Bringing Shadow Banking into the Light:
Opportunity for Financial Reform in China

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I. Emergence of Global Shadow Banking
II. Chinese Shadow Banking – Nature & Characteristics
III. Risks Inherent in Shadow Banking
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Introduction

1. Global Financial System since 1980s has changed dramatically due to financial innovation, deregulation, globalization and technology
2. 2007-2009 GFC revealed key role of shadow-banking that was under-regulated, opaque with risks borne by banking system through complex financial derivatives
3. Chinese shadow banking system has similar traits, but evolved because private sector or local government borrowers sought credit by willingness to pay higher interest rates than official rates. The Chinese characteristics are *ever-greening* and *bundling of risks*, so that private sector borrowers obtain credit by binding risks with banks and SOEs through trust company packaging of wealth management products (WMP)

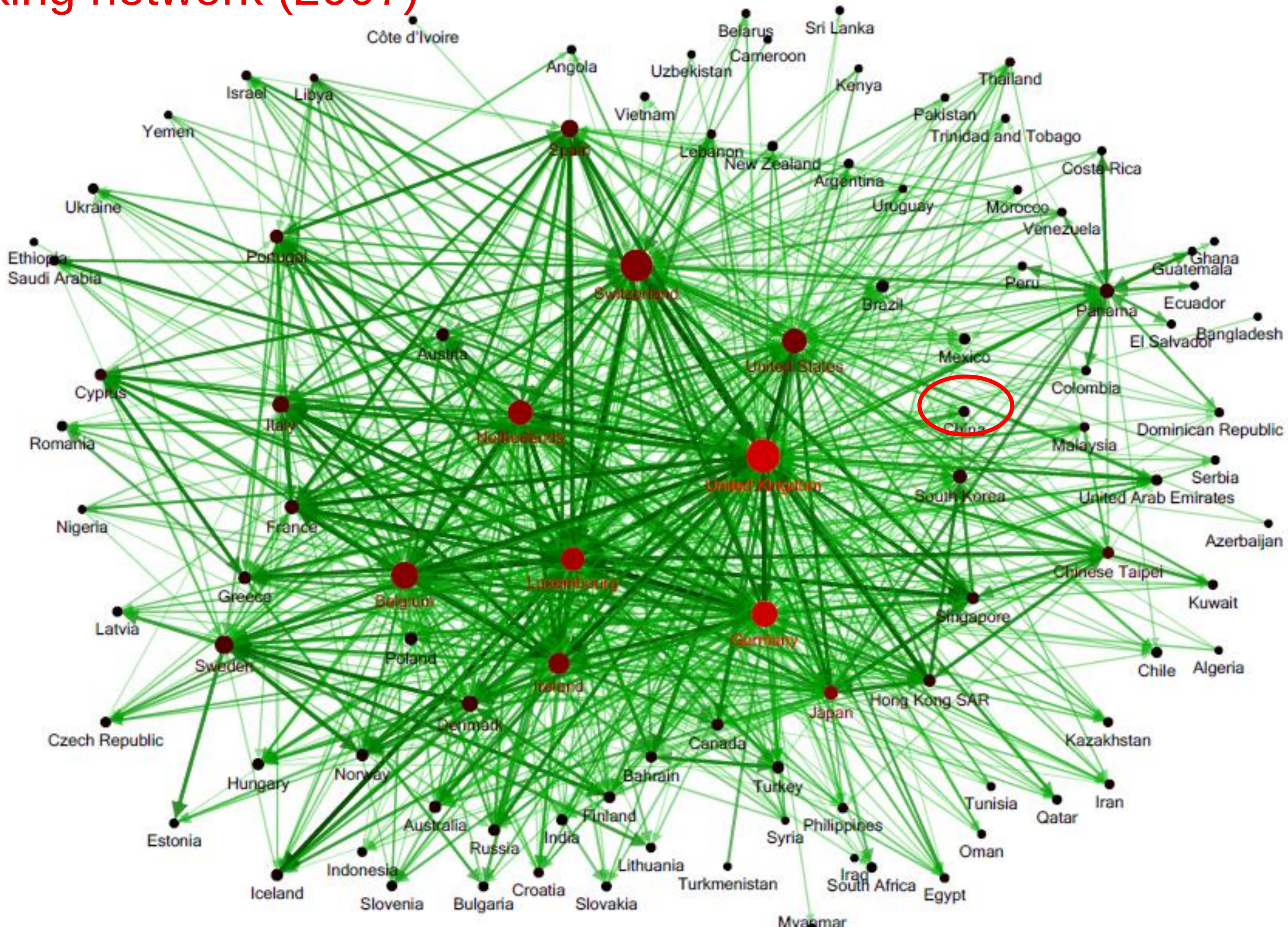
Section 1

Global Shadow Banking

Credit creation off-balance sheet, off-shore and under-regulated

Highly leveraged and interconnected through toxic products and leveraged institutions

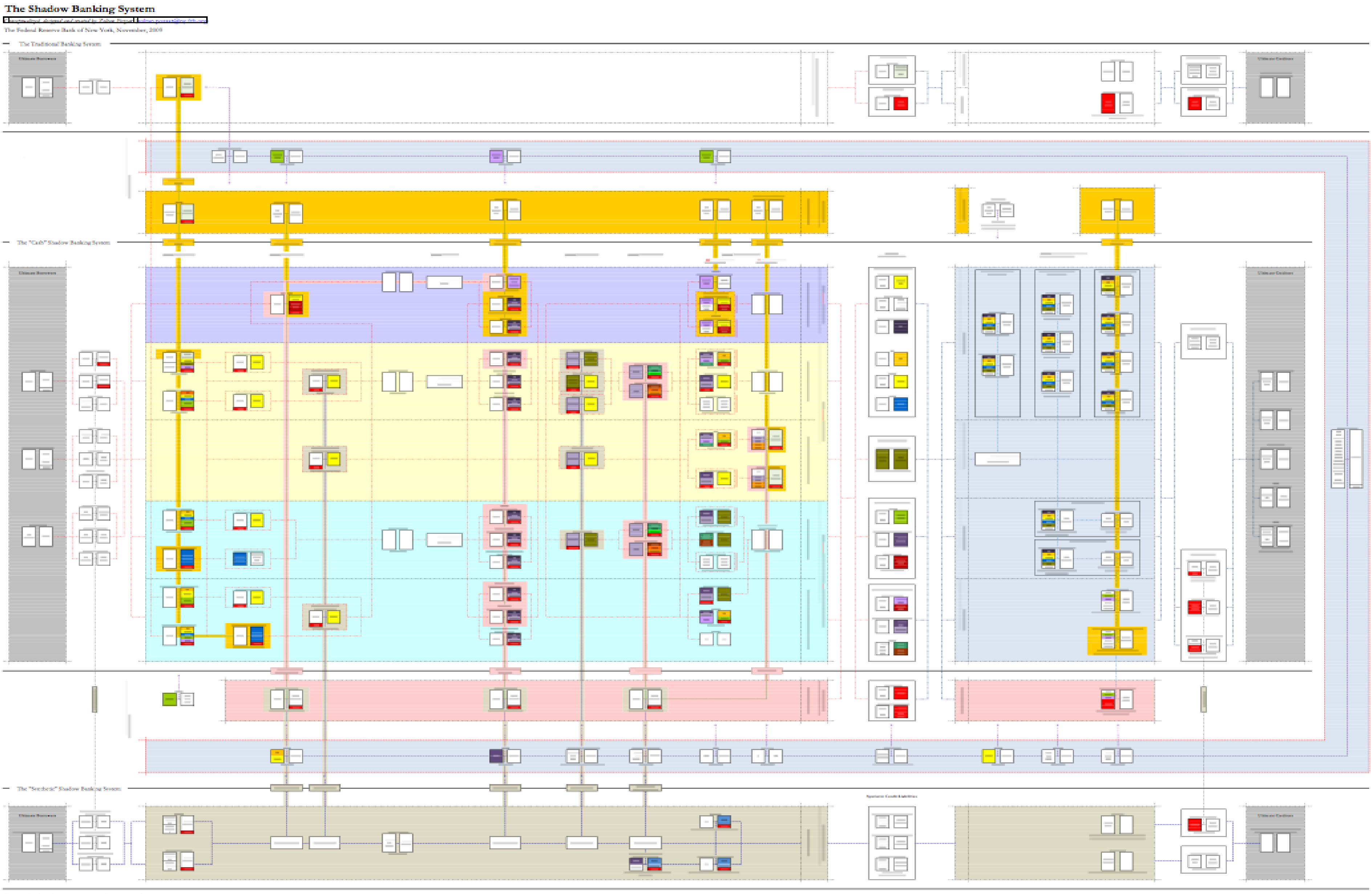
Global Banking is highly networked: Top 100 countries in global banking network (2007)



