Testimony before the US-China Economic and Security Review Commission

China's Quest for Capital: Motivations, Methods and Implications

January 23, 2020

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It is an honor to provide testimony to the Commission on China's financial system. My comments seek to address the kinds of questions raised by the Committee. I will be pleased to try to answer the questions the committee members may have. I note, however, that China's financial system has become exceptionally large and complex since 2009, so my answers seek mainly to draw an outline and this is difficult as well.

1. How does Beijing govern capital allocation? What are the government's priorities?

China is no longer a strictly planned economy but the central government remains in a position to control a significant amount of capital. At the planning level Beijing still compiles annual and five year plans that reflect the government's development priorities. In brief, these priorities come down to maintaining social stability by providing employment and, therefore, to protect the government's position. The National Budget is the financial expression of these plans and is put together by the central government based on a compilation of provincial budgets, adjusted and then passed by the National People's Congress.

This budget functions as the overall map of fiscal revenues and expenditures for that part of the economy managed by the State. Figure 1 shows the overall trends of these incomes and outflows for the post-1979 reform period. The collapse of fiscal income in the 1980s was associated with state enterprise reform and was corrected by the Budget Law of 1994. Since the outbreak of the global financial crisis in 2009 China's expenditures, as is well known, have exceeded fiscal revenues leading Beijing to borrow to fill the gap (see Figure 2). In other words, fiscal revenues have been insufficient to meet policy goals. Given this, private sector funding (not including multinational investments) is an afterthought except to the extent private companies are extensions of local governments.

Weak fiscal revenues have always been the case since the start of the reform era in 1979. In the 1980s Beijing was starved of fiscal revenues and borrowed heavily from its banks. After the near collapse of 1989 Beijing was able to push through in 1994 a new Budget Law that greatly strengthened Beijing's control over fiscal revenues, but at the expense of the provinces (see Figure 3). In response, the provinces actively developed a wide variety of so-called "extra-budgetary revenues" that Beijing then took over as funds, or adjuncts to the official national budget. The latest example of this is the sale by local governments of land use rights. The fiscal stimulus of 2009, therefore, was a godsend to local governments.

The point here is that the "government" is not a centralized one-piece entity operating in lock step. Nor is it a federal style arrangement like the US operating within a web of well-defined responsibility. Rather it is a Chinese arrangement of near equals where institutions are weak and laws ineffective. All decisions are political and maintaining a balance of personal and professional interests is the goal within the vague notions expressed by the Party Line. As a result, any market incentives for allocation of funds are replaced by individual considerations of career advancement. It takes a crisis to revel the system's true nature.

Since most senior officials hold local government positions at some time in their careers, "Beijing" is well aware that "local governments" are starved of revenues and burdened by required social expenditures (see Table 1). As a consequence, the central government cannot ignore the political needs of local governments, that is, party secretaries. It therefore creates through negotiation the leeway for them to "self fund" outside their budgets so long as they deliver what belongs to the "central government." These words "Beijing," "central" and "local" are used loosely to represent the central government or the provinces and are used only for convenience here.

As a consequence it is difficult to say that Beijing governs the allocation of capital especially "when the window is open," that is, when opportunity arises hard-pressed party secretaries throughout the system – local governments, ministries and state enterprises - take all the advantage they can. The 2009 stimulus was such an opportunity and all within the party no matter what position they were in sought to grab a piece. This explains the plethora of 100 story buildings, the empty skeletons of apartment complexes as well as the magnificent national bullet train network.

2. How do the government's capital allocation practices affect different economic actors, e.g., banks, local governments and corporates and their abilities to meet their financial needs?

As mentioned above, the consequence of the 1994 Budget Law was to nominally strengthen central government control over fiscal revenues. Fiscal transfers by Beijing to poorer provinces were the compromise that led to local government support of the Budget Law in 1994. Although strengthened central control led to increases in revenue, they have not been commensurate with political plans at the local level. These transfers, moreover, have made Beijing reliant on debt to fund its own expenditure plans (see Figure 2). This led to a gradual forcing down of social expenditures and capital investment onto SOEs and local governments (see Figures 4 and 5). Transfers have not been sufficient to make local government budgets whole. Local leaders are compelled to develop sources of revenue outside the budget since they were not allowed to legally raise taxes.

In 2007, when budgetary categories were revised, capital expenditures as a line item disappeared altogether (see Figure 5). These expenditures now rely on local governments to put together financing including "self-raised funds," 80 percent of all such investment prior to the fiscal stimulus of 2009. How did they achieve this? By skirting central government regulations. By involving "private" investors, local governments had no need to seek central approvals for projects. This explains why Public-Private Partnerships (PPP) are the structure of choice at the local level. Once a PPP is established banks are able to lend to it legally and "self-raised funds" come into existence.

Similarly, any state owned enterprise (SOE) owned or established (for example, Local Government Financing Vehicles) by a local government can borrow from banks or from large SOEs and the funds received can go to capital investments, no matter their maturity. This is why local governments all seek to have a financial institution under their control. As one local official explained to this author, "budgets are to eat, loans are to build."

In short, due to Beijing's budgetary arrangements and its inability to increase tax revenues, local governments were already extremely leveraged as a matter of practice long before the global financial crisis. The crisis forced Beijing to allow them to issue guidance funds[1], bonds, trust products and wealth management products (WMP) (see Figure 6). Now, of course, local governments are so leveraged, in my opinion, that their debt can never be repaid, only rolled forward.

The obverse of local debt is necessarily large state bank lending to SOEs and, through the interbank market, to smaller banks. The major state banks have always been indirectly exposed to local governments through lending to major state enterprises. Chinese regulations do not permit corporations to have a central treasury function. So if the principal corporate entity wishes to fund its subsidiary it goes through a bank to make an "entrusted loan."

