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Can a successful bank restructuring end in tears? The case of China

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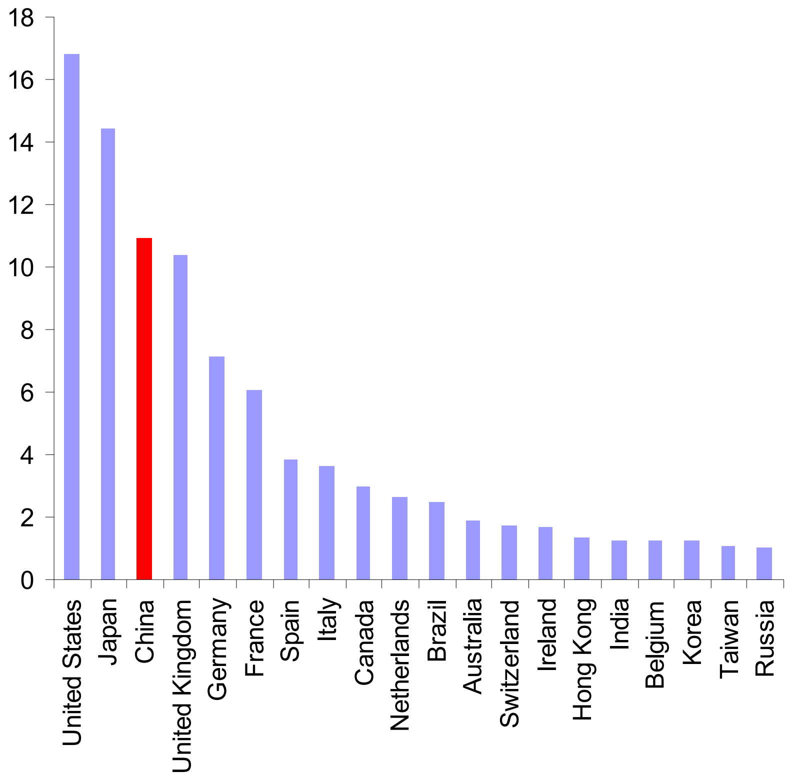
Outline

1. Key issues about China's banking system
2. China's s "successful" bank reform
3. The new wave of financial vulnerabilities
4. What to do next?
5. Some policy conclusions

China's banking system is huge

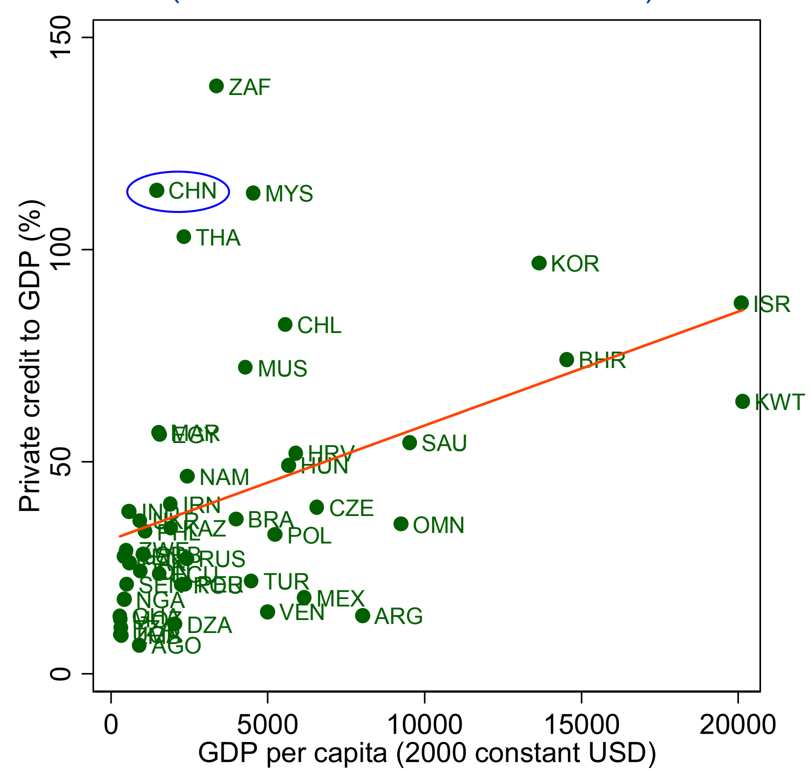
- China's banking system is one of the largest in the world and too large given its level of development

Banking System Assets
(USD trn, 2010)



Source: Fitch.

Private credit and per capita income, average 2000-2008
(% of GDP, 2000 constant USD)

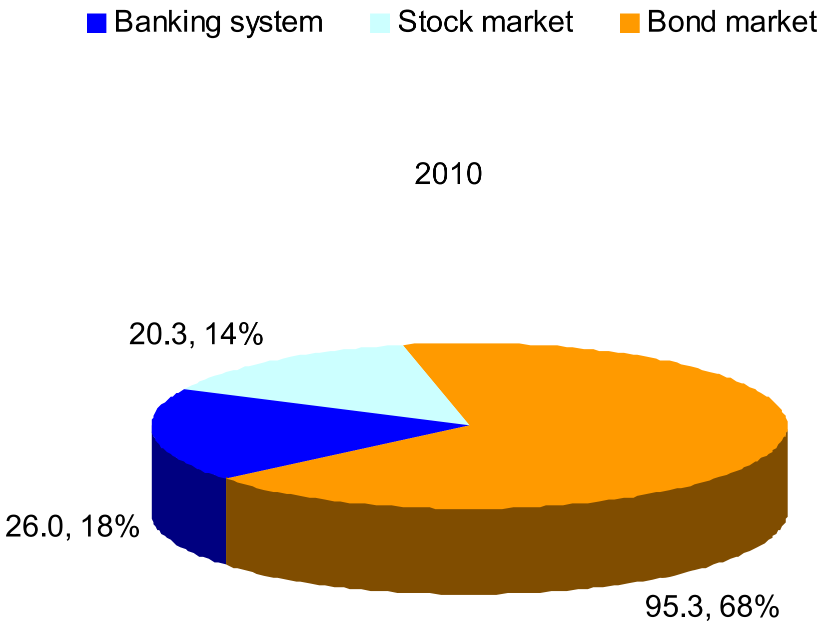


Source: World Bank, WDI

Key financing vehicle but mainly public

- The banking system is the main pillar of China's financial system
- The big state banks play a crucial role

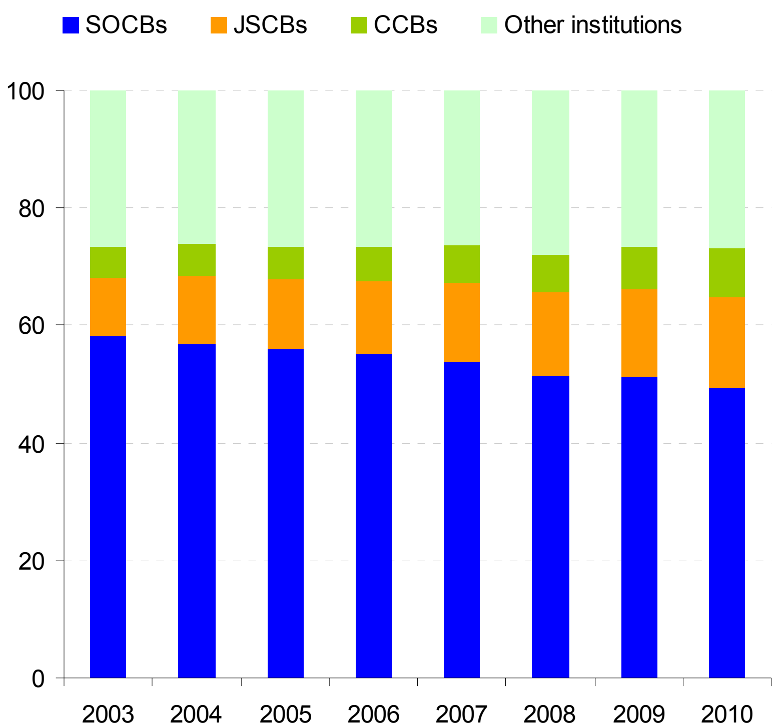
Financial asset portfolio
(RMB trn, 2010)



Total financial assets: RMB 142 trn (356% GDP)

Source: CEIC.

Share on assets of banking institutions
(%)



Source: CEIC.