Page 23 – Camelia Minoiu (IMF), Chanhyun Kang, V.S. Subrahmanian, Anamaria Berea, June 30 2013

[The Role of Financial Connectedness in Predicting Crises]

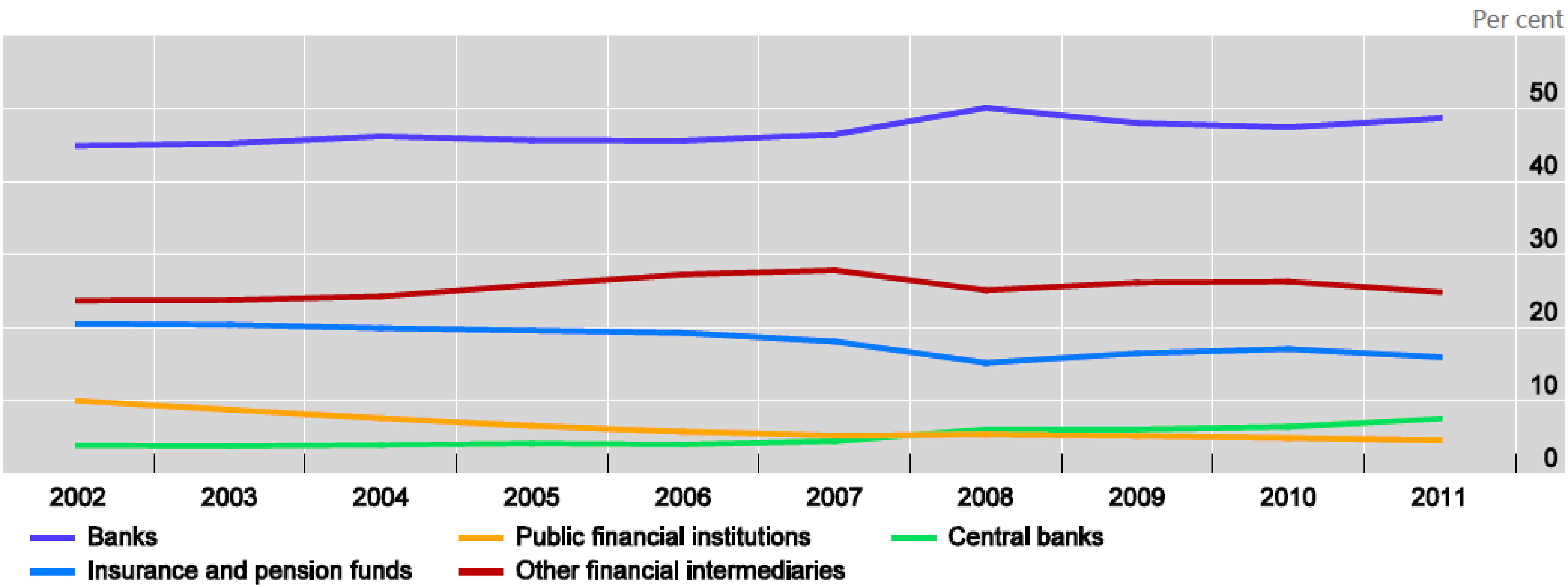
US Shadow Banking Map – NY Fed 2010



Banking Assets - Half of global financial assets, shadow banking one quarter and central banks one-eighth

20 jurisdictions and euro area

Exhibit 2-2

