbon tax were included, as some have discussed, the revenue raising potential could be even larger.<sup>20</sup>

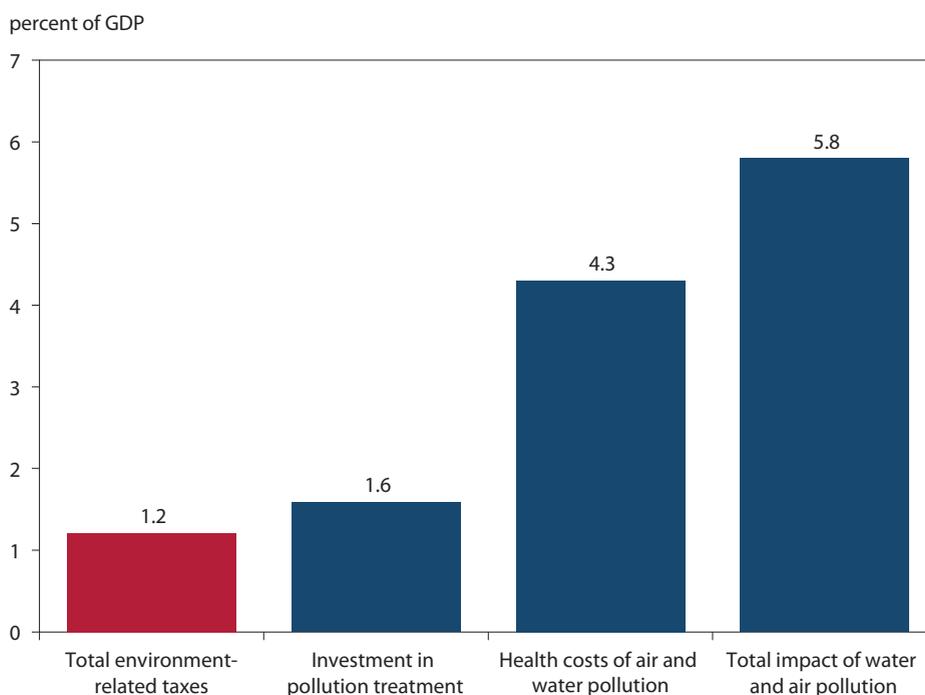
17. The tax was also expanded to target luxury vehicles. Taxes on vehicles with engine capacity larger than 2 liters were lifted to 20 percent, while those with engines between 1 and 1.5 liters had taxes reduced to 3 percent. See Yu Qiao, "Buyers of Big Cars Have to Pay More Taxes," *China Daily*, March 23, 2006, [http://www.chinadaily.com.cn/china/2006-03/23/content\\_549959.htm](http://www.chinadaily.com.cn/china/2006-03/23/content_549959.htm) (accessed on June 25, 2014).

18. A National People's Congress standing committee member, Xin Chunying, cited that it costs RMB500,000 each year to run a generator in compliance with environmental protection standards but the fee for ignoring the requirements is only RMB10,000.

19. On April 24, 2014, the National People's Congress revised the Environmental Protection Law for the first time in 25 years. The new law requires stricter punishment for polluters. For example, the manager responsible could face up to 15 days' detention for dodging environmental impact assessments or discharging pollutants without a permit. Local officials could also face demotion or dismissal for falsifying data or failing to give closure orders to polluting enterprises. See *Xinhua*, "China's Legislature Adopts Revised Environmental Protection Law," April 24, 2014, [http://news.xinhuanet.com/english/china/2014-04/24/c\\_133287570.htm](http://news.xinhuanet.com/english/china/2014-04/24/c_133287570.htm) (accessed on June 24, 2014).

20. In May 2010, an unnamed expert at the Ministry of Finance said that it would introduce a carbon tax following reforms to resource taxes. Officials proposed the tax start from 10 yuan to 20 yuan per metric ton of carbon dioxide. See Reuters, "China Ministries Propose Carbon Tax from 2012: Report," May 10, 2010, <http://www.reuters.com/article/2010/05/11/china-carbon-tax-idAFTOE64A04C20100511> (accessed on June 24, 2014). The China 2030 report of the World Bank and the Development Reform Center of the State Council estimated that if China charged \$10/ton (or RMB60/ton) to yield fiscal revenues close to 1.4 percent of GDP by 2030 (World Bank and Development Research Center of the State Council, P. R. China 2013).

**Figure 4 Environment-related tax revenue, 2012**



Sources: Ministry of Finance, Ministry of Environmental Protection, World Bank, and author's calculations.

## TAXES AND EXCESSIVE PROPERTY INVESTMENT

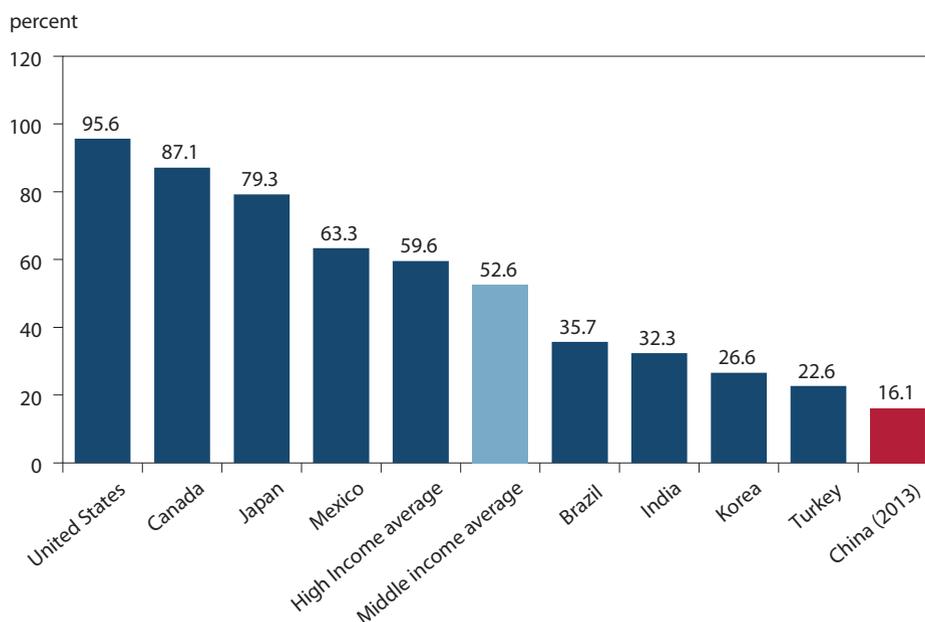
Tax reforms could help bring real estate investment down to more sustainable levels. Real estate is the largest contributor to investment in China. Residential property investment has quadrupled as a share of GDP since 1999 to reach 11.7 percent of GDP in 2013. To rebalance the economy away from investment, residential property investment needs to fall relative to GDP by around 5 percentage points (Lardy and Borst 2013). Yet China continues to rely on property taxes on transactions rather than implementing a nationwide recurring property tax.<sup>21</sup> Future reforms should expand the scope of the existing recurring property tax pilots and roll them out nationwide more quickly.

Although China's existing property tax levels are relatively high by international standards, recurring taxes on property owners are small. In 2013 Chinese property tax revenue as a share of GDP was higher than the average high-income economy including Japan and Korea. The problem in China is the nature of property taxes, not the level. Most local governments in high-income economies and emerging markets derive more revenue from recurring annual taxes on the value of property holdings. In contrast figure 5 shows that China derives most property tax revenue from transactions rather than recurring property taxes.<sup>22</sup> With the exception of two pilot programs in Shanghai and Chongqing, current recurring property taxes are levied only against commercial property owners, not households.

21. China has a real estate tax (房地产税), which is a recurring tax on property for business use. The urban land-use tax (城镇土地使用税) is a recurring tax on the land area of the property paid by businesses. The land appreciation tax (土地增值税) is a tax on the appreciation of land value paid at point of sale. The tax on the use of arable land (耕地占用税) is a tax on the quantity of land converted to building land paid by property developers. The tax on property contracts (契税) is a tax paid on the self-reported value of land and house transfer that is paid when property is transferred.

22. Traditionally the largest source of residential property tax revenue has been a 3 percent tax paid on the value of property paid by the buyer for transferring property rights (契税). In March 2013 the government also introduced a 20 percent capital gains tax on the sale of residential property owned less than five years. See *Xinhua*, "China's Real Estate Market Reacts to New Measures," March 5, 2013, [http://www.china.org.cn/china/NPC\\_CPPCC\\_2013/2013-03/05/content\\_28138961.htm](http://www.china.org.cn/china/NPC_CPPCC_2013/2013-03/05/content_28138961.htm) (accessed on June 25, 2014).

**Figure 5 Recurrent property taxes share of total property tax, 2010**



Sources: International Monetary Fund, Organization for Economic Cooperation and Development, Ministry of Finance, and author's calculations.

Financial repression and underdeveloped financial markets have made real estate a preferred asset class for households to hold their wealth. Over the past six years residential property investment returned an average annual inflation-adjusted return of 5 percent while bank deposits and equity investment have lost money in real terms. Most home buyers are now purchasing houses for investment rather than a place of residence.<sup>23</sup> This speculation is driving up prices in the residential property market.