As Table 2 shows after 2009 such loans increased significantly peaking in 2014 at 42 percent of total SOE funding. These funds go to subsidiaries that may become partners in local government PPP schemes. From an accounting viewpoint SOE subsidiaries only show up as investments and parent enterprise loans made to them are seen in the undifferentiated loan category. In other words you can't see where the money went by looking at SOE balance sheets.

Similarly at different times banker's acceptances (loans against a shipment of goods) and trust loans (loans arranged by trust companies and sold as investments) have played a large role in funding SOEs and, onward, to funding local government

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[1] Since 2015 many local governments and central ministries have developed a new way around budgetary restrictions. They have created so-called "guidance funds" or so-called "private equity funds" financed by other state entities including especially banks that they alone invest

projects. All of these products are ways that banks work around regulatory limits on lending to single borrowers. The result is both ballooning bank and state enterprise balance sheets.

The major state banks also fund the rest of the financial system via the interbank market. This market is meant to provide short term funding for banks but during the past few years its function has changed and a huge collateralized interbank market has appeared ((see Table 3). This table shows the net lending (negative) or borrowing (position) of interbank members. The numbers show clearly that the large state banks (The Big 5 plus the Postal Savings Bank) fund a category called "Other financial institutions." What could these be?

A process of elimination from the list of members of the interbank market leaves only asset management companies (AMCs), trust companies and finance companies belonging to SOEs. This shows that the interbank market has been distorted to provide massive financing to borrowers to which the big banks could lend due to credit reasons or because they do not want to appear to be lending. How else do the huge asset management companies get funding for their acquisition of bank non-performing loans.

The critical source of capital for the banks and the government is retail deposits (see Figure 7). This is why retail investors have such limited opportunities to invest any savings they might have. Until 2007 retail could only put their money into housing, the stock market (too risky) or leave it in the banks.

3. How do China's banks structure their loans to different actors in the economy and what does this reveal about their capital requirements.

Much of this question has been addressed in Question 2 above. For the state sector funding for SOEs are either structured either as straight loans or as corporate bonds. In both cases the asset winds up on bank balance sheets. For financial institutions the interbank market, particularly for the weakest entities, the collateralized interbank market, provides funding. For the so-called "guidance funds," these are categorized as interbank investments.

Loans for the retail sector are straightforward and similar to banks elsewhere: mortgages, credit card loans and consumption loans. This leaves the all-important private sector.

Over the past 20 years the private sector has become the economy's main employer and driving force while the State controlled sector has shrunk. Even so the private sector's access to capital is quite constrained, why is this? It is not because the big state banks do not want to lend to small and medium size enterprises (SME) that typify the private sector. The problem is that even with personal guarantees and collateral, the big banks incur significant loan losses due to fraud. Given that many SMEs are backed by local governments banks often find it difficult to rely on the court system to recover losses. Nor, due to government policy, are banks able to charge interest rates that would help cover such losses. Banks, nonetheless, keep lending, as government policy requires.

The question might be asked if the private sector is the economy's dynamo why aren't there large private companies? The answer, I believe, is if you become a large company the company is no longer yours. There is a reason why the heads of Alibaba and JD.com have recently resigned. This being the case, it's strategically better to have small companies and many of them and this is one reason why banks find it hard to lend to SMEs.

4. What does the recent spate of regional bank failures reveal about the way capital is raised in China? How does the systemic risk unearthed by these failures impact the ability of banks to raise capital in the future?

Local financial institutions have always been extremely weak throughout China's past 40 years. There are a few reasons for this. First, these entities did not grow organically, i.e. develop a sound customer base and then gradually expand. Instead, the city and rural commercial are made up of all urban and rural credit cooperatives in a given administrative area that are simply thrown together. Since local governments lack capital as well as professional financial staff, the most recent iteration of local banks – the city commercial bank - from its inception in 1997 has been weak. This had the result that for most of them even a Shanghai listing was out of reach. Only 23 of 124 city banks have access to public capital markets.

The fact that Beijing does not allow these entities to simply go bankrupt – there is depositors insurance up to RMB 250,000 – says a few things. First Beijing will not allow confidence in its banks at any level to be called into question. Second, banking licenses themselves represent the result of a lot of administrative work at all levels of China's bureaucracy. Even bankrupt, these entities are worth something to someone. Third, that somebody is the relevant local government that desperately wants its own financial license. The result is that with Beijing's help new, mainly state investors are rounded up and new capital is injected.

China today has 124 city commercial banks owned mostly by local governments. There are also 58 trust companies, 2200 rural banks and 1200 rural credit cooperatives, owned mostly by provincial governments and below, although none owns the coops. These institutions fail to play a big role in lending to local SMEs because they do not have the ability to lend and have few retail deposits.

As Figure 7 shows, however, over the past decade city bank deposits have grown very rapidly. This has largely been due to offering WMPs to attract funding for favored local projects. The difficulties faced by Jinzhou Bank, listed on the Hong Kong Exchange, were caused by its Big 4 auditor refusing to sign off on its report due to questionable loans. Going forward investors will need to take a closer look at local banks as they approach international markets.

As for the unlisted local banks in 2018 the banking and other regulators published a set of new regulations covering WMPs. The effect of these new rules will be to change completely how WMPs have been structured. From year-end 2020 or possibly 2023, limits will be put on the types of underlying assets permitted and how WMPs will be structured. The effect of this has and will create serious funding pressures for city commercial banks beginning now.

5. In what ways does the structural imbalance in the fiscal transfer relationship between Beijing and local governments inform local government capital raising needs?