And still, not fully behind the growth story

- More generally, China's outstanding growth performance justifies the general optimism about its future
- And yet, for such saving and investment ratios, growth is not so spectacular
  - too high saving ratios
  - self-financing key (60%)
  - financial underdevelopment
  - financial repression

Misallocation of resources

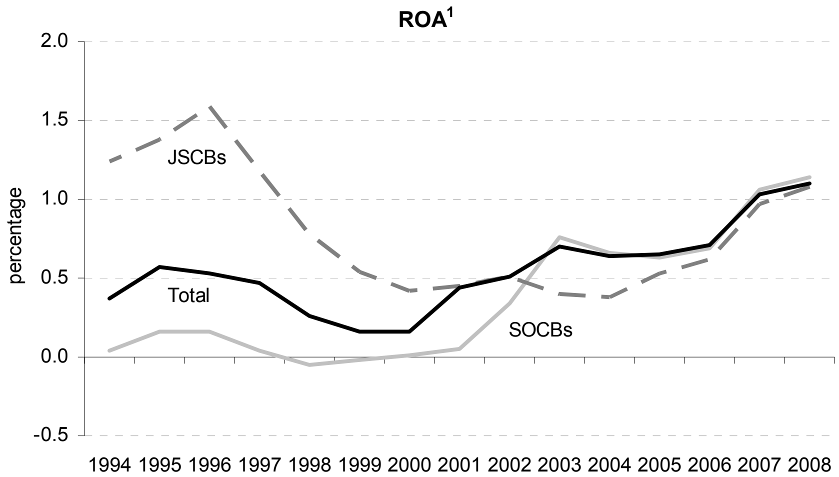
- The successful finalization of China's financial reform key for China's economic development

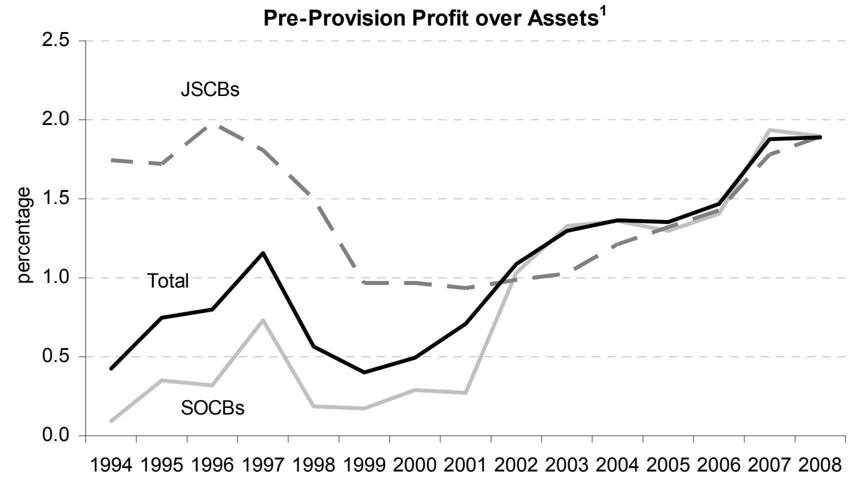
Resilience to global crisis points to successful reform

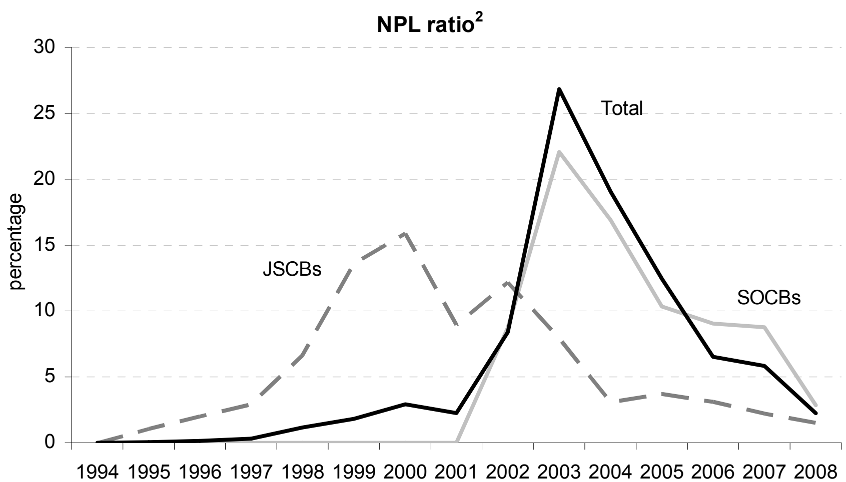
- China's banking system has coped with the global financial crisis without any major problems.
  - In contrast with the very poor image of China's banking system in the first half of the 2000s

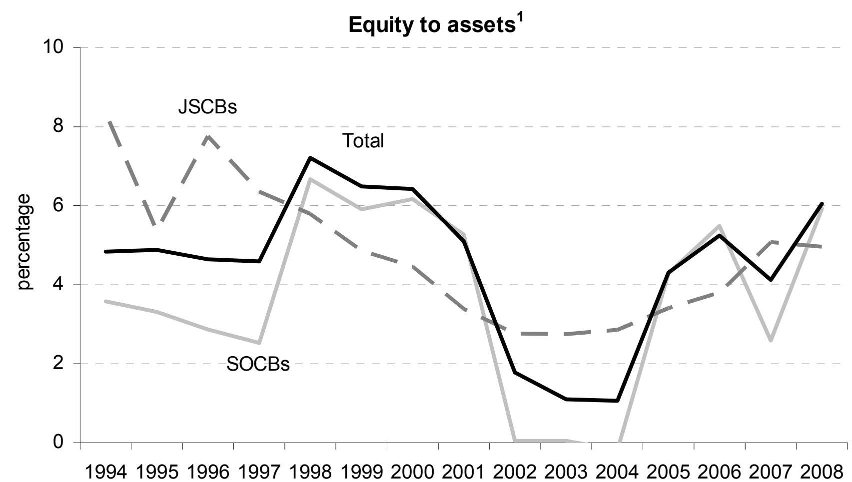
- So has the reform being so successful?
  - To some extent yes: Chinese banks are now better capitalized and more profitable

Key bank indicators have improved









Source: Bankscope based on reporting banks

However, key issues remain unresolved

Roots of the problem remains to be addressed

Not appropriate incentive structure

Main reasons are:

- Public interference on lending
- Financial repression

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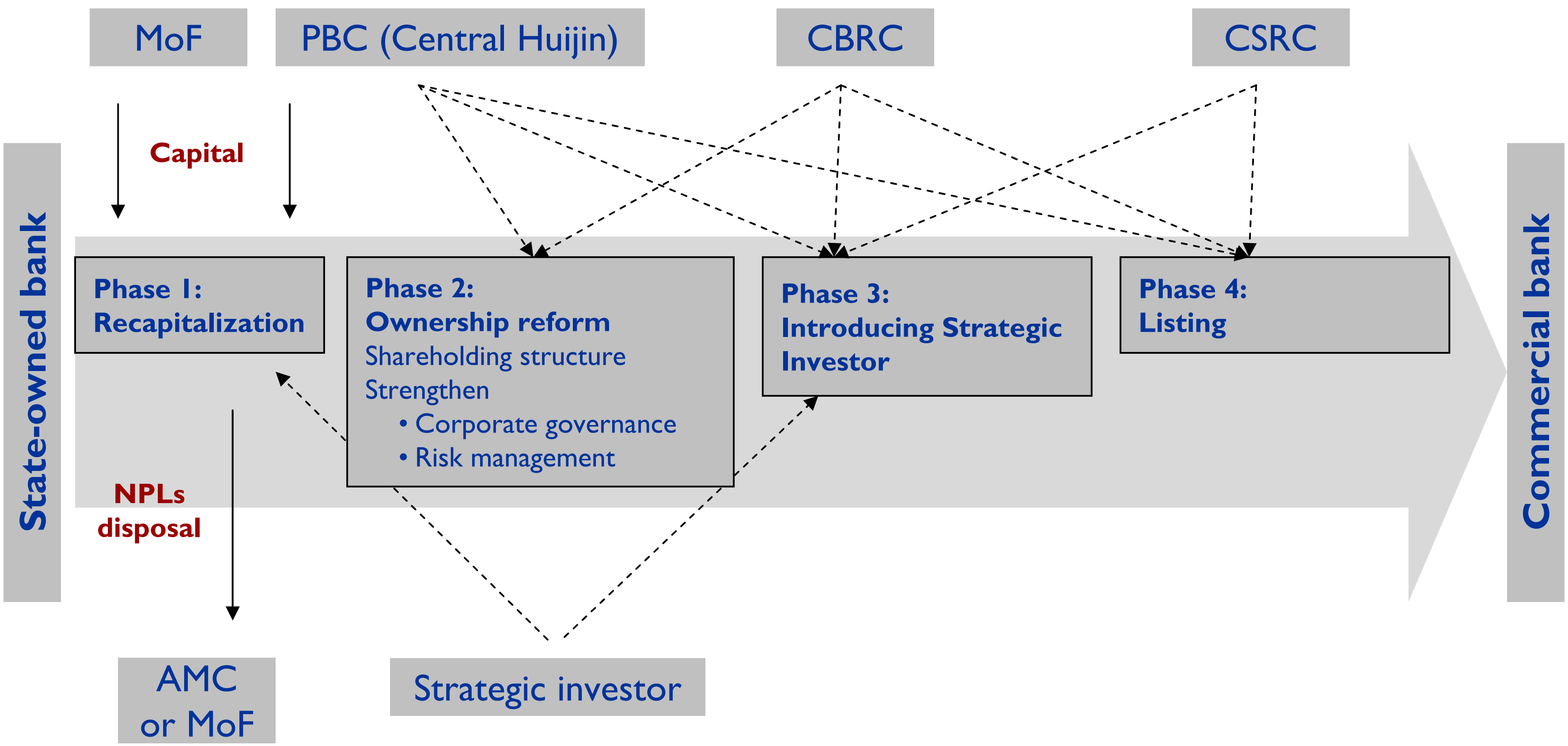
How did the reform shape up?