A recurring tax on property would better address speculation than taxes on transaction by adding a holding cost to speculative real estate transactions. Transactions taxes do not have a clear relationship with housing price dynamics, and reinforce valuation problems by reducing transaction volume in the market (Crowe et al. 2011, 13). In contrast, there is evidence that higher rates of recurring property taxes can help limit housing booms and short-term volatility by decreasing the willingness of speculators to buy and hold property (Crowe et al. 2011, 14). It can also improve access to cheaper housing by increasing liquidity in secondary housing markets.

More needs to be done for this to become a viable alternative to replace property taxes on transactions. In 2012, Shanghai and Chongqing implemented limited recurring property tax pilots. Following the third plenum in November 2013, finance minister Lou Jiwei clarified that China aimed to shift from transactions-based property taxes to a recurring property tax. In current form Shanghai and Chongqing pilots apply to a limited subset of homeowners and remain a rounding error for local government revenue.<sup>24</sup> For the tax to become a more robust source of revenue, all residences should be taxed at a rate of 1 percent or higher.<sup>25</sup>

23. In the second quarter of 2012, a nationwide survey showed that 53.3 percent of home buyers bought their home for investment purposes, 12.7 percent were first-time buyers, 25.3 percent replaced their old apartment with a new apartment in a different city, and 8.7 percent replaced their old apartment with a new apartment after they got married (Li 2013, 57).

24. Shanghai currently levies an annual 0.4 to 0.6 percent tax based on the purchase cost of homes. The tax only applies to new owners purchasing their second home or more, or nonlocal residents. Currently less than 1 percent of homes are covered by this tax, whereas the recurring property tax in Chongqing applied only to new owners of luxury condos.

25. At a minimum if such a plan had any hope of reducing the revenue from property taxes on transactions down to the average for middle-income countries it would require at least an average 0.77 percent tax on the value of all urban housing in 2011 (close to the average property tax rate in the United States of 1 percent). In order for recurring property tax revenue to reach the middle-income country average in terms of 35.5 percent of all local government revenue, the tax rate would need to be as high as 2.92 percent on the value of all urban housing.

Significant hurdles slow the expansion of recurring property taxes. Recurring property taxes on owners have been discussed since 2003 but continue to see delays in widespread implementation even after the pilot in 2012. Part of the problem is mechanical. China needs to unify local property registration systems to collect recurring property taxes nationwide. Media reports suggest China could set up a property registration system before the end of the year.<sup>26</sup> China must also establish a nationwide valuation system for assessing property values. Most OECD countries levy the tax on the market value of the property (Norregaard 2013, 24). Existing tax pilots in Shanghai and Chongqing tax based on historic costs rather than market values, but some suggest that future pilots may switch to assessing market values.<sup>27</sup> More important are concerns related to the risk of a downturn in property markets precipitated by a recurring property tax. If a recurring property tax were to dampen speculation to the extent that there were a rapid and prolonged fall in prices, this would have significant consequences for the economy. Residential property investment is the largest contributor to output growth. It is also three-fourths of bank collateral, two-fifths of household wealth, and the dominant source of local government revenue. In particular, local governments could be the greatest opponents to a nationwide recurring property tax. They fear it could erode income generated from the sale of land, currently the largest single source of revenue for most subprovincial governments.

However, delaying implementation of the recurring property tax would be more risky. Fears that the tax would lead to a rapid adjustment in property prices are exaggerated. The OECD shows that a 1 percent recurring property tax on households would reduce demand for property investment and cause a 25 percent decline in property prices (Herd and Wang 2013, 32). But in practice households do not appear to uniformly adjust future expectations in this fashion. Using survey data from the United States, the IMF found that increases in property tax rates only marginally reduce the growth rate of property prices rather than cause a contraction.<sup>28</sup> Meanwhile further delay in measures to cool risk could contribute to oversupply and increase the risk of a sharper correction in the residential property market. Residential real estate investment continues to grow more rapidly than GDP. And the scale of residential property investment is now higher than the peak of any other major economy in the world with the exception of Spain in 2006.<sup>29</sup> In addition, local governments should pursue a recurring property tax more rapidly to defend against fiscal erosion caused by a correction in property markets. In contrast to transactions taxes on property, recurring property taxes are countercyclical and thus could offer a buffer in the initial years following a correction in the property market (Norregaard 2013 20).

## TAXES AND INCOME INEQUALITY

The tax system must do more to address income redistribution. China's Gini coefficient is among the worst in the world.<sup>30</sup> Inequality is part of the explanation for the relatively high household savings rate and exceptionally low contribution of household consumption to output growth. As reflected in figure 6, households with higher income tend to save more than households with lower income.<sup>31</sup> However, in recent decades the tax system was not well equipped to promote equality. Current plans call for an expansion of an excise tax and a family-based personal income tax. These reforms are a good start but more needs to be done to improve the coverage of taxes on income, profit, and capital gains, especially the personal income tax.

Taxes on income, profits, and capital gains—often the most effective taxes for income redistribution—are too low in China. Figure 7 shows that in China taxes on income are a lower share of tax revenue than the average middle income economy and

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26. See *Xinhua*, "China to Launch Unified Property Registration," March 22, 2014, <http://english.cri.cn/6826/2014/03/22/2702s818634.htm> (accessed on June 24, 2014).

27. In August 2012, an unnamed source at the State Administration of Taxation told *China Daily* that future pilots in Hunan and Hubei would tax second homes or more on the market valuation. See *China Daily*, "China to Expand Property Tax Policy," August 20, 2012, [http://www.chinadaily.com.cn/china/2012-08/20/content\\_15690790.htm](http://www.chinadaily.com.cn/china/2012-08/20/content_15690790.htm) (accessed on June 24, 2014).

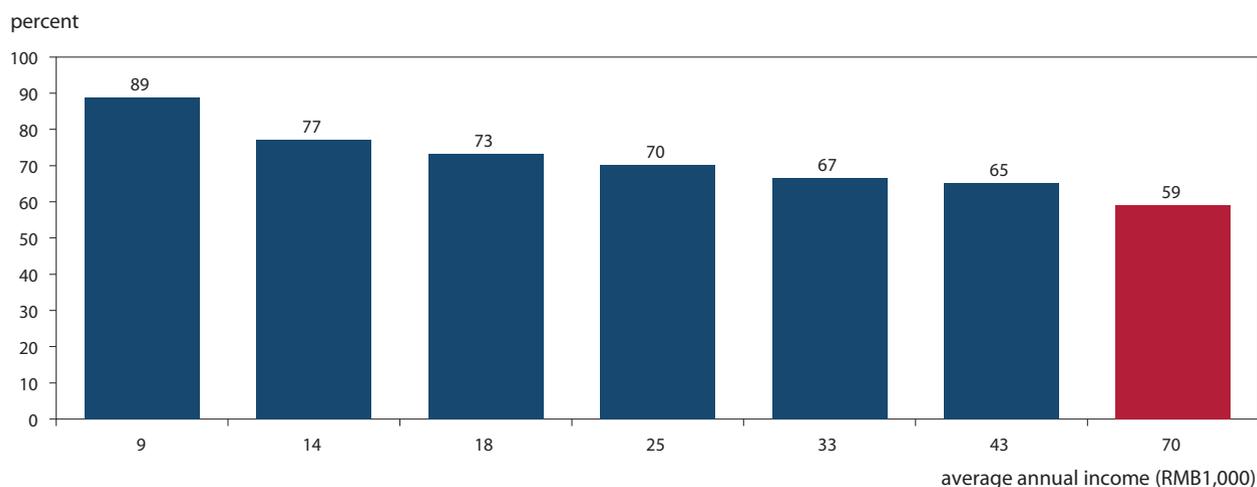
28. A 0.5 percent increase in property tax rates reduces average annual property price growth only by 0.9 percentage points (Crowe et al. 2011, 14).

29. In 2013 Chinese residential property investment reached 11.7 percent of GDP. In comparison, Spain peaked at 12.5 percent in 2006; Ireland, at 10.4 in 2005; Thailand, at 9.9 in 1991; Cyprus, at 9.2 in 2008; Japan, at 8.7 in 1973; Korea, at 8.4 in 1991; France, at 8.3 in 1980, etc. See Barnett and Zhang (2014).

30. In 2008, China's Gini coefficient was higher than any of the OECD 27 including Mexico and Turkey, and well above the OECD-27 average of 32. Mexico and Turkey were 48 and 41 percent, respectively. China was 49.1 percent. The lowest on the OECD list was Norway, with 25 percent.

31. The bottom 10 percent of Chinese households spends 65 percent more of their income than the top 10 percent of households.