The fact that fiscal revenues are insufficient for the whole state's objectives combined with "soft" budgets means that local governments will continue to seek additional extra-budgetary funding most of which will come inevitably from bank lending. This threatens the viability of China's major banks. Until and unless the central government establishes a hard budget with adequate revenues within which all governments must live, the political give and take with soft budgets will continue to characterize China's fiscal system. This is the very character of China's fiscal system historically and change in the future is extremely unlikely.

6. What factors are pushing local governments to increase issuance of sub-sovereign and local bonds? What are local governments doing with the capital that is raised from bond issuance?

Table 4 compares total outstanding local government bonds (including provincial bonds) to outstanding local debt figures a provided by the National Audit Office and, for the most recent three years, the MOF. The table shows that over the period of 2013-2018 bank loans have been gradually replaced with bonds. In other words the existing stock of local loans has been refinanced by the issuance of local government bonds. I believe this the government has pushed this process to increase transparency of local debt and, for the banks, to reduce loan loss reserves (loans attract a far greater amount of capital and loss reserves than bonds) and improve bank capital adequacy. The government's expressions that such bond proceeds are being used to finance infrastructure and so on are true but disingenuous, but they are referring to already built (or half built) projects.

7. In addition to exchange rate management, in what ways do foreign exchange reserves act as a backstop for China's economy? How has Beijing deployed its reserves to solve economic problems and what are the challenges doing so?

FX reserves provide both a practical and psychological role in support of not just China's economy, but also its government. Psychologically the general populace is well aware that the renminbi is virtually backed by hard currencies, especially the US dollar. As a result, there is less concern among the public over the government's overall economic management. The reserves are a sort of report card on Beijing's previous export driven development strategy. But the sheer size of the reserves, created willy-nilly during the first 10 years of this century when China was wide open, took the government by surprise. During the buildup of the reserves the government failed to take advantage of them by currency convertibility and capital account openness, both policy goals of the central bank. So, in fact, China's huge FX reserves indicate a missed opportunity.

Practically speaking the reserves have been used to fund the capitalization of two of the major state banks (China Construction Bank and Bank of China through perpetual currency swaps) and are now being used to fund the Belt and Road policy.

As China does not provide detail on its reserves or provide independent audits of the central bank's balance sheet, there is uncertainty not only over the details of the reserves, but how they may be used. We do know the sum total of China's US dollar reserves from Federal Reserve data. But how much of the total reserve number is actually official reserves and how much foreign currency-denominated assets is not known. This raises the question about China's overall reserve liquidity.

Supplemental Questions on how Chinese entities raise capital

1. How do different corporate entities obtain access to financing?

State-owned enterprises (SOEs) have access to all existing channels of finance. They can issue shares domestically and internationally, borrow loans, engage with foreign banks and markets and so on. They may own controlling interests in trust companies and small banks. Their efforts to raise finances will be actively supported by their state owners – the central or local government. Financing is not an obstacle to their operations.

Small and medium-size enterprises (SME) are far less advantaged. They can borrow from banks large and small but at a cost higher than SOEs. They can list on the Shenzhen Exchange and, if their financial strength and economic outlook supports it, list on international markets. But SMEs tend to remain small in business scope; it is difficult to construct a Top 20 list of large private enterprises because of this. This is despite the fact that SMEs and the private sector are the driving force of China's economy. It seems that private capitalists in China prefer to own multiple businesses of a small scale at the same time as they seek to develop the active support of sub-provincial level governments.

The stock exchanges are less important in terms of providing capital. The government has limited the use of the Shanghai and Hong Kong exchanges largely to state or state supported enterprises, while the Shenzhen exchange is the home of private issuers. But the total capital raised by the latter is exceeded by far by the capital raised on the Shanghai and Hong Kong exchanges for state enterprises.

If the investors in initial public offerings of state entities are carefully examined it will be seen that other state entities are both the so-called “strategic” investors as well as investors in the public offering itself. In China, IPOs have become a way for Beijing to move its capital around. [2]

Similarly the huge and growing bond market is largely a state affair with very, very few private companies able to access it. Given its lack of liquidity China’s bond market should be seen as just another form of loan, particularly since the big state banks are the principal “investors.”

Over the past 10 years the central bank began a process of interest rate liberalization first by nominally releasing controls over lending rates in 2013 and then in 2015 deposit rates. Despite this apparent loosening lending and deposit rate remain governed by central bank benchmark rates even now with the new “prime rate.” To achieve policy goals the bank regulator also governs certain lending rates, for example, for SMEs.

Even this partial liberalization of the domestic financial markets has had the effect of increasing competition for retail deposits. This can be seen in the rise of “fintech” banks and, more importantly, the so-called wealth management products (WMP). China’s fintech banks as well as city commercial banks have challenged the large state banks for deposits (see Figure 8).[3] In response to this and the need to help banks better manage their balance sheets, regulators from 2007 allowed banks to create wealth management products (WMPs), as mentioned previously.

WMPs are important to this discussion because the city commercial banks used them to attract deposits and then fund local government supported projects. These local WMPs differed from those of the large banks since they involved single ultimate borrowers; whereas the large banks developed a pool of assets to support their WMPs. WMPs all provide rates of return above bank deposit rates and are perceived as guaranteed by the government. Over the last 10 years the amount of WMPs exploded (see Figure 8) and has begun to threaten banking stability.

2. The PBOC introduced a new “loan prime rate” (LPR) in August 2019. What factors drove the bank to introduce this mechanism and what is its objective?

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[2] See Walter and Howie, *Red Capitalism*, (Singapore, John Wiley and Sons, 2012), pp. 196-204.