- Based on three pillars:
  - — Bank restructuring: recapitalization and clean-up of NPLs
  - — Liberalization: reduction of government interference through incomplete
    - Ownership reform
    - Price and quantity liberalization
  - — Financial regulation and supervision

Restructuring process



Cost of re-capitalization relatively limited but…

- In terms of capital, Chinese authorities have injected into major commercial banks around 7% of GDP

Capital injected into SOCBs

Date	Bank	Ammount RMB bn	USD bn	% GDP	Financed by:	Currency
1998-1999	SOCBs	275	33	3.3	Ministry of Finance	RMB
2003-2004	CCB BoC	186 186	22.5 22.5	1.4 1.4	PBC (Central Huijin)	USD (FX reserves)
2005	ICBC	124	15	0.7	PBC (Central Huijin)	USD (FX reserves)
2008	ABC	130	19	0.4	CIC (Central Huijin)	USD (FX reserves)

NPLs transfered to AMCs have not been recovered

- In terms of NPLs transferred to AMCs, the cost was around 20% of GDP (after recoveries (25%))

China's NPLs transfered to AMCs

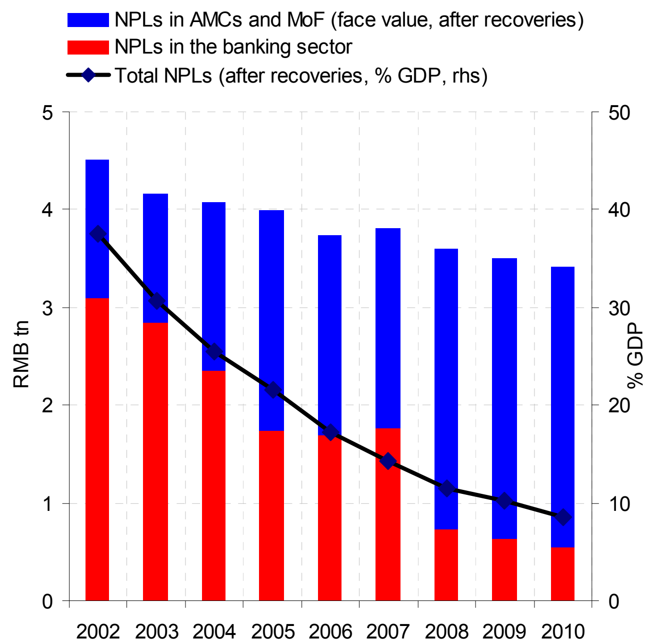
(figures in RMB bn)

Date	Source bank	Destination AMC	NPLs (RMB bn)	NPLs (% of GDP)	Financed by: AMC bonds	Financed by: PBC loans	Financed by: Other	Notes
1999-2000	ICBC	Huarong	408	4.5	313	95		NPLs purchased at 100% of book value, bond maturity 10 years
	ABC	Great Wall	346	3.9		346		
	CCB	Cinda	250	2.8	247	3		
	China Development Bank	Cinda	100	1.1	100			
	BoC	Oriental	267	3.0	151	116		
2000-2001	CCB and China Development Bank	Cinda	45	0.5				
2004	BoComm	Cinda	64	0.4		161		Purchased at 47% of book value, PBC loans to 5 years
	CCB	Cinda	129	0.8				
	BoC	Cinda	150	0.9				
	CCB	Cinda	57	0.4				Transferred at 0% of book value
	BoC	Oriental	142	0.9				
2005	ICBC	Great Wall	257	1.4		176		Purchased at 38% of book value, PBC loans to 5 years
	ICBC	Oriental	121	0.7				
	ICBC	Cinda	58	0.3				
	ICBC	Huarong	23	0.1				
	ICBC		246	1.3			246	RMB 246bn represents a debt recognition by the MoF
	Shanghai Bank	Cinda	3	0.0		3		Transferred at 0% of book value
2007	Various banks	Oriental	5	0.0		5		
	Shenzhen Comm. Bank	Cinda	4	0.0		4		
2008	ABC		816	2.6		151	665	RMB 665bn represents a debt recognition by the MoF

… or even recognized one decade later

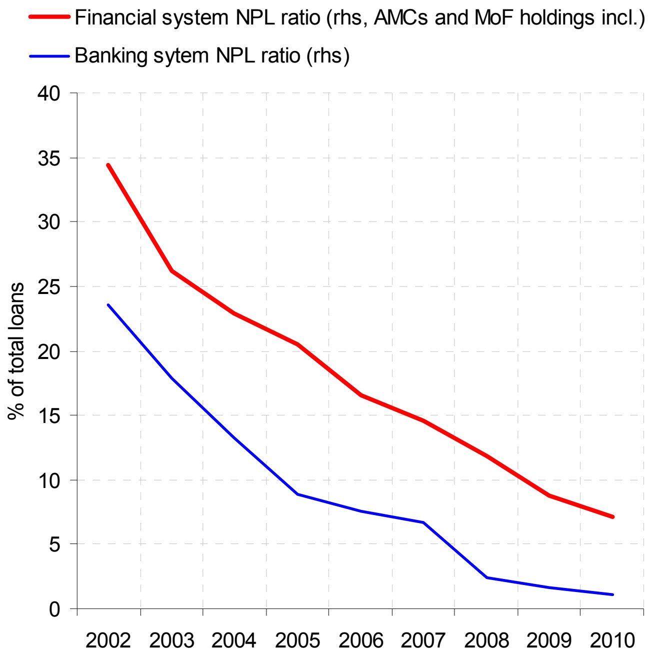
- **As a result of that transfer to the AMCs and their low recovery ratios, official NPLs figures severely underestimate the stock of NPLs. Our calculations suggest:**
  - **The original magnitude of the problem was around 37% of GDP**
  - **NPLs are still close to 10% of GDP (RMB 3.5 trn)**
  - **"True" NPL ratio is around 7% and reduction mainly based on rapid credit growth**

NPLs in the banking sector
(RMB trn, 2010)



Source: Authors' calculation based on AMC reports and Dragonomics (2011)

NPL ratio (%)

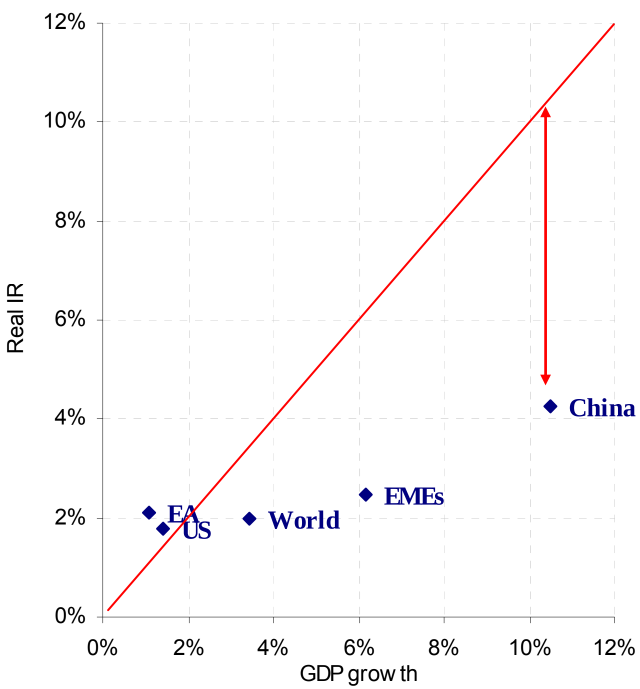


Source: Authors' calculations and CBRC

Continued financial repression: another indirect cost

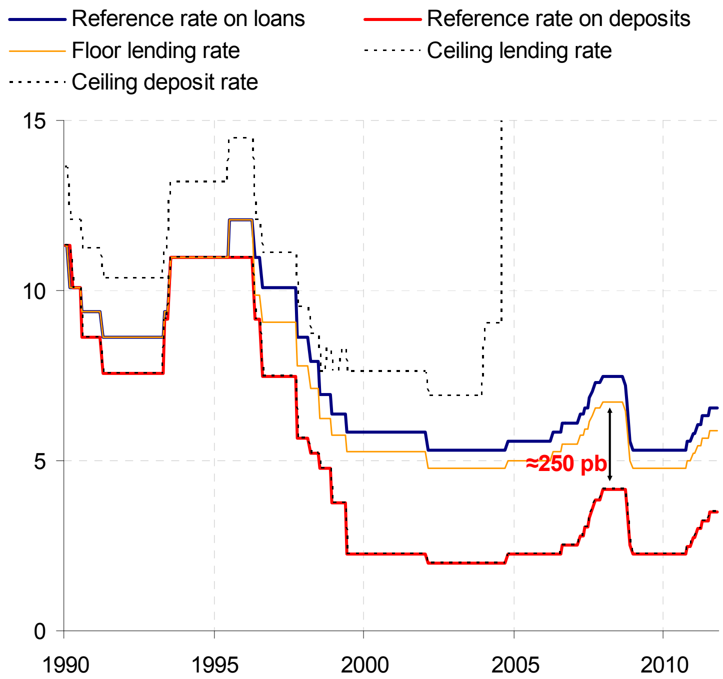
- In the 2000s, financial repression passed the final costs of restructuring to bank depositors.
  - Real interest rates were artificially low
  - No further financial market development (situation has not yet changed)
  - Wide spread between lending and the deposit rates to shield banks' profitability