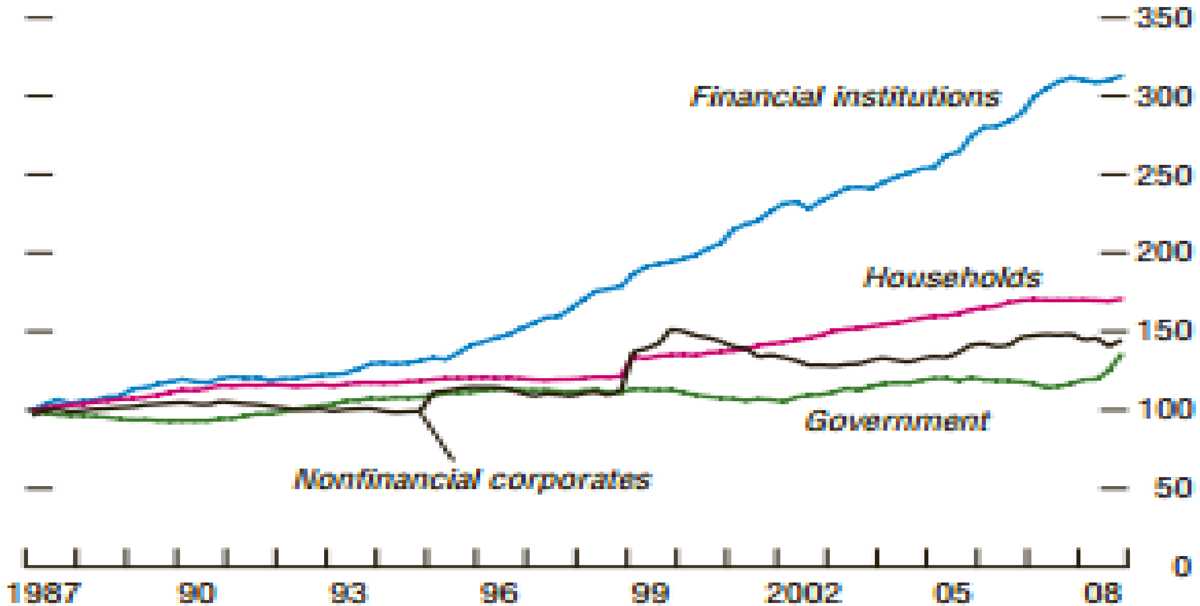


Source: National flow of funds data.

Source: Financial Stability Board, Shadow Banking Monitoring Report 2012

Overall Financial System became over-leveraged

Ratio of Debt to GDP Among Selected Advanced Economics
(In percent, GDP-weighted, 1987=100)



Sources: Bank of Japan; Bureau of Economic Analysis; Federal Reserve; Office of National Statistics; and IMF staff estimates.