[3] For a good overview see Wei Wang and David Dollar, “Order from chaos: what’s happening with China’s fintech industry,” Brookings, https://www.brookings.edu/blog/order-from-chaos/2018/02/08/whats-happening-with-chinas-fintech-industry/

The new loan prime rate is just the latest step that the central bank has taken in its effort to make floating rate lending appear to be more market based – within limits - as opposed to set wholly administratively. The new rate is based on data from many banks that presumably represents their best rate for their best customers. This "prime" rate is set by the PBOC only once a month so it is hardly a market rate. Perhaps this gives the PBOC a better idea of the interest rate environment, but this is not LIBOR, SHIBOR or any other market-based system.

China's currently flagging economy is the reason for this effort. The new prime rate is aimed aims at lowering corporate borrowing costs or, put another way, preventing banks from charging high rates in a nominally market-based environment. In any event, making interest rates market based has long been one of the three major policy goals of the central bank alongside RMB convertibility and an open capital account.[4] This goal is even in the longer run now.

3. What corporate entities are active in raising external debt and what are they doing with it?

As of Q2 2019 Chinese issuers had nearly US$228 billion in offshore debt outstanding. Of this amount 20 percent or US$45 billion is non-financial. Based on IMF analysis large SOEs account for most of the issuance. The analysis[5] concludes that these large corporations – oil and gas, real estate and power - use offshore US dollar borrowings to swap into renminbi onshore deposits. Offshore US dollar borrowing rates are lower than onshore renminbi deposit rates plus there is an expectation of renminbi appreciation against the dollar.

In other words, this activity is pursed purely for a financial return and not for capital investment. Stepping back another step, such net financial returns help reduce financing costs in the domestic market. Of course, there is significant market risk involved in such activity. So this external debt raising is mostly speculation on the US$/RMB exchange rate.

Why does the Chinese government permit such activity? The heads of these large central SOEs are on the Central Committee and enjoy ranks equal to or exceeding Chinese regulators. For large local SOEs provincial governments provide support. Therefore, it is quite difficult, barring a crisis, for regulators to have much impact.

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[4] Just before the global financial crisis the Shanghai Interbank Offering Rate (SHIBOR) after Libor was meant to be the basis for all short term lending on the interbank market, for floating notes and derivatives. It never gained traction after the crisis broke out and now when a command economy is reasserting itself, it is no longer a key rate.

[5] https://www.elibrary.imf.org/view/IMF071/25402-9781484372142/25402-9781484372142/ch16.xml?language=en&redirect=true

4. What are the different factors influencing the listing decisions of Chinese companies? How does the Chinese government specifically influence these decisions?

Because public offering approvals are so difficult to obtain except for the most powerful SOEs, Chinese SOEs list only for the marginal money. As an SOE chairman explained to me, "It doesn't matter who owns the money, only who gets to use it." The ownership of SOEs is a moot point since these enterprises report in to administrative bureaucracies that have no understanding of what listing in the Western sense means. Thus at the start of the listing experience in the 1990s the bureaucracies used the stock markets to list companies that were illiquid and uncapitalized. The issue for enterprise management was simply "Can I get approval to list and how much can I get?" Most SOEs could not be structured to support a public offering in Hong Kong or elsewhere. Domestic regulators have proved far friendlier since capitalizing SOEs is as state policy.

Chinese regulators can, however, determine which SOEs and non-SOEs list and which market they can list in. They do this by supporting SOEs as against private companies and there has long been a sectoral list of companies not available for public listing. In any event, only minority positions in SOEs are offered publicly, China's government retains majority ownership and management control through the Communist Party hierarchy.

5. Why are Chinese corporates more attracted to US capital markets as opposed to Chinese ones? What are the shortcomings of Chinese capital markets?

I have documented the shortcomings of the Chinese stock markets at length.[6] They include significant administrative hurdles before and after, administratively fixed pricing that is always less than subsequent market prices by a multiple, capital amounts raised are limited and so on. On the other hand, loose domestic regulatory scrutiny of the operational sustainability of pre-IPO companies and the use of domestic audit firms with very limited experience ensure that domestic listings are highly non-transparent. From an SOE with poor prospects and large capital needs but also good government backing, this situation is perfect. As another SOE chairman told me, "Domestic markets are easier to manage."

As for whether Chinese corporates prefer US capital markets. It used to be that the US markets could support even the largest IPO, but this is no longer the case. Most large money managers have long since set up offices in Hong Kong. This has enabled the Hong Kong exchange to execute even super large transactions such as the recent Alibaba. Consequently, as of now I don't believe Chinese corporates prefer US

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[6] Walter and Howie, **Privatizing China: inside China's stock markets** (Singapore: John Wiley and Sons, 2011).

markets except for perhaps the reputational impact. A US listing shows that a company is able (or willing) to meet US regulations at the time f listing, and more importantly, going forward.

An exception remains now for cases like Alibaba, which was prevented from listing in Hong Kong or Shanghai directly as its sector was off limits to foreign investment. US markets allow the listing of securities representing future earnings flows as well as a variety of other share configurations, whereas neither Shanghai nor Hong Kong permits this yet.

In general, US markets are based on transparent disclosure of all risks. As a result, the US market allows investors to make their own decisions. In contrast, all Asian markets are characterized by regulators act on behalf of supposedly ignorant investors. The result here is obvious; issuers seek to disclose less so there will be fewer questions. In the end, there is far less transparency.

Policy Recommendations on Supplemental Questions

1. The US government needs to do a better job understanding the needs of US financial companies in China. Policy support must be given not simply to controlling ownership of securities firms, but also complete securities licenses including retail brokerage as well as debt and equity underwriting and trading. Chinese companies have broker dealer subsidiaries in the US, the US has none in China.