Real GDP growth and real long term interest rates, average 2001-09 (%)



Source: Haver Analytics

Interest rate liberalization (%)



Source: PBC

Regulation and supervision improved but…

- Great strides in improving financial regulation and supervision but two problems:
  - Current crisis has put into question the international model of bank regulation and supervision (Basel II, etc)
  - Banking system still mostly public (or very much influenced by central or local government)
    - *Enforcement difficult*

      Specially at China Development Bank and Eximbank which are also becoming more powerful

And wrong incentives remain

- The underdevelopment of capital markets have distorted savings
  - High corporate savings: limited alternatives of corporate funding
  - High household savings parked in bank deposits
- The low cost of capital have created incentives to over-invest
- Banks continued to be used to pursue broader policy goals (e.g., lending to local government and SOEs)
- The public ownership impeded the establishment of a commercially driven financial system
  - Implicit guidance on the direction of new lending
  - Guaranteed interest margins
  - Limited ability and willingness to differentiate loan rates
- This environment has contributed to inefficiencies in credit allocation and a build-up of financial vulnerabilities

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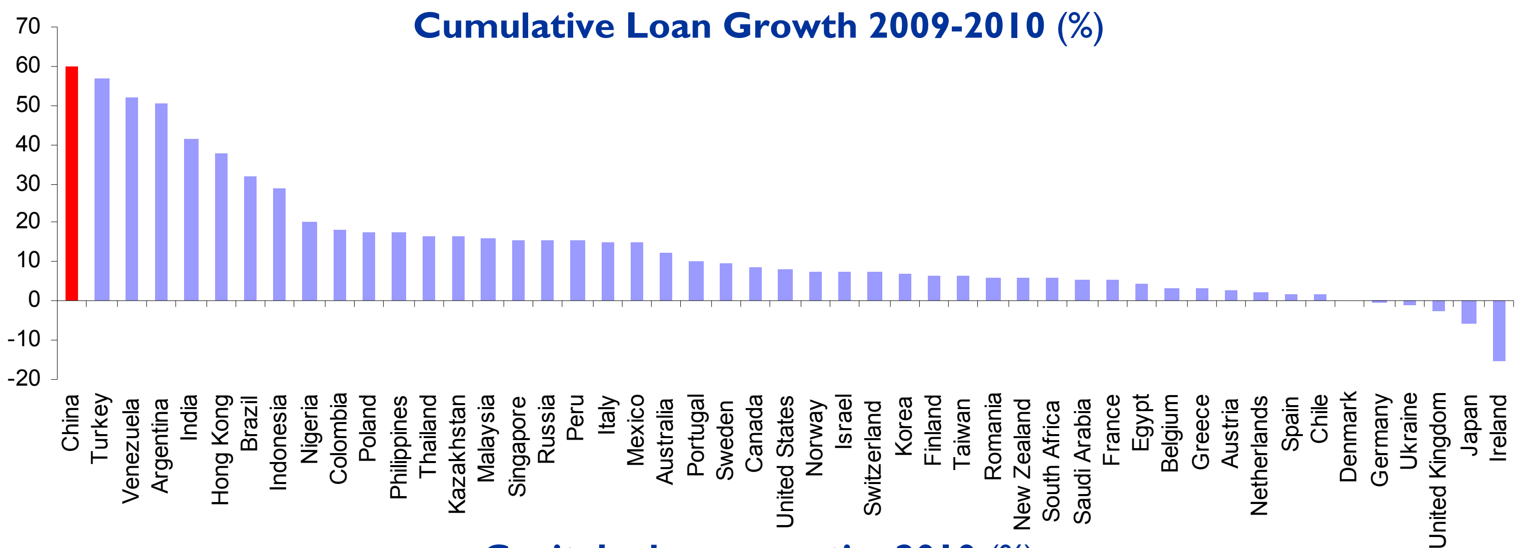
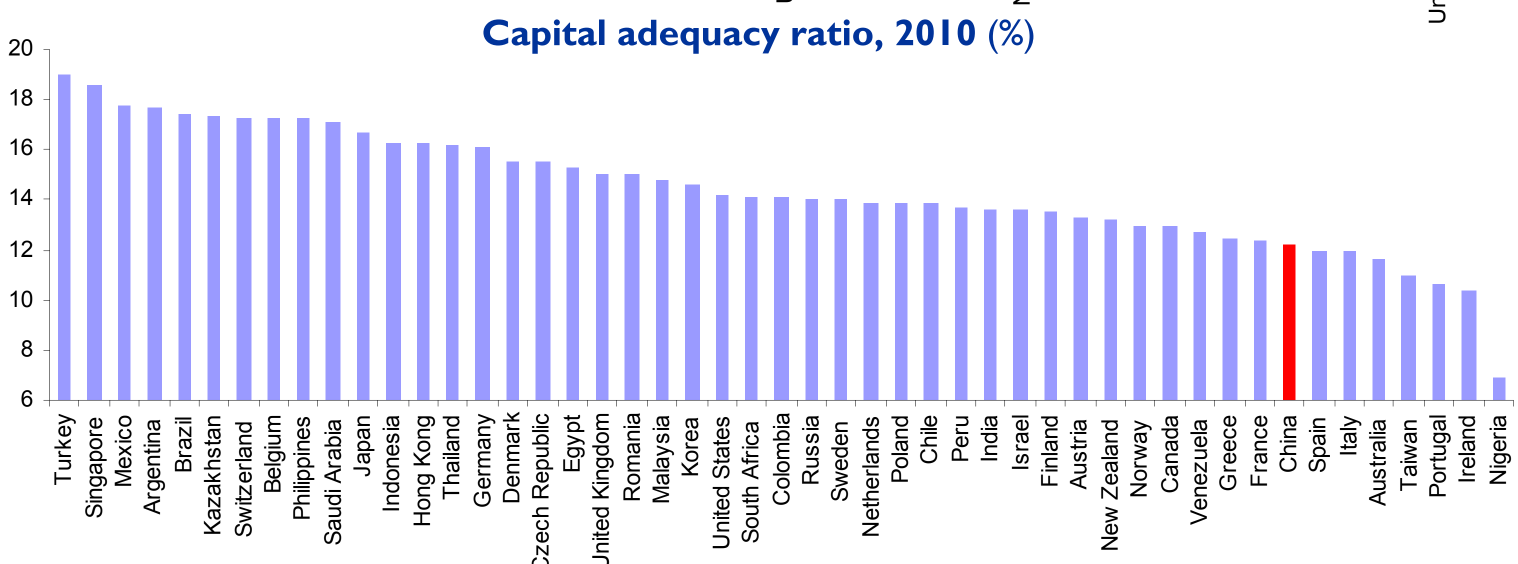
The current status of the banking sector: fast credit growth but low capitalization