**Figure 6 Share of disposable income used for consumption by income level, China, 2012**



Source: National Bureau of Statistics and author's calculations.

half that of major middle and upper income economies like India, Malaysia, and Thailand. One of the main reasons for this is personal income taxes (PIT) are exceptionally low. PIT as a share of national output is only one-eighth the OECD average.<sup>32</sup> This can be explained only partially by the fact that China's overall tax revenue level is only around half the average OECD country.<sup>33</sup> Even as a share of total tax revenue, PIT is small. In 2012, PIT revenues accounted for only 5 percent of national tax revenue. In contrast, PIT generates one-quarter of total tax revenue for developed economies in the OECD. China also has no recurring property and inheritance tax, and capital gains taxes are small.<sup>34</sup>

Raising the incidence of the personal income tax would improve the redistributive capability of China's tax system, but any changes are likely to be gradual. First, lowering the threshold for personal income tax would be the most effective way to increase the incidence of the tax, but it is highly unpopular. Currently only 7.7 percent of households are required to pay taxes (Lardy 2012, 69–70). China's personal income tax threshold could be lowered by 80 percent and still be in line with IMF standards for optimizing redistribution of personal income taxes.<sup>35</sup> However, the recent trend has actually been to increase the threshold. The personal income tax threshold has been raised three times in the past decade; most recently it was raised to RMB3,500 per month in 2011. Second, China's top bracket for income tax could also be raised from the current 45 percent to as high as 60 percent.<sup>36</sup> But increasing the tax rate on higher income wage earners will do little without improving tax collection and monitoring of household wealth. Income taxes are assessed on wages by the employer and do not capture comprehensive sources of income or in-kind income. Tax authorities are trying to change this with a new more comprehensive individual tax system. The new system would assess the gross income of a family unit rather than individual wage income.<sup>37</sup> To switch to a family-based system China

32. In 2011 the OECD average for taxes on personal income as a share of GDP was 8.5 percent, [http://www.oecd-ilibrary.org/taxation/taxes-on-personal-income\\_20758510-table4](http://www.oecd-ilibrary.org/taxation/taxes-on-personal-income_20758510-table4) (accessed on June 24, 2014).

33. The average tax revenue to GDP for OECD countries was 34.6 percent in 2012, compared with 19.4 percent in China.

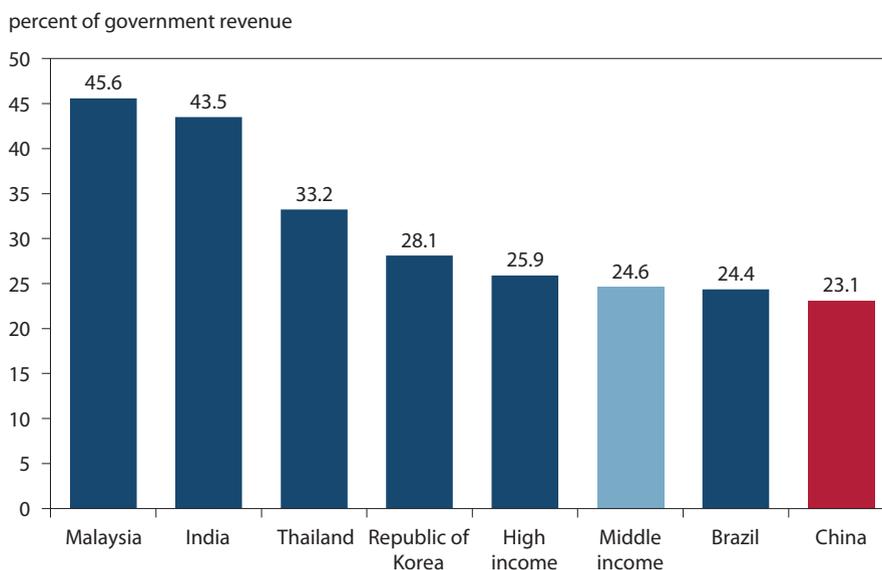
34. The average statutory tax burden on capital gains in OECD countries is 35 percent. In China it is 25 percent on corporate income, 20 percent on the sale of property owned less than five years, 0 percent on bank interest, and 20 percent on corporate bonds (Brys et al. 2013, 41).

35. The OECD median threshold is close to 25 percent of average wage. In 2012 the average monthly wage for nonprivate enterprise urban work units (非私营单位), private enterprise urban work units (私营单位), and migrant workers (外出农民工) was RMB2,885. Therefore the threshold for China should be RMB721 compared with the current threshold of RMB3,500.

36. Revenue maximizing PIT rates are somewhere between 50 and 60 percent (IMF 2014, 37).

37. In 2012 the household survey of the National Bureau of Statistics shows on average urban households derive 36 percent of income from nonwage income.

**Figure 7 Taxes on income, profits, and capital gains, 2010**



Source: World Bank, *World Development Indicators*, <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed on April 2014).

would first need a nationwide database linking various sources of individual income and a tax declaration system.<sup>38</sup> As an incentive to declare taxes households would be allowed deductions for expenditures.<sup>39</sup> Although the shift to a more comprehensive system tracking individual income is necessary, raising personal deductions is unlikely to increase PIT revenues especially if not met by a reduction in the income tax threshold or higher rates.<sup>40</sup> Yet in the long run establishing such a database would make it easier to increase revenue collection at a later date.

In the meantime, high levels of general consumption taxes may be worsening inequality. Figure 8 shows that an exceptionally large share of China's tax revenue comes from general consumption taxes such as the VAT and turnover tax.<sup>41</sup> Yet general consumption taxes may actually worsen inequality because they disproportionately impact low income households, which spend a greater proportion of their disposable income.

To counter the effects of high general consumption taxes China has an excise tax on certain luxury and energy-intensive goods.<sup>42</sup> When combined with existing consumption taxes, excise taxes create a heavy tax burden for certain items. For example, the excise tax on vehicles with an engine between 3.5 and 4 liters could be 42 to 57 percent higher than the sticker price in the United States without considering shipping and handling fees. However, the excise tax in China is still relatively lower than advanced economies and some major developing nations.<sup>43</sup>

38. See *Xinhua*, "China's Family-based Income Tax Reform Still Far Off," March 30, 2012, [http://www.chinadaily.com.cn/business/2012-03/30/content\\_14949957.htm](http://www.chinadaily.com.cn/business/2012-03/30/content_14949957.htm) (accessed on June 24, 2014).

39. See Zhang Ye, "Finance Minister Calls for Tax Reform," *Global Times*, March 6, 2014, <http://www.globaltimes.cn/content/846729.shtml#U0mDHfldV8E> (accessed on June 24, 2014).

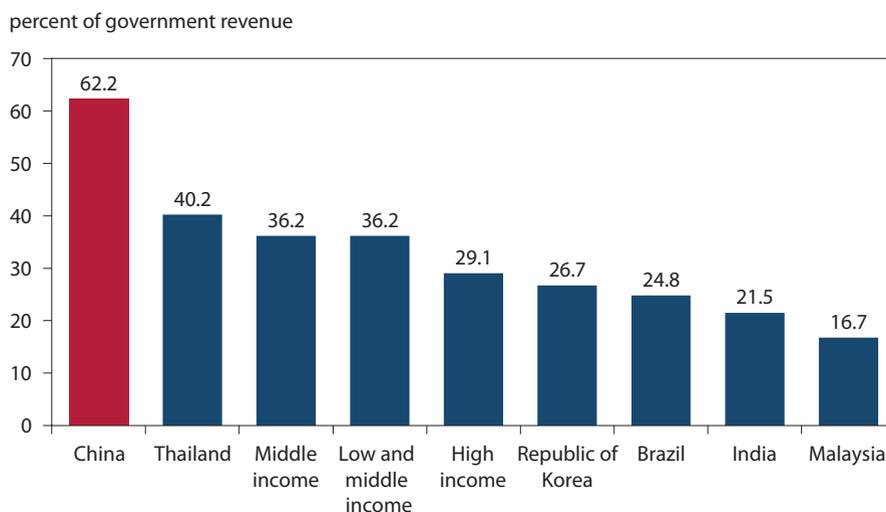
40. The IMF finds that many personal income tax deductions accrued disproportionately to the rich and can create their own distortions (IMF 2014, 38).

41. The share of China's tax revenue coming from general consumption taxes is more than double the OECD average. Even developing countries like Mexico and Turkey have a lower share of tax revenue coming from general consumption taxes (OECD 2012, 31).

42. Fourteen specific goods are covered with tax rates on the value of sale ranging from 56 percent (tobacco) to 5 percent (real wood flooring). The 14 goods covered include alcohol, tobacco, cosmetics, jewelry, watches, refined oil products, lighters, yachts, motorcycles, small vehicles, golf, vehicle tires, disposable wood chopsticks, and solid-wood floors.

43. In 2012, China's excise tax was only 2.4 percent of GDP, lower than the OECD average of 3.4 percent of GDP and substantially lower than other developing countries such as Mexico and Turkey, at 5.1 and 5.8 percent of GDP, respectively (OECD 2012, 64).

**Figure 8 Taxes on goods and services, 2010**



Source: World Bank, *World Development Indicators*, <http://data.worldbank.org/data-catalog/world-development-indicators> (accessed on April 2014).

Plans to expand the excise tax for the purposes of income redistribution are misplaced; it would be better to focus further expansion on environmental protection. Four years ago, the Ministry of Finance expanded the excise tax to include additional luxury products and products harmful to the environment. Future reforms are likely to follow a similar pattern. Officials have indicated that they would like to see both an expansion of the tax on luxury goods and environmentally harmful products.<sup>44</sup> However, there may be conflicts of interest between the objective of protecting the environment and income redistribution. For example, Tesla Motors released detailed price information of its luxury Model S roadster in China showing that VAT, customs duties, excise taxes, and the vehicle purchase tax make the vehicle price almost 50 percent higher than in the United States.<sup>45</sup> This sticker price was actually lower than expectations because—as an electric vehicle—it did not include an excise tax for vehicles with 3.5 to 4 liter engines; if included the price of the car could be almost double that of the United States. The effect could be positive for the environment but actually may work against income redistribution, allowing wealthy households to avoid wealth taxes with more environmental-friendly purchases.