2. The new loan “prime” rate is an example of administrative obstacle to creating true market-based interest rate yield curves. The fact that interest rates in China are not market based makes it difficult for US banks to price certain kinds of risk management transactions the government need to better understand and promote market-based interest rates in China. Working to further open China’s bond markets to foreign investors would be helpful in this.

3. The government should work with the US stock exchanges to promote primary or secondary listings for China’s major banks as a way to ensure greater transparency for these systemically important institutions. Hong Kong listings even with professional auditing using international standards may not be enough.

Charts used in the
Testimony before the US-China Economic and Security Review Commission
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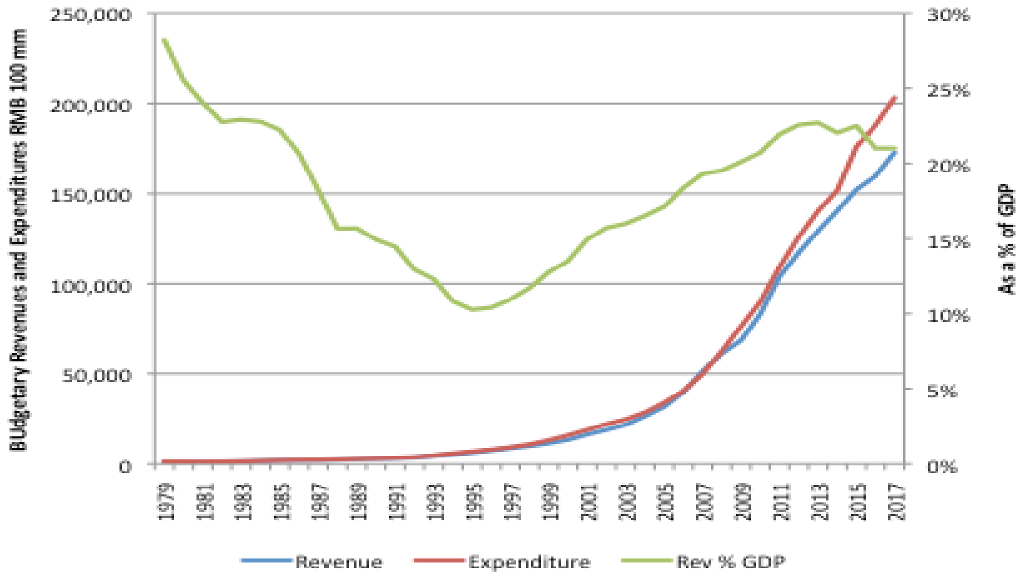
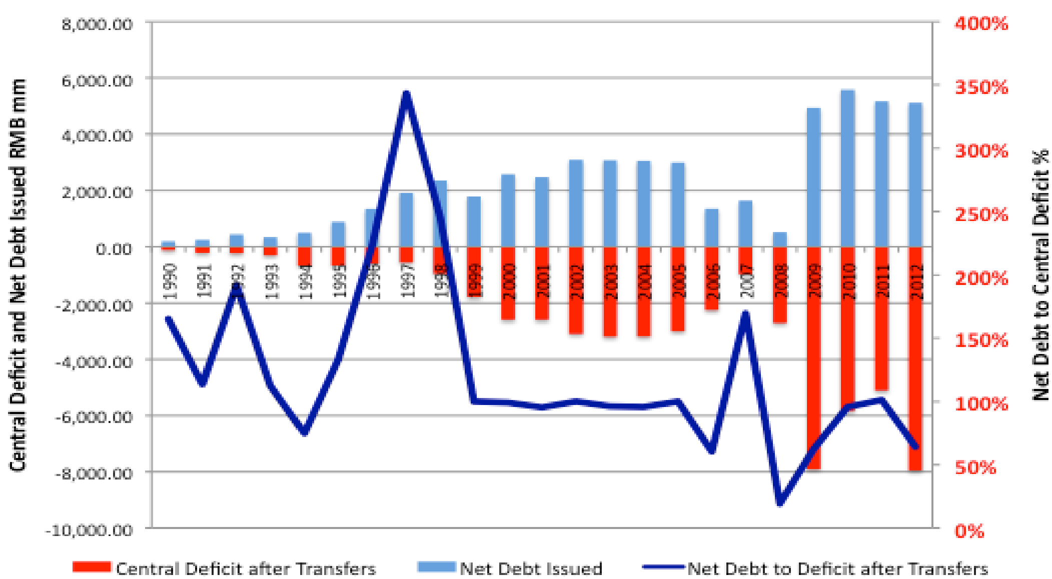
Figure 1: State budgetary revenues and expenditures, 1979-2017



