The Financial Labyrinth

Your Guide To The Maze

China's financial system has grown almost five-fold and seen a proliferation of players and products over the past decade. We try to impose order on chaos and explain how the system works.

Since the global economy was brought to its knees by the freezing up of the US financial system in 2008, China has become the market that financial analysts love to worry about. And no wonder: China's leaders responded to the slump in global demand by enabling a credit splurge of world-historic proportions. Total credit, stable at less than 150% of GDP in the years before the crisis, has surged to more than 260% of GDP. To create this boom, China deregulated its formerly stodgy financial system with alarming speed.

Once a simple arena where a handful of big state banks dispensed loans to state-owned enterprises, China's financial sector has become a labyrinth where a growing number of banks and non-banks (trust companies, brokerages and asset managers) keep inventing new financial gizmos (wealth management products, asset management programs, trust benificiary rights) that ultimately wind up in the hands of companies and households as loans.

Safer than it looks

The speed of credit growth, the proliferation of financial institutions and financial products, and the chaotic and fragmentary data, make it reasonable to fret that China is on the verge of a catastrophe like the one that sank the US in 2008. Close study has persuaded us that this is not so: the system remains securely funded by a huge pool of bank deposits, and the state competently controls enough of the main actors that the risk of

Financial system assets by institution, 2007

Institution type	Assets, RMB trn	Share of total, %
Banks	52.59	85.9
Policy	4.39	7.2
Big Five	28.00	45.7
Joint-stock	7.25	11.8
City commercial	3.34	5.5
Rural	5.61	9.2
Others	4.00	6.5
Asset managers	0.00	0.0
Trusts	0.96	1.6
Insurance companies	2.90	4.7
Mutual funds	3.03	5.0
Hedge funds	0.00	0.0
Securities	1.73	2.8
Total	**61.22**	**100.0**

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nationwide implosion in the next few years is modest. But the system's complexity and fragmentation mean that the chance of localized financial accidents is now uncomfortably high.

This issue of the *CEQ* is an attempt to bring clarity to this mystifying landscape. This article describes the financial system's current structure; subsequent pieces explain the deregulations of the past dozen years, analyze the ways banks turn ordinary loans into shadow finance, and argue that the condition of the major banks is not as dire as the pessimists proclaim.

No longer just a few big banks

We can analyze the transformation of China's financial system from two angles. One is the diversification of financial institutions. The first two tables show institutional holdings of financial system assets in 2007 and 2016. They show that China remains a bank-dominated system, but less so than a decade ago. The bank share of financial-system assets has dropped from 86% to 72%.

The position of the Big Five state-owned banks has eroded most dramatically. In 2007 they controlled nearly half of system assets; that share is now down to less than 30%. Conversely the smaller banks—and in particular the city commercial banks—have grown like topsy and enjoyed a significant market-share gain. The institutions that have gained at the banks' expense are asset managers, trusts and hedge funds. In 2007 asset

Financial system assets by institution, 2016

Institution type	Assets, RMB trn	Share of total, %	Market share change, 2007-16, pp
Banks	232.25	72.1	-13.8
Policy	22.94	7.1	-0.1
Big Five	86.60	26.9	-18.9
Joint-stock	43.50	13.5	1.7
City commercial	28.20	8.8	3.3
Rural	29.90	9.3	0.1
Others	21.11	6.6	0.0
Asset managers	34.48	10.7	10.7
Trusts	17.46	5.4	3.9
Insurance companies	15.12	4.7	0.0
Mutual funds	9.16	2.8	-2.1
Hedge funds	7.89	2.4	2.4
Securities	5.79	1.8	-1.0
Total	**322.14**	**100.0**	-

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managers and hedge funds were basically non-existent; and trusts (quasi-banks that are subject to less stringent prudential rules than regular banks and often finance riskier and higher-yielding projects) accounted for less than 2% of system assets. By 2016 these three types of institutions controlled RMB60trn in assets, an amount equal to the size of all financial system assets in 2007, and 19% of system assets today.

As the third article in this report explains, the spectacular growth of asset managers and trusts is largely the result of their role as conduits for shadow lending: loans that banks want to move off their balance sheets in order to comply with regulatory requirements such as capital-adequacy or loan-to-deposit ratios. Roughly half of trusts' and asset managers' activity is this kind of shadow lending. Much of the rest consists of investments in the bond, equity and money markets.