## CONCLUSION

China appears on the cusp of one of the most significant tax overhauls in two decades. This round of reform promises to improve the structure of taxes to facilitate current rebalancing objectives. Tax authorities have promised to convert the service sector from a turnover tax to a VAT by the end of 2015. They have also proposed measures to raise the incidence of environment-related taxes. Both measures will support the relative growth of the service sector over industry. Replacing taxes on property transactions with a recurring property tax will reduce speculative investment in real estate and improve income redistribution. An improved personal income tax could better redistribute wealth to low-income households with a higher propensity to consume.

44. On March 13, 2013, Yuan Qingdan, vice director of the Policy Research Center for Environment and Economy under the Ministry of Environmental Protection, suggested that disposable plastic bags, lead-acid batteries, fertilizers and pesticides should be subject to the excise tax, while Liu Shangxi, researcher at the Research Institute for Fiscal Science under the Ministry of Finance, said some emerging luxuries such as motorboats, sailboats, light aircraft, and luxury bags should be subject to the excise tax. See Zheng Yangpeng, "Green Tax Muller to Help Fight Pollution," *China Daily*, March 23, 2013, [http://usa.chinadaily.com.cn/business/2013-03/23/content\\_16339696\\_2.htm](http://usa.chinadaily.com.cn/business/2013-03/23/content_16339696_2.htm) (accessed on June 24, 2014).

45. Tesla Model S in China costs an additional \$39,600 (including \$3,600 for shipping and handling, \$19,000 for customs duties and taxes, and \$17,000 for VAT) on top of the original \$81,070; see "A Fair Price," January 22, 2014, <http://www.teslamotors.com/blog/fair-price> (accessed June 24, 2014).

However, these reforms are far from complete. Some of the most important service sectors—real estate and financial services—still need to be converted to a VAT. The widely discussed environmental protection tax has yet to take shape and it remains unclear whether it will be significant enough to raise taxes closer to the costs of environmental degradation. Persistent concerns surrounding recurring property taxes could lead to a more gradual deepening of the tax instead of more rapid adoption. And at present policymakers are pursuing a second-best solution to personal income tax reform due to tax collection constraints and great social opposition to reducing income tax thresholds. Even so tax policies today are much better at supporting rebalancing objectives than at any time in the past decade, and likely to see significant improvements in coming years.

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# 5

## Seventieth Anniversary Thoughts on the IMF

ARVIND SUBRAMANIAN

### INTRODUCTION

In his speech at the first meeting of the International Monetary Fund (IMF), at Savannah, Georgia, John Maynard Keynes hoped that the Bretton Woods (BW) twins, which he called “Master Fund and Miss Bank,” would possess one important attribute: a many-colored coat “as a perpetual reminder that they belong to the whole world.”

Expressing the hope that the two Bretton Woods twins would not be cursed by the malicious fairy Carabosse, he nevertheless feared that they would: “You two brats shall grow up politicians; your every thought and act shall have an *arrière-pensée*; everything you determine shall not be for its own sake or on its own merits but because of something else” (Skidelsky 2003, 829).

Keynes was not very hopeful about the Bank and the Fund because he said: “There is scarcely any enduringly successful experience yet of an international body which has fulfilled the hopes of its progenitors.” He feared that the two Bretton Woods institutions would “fall into an eternal slumber, never to waken or be heard of again in the courts and markets of Mankind” (Skidelsky 2003).

Seventy years on, the BW twins have not fallen into eternal slumber nor oblivion. But what has been their record? I focus here on the IMF.

### LIMITS TO INTERNATIONAL MONETARY COOPERATION

The key role played by the IMF in the crises of 2008–12 not only has helped rescue it from the brink of irrelevance but also has raised the ambition for future systemic reform. This sense of possibility has also been fed by the return of the IMF as a changed intellectual player. This orthodox leopard has apparently changed its spots and become heterodox—even radical—in its intellectual positions. It backed fiscal expansion during the global financial crisis; its work on fiscal multipliers challenged the drive to austerity in Europe during the euro area crises; it blessed the imposition of capital account controls by emerging market economies; and most recently, echoing the work of Thomas Piketty, it has elevated inequality as an important challenge worth tackling and emphasized that inequality can and should be reduced without sacrificing growth.

Notwithstanding these developments, the prospects for any serious reform of the IMF remain slim because of the inherent limits to international monetary cooperation. Keynes was mostly right in suggesting that things at the IMF are determined “because of something else.”

Systemic threats arise from the policies of the largest countries, and in particular when policies pursued in self-interest conflict with the collective interest. But, by definition, it is difficult for the rest of the world to change the incentives of the large country to give more weight to the collective interest. Successful cooperation is fated to falter if not fail.

Consider three of the major issues on the agenda of IMF reform: global imbalances (which relate to the issue of Fund surveillance), reserve currencies, and provision of emergency or crisis financing (the “global safety net”).

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## Global imbalances/surveillance and reserve currencies

Global imbalances are in part a manifestation of the asymmetric adjustment problem. Deficit countries have greater pressure on them to adjust via markets or via the leverage of financing that allows creditors to impose policy conditionality on debtors.<sup>1</sup> What leverage can be exerted over creditor countries, especially the large ones?<sup>2</sup>

If the world has found it difficult to persuade China to appreciate its currency and reduce its surplus, that is not the first instance of failure. As John Williamson (2011, 1) has noted: “It has been 80 years since John Maynard Keynes first proposed a plan that would have disciplined persistent surplus countries. But the Keynes Plan, like the subsequent Volcker Plan in 1972–74, was defeated by the major surplus country of the day (the United States and Germany, respectively), and today China (not to mention Japan or Germany) exhibits no enthusiasm for new revisions of these ideas.”

The question is whether there is anything that the rest of the world could have done—by way of sticks or carrots—to have persuaded the United States in 1944, Germany in 1973, or China in 2007 to change their positions or policies for the collective good.

Going beyond global imbalances, the IMF’s record on effectiveness is poor, especially where larger countries are involved. It should be remembered that while the IMF has been able to effect changes in member country policies in the context of financial arrangements, it has not been influential without the leverage of financing. In its key surveillance function (where no financing is involved), the IMF has had relatively few instances where intervention has led to changes in the policies of large creditor countries even when such policies have had significant spillover effects on others. In other words, the IMF has not been able to persuade these countries to sacrifice domestic objectives for systemic ones. There seems to be an implicit “pact of mutual nonaggression,” in IMF surveillance, as long-serving IMF economic counselor Mike Mussa (2008) argued.<sup>3</sup> The IMF has had a history and tradition of nonadversarial dialogue between its members in a surveillance context and has not had to develop a real dispute settlement system. There is no legal mechanism in the IMF for affected members to initiate action against the offending party.

And in fact, when serious problems have arisen—for example, over currency issues in the early 1970s (the breakup of the Bretton Woods system) and over the dollar and the yen in the mid-to-late 1980s—they were largely resolved outside the IMF, either bilaterally or through the G-5 and G-7. During the European Exchange Rate Mechanism crisis of the early 1990s, Europe kept the IMF largely out of the discussions. And the IMF was involved in the recent turmoil in Europe largely because financial resources were at stake.

But the historical record is actually worse. The early years of the IMF were notorious for the major players largely ignoring the key IMF article requiring members to keep their exchange rates pegged and changing them only after consultation. Canada through much of the Bretton Woods period maintained a floating exchange rate. France devalued its exchange rate in 1948 and in 1969; and the United Kingdom devalued sterling in 1949 and 1967 and only nominally consulted the IMF. The German mark floated upward in 1962, in late 1969, and again in the early 1970s, which elicited the comment from the Canadian representative: “They’ll have to build a bigger dog house now.”

Except in rare instances, no erring country has been penalized.<sup>4</sup> Indeed, a cynical interpretation of the post-1973 IMF is that it reincarnated itself as a forum for soft cooperation based on surveillance because the harder form based on clear, hard obligations demonstrably failed.

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1. For debtors with reserve currencies these pressures might be attenuated.

2. It is true that the United States under President Nixon in 1971 was able to get some surplus countries (including Germany) to revalue their currencies, but that attempt was directed against large but not the largest players, relied on trade sanctions not monetary or financial carrots and sticks, and proved short-lived (reflected in the breakdown of the Bretton Woods system of pegged exchange rates in 1973).

3. Cohen (1998, 161–62) describes this asymmetric effectiveness well: “[T]he IMF’s writ has come to run mainly to smaller and poorer member countries, where authority can be exercised through the organization’s control of access to credit as well as through policy conditions attached to its loans. For larger and wealthier states, by contrast—arguably the most critical actors from a systemic point of view—the direct role of the IMF has dwindled over time....”

4. France (1948), Czechoslovakia (1953), and Kampuchea (1978) were three early instances of countries having to face sanctions. Czechoslovakia was expelled from the IMF in 1954.

## Reserve currency

On reserve currencies, the reform-related discussions have focused on creating official alternatives to the dollar by rehabilitating the special drawing rights (SDR). These discussions are a sideshow because countries with reserve currencies—actual and aspiring—must be willing to actively take steps and make contributions to promote the alternative at the expense of their own currencies. It is like asking Coke to also tout the virtues of Pepsi in its ad campaigns.