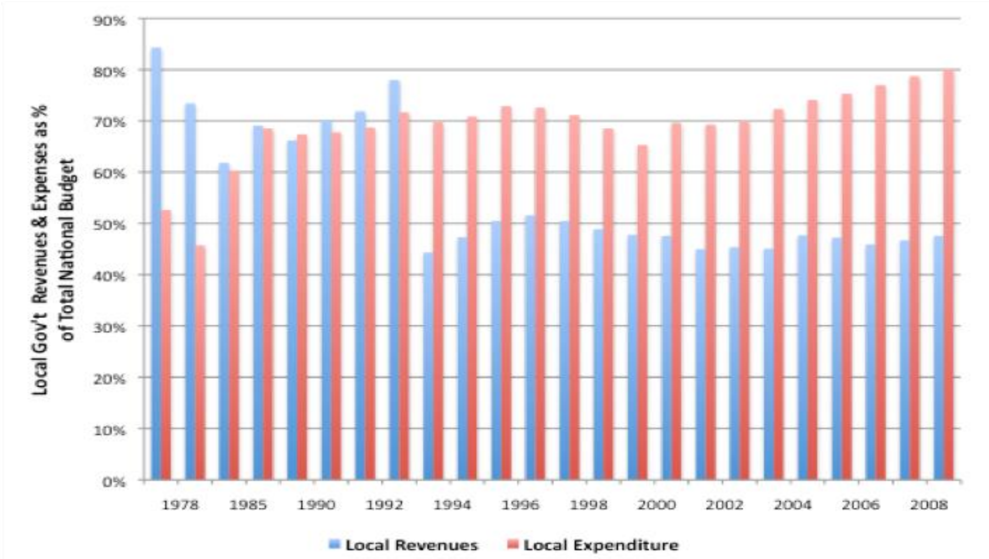
Source: Ministry of Finance

Figure 2: Central government debt dependence post transfers



Source: Ministry of Finance and China Bond

Figure 3: Provincial on-budget pre-transfer revenues and expenditures, 1978-2008



Source: China Statistical Yearbook

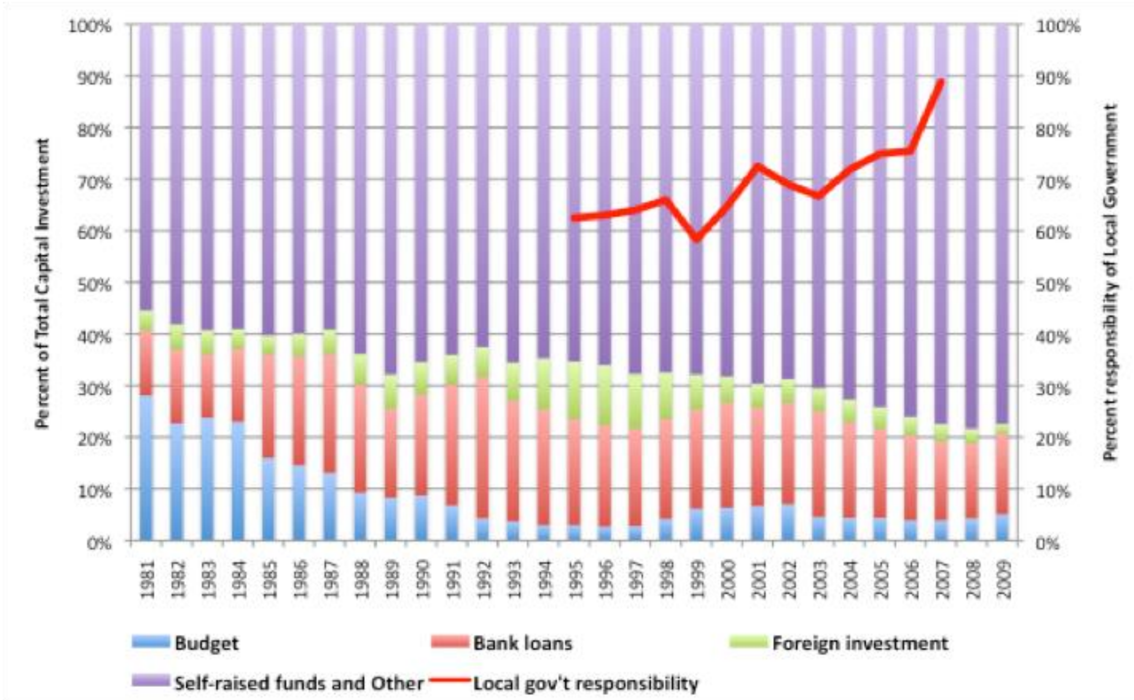
Table 1: Distribution of budgetary revenues and expenditures

%	1993	1998	2002	2006
Revenues				
Central government	34	29	55	53
Province	11	19	12	12
Municipalities	29	24	16	17
Counties	19	11	11	14
Townships	13	9	6	5
Expenditures				
Central government	22	50	31	25
Province	13	11	20	18
Municipalities	34	20	21	23
Counties	16	20	22	29
Townships	11	8	7	6

fiscal

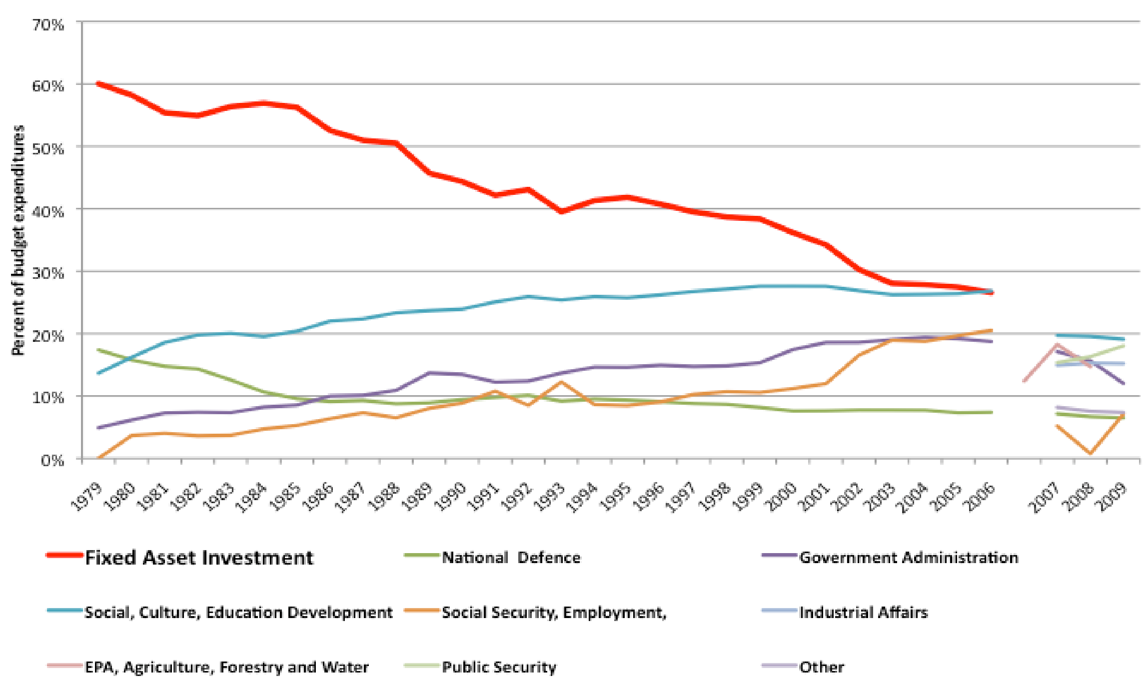
Source: Wong, "Rebuilding government for the 21st century," *Chine Quarterly* 12/2009, p. 944