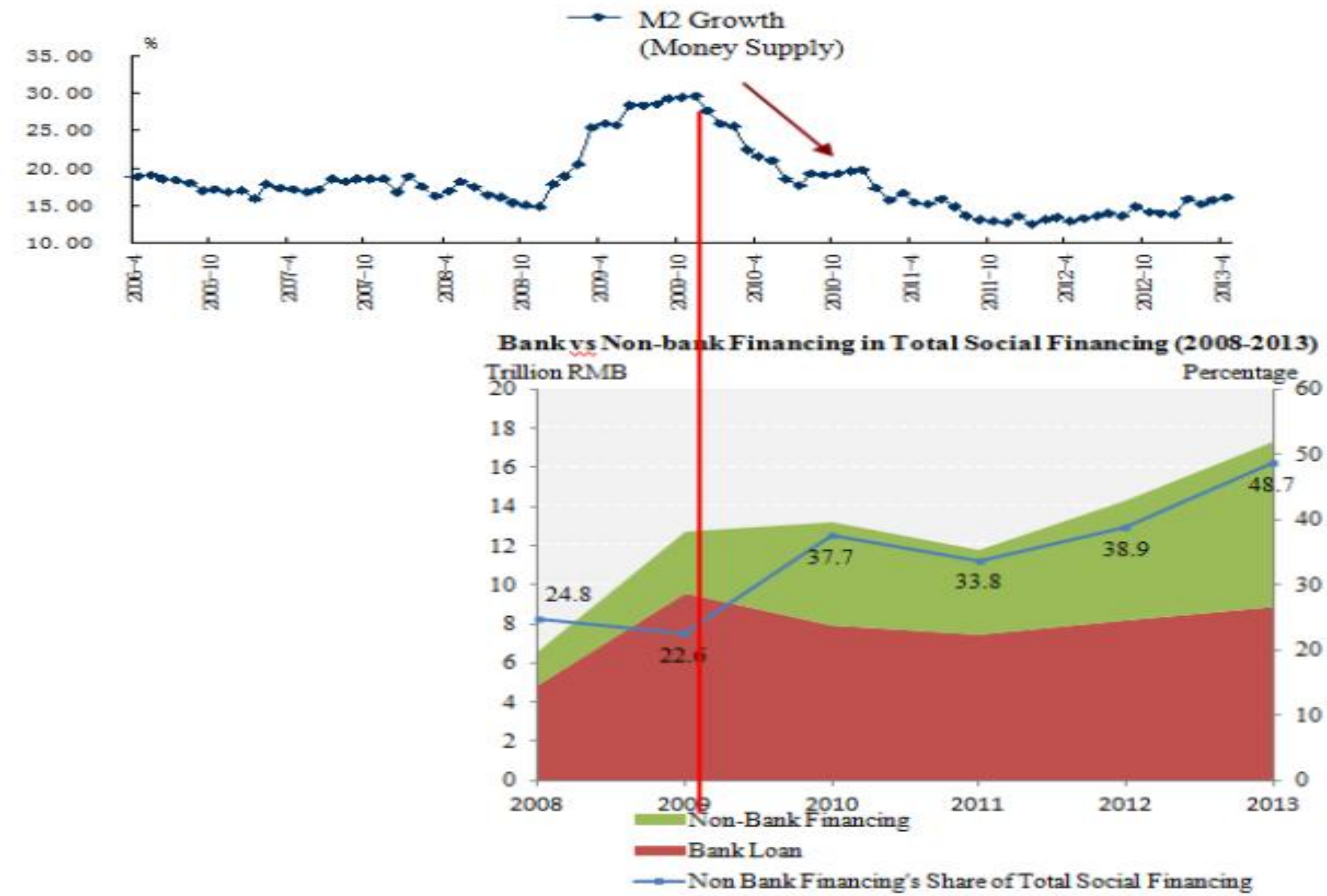
The fundamental problem is overconsumption through over-leveraging of finance