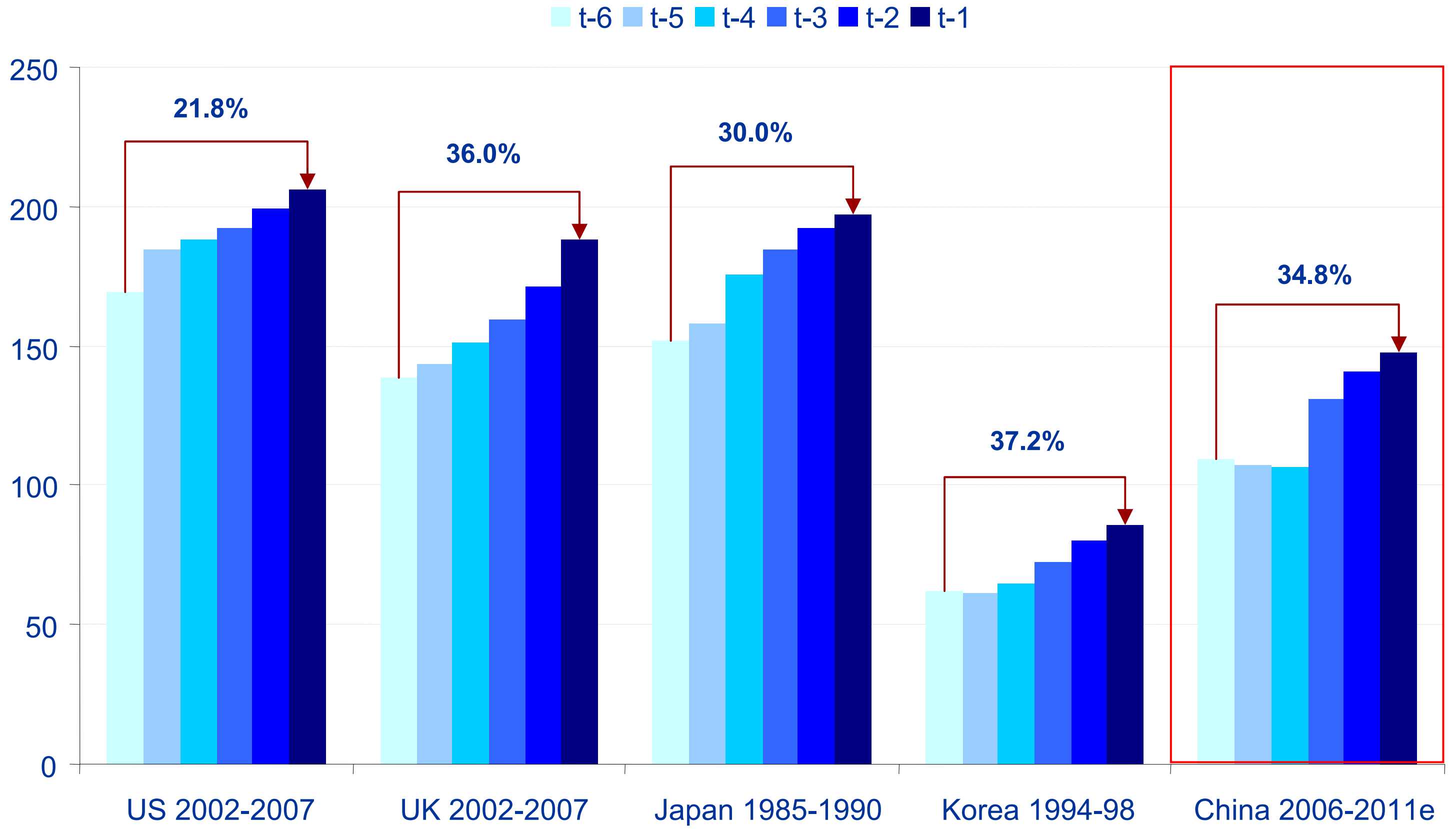


Source: Fitch

Financial vulnerabilities might be mounting

- Historical experience shows that banking crisis are associated to (i) the lending growth and (ii) the non-financial sector indebtedness

Private Credit/GDP, pre-stress period (%)



Source: IFS, CEIC, (e) China: estimated for 2011, total bank loans adjusted for off-balance sheet lending

Three factors have increased financial vulnerabilities

The banking system has increased its vulnerability due to three factors

- Fiscal:

  Banks become the main channel of financing of the huge 2008-2010 stimulus package

- Monetary and Financial repression

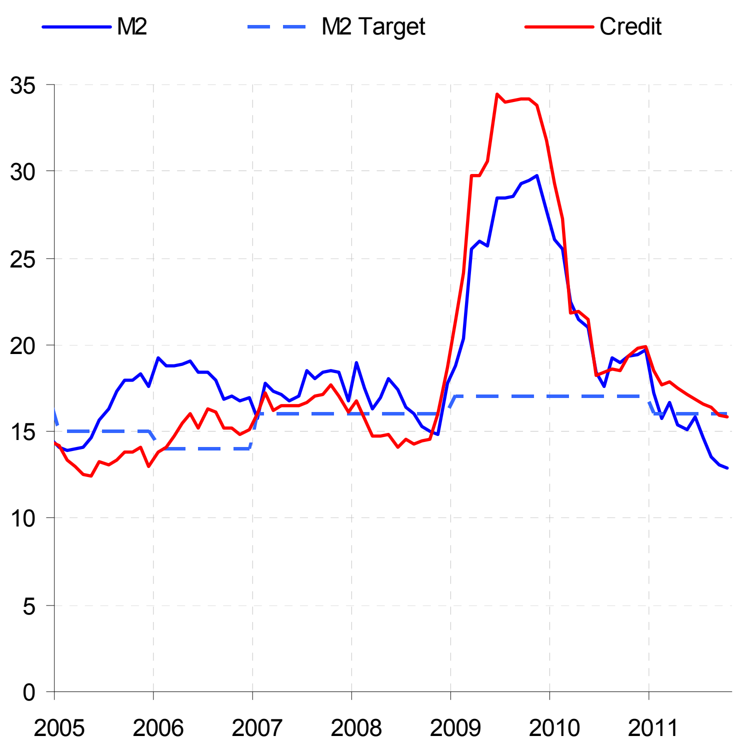
  Very lax monetary policy – together with financial repression – has contributed to the housing bubble to which banks are increasingly exposed

- Both factors have also contributed to the creation of a parallel unregulated financial system, China's shadow banking system, which is growing much faster than the rest of the financial system and also accumulated important risks

Financing the 2008-2010 stimulus package

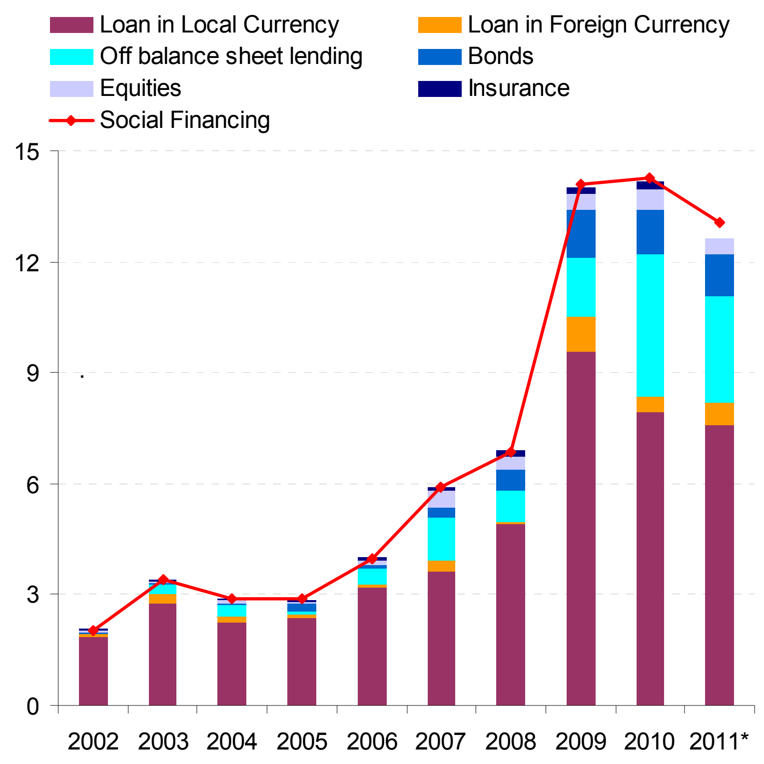
- In November 2008, 8% GDP 2 year fiscal stimulus package announced
- Only 1/3 to be financed by central government, rest locally for infrastructure investment. Banks have been the main lenders of a much bigger package

M2 and credit growth (%)



Source: CEIC. *Last observation Q3 2011.*

Social financing (RMB trn)