The United States played a key role in the creation of the SDR in the 1960s; this was in part an attempt to prevent a rush into gold, which would have jeopardized the role of the dollar. Its attitude to the SDR would have been quite different had the SDR become a serious rival to the dollar. China is likely to adopt a similar attitude to the SDR in the future. Natural market forces are inevitably, if slowly, working to elevate the renminbi (RMB) to reserve currency status. In Arvind Subramanian and Martin Kessler (forthcoming) we show that the renminbi has displaced the dollar as the main reference currency in Asia and has also made strides elsewhere in the world.

China will have to undertake some key reforms to turn that possibility into reality. Signs indicate it is doing so because not a day passes without a foreign country, transaction, or company gaining greater access to the renminbi. In these circumstances, why would China have any serious incentive to strengthen an SDR that might check the rise of its own currency? And if China decides to promote the renminbi, the rest of the world can do little to prevent or delay that, just as it has proved difficult to change the incentives for China to reverse its mercantilism.

## IMF AS EMERGENCY FINANCIER

A corollary of the observation that cooperation is least likely where the self-interest of the largest countries is at stake is that the prospects for successful cooperation are greater where these countries are less affected and when the demands on them are minimal. Building global safety nets via greater and more expeditious access to crisis financing is one area where the greatest progress has already been made. The Fund's lending ability has been increased three-fold after the crisis and more may yet come. For the large countries, it is both desirable and effective to push for larger safety nets. The costs are relatively small, involving larger financial contributions rather than any major change of domestic policies. And the rewards are great because the system is strengthened while the individual clout of the large countries is increased.

But here too the IMF has run into trouble: first, of legitimacy and second, leadership.

To strengthen legitimacy, the IMF has attempted periodically to revise its governance and decision-making structure by changing the allocation of quotas. Most recently at the G-20 summit in Korea, the IMF agreed to a further shift in quotas away from the United States and Europe toward the dynamic emerging-market countries. However, despite this and other efforts, including the move to make money accessible at cheaper rates and with less conditionality, the IMF has a fundamental problem, captured in the stigma associated with borrowing from it. Ask any Asian country whether it would contemplate borrowing from the IMF in the future and the answer is likely to be no.

Even the IMF's ability to provide emergency financing is now jeopardized by weak American leadership. But the question then arises whether the world needs a bigger IMF. Global liquidity support during the global financial crises clearly helped address them. Much of this was provided by the US Federal Reserve. In the immediate aftermath of the Lehman crisis, the Fed provided dollar liquidity (via swap lines up to a limit of US\$30 billion) to the central banks of Brazil, Mexico, Singapore, and South Korea, which faced an outflow of dollars and hence feared a financial meltdown. The swap lines contributed significantly to calming conditions in late 2008 and 2009.

For example, my colleague Olivier Jeanne (2010) argues that the experience of Korea with US swap lines was very favorable: "South Korea entered the crisis with about \$270 billion of foreign exchange reserves (amounting to approximately 30 percent of its GDP). The level of reserves started to decrease (and the won to depreciate) in early 2008, a trend that took a sharp turn for the worse after Lehman Brothers' failure in September. Reserves then fell abruptly to about \$200 billion while the currency sharply depreciated, and Korean banks started to encounter difficulties in rolling over their short-term foreign debt. Only after Korea entered a \$30 billion swap arrangement with the US Federal Reserve in October 2008 did the exchange rate and reserves stabilize. The Bank of Korea was then able to reconstitute its stock of reserves (returning to the precrisis level by the end of 2009). The real economy was relatively spared throughout, with an unemployment rate that never exceeded 4 percent."

This success of the Fed's international liquidity provision has prompted my colleague Ted Truman<sup>5</sup> to argue that such mechanisms need to be institutionalized, with the IMF playing the key coordinating role: "Global financial crises are not a thing of the past. They are often caused by buildups of excessive domestic and foreign debt. But successfully addressing such crises and limiting negative spillovers often requires coordinated actions to prevent a contraction in global liquidity. Establishment of a more robust global financial safety net centered on central banks—because that is where the money is—would be a useful tool for addressing the inevitable future crises."

Currently, the Fund has a lending capacity of about \$750 billion plus another \$450 billion. Does it need more? According to Truman, the case for more resources is that there will inevitably be more crises, and that the resources currently available will have to last until 2022 at the earliest since the next quota review after 2015 is 2020 and would take two years to be effective.

The contrasting argument—that the Fund does not need more resources—is that Europe's need will go away because of the European Stability Mechanism (ESM), and there are other bilateral arrangements (that effectively never have been used). Moreover, the emerging markets are running their economies with greater skill and many—at least the larger ones—have sizable reserves. More important, there has been much more flexibility in exchange rates so that in the future large crises defined as large changes in asset prices, especially the exchange rate, are unlikely to occur. In effect, we are likely to see more minicrises, which create the necessary adjustment as we go along rather than anything full blown.

### **ARE US INSTITUTIONS INIMICAL TO US INTERESTS?**

Can the United States be an effective global leader when it is no longer the preeminent economic power or able to pursue its best interests? Two recent events make this question salient.

Harry Reid, the Senate Democratic leader, has delayed or denied the grant of trade promotion authority to the president, which might stymie if not scuttle the trade liberalization talks that the president had initiated with Asia (under the Trans-Pacific Partnership) and with Europe (under the Trans-Atlantic Trade and Investment Partnership). And last month [April 2014], Congress refused to allow the United States to raise its contributions to the IMF, wrecking the prospects for reforms of the IMF that had been negotiated with the rest of the world in 2010. Both events have undermined the internationalist and leadership credentials of the United States.

An optimistic reading would dismiss these events as temporary setbacks. On the IMF, Congress and the Republican Party are exploiting President Obama's declining popularity to deny him any legislative success. On trade, Harry Reid, with an eye on the Democratic base of unions and social activists, is understandably nervous ahead of tight congressional races later in the year.

But a pessimistic interpretation warrants serious consideration. US politics is becoming more polarized. Divided government could make permanent the phenomenon of "one branch of government [checking] another in a harmonious system of mutual frustration," as the historian Richard Hofstadter memorably put it. In this setting, the structure of US political institutions in which an insular Congress retains a key role in global issues threatens to become a liability for the United States in its internationalist engagement.

Under Pax Americana, congressional authority over international matters worked to the advantage of the United States. It allowed the executive branch to use Congress's traditionally parochial instincts to tactical advantage. Congress could be invoked as a credible bad cop to the administration's good cop. The refrain of successive administrations was "please accede to this deal/demand because Congress will not agree to anything else, or worse, Congress will retaliate in ways that we (the administration) will be unable to control."

For example, during the Uruguay Round of trade negotiations that led to the establishment of the World Trade Organization (WTO) in the early 1990s, the threat of congressional retaliation against countries that did not protect intellectual property rights (*Special 301* in that instance) forced the US government to confront countries such as Brazil and India and get them to agree to higher multilateral standards in the WTO on intellectual property. Success was owed to the balance of negotiating power and influence residing with the United States relative to its partners.

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5. Edwin M. Truman, "Enhancing the Global Financial Safety Net Through Central-bank Cooperation," Vox-EU, September 10, 2013, <http://www.voxeu.org/article/enhancing-global-financial-safety-net-through-central-bank-cooperation> (accessed on June 24, 2014).

But increasingly, as US power diminishes, especially relative to China, congressional instincts will prove counterproductive. And the evidence is starting to come in.

For example, the reluctance of Congress to expand resources for the IMF and the World Bank has led China and others to create alternative and competing financial structures. Under Chinese leadership, a BRICS bank (that also includes Brazil, Russia, India, and South Africa) has been created, which aims to make long-term loans to developing countries (to challenge the US-dominated World Bank). And although still nascent, Asian-led initiatives such as the BRICS bank and the Chiang Mai Initiative (an IMF wannabe in Asia), will eventually compete with the IMF.

Such fragmentation of international institutions, which is neither good for US interests nor necessarily for the world, is one consequence of weakening US leadership. Put starkly, under US dominance, Congress limited the options for America's relatively weak partners in negotiations with a strong US administration. Under Chinese dominance, Congress will limit the negotiating options for a relatively weak administration vis-à-vis a relatively strong China.

What is the way forward? One possibility is radical change in the structure of US political institutions. Specifically, that change might require the transfer of more authority from Congress to the executive in the design and implementation of international economic policies. The internationalist executive will need to be strengthened at the expense of an insular, more protectionist Congress.

There is a historical precedent. One of the darkest episodes in US economic internationalism was the enactment of the infamous Smoot-Hawley tariffs of 1931. It was a legacy of decades of Congress raising tariffs throughout the 19th and early 20th centuries in response to special interests.

To get away from this congressional stranglehold, President Roosevelt and Congress agreed to the Reciprocal Trade Agreements Act (RTAA) in 1934, which transferred certain trade negotiating authority away from Congress to the executive. Some variant of that may be necessary today. Otherwise, other countries, especially China, will gradually start to fill the leadership vacuum created by anachronistic US institutions. And the consequence will be unpalatable not just to the US executive and Congress but to the world economy as well.

## CONCLUSION

Unless American and Chinese attitudes toward the IMF change, the IMF will be what it always has been. It is a valuable provider of global public goods such as research, analysis, and institution-building in member countries. And it is a very effective forum for "cooperation" between creditors and borrowers because of the clout creditors can exercise. The IMF, with some exaggeration, stands for "Insolvents Must Fawn," albeit with different insolvents fawning to differing degrees.