Figure 4: Sources of capital investment, 1981-2009



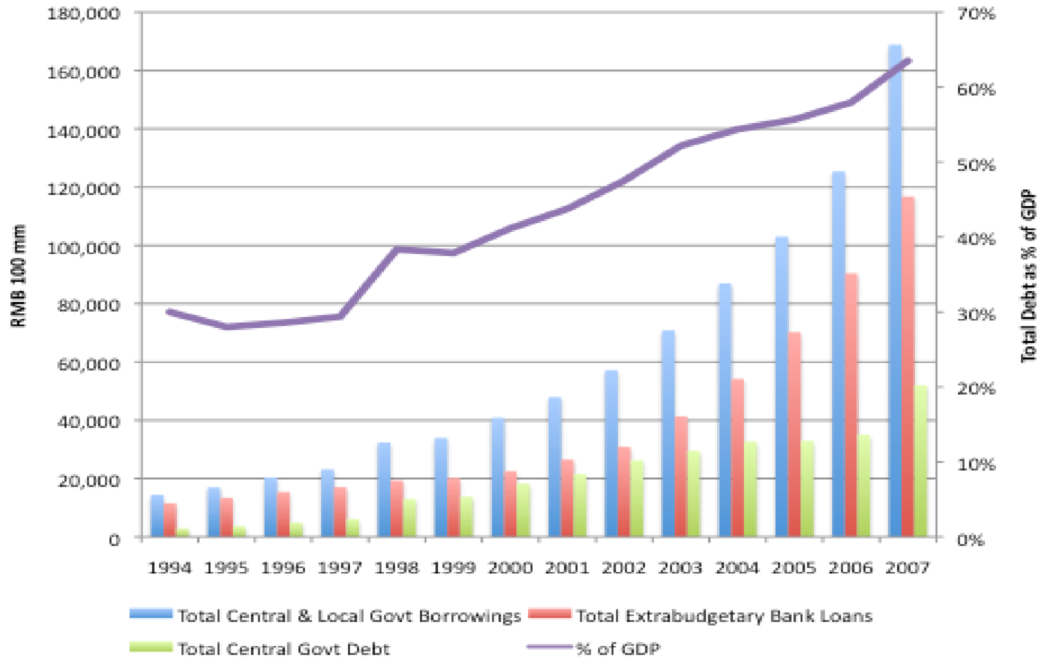
Source: China Statistical Yearbook

Figure 5: Trends in budgetary expenditures, 1979-2009



Source: Ministry of Finance

Figure 6: Total central and local government debt to GDP, 1994-2007



Source: Ministry of Finance, China Statistical Yfvearbook, author's calculation

Table 2: SOE borrowings and entrusted loans, 2006-2017

	SOE alone RMB loans	Corporate Bonds flow	Bankers' Acceptances	Trust Loans	Total SOE Borrowings	Of which: Entrusted Loans	% of Total SOE Borrowings
2006	6,033	840	1,520	8,393	16,785	1,880	11%
2007	12,967	2,310	6,690	21,967	43,935	3,800	9%
2008	10,998	5,560	1,100	17,658	35,315	4,260	12%
2009	28,584	12,960	4,650	46,194	92,387	6,760	7%
2010	15,548	11,980	23,260	50,788	101,575	11,270	11%
2011	12,712	13,700	10,300	36,712	73,423	13,000	18%
2012	15,952	22,500	10,500	48,952	97,904	12,800	13%
2013	54,244	18,113	7750	80,107	160,214	25,466	16%
2014	7,158	23,817	-1,286	29,689	59,378	25,069	42%
2015	19,817	14,630	5,850	40,297	80,593	10,930	14%
2016	41,035	27,767	-19,516	49,286	98,572	21,854	22%
2017	51,244	4,471	3,867	59,582	119,164	7,776	7%