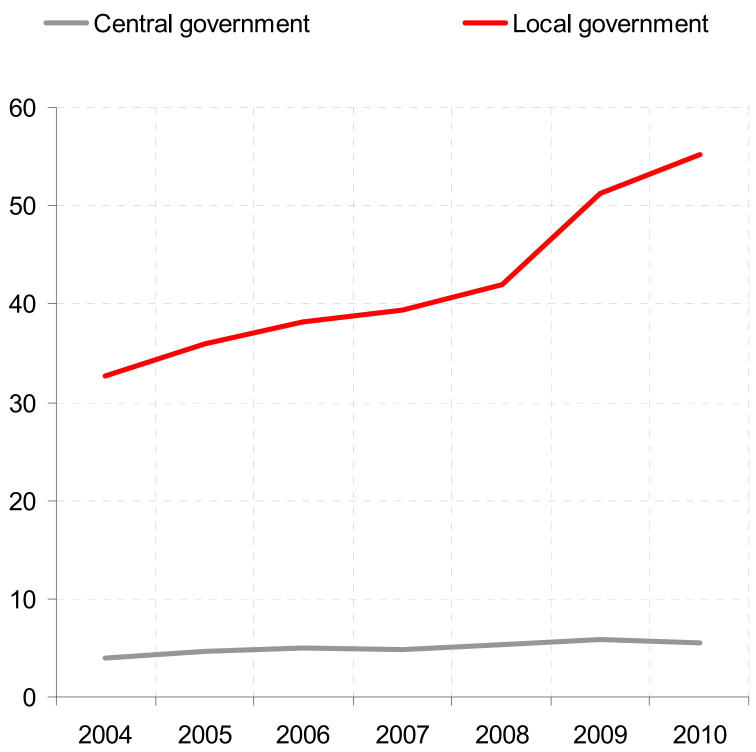


Source: CEIC. *Last observation Q3 2011.*

Fiscal stimulus: local governments' role

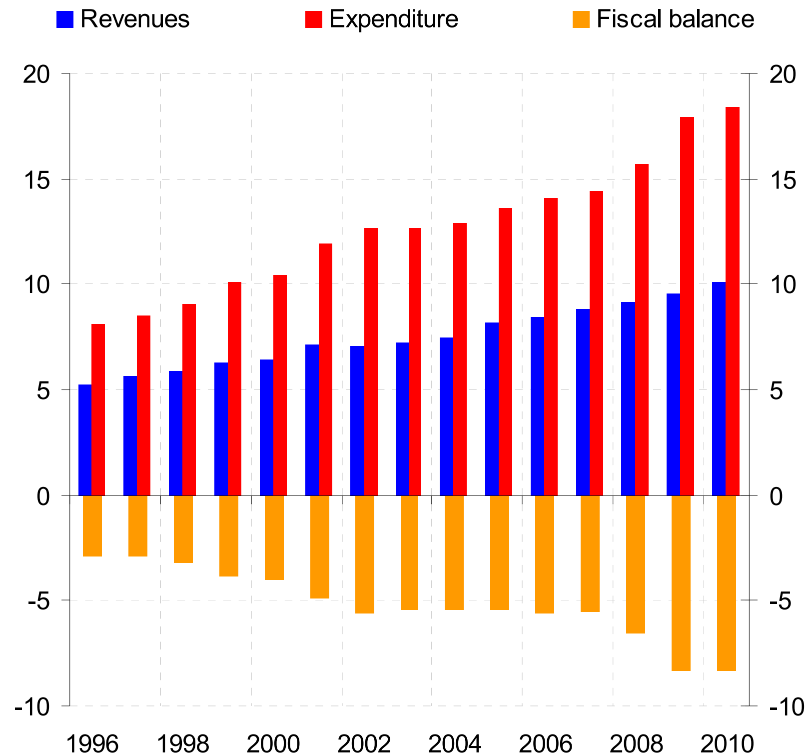
Local governments took the leading role but hampered their finances notwithstanding the larger revenues from land sales

Investment sponsored by central / local governments and SOEs (% GDP)



Source: CEIC. Last observation 2010.

Local government revenues and expenses (% of GDP)

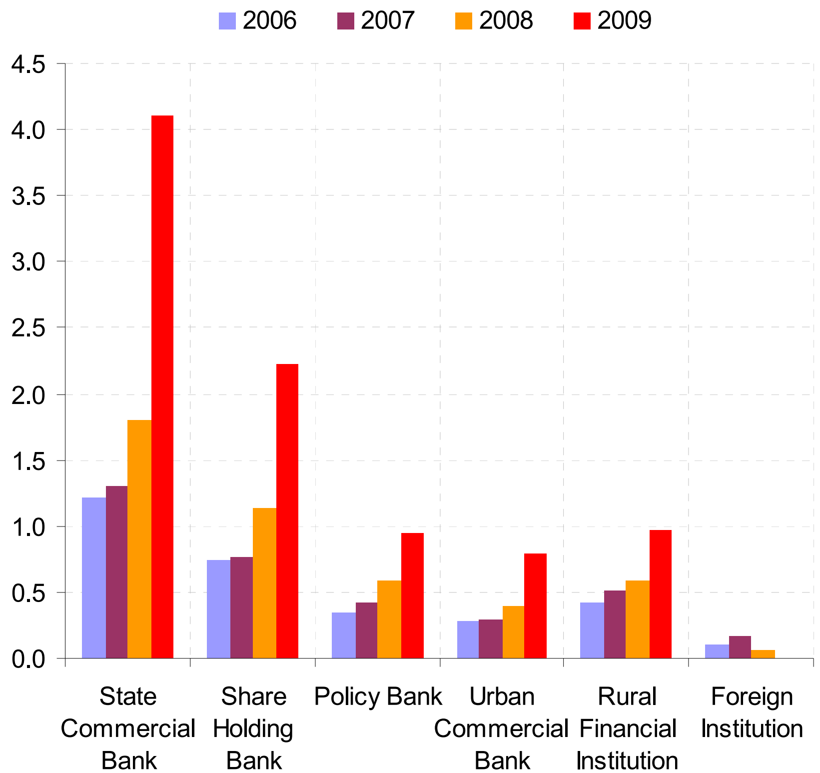


Source: CEIC. Before the central government transfers and rebates, exclude land sales.

Stimulus package: lending breakdown

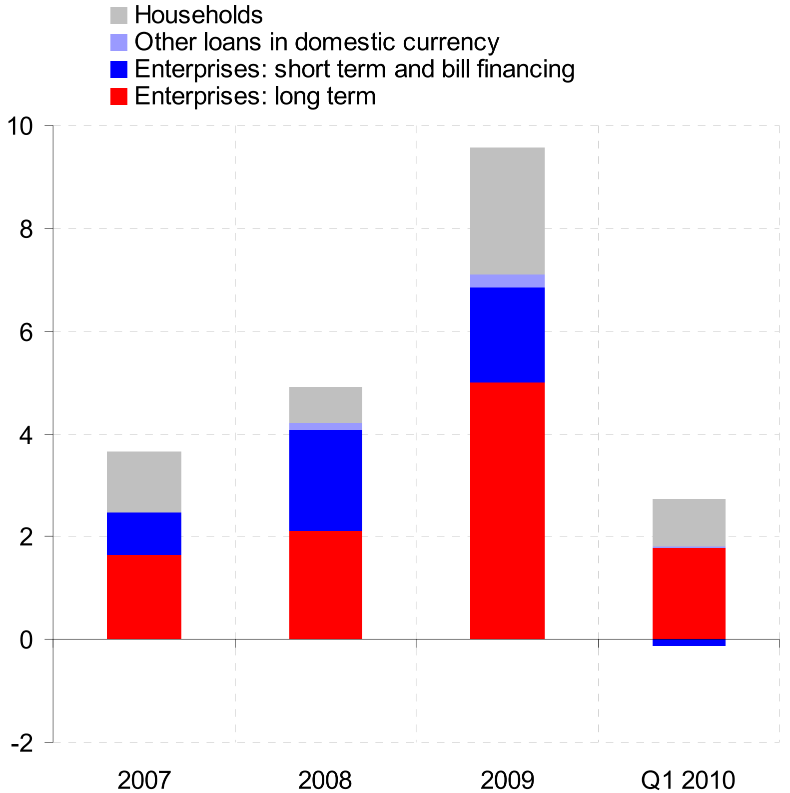
- Lending from big state commercial banks to 'enterprises'

Changes in outstanding loans by institution
(RMB trn)



Source: CEIC. Last observation 2009.

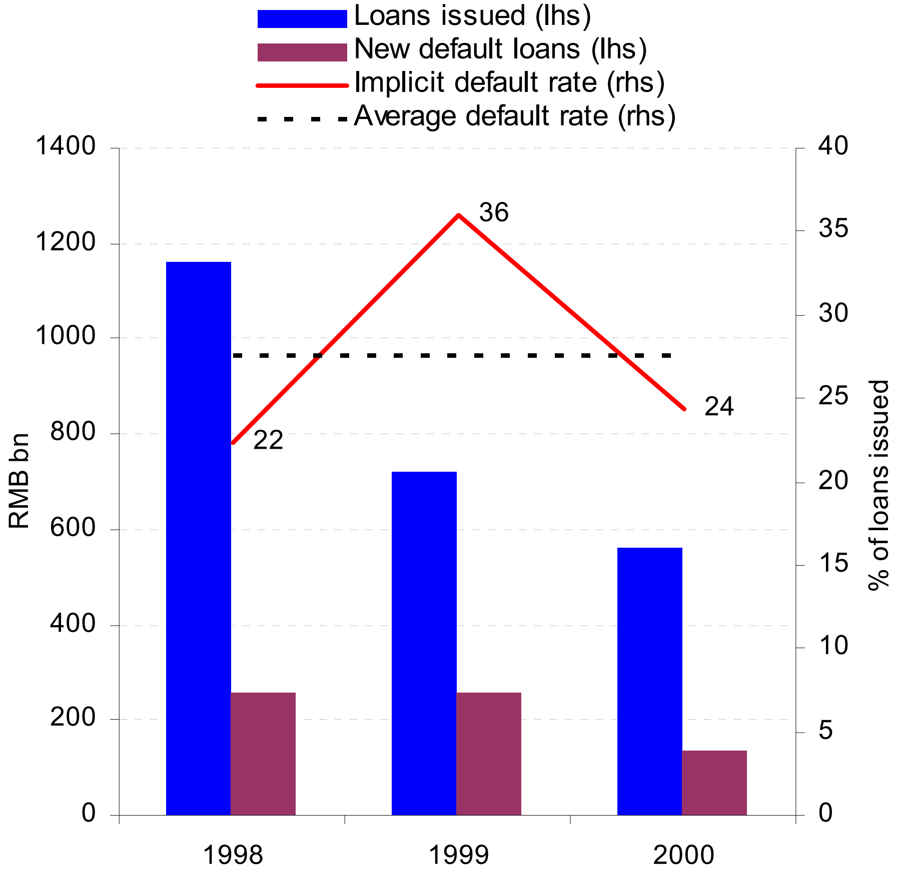
Changes in outstanding loans by sector
(RMB trn)



Source: CEIC. Last observation Q1 2010.

How can this lending binge affect banks' asset quality? Looking at a similar event in 1998

- **In 1998, in the midst of a sharp slowdown, China introduced a large stimulus package, which had some common characteristics to that of 2009-10.**
  - **Stimulus relied on bank lending to SOEs and Local Governments**
  - **The majority of those loans became non performing**
    - **New NPLs were 28% of loans issued from 1998-2000**
    - **NPL ratio was officially higher than 25% in 2002, and several estimated it around 40-50% (Ma, 2006)**
- **That policy was at the origin of the restructuring efforts put in place in the first half of 2000s**
- **The total cost associated to the reform was around 25% of GDP (Ma, 2006)**



Source: Bankscope. Estimates based on a sub-sample of banks with NPLs available. That sample was skewed towards the best performing institutions.