But the institution's dirty secret is it has not really been successful in securing cooperation between the systemically critical players in getting them to subordinate, in certain key instances, narrow self-interest over the collective good. That reality is unlikely to change materially. What is changing is merely the identity of the systemically critical players. Keynes' anxieties about the BW institutions were expressed at a time when weak Britain was handing over to strong America. Today, might it be a case of "good-bye America, hello China"?

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# 6

## The G-20 Financial Reform Agenda after Five Years

NICOLAS VÉRON

### INTRODUCTION

The key phase of empowerment of the Group of Twenty (G-20) in the area of financial regulation started with the group's Washington summit, in mid-November 2008.<sup>1</sup> This was novel in terms of format, focus, and ambition. First, financial regulatory discussions, which had until then been mainly the preserve of the United States, Europe, and Japan (plus Australia and Canada) were taken up by a grouping in which emerging market economies represented half of the members. Second, financial regulation was pushed to the forefront of the global economic cooperation agenda at the level of political principals, which had until then been mainly focused on trade and macroeconomic policy. Third, the G-20 committed to seek an unprecedented level of cross-border consistency in their efforts towards financial reform, a policy area which in earlier times had been seen as belonging predominantly to the level of national responsibility.

The G-20 financial reform agenda has since gone through a cycle of hype, disappointment, and cynicism. At the time of the first three summit meetings (Washington in November 2008, London in April 2009, and Pittsburgh in September 2009), some leaders, including France's Nicolas Sarkozy and the United Kingdom's Gordon Brown, developed a rhetoric that suggested a supranational decision-making role for the G-20, as opposed to a coordinating role for decisions made by individual jurisdictions. The London summit declaration supported this rhetoric as it included phrases such as "A global crisis requires a global solution" and "prosperity is indivisible." Conversely, as the sense of globally shared and immediate danger that prevailed in 2008-09 later dissipated, scepticism has taken hold. Recent G-20 meetings have been described as "High-Church liturgy of a religion in which nobody believes any longer."<sup>2</sup>

Half a decade after the initiation of this reform effort, this paper presents an attempt at taking stock on the G-20's financial reform achievements and challenges. Inevitably, the picture is both mixed and judgmental. First, and in spite of the occasionally inspiring rhetoric of individual leaders, there has been no overarching coherence in the G-20 reform agenda, which resulted from multiple compromises among the group's members. Nor has there been much unity of purpose or action in its implementation, which even after five years remains a work in progress. Second, there is no cross-cutting analytical consensus on the causes and drivers of the financial crisis of 2007-08, let alone on the appropriate policy response. Thus, initiatives that will be labeled policy achievements by some informed observers may be deemed policy mistakes by other equally informed observers. The assessments provided in this paper are the author's own.

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1. The G-20 was formed in 1999 in the wake of the Asian financial crisis of 1997-98. Its members are Argentina, Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, and the United States. Until November 2008, G-20 meetings had been held at the level of finance ministers and central bank governors, not heads of state and/or government.

2. Author's conversation with a senior European economic policymaker, April 2014.

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The G-20 delivered on many of its individual commitments. While some of the group's declarations, such as a repeated pledge about global accounting standards convergence, have yielded no tangible result, most have led to at least some policy action that may be viewed as sufficient for the G-20 to declare victory. Some of these actions, such as the capital and leverage provisions of the Basel III accord, represent substantial improvements compared to what existed before.

At a broader level, however, the global financial reform effort of the past five years cannot be considered an unambiguous success. In spite of some meaningful advances, it has established neither an adequate institutional infrastructure nor a consistent policy vision for the global financial system, raising doubts both about future financial stability and about the sustainability of current levels of cross-border financial integration. Even the more modest but crucial aim of building effective global tools to observe the global financial system and monitor risk remains more of a promise than a reality. The rest of this paper details the G-20 agenda, achievements, and challenges, and outlines options for G-20 leaders in the next half-decade.

## THE G-20 FINANCIAL REFORM AGENDA

The 2007–08 financial crisis was, to a large extent, the result of a failure of public authorities in the United States and Europe to adequately monitor and address systemic risk. (By comparison, Asia and other parts of the world where memories of systemic financial crises were still fresh had adopted more prudent policies and practices and were less impacted by the subprime-triggered financial shockwaves.) In such a context, initial policy responses involved a significant degree of improvisation and learning by doing. The G-20 financial reform agenda mirrors this reality. It is spelled out as a collection of individual policy initiatives motivated by the observation of specific cases of financial system dysfunction in 2007–08, rather than being based on a joined-up analytical framework about the underlying drivers of the crisis. There was no global consensus on the latter in 2008–09 when the G-20 agenda was first articulated, and there is arguably still none today.

In terms of process, the first G-20 summit in Washington was an immediate sequel of the dramatic developments of September and October 2008, including the nationalization of Fannie Mae and Freddie Mac, the collapse of Lehman Brothers, the public rescue of AIG in the United States and of a number of prominent banks in Europe, the vote by Congress of the Troubled Asset Relief Program (TARP) and subsequent forced public recapitalization of 25 large US banks, and the European agreement of October 12–15, 2008, on a joint approach to address the crisis. While the definitive history of this sequence of events remains to be written, it appears that, in October 2008, European leaders insisted on an international meeting at the level of heads of state and government, and the US president insisted on the G-20 format as a straightforward way to bring large emerging economies, especially China, into the discussion.

It rapidly became evident that the G-20 needed to rely on permanent institutional infrastructure to ensure follow-up and delivery on the leaders' numerous commitments. Inevitably, this triggered some competition for turf among existing institutions. The successive G-20 declarations document the gradual emergence of a consensus to give a central role to the Financial Stability Forum (FSF), renamed the Financial Stability Board (FSB) at the London summit. Like the G-20, the FSF had been initially established in 1999 in the wake of the Asian financial crisis, but its membership had initially been limited to advanced economies and expanded to large emerging economies only at the time of its rebranding into FSB in 2009.<sup>3</sup> The Washington summit declaration repeatedly refers to “the IMF, expanded FSE, and other regulators and bodies” for the coordination and monitoring of implementation of the decisions made at the summit. In a similar context, the London summit declaration refers to “the FSB and the IMF,” and the Pittsburgh summit declaration to the FSB alone. In the ensuing years, the FSB has effectively acted as a secretariat for the G-20, as regards its financial reform agenda, and as a coordinator of the G-20-related policy development processes of other global financial bodies.<sup>4</sup>

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3. As of 2008, the Financial Stability Forum's membership included Australia, Canada, France, Germany, Hong Kong SAR, Italy, Japan, the Netherlands, Singapore, Switzerland, the United Kingdom, and the United States, as well as the European Central Bank and a number of global institutions and bodies. The expansion in 2009 added Argentina, Brazil, China, India, Indonesia, the Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Spain, and Turkey, as well as the European Commission. Each individual jurisdiction is represented by between one and three individuals, bringing the total to 70 individual members of the FSB. The FSB also created a Steering Committee, which as of January 2014 included 41 of its members.

4. The FSB membership includes ten institutions and bodies with a global remit: the Basel Committee on Banking Supervision (BCBS), the Bank for International Settlements (BIS), the Committee on the Global Financial System (CGFS), the Committee on Payments and Settlement Systems (CPSS), the International

In terms of content and as previously mentioned, the G-20 agenda is best described as a fairly long list of separate initiatives, which do not unequivocally refer to a single overarching policy narrative. Most of the individual action items fall into three broad categories: regulation, coordination, and observation.

The items on regulation can themselves be divided into two subgroups. On the one hand, the G-20 decided to tighten or strengthen the regulatory framework applying to entities or activities that had already been regulated before the crisis. Examples include a more demanding framework on the capital, leverage, and liquidity of banks, prepared by the BCBS and known as the Basel III accord since its initial exposition in 2010; special regulatory treatment applying to systemically important financial institutions (SIFIs), such as additional capital (or in the Basel jargon, “loss absorbency”) requirements; and additional disclosure obligations for banks. On the other hand, entities or activities that until 2008 had been mostly outside of the scope of regulators were submitted to a comprehensive regulatory framework, e.g., over-the-counter (OTC) derivatives, executive compensation, credit rating agencies, hedge funds, “shadow banking” (i.e., entities and activities that are not regulated as banks but present bank-like systemic risk profiles), and more recently financial benchmarks (following the uncovering of fraud in the setting of LIBOR, the London Interbank Offered Rate, and other similar reference rates).

Among the coordination items, two stand out for their importance. First, the G-20 attempted to force global accounting harmonization, by calling repeatedly for “international accounting bodies” (widely understood to refer primarily to the IASB and to the US Financial Accounting Standards Board, or FASB) to “achieve a single set of high-quality, global accounting standards.” Second, the G-20 initiated an ambitious effort, which is still ongoing, to address the coordination issues that may arise in the resolution of complex financial institutions, including banks, whose activities are scattered across several jurisdictions. Also in this category, the G-20 has devoted specific attention to the question of whether the special features of emerging markets and developing economies were adequately addressed in the global financial regulatory agenda.

Finally, the items on observing the financial system are generally referred to under the umbrella label of “data gaps” in the G-20 and FSB jargon. While this expression suggests an aim limited to plugging holes in the existing statistical and financial surveillance apparatus, it actually also covers an ambitious and unprecedented effort to build global sets of data, whose observation may be relevant for the assessment of systemic risk. This is specifically attempted in two key areas: large banks, with the creation of an “international data hub” of nonpublic bank-level information within the BIS; and derivatives markets, with the requirement to report all OTC derivatives transactions to “trade repositories” and the aim to aggregate the corresponding data at the global level.