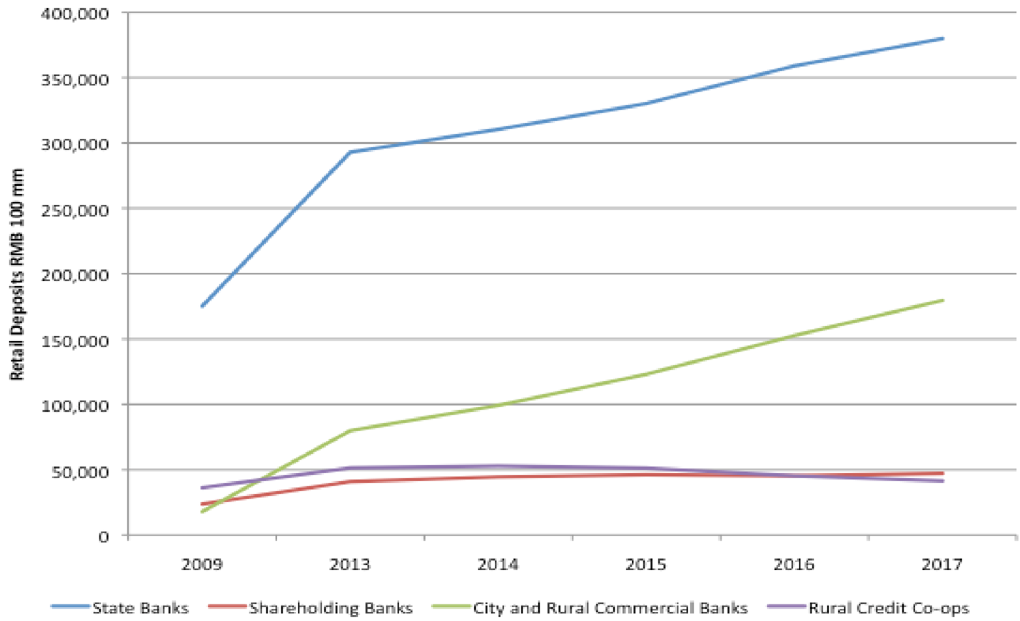
Source: Ministry of Finance and People's Bank of China

Table 3: Collateralized interbank market – net position by institution

Net Position (Negative sign = lending; positive, borrowing)										
100 mm	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
State Banks	-132,849	-129,167	-239,090	-227,637	-184,096	-541,002	-429,049	-798,736	-1,851,870	-1,931,300
Other banks	11,839	15,670	-4,858	91,192	58,161	268,094	177,832	375,205	750,262	552,005
including CCBs	0	0	0	0	0	0	0	191,277	585,260	530,199
Other financial institutions	42,127	27,061	97,797	28,954	37,886	100,871	65,777	82,268	767,759	1,131,453
Insurance Cos.	31,283	26,645	40,352	21,840	24,914	23,272	55,545	89,564	122,936	-31,444
Securities Cos and Funds	13,602	28,695	72,320	53,973	58,290	103,831	118,593	204,467	106,155	0
Foreigners	34,001	31,096	29,477	31,687	9,845	19,935	11,301	47,323	104,768	71,029

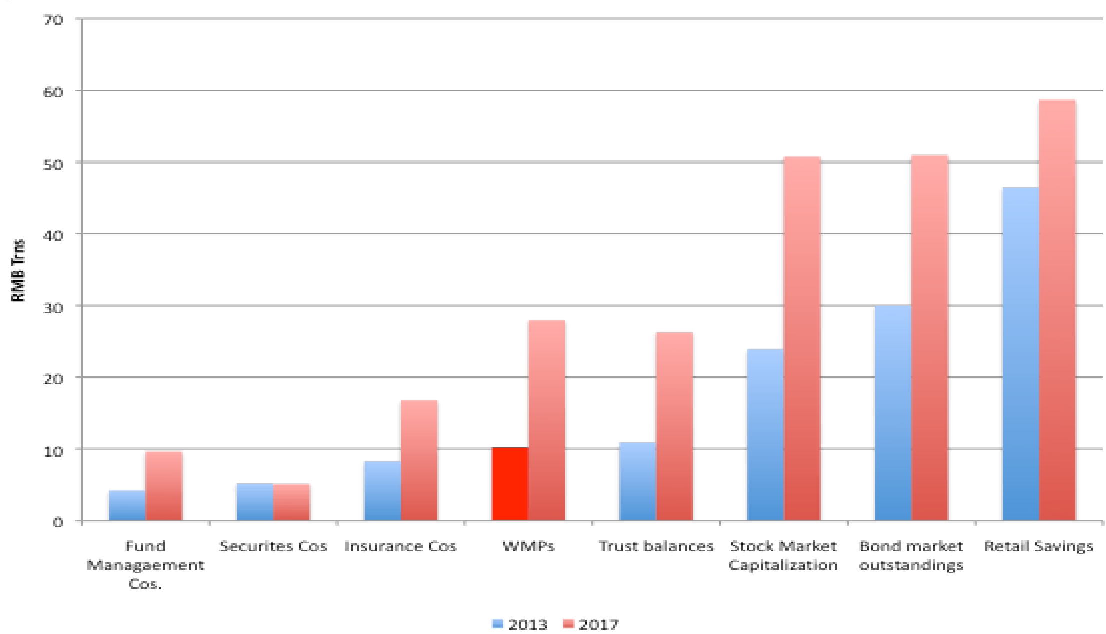
Source: PBOC

Figure 7: Trends in retail deposits by bank category, 2009-2017



Source: PBOC

Figure 8: WMPs vs. other channels of investment, 2012-2017



Source: China Wealth Management Report, China Bond, PBOC, CSRC, CBIRC

Table 4: Local government bond and debt trends

100 mms	Local Govt Bonds held by all banks	% of Total Local Govt Bonds	Local Govt Bonds held by Banks/Total Local Debt	Local Govt Bonds/Total Bonds
2013	8,498	98.6%	6.3%	3.3%
2014	11,472	98.7%	7.4%	4.0%
2015	44,557	92.3%	30.2%	12.7%
2016	93,631	88.1%	61.0%	21.4%
2017	127,556	86.5%	77.3%	25.0%
2018	153,272	84.8%	92.3%	26.6%

Source: China Bond, PBOC; MOF and National Audit Office; non-financial loans include corporate and retail.