Impact on stimulus package on bank asset quality: some simulations

Impact of the loan financing of the stimulus package

(RMB trn, otherwise indicated)

	Official data		Scenario A	Scenario B	Scenario C
	PBC	National Audit Office	Optimistic	Baseline	Pessimistic
Assumptions					
Recognized loans to LGFVs (as of Dec-2010)	14.4	8.5	14.4	14.4	14.4
Default ratio (% of LGFV loans)	26%	26%	26%	39%	50%
Nominal GDP growth (2010-20)	11%	11%	16%	13%	9%
Results					
Loans default	3.7	2.2	3.7	5.5	7.2
Loans default (USD bn)	551	325	551	815	1059
New NPLs (% 2010 GDP)	9.4	5.6	9.4	13.9	18.1
New NPLs (% 2020 GDP)	3.3	2.0	2.1	4.1	7.6
Δ NPL ratio (2015)	4.6	2.7	3.7	6.3	9.8
Δ NPL ratio (2020)	2.8	1.6	1.8	3.4	6.3

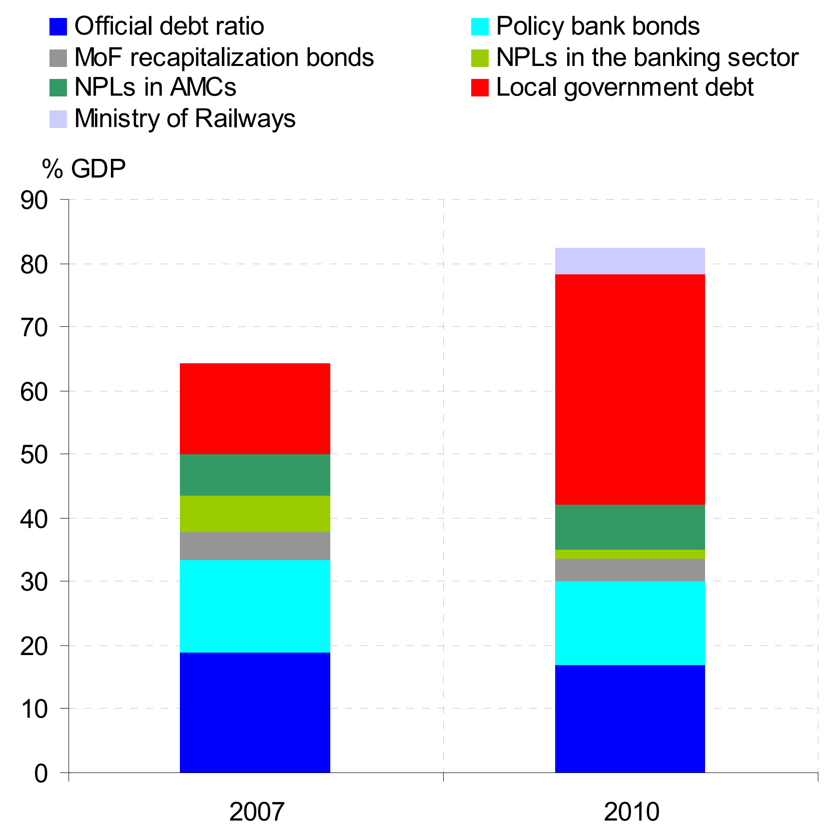
Source: Authors' calculations based on PBC, NAO, China Securities Journal and CEIC

- Official sources (CBRC & China Securities Journal) have estimated 26% of LGFV loans to be very difficult to recover and that other 50% could be only paid back using external sources of finance
- Even if this implies a sizable increase in NPLs, China's growth would, once more, manage to reduce the problem to a manageable
- NPLs could be around 14% of 2010 GDP but only 4% of GDP in 2020

However, current quasi- fiscal losses have increased

- The root of current problems is the lack of local governments' funding and the stimuli-driven nature of lending:
- If government recognize all the contingent liabilities in the financial sector, debt to GDP ratio could raise over 80% (18% officially reported)
- If the losses were mainly borne by commercial banks, it would damage their private shareholders and tarnish the efforts carried to set up a commercially banking sector in China (recapitalization needs as high as 600 billion)
- However, growth over time would reduce both problems to a more manageable level

Public debt and contingent liabilities
(% of GDP)

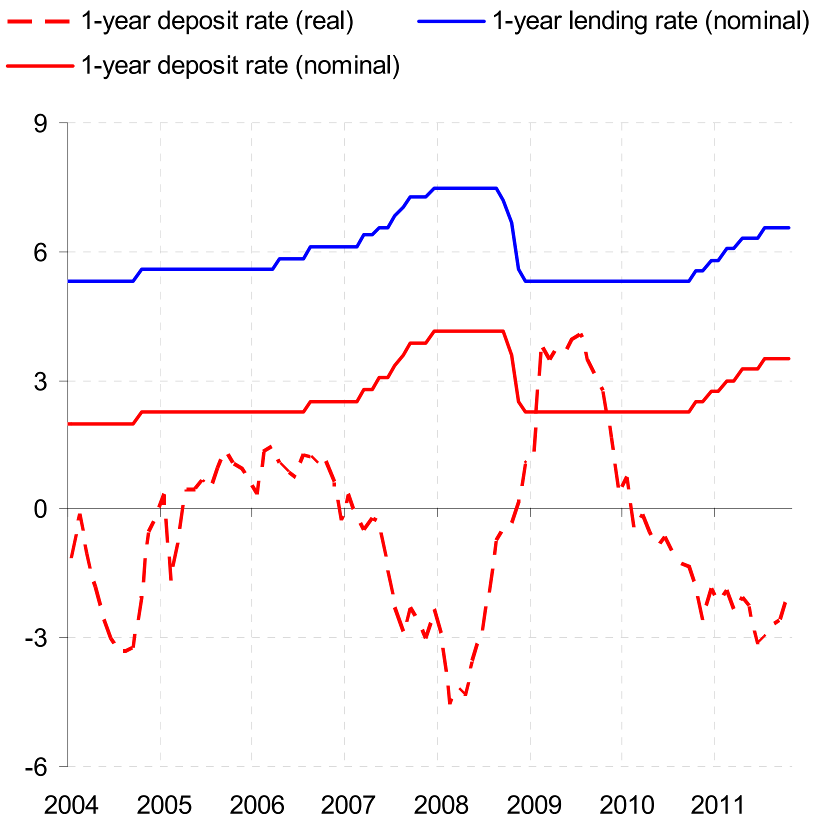


Source: Authors' calculations based on CEIC and Dragonomics (2011)

2. Housing bubble and possible bust

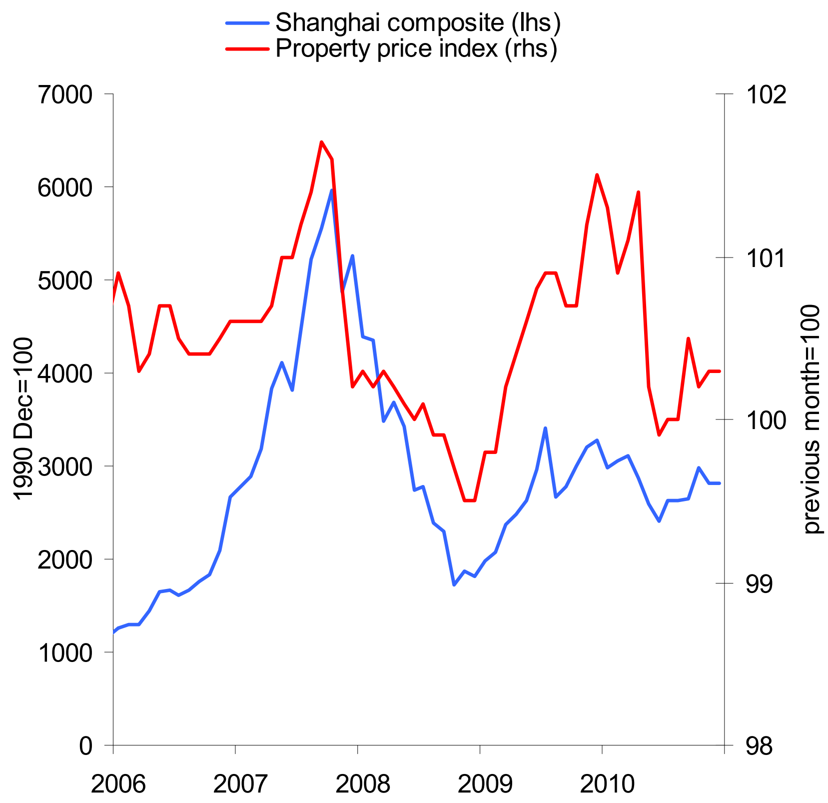
- Negative real interest rates appear to have boosted asset price inflation

1-year reference deposit and lending rates (%)



Source: CEIC.