Unsurprisingly, the G-20 agenda has evolved over time and successive summits. Some items have lost prominence, either because most of the desired work was considered achieved (e.g., capital standards with the finalization of Basel III), or, on the contrary, because the initial ambition has proven difficult or impossible to fulfil (e.g., global accounting harmonization). Other items have gained prominence over time, some of them following changing political circumstances in influential jurisdictions, or the realization of possible unintended consequences of earlier initiatives. Specifically, since 2012 the FSB has explicitly referred to “ending too-big-to-fail (TBTF)” as one of its main objectives, an ambition that was not formulated in such explicit and ambitious terms in prior documents. The issue of how the financial system may foster long-term investment has also moved up the G-20 agenda in recent years.

## ACHIEVEMENTS AND CHALLENGES

The scattered nature and complexity of the G-20 financial reform agenda make it difficult to summarize its execution. The following nonexhaustive list focuses on the items deemed by the author as most significant.

- *Bank capital and leverage:* Basel III unquestionably marks an improvement from its predecessor, the Basel II capital accord of 2004, which is now widely seen as inadequate and a contributor to the crisis in Europe. The definition of capital, or characterization of instruments that are sufficiently loss-absorbing to be treated as equity for regulatory purposes, has been considerably tightened; minimum ratios have been increased; some risks and assets that could have

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Association of Insurance Supervisors (IAIS), the International Accounting Standards Board (IASB), the International Monetary Fund (IMF), the International Organization of Securities Commissions (IOSCO), the Organization for Economic Cooperation and Development (OECD), and the World Bank.

been placed off-balance sheet under previous conventions can no longer be; and the introduction of a leverage ratio, which existed before the crisis in the United States but not in other jurisdictions, creates a check against the possibility of risk-weighting calculations being gamed by banks. Additional, so-called “macroprudential” capital requirements may also be placed either on the most systemically important banks (assessed at the global, regional, or national level), or on all banks at high points of observed financial cycles (“countercyclical buffers”). Some observers, mostly in the banking community, consider Basel III too strict, and argue its adoption has contributed to a scarcity of credit, particularly in Europe, and to a migration of risk outside of the regulated banking sector. Others, particularly in academia, see it as too lax, with too low minimum ratios and too many opportunities for regulatory arbitrage and gaming of the rules. To this author, the capital and leverage provisions of Basel III represent a broadly balanced, ambitious yet practical step towards a better capitalized banking system, and can thus be counted as a policy success.

- *Bank liquidity:* By comparison with the provisions on capital and leverage, Basel III’s requirements on bank liquidity represented a more experimental and unprecedented effort, with a greater potential for unintended economic consequences. With this in mind, the BCBS has set a long testing and transition period for the introduction of the liquidity coverage ratio (LCR), which aims at preventing short-term liquidity shortages in periods of financial stress, and an even longer one for the net stable funding ratio (NSFR), which has a broader aim of balancing the liquidity profiles of banks’ assets and liabilities. The liquidity problems encountered by US and European banks in 2007–08 make it appropriate that the BCBS should introduce liquidity standards. However it remains to be seen whether the specific solutions it has outlined will prove adequate to the task.
- *Data gaps:* A number of improvements have been jointly agreed in various forums, including the BIS and IMF, to improve the delivery and cross-border consistency of statistical data and thus enable an improved understanding of financial systems and better comparisons across jurisdictions. The international data hub at the BIS holds the potential of allowing policymakers to form a refined picture of risk exposures and concentrations among banks, even though it remains too early to judge the actual delivery—not least because access to the relevant information is to be strictly controlled, and mostly reserved to banking supervisors. A separate but related area is that of public disclosures on risk by individual financial institutions, part of which are covered by what is known as “pillar 3” of the Basel supervisory framework. In this area, the FSB has identified best practices but has until now remained somewhat reluctant to standardize disclosure requirements for financial stability purposes, which supervisors have tended to delegate to accounting standard setters. The latter habit is questionable, given that financial accounting is primarily about serving the information needs of investors, and the mandate and objectives of accounting standard setters are therefore structurally distinct from those of prudential authorities.
- *OTC derivatives:* The Pittsburgh summit of the G-20 had set an end-2012 deadline for the introduction of major derivatives markets reforms, but the implementation has proven more difficult and protracted than initially envisaged—not least in the European Union, the largest single jurisdiction in terms of derivatives trading volumes, where some of the requirements are being implemented only in the course of 2014. The aim to identify shifts and concentrations of risk through systematic reporting of derivatives transactions to trade repositories appears appropriate. However the choices made for its implementation may result in the relevant information remaining fragmented across multiple repositories and jurisdictions in a way that does not allow for global aggregation, and limit the ability of regulators to see the full picture.<sup>5</sup> Separately, the requirement that all OTC derivatives be cleared in central counterparties (CCPs) may bring more transparency, but also implies a concentration of risk in CCPs, with no certainty yet that this risk will be adequately managed. Many of the derivatives market reforms involve significant costs, both in terms of transition and steady state, and it is not yet clear to what extent such costs are offset by gains in financial stability.

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5. Note: The author is an independent director of the global trade repository arm of DTCC, a financial infrastructure firm that is run on a nonprofit basis.

- *Resolution of systemically important banks:* The FSB has accomplished significant work on how to structure contracts between legal entities in different countries within international banking groups, and minimum requirements of debt on which losses may be imposed to creditors in the event of resolution (dubbed “gone-concern loss absorbing capital,” or GLAC). However it remains to be seen how these theoretically compelling arrangements may work in practice, particularly as most jurisdictions outside the United States have limited concrete experience of resolution processes, and many had not even introduced a special resolution regime for banks into their domestic legislation until recently. The FSB’s current description of its objective as “ending TBTF” may be setting the bar too high. From this perspective the spelling out by the FSB in 2011 of “key attributes for effective resolution regimes” was a constructive contribution to a general shift toward such regimes, but it may be a long time before their effectiveness can be actually assessed, depending on the occurrence of future crises.
- *Nonbank SIFIs and shadow banking:* In line with the pledge made by the G-20 at the London summit “to extend regulation and oversight to all systemically important financial institutions, instruments and markets,” the FSB has endeavored to produce specific regulatory frameworks for systemically important insurers, asset managers, financial infrastructures, and for a handful of market segments bundled under the imprecise label of “shadow banking.” While certain market segments such as constant-net-asset-value money-market mutual funds clearly require tighter regulation or perhaps even a ban, there is a distinct risk that the FSB approach in this area would insufficiently take into account the diversity of the financial system and the specific risk profiles of various forms of nonbank financial intermediation. Ironically, a misguided regulatory framework applied to insurers and certain categories of funds may end up defeating the initiative’s purpose by making their behavior more procyclical, and impairing their ability to smooth financial cycles given the long maturity of their liabilities.
- *Accounting convergence:* On this, the G-20 agenda has unambiguously failed. Successive deadlines set by the G-20 for the completion of convergence projects of the IASB and FASB have been conspicuously ignored by the independent accounting standard setters. This does not necessarily imply that no further progress will ever be made toward global accounting harmonization, including in the United States, even though many observers have grown increasingly sceptical on this count over the last five years. If any such progress is made, however, it is likely to be difficult to attribute it even to a partial extent to any momentum created by the G-20.
- *Institutional developments:* While the Asian financial crisis of the late 1990s led to the creation of new institutions or groupings, including the G-20 and the FSF, no major new global institutions have been created in the wake of the crisis of 2007–08. The exceptions are limited in purpose, such as the OTC Derivatives Regulators Group (ODRG), at this stage a specialized working party of 11 regulatory agencies in 8 jurisdictions rather than a permanent institution, and the Global Legal Entity Identifier Foundation (GLEIF), a new legal entity set up to coordinate the allocation of unique coded labels to all legal entities that enter into certain types of financial transactions, particularly for derivatives trade reporting. However there have been notable institutional developments. In particular, the membership of most global financial authorities and bodies, including the IMF and FSF/FSB, was expanded or rebalanced to better represent large emerging economies, mirroring the shift from G-7/G-8 to G-20 as “the premier forum for (...) international economic cooperation” in the words of the Pittsburgh summit declaration. In contrast to previous attitudes, all major economies, including the United States and China, have accepted to submit themselves regularly to the discipline of a financial stability assessment program (FSAP) by the IMF and the World Bank (the latter only for emerging market economies). The BCBS has pioneered an effort to monitor the adoption of its accords across jurisdictions, including in terms of the completeness of compliance and consistency of implementation. Even in the absence of any enforcement authority, this unprecedented effort appears likely to foster more consistent implementation through peer pressure and public identification of noncompliant jurisdictions.

**Table 1 Distribution of selected indicators across regions (percent)**

	Europe	United States	China*	Rest of Asia-Pacific	Rest of World
GDP	24	22	12	20	22
Banking assets	43	12	15	20	10
Financial assets	29	34	10	17	10
FSB members	40	7	6	24	23
FSB Steering Committee members	46	10	2	22	20
Leadership positions in global bodies	60	7	0	20	13
Headquarters of global bodies	82	18	0	0	0

\* China includes Hong Kong SAR and Macau SAR in this calculation.