Smaller banks grow the fastest

Within this institutional framework, a closer look at the evolution of the banks is warranted, since despite all the changes of the last decade they remain the core of the system, and the ocean of deposits they control remains the principal source of funding for the system as a whole. Here the story is simple: the big banks have lost market share to the small ones.

In 2007, the Big Five state-owned banks (Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China,

Banking system assets, 2007

Bank type	Number	Assets, RMB trn	Share of total, %
Policy	3	4.39	8.4
Big Five	5	28.00	53.2
Joint-stock	12	7.25	13.8
City commercial	124	3.34	6.4
Rural	8509	5.61	10.7
Others	224	4.00	7.6
Total	**8877**	**52.59**	**100.0**

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Bank of China, and Bank of Communications) accounted for 53% of bank assets; by 2016 that figure was down to under 37%. The next layer consists of the 12 "joint-stock" banks. These banks operate nationally or at least across several regions, have diversified shareholding, but are effectively state-controlled (one of them, Minsheng Bank, is sometimes described as private but the high proportion of state shareholders makes this debatable). The joint-stock banks were established in the 1990s as nimbler competitors to the Big Five. Their share of bank assets has increased from 14% to 19% since 2007.

But this understates their growth: they are the most enthusiastic issuers of non-capital guaranteed wealth management products (WMPs), which sit off balance sheet because the issuing bank does not have to refund buyers' capital if the product makes a loss. Joint-stock banks have issued non-guaranteed WMPs equal to a quarter of their combined balance-sheet assets.

The most explosive growth, however, has come at the 134 city commercial banks: their market share doubled to 12%, and in absolute terms their assets grew nearly seven-fold in 2007-16 to RMB28trn. Their astonishing balance-sheet growth has depended on especially aggressive use of two tactics: borrowing funds on the interbank market to supplement their meager deposit bases, and reclassifying loans as "investments," which allows them to skirt prudential rules and lend a lot with relatively little capital, while also making low provisions for bad loans.

This reliance on non-deposit funding and shadow lending channels to disguise their loan books means that the city banks are probably the riskiest banks in China. But it is hard to know for sure because only 15 are publicly listed, and aggregating financial data for the rest of them is a cumbersome chore. Even less visible are the thousands of rural commercial banks, many of which were assembled from the older rural credit cooperatives that once dotted China's countryside. Like the city commercial banks,

Banking system assets, 2016

Bank type	Number	Assets, RMB trn	Share of total, %	Market share change 2007-16, pp
Policy	3	22.94	9.9	1.5
Big Five	5	86.60	37.3	-16.0
Joint-stock	12	43.50	18.7	4.9
City commercial	134	28.20	12.1	5.8
Rural	3782	29.90	12.9	2.2
Others	471	21.11	9.1	1.5
Total	**4408**	**232.25**	**100**	-

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they command about 13% of banking assets and have grown rapidly over the past decade. But only five are publicly listed.

From really boring to rather less boring

The other way to look at financial diversification is to break down the system by type of asset, rather than by institution. Here again there is a straightforward story.

In 2007, China's credit universe was extremely boring: 63% of it consisted of bank loans, and virtually all of the rest consisted of the most vanilla sorts of bonds: Chinese government bonds (CGBs) issued by the central government, quasi-sovereign bonds issued by the three government-owned policy banks (China Development Bank, Export-Import Bank and Agricultural Development Bank) and corporate bonds issued mainly by large SOEs. About 8% of system assets were short-term bills issued by the central bank to withdraw cash from a system that otherwise would have faced huge inflationary pressure because of inflows from China's burgeoning trade surplus.