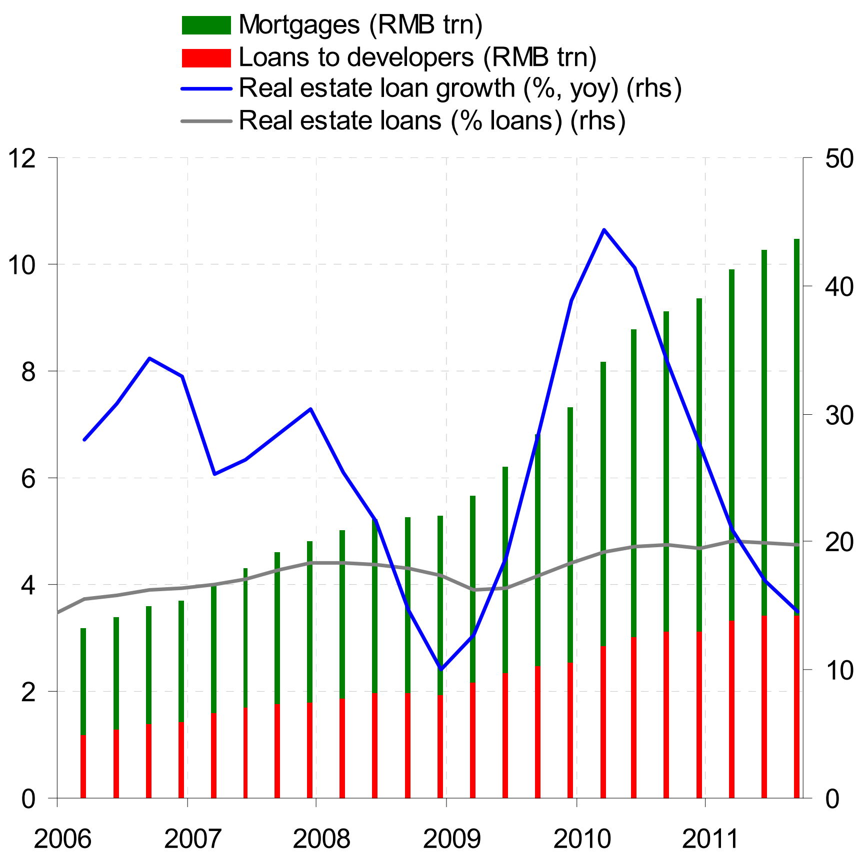
Property and stock prices
(month-on-month growth rates and levels)



Source: CEIC.

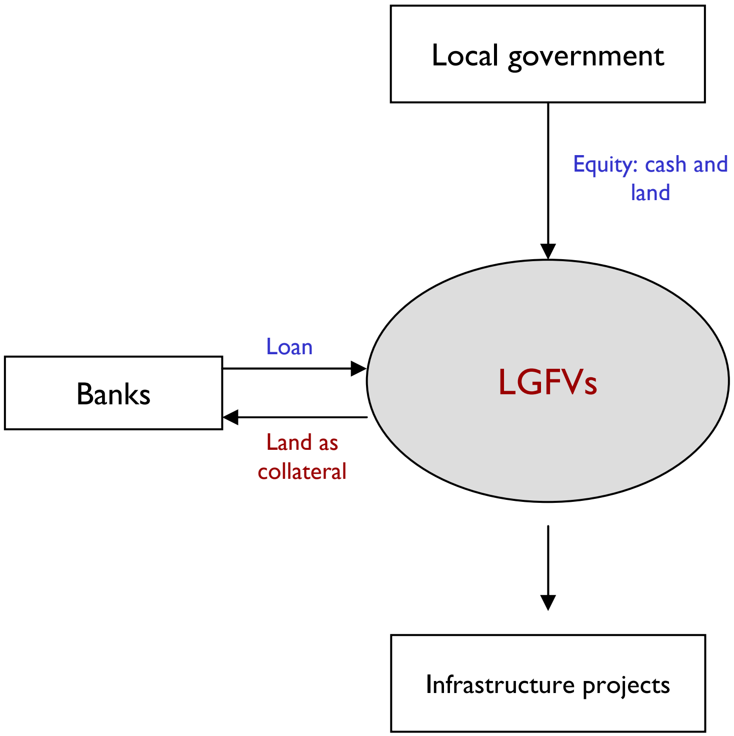
Banks’ exposure to property market increasing

Real estate loans
(RMB trn, %)



Source: CEIC.

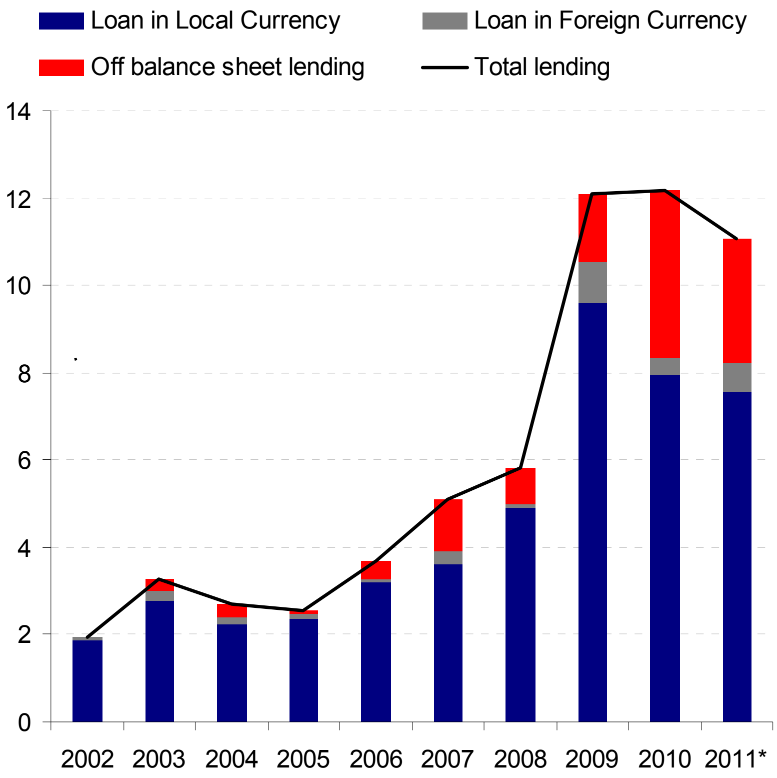
Local government financing vehicles



3. Growing shadow banking

- China's informal and unregulated shadow banking system has grown rapidly because of a 'de facto' financial liberalization
- Now 50% of new lending and nearly one third of total lending
  - depositors to shift from bank deposits to higher yielding products
  - lenders to circumvent the tight access to the banking system
- Two kinds of shadow banking: informal lending and off-balance sheet lending (with important role of trust companies in many cases related to banks)
- Growing financial stability concerns, especially given the lack of regulation and oversight
  - Large exposure to real state developers
  - Liquidity issues related to maturity mismatches

Off-balance sheet lending
(RMB trn)



Source: CEIC. Last observation Q3 2011.

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How to succeed with the reform?

- Incentive structure needs to be more market oriented to prevent the build up of financial vulnerabilities.
- These are some measures and their expected achievements
  - Ownership reform: through more private ownership (more openness to foreign ownership would also help).
    - Reduce the use of the banking system as a policy tool
    - Improve the access to finance by SMEs and households
  - Interest rate liberalization
    - Reduce the artificially low cost of capital
    - Reduce precautionary savings
    - Help to properly price the credit risk
  - Promote capital market development
    - To free up space in banks' balance sheets to SMEs and households
  - Expand perimeter of financial supervision and regulation
    - Avoiding regulatory arbitrage should limit incentives of shadow banking

Interest rates liberalization: impact on profits

- One of the main reasons why interest rates are not liberalized is protecting bank profitability but: How much would be the impact of such liberalization?
  - With a simple exercise - lowering njet interest margin in China at the level of Emerging Asia, US or euro Area before the crisis - NIM could go down between 7 to 54%.
  - However, analysis does not take into account: (i) adjustment through quantities (only prices); (ii) no model for the relationship between interbank interest rates and retail rates

Results (% changes from 2008 actual data)	**Scenario 1** NIM China equals to ASEAN+Korea		**Scenario 2** NIM China equals to the US large commercial banks		**Scenario 3** NIM China equals to euro area historical average	
	2008	2007	2008	2007	2008	2007
Net interest margin	-12.0	-6.9	-12.3	-9.2	-52.6	-53.6
Profit before taxes	-21.8	-11.4	-22.4	-15.1	-95.6	-88.1
Pre-tax ROAA	-24.4	-17.0	-25.0	-20.7	-98.2	-93.7

Source: Authors' calculations based on Bankscope balance sheet and income statement data of China's commercial banks

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Some policy conclusions

- The reform is clearly not over!
  - despite the positive indicators, wrong incentives remain
- Financial vulnerabilities are building up:
  - recent credit surge linked to the abuse of the banking system to pursue policy goals
  - too loose liquidity conditions has fuelled asset prices, with increasing exposure from banking system
  - a shadow banking system is developing to circumvent the low cost of capital and credit constrains which inherent risks
- To complete the reform, incentives have to changed
  - ownership reform
  - interest rates should play its signalling role under market forces.

Comments welcome