FSB = Financial Stability Board

Note: Span of years is 2012 to early 2014, depending on the indicator.

Sources: IMF *World Economic Outlook* database, April 2014, <http://www.imf.org/external/pubs/ft/weo/2014/01/weo-data/index.aspx>; author's calculations based on The Banker database, 2012, <http://www.thebankerdatabase.com/>; author's calculations based on McKinsey Global Institute, *Financial Globalization: Retreat or Reset?* March 2013, [http://www.mckinsey.com/insights/global\\_capital\\_markets/financial\\_globalization](http://www.mckinsey.com/insights/global_capital_markets/financial_globalization); Financial Stability Board, 2014, <http://www.financialstabilityboard.org/>.

Beyond these specific points, two broader and interrelated concerns are likely to gain increasing attention as the consequences of the G-20 financial reform agenda gradually unfold.

First those global institutions that exist lack broad-based acceptance, a weakness that can easily translate into a deficit of authority. Most are set as voluntary groupings rather than treaty-based institutions, and even those that do have a treaty basis (the BIS, the IMF, the OECD, and the World Bank) have no enforceable financial regulatory mandate. Individual jurisdictions' willingness to respect the choices made by these global bodies is therefore essential. However even after the above mentioned expansion or modification of the membership in several of these organizations, there are still major imbalances in the way different parts of the world are represented, as illustrated by table 1.

These figures suggest a structural overrepresentation of Europe in the functioning of the institutional system, and a corresponding underrepresentation of other parts of the world, in particular China. While there may be multiple reasons, not all of them to be blamed on Europe, it creates a risk of widely different levels of commitment to the global reform agenda across different jurisdictions—even though correcting these institutional imbalances may also lead to forms of disengagement by some stakeholders.<sup>6</sup> An area of particular importance is the governance arrangements applying to the FSB, given that body's pivotal role in driving the G-20 financial reform agenda. At the time of writing, the FSB has initiated a review of the structure of its representation, which is expected to lead to proposals to the G-20 later in 2014.

Second, in the absence of strong global financial regulatory institutions, the combination of an ambitious regulatory agenda with the fragmentation of regulatory and supervisory authorities across individual jurisdictions is bound to result in limitations of cross-border financial integration—in spite of the G-20's repeated commitment to support “an open world economy based on market principles,” as the London summit declaration put it. Even if there is no specific intent to erect barriers, the sheer number of independent centers of decision makes it difficult for regulated market participants to maintain a globally integrated approach. For example, the G-20 has encouraged individual jurisdictions to create regulatory and supervisory frameworks for credit rating agencies, which until 2008 were unregulated in most countries. As a consequence, there is a tangible risk that over time, divergent regulatory and supervisory approaches could make it increasingly difficult for rating agencies to maintain the global consistency

6. In the context of negotiations over the proposed Transatlantic Trade and Investment Partnership, US Trade Representative Michael Froman was reported as observing that “[the] EU often only recognizes international standard-setting bodies where EU members cast the bulk of the votes.” Patrick Henry, “Regulation Biggest Barrier to Integrated U.S.–EU Trade: Froman,” *Bloomberg News*, September 30, 2013.

of rating methodologies that has been until now a key feature of their contribution to the functioning of capital markets. Such concerns are aggravated by the behavioral and cognitive bias of national supervisory authorities, which generally perceive more scope for supervisory failure in third countries than within their own geographical remit. As a consequence, they tend to give more weight to the risk of cross-border financial integration creating channels of financial contagion that would contribute to “importing instability” than to the possibility of it acting as a dampener on instability generated at home—even though there have also been numerous observed instances of “importing stability.” For example, in the Baltic states, the fact that most local banks were owned by Scandinavian groups had a stabilizing effect in 2008–10 in the face of severe domestic economic and property downturns. Because of this cognitive bias, supervisory authorities may choose to “ring-fence” financial firms and activities along national borders, more than would be justified by a rigorous economic cost-benefit consideration.

## PROSPECTS AND OPTIONS

The weakness of international financial regulatory institutional arrangements highlighted in the previous section can be expected to result in an increased scope for inconsistencies, contradictions, and conflicts among jurisdictions as the G-20 financial reform agenda keeps moving toward implementation on the ground. A template for such conflicts may be found in the recent tug-of-war between the United States and China about auditor supervision. In the wake of accounting scandals in the early 2000s such as at Enron and WorldCom, audit firms became publicly regulated, first in the United States and then in most other G-20 jurisdictions. But this new regulatory framework failed to take into account the unique degree of cross-border integration of audit activities, a key reason why almost all audits of large companies are entrusted to only four powerful global networks. As a result, audit firms are subjected to mutually incompatible requirements from public authorities in the United States and China, with no global structure to mediate or resolve disputes. Similarly, differences in regulatory approaches may prevent fulfilment of the aim to aggregate derivative trade data at the global level, even as transactions are now reported to trade repositories in all major jurisdictions where derivative trading takes place.

Absent an evidently undesirable new episode of global financial instability, there is no clear prospect for renewed reform momentum coming from the G-20. Among other factors, geopolitical instability in Eastern Europe may impair the collective authority of the G-20 by making it more difficult to display unity of purpose. Moreover, the public uncovering in 2013 of widespread covert international data-gathering activity by US intelligence agencies may have a durable negative impact on the ability of G-20 jurisdictions to exchange financial data, a key condition for effective global financial regulatory cooperation.

It would be excessive, however, to conclude that the G-20 financial reform agenda is condemned to irrelevance or paralysis. Significant progress remains realistically possible on several dimensions. To name only a few: The BCBS’s effort to monitor the adoption and implementation of Basel III may lead the European Union to amend its existing legislation (known as the Capital Requirements Regulation) to make it fully compliant with the global accord, and may separately nudge banks into adopting more realistic and consistent risk-weighting practices. Significantly better and more informative public statistical data about financial systems and activities may be produced under coordination from the BIS and IMF, and may lead to analytical breakthroughs in understanding how the global financial system actually functions and its impact on the global economy. The US authorities may allow domestic-listed companies to shift to international financial reporting standards (IFRS) on a voluntary basis, as is now the case in Japan, thus paving the way for a gradual generalization of the use of IFRS, at least among larger companies. Better arrangements may be found to assign unique identifiers to individual derivatives transactions and to phase out existing divergences between regulatory frameworks on OTC derivatives in major jurisdictions. To be sure, each of these steps would encounter significant political obstacles, but none of them currently appears entirely beyond the scope of possibility.

Nevertheless, even such significant advances may prove insufficient to counter the risk of fragmentation of the global financial space highlighted in the previous section. While no analytical consensus exists among economists about the benefits of global financial integration, its reversal could prove severely damaging for global economic integration and growth. To avoid such a development, still more ambitious endeavors may need to be considered in the future.

To foster global buy-in, more policymakers from emerging market economies should accede to leadership positions in global financial regulatory bodies. Existing or newly formed bodies should be located in Asia, and not exclusively in Europe or

the United States as is currently the case.<sup>7</sup> For example, the permanent secretariat of the FSB, which is very limited in size, could be relocated from Basel to Hong Kong, where the BIS already has a representative office for which it has negotiated extensive privileges and immunities for its international staff, or to Singapore. Similarly, the International Forum of Independent Audit Regulators is considering the establishment of a permanent secretariat to support its expanding activities, and may choose to locate it in a major Asian financial center that could offer sufficient privileges and immunities as well as political stability.

To support global financial integration, an ambitious but circumscribed objective may be to ensure a consistent basis of financial information. Regulated information intermediaries such as credit rating agencies, audit firms, and trade repositories play a crucial role, and their supervision at the international level by supranational supervisory authorities may need to be envisaged to deliver this aim. If this sounds utopian, one may recall that similar scepticism greeted the vision of EU-level supervision of individual financial firms before the crisis—but now the European Securities and Markets Authority (ESMA) directly supervises credit rating agencies throughout the European Union, and the European Central Bank is expected to supervise most of the euro area's banking system starting in November 2014. Moreover, unlike banks or CCPs, these information intermediaries do not carry significant financial risk, with the consequence that their supervision at the supranational level would not need to involve any meaningful financial risk sharing among the world's governments, beyond the limited cost of operating the supranational authority. It would nevertheless require a treaty, and international legal and judiciary infrastructure, which do not currently exist, at least in the financial area. Innovative hybrid public-private governance arrangements may also be considered, building on a number of precedents of remarkable public policy achievements by nonprofit global bodies with a public-interest identity, such as the IASB.

## CONCLUSION

The definition and implementation of the G-20 financial reform agenda has seen a number of successes. But the global institutional infrastructure on which it is currently predicated is not sufficient to support the vision of a financial system that would be both globally integrated, and adequately regulated over the medium-to-long term. To address this challenge, further institutional change, experimentation, and innovation should be considered by G-20 policymakers. They should not be afraid of relying on trials and errors. If, conversely, they choose to rely exclusively on established institutional and procedural patterns, the risk is that they may eventually reach a point at which they would have to durably renounce the economic and other benefits of an open financial world. The global experiment that started with the Washington, London, and Pittsburgh summits still has a long way to go.

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7. From this standpoint, the recent establishment of the Global Legal Entity Identifier Foundation (GLEIF) as a Swiss foundation with a seat in Basel may be viewed as a missed opportunity.