A decade later, it is not quite so boring. Bank loans are still the largest component, but "shadow lending" via non-bank intermediaries has emerged as an important channel of finance, almost as large as corporate bond issuance. Together, bank loans and shadow loans account for about two-thirds of all credit assets. (Note that in this analysis we consider only the final credit instruments that deliver funds to borrowers. Many instruments that are often discussed in media reports, such as wealth management products and trust products, are "wrappers" that bundle up depositor funds and then invest them in loans, bonds or the equity market. The third article will explain how these work. Also note that total

Financial assets by type, 2007

Asset type	RMB trn	Share of total, %
Bank loans	27.77	62.9
Shadow loans	-	
Bonds	12.70	28.8
China government (CGBs)	4.94	11.2
Local government	-	-
Policy bank	2.88	6.5
Other financial institutions	0.34	0.8
Corporate	4.54	10.3
PBOC bills	3.66	8.3
Total	**44.13**	**100.0**
Total non-equity financial assets, % of GDP	163	
Equities, RMB trn	*32.72*	
Equities as % of GDP	*121*	

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credit measured this way is a net figure, eliminating the double counting that arises when two or more institutions are involved in the creation of a single loan.)

In relative terms the bond market is about the same size (30% of total credit assets) but its composition has changed, mainly because of the rapid growth of local-government bonds, which were first allowed in 2015 and now account for nearly 6% of all credit assets and close to 20% of total bond issuance. In just two years, the stock of local government bonds went from zero to RMB11trn, almost as much as the stock of CGBs. The corporate bond market has also diversified beyond its original small group of SOE issuers and now accounts for about 11% of total credit.

In the rest of the fixed-income market, bills issued by the People's Bank of China have disappeared, as inflationary pressure moderated after the 2008 financial crisis and the authorities became more relaxed about letting trade surpluses be recycled via private-sector capital outflows. But a couple of new instruments have emerged. Negotiable certificates of deposit (large denomination certificates of deposit tradable on secondary markets), first permitted in 2015, have become a popular way for the joint-stock banks to raise short-term funds, and now comprise 3% of credit assets.

Asset-backed securities (ABS) have also begun to be issued, but their volumes so far are (in Chinese terms) negligible. Given the huge volume of assets that could potentially be securitized (mortgage loans, revenue streams from infrastructure projects, and so on), the bottomless desire of

Financial assets by type, 2016

Asset type	RMB trn	Share of total, %	Market share change 2007-16, pp
Bank loans	112.06	57.5%	-5.5
Shadow loans	17.20	8.8%	8.8
Bonds	58.77	30.1%	1.4
China government (CGBs)	12.10	6.2	-5.0
Local government	10.85	5.6	5.6
Policy bank	12.40	6.4	-0.2
Other financial institutions	1.86	1.0	0.2
Corporate	21.56	11.1	0.8
PBOC bills	0.01	0.0	-8.3
Negotiable certificates of deposit	6.28	3.2	3.2
Asset-backed securities	0.65	0.3	0.3
Total	**194.95**	**100.0**	-
Total non-equity financial assets, % of GDP		262	
Equities, RMB trn		*50.84*	
Equities as % of GDP		*68*	

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banks to move loans off their balance sheet to make way for new lending, and the need of local governments to find steady sources of income not dependent on land sales, ABS could well become a major source of growth in China's credit markets in the next few years.

The incredible shrinking stock market

A final observation relates to the stock market. Here our choice of comparison years is not quite fair: at the end of 2007 the equity market was just past the peak of an epic boom, so its value relative to the credit system was on the high side. Conversely at the end of 2016 the market had not fully recovered from its epic crash of mid-2015, so its relative value now may be on the low side.

Nonetheless, the general trend is clear: China's financial markets are dominated by debt, and becoming more so. In 2007 the stock market's capitalization of RMB33trn was nearly triple the size of the bond market, and about three-quarters of the combined value of all credit assets. By 2016 the RMB51trn equity market was smaller than the RMB59trn bond market, and was worth just over one-quarter of all credit assets.

It is possible that this trend has peaked. Since March 2017 the authorities have launched a fierce campaign to rein in the riskier forms of debt, with shadow lending and local-government borrowing the main targets. The government is also at least rhetorically committed to a policy of "deleveraging."

Importantly, this does *not* imply an intent to reduce the aggregate debt-to-GDP ratio, which stood at 262% at the end of 2016, up more than 100 percentage points from a decade earlier. Rather the main focus is for heavily indebted state–owned enterprises to shore up their debt-to-equity ratios, mainly by raising new equity rather than paying down their debt. Yet if these initiatives are sustained, the breakneck growth of debt could slow down, the pace of equity issuance could rise, and the stock market might gain some ground on the credit behemoth.