Section 2

Shadow Banking in China

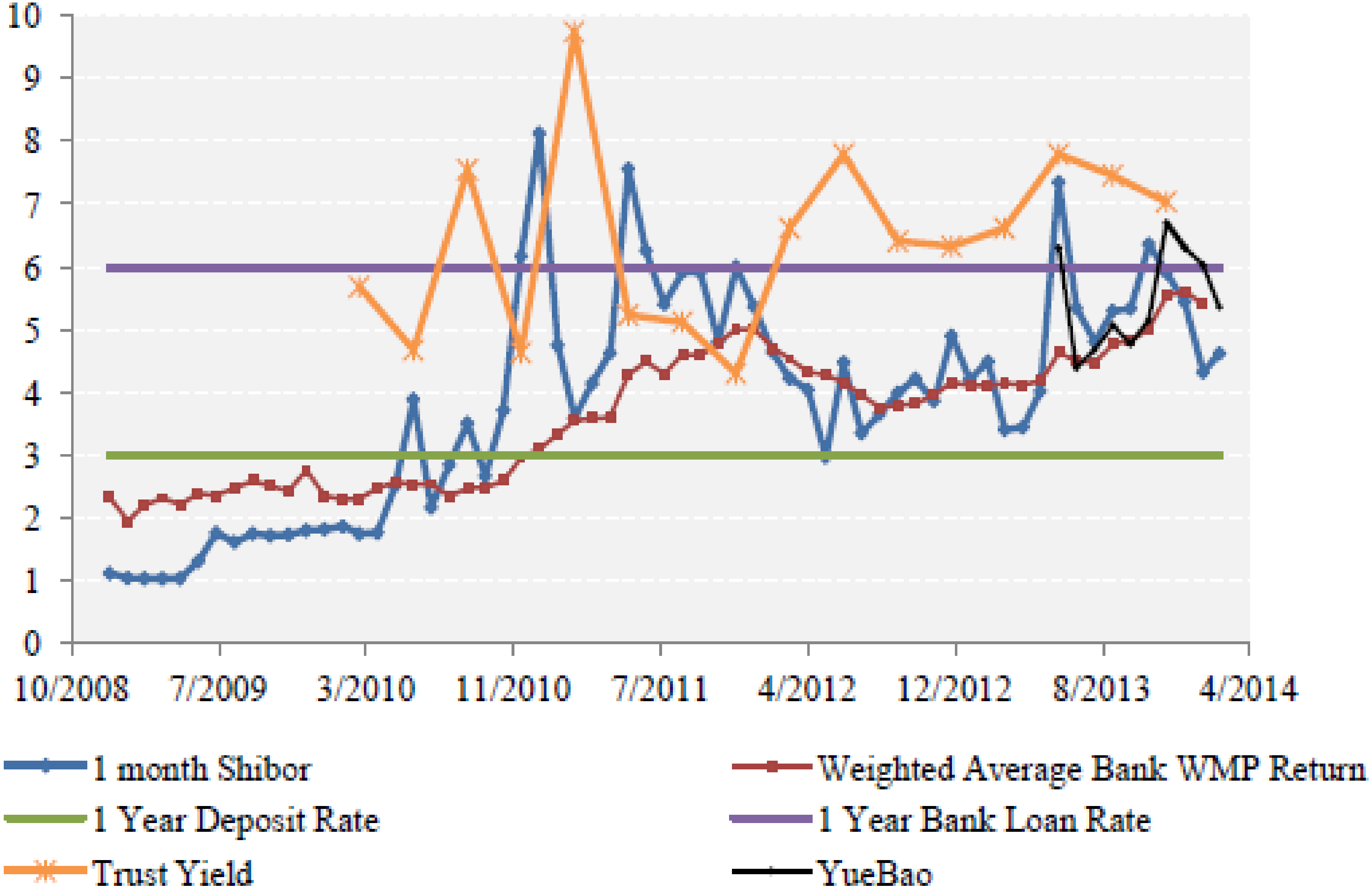
Nature and special characteristics
Domestic interest rate arbitrage
Trusts, WMPs and bundling of risks with banks

Shadow Banking emerged after 2007 and monetary tightening



Source: CEIC

Key Interest Rates rising relative to official rates (2008-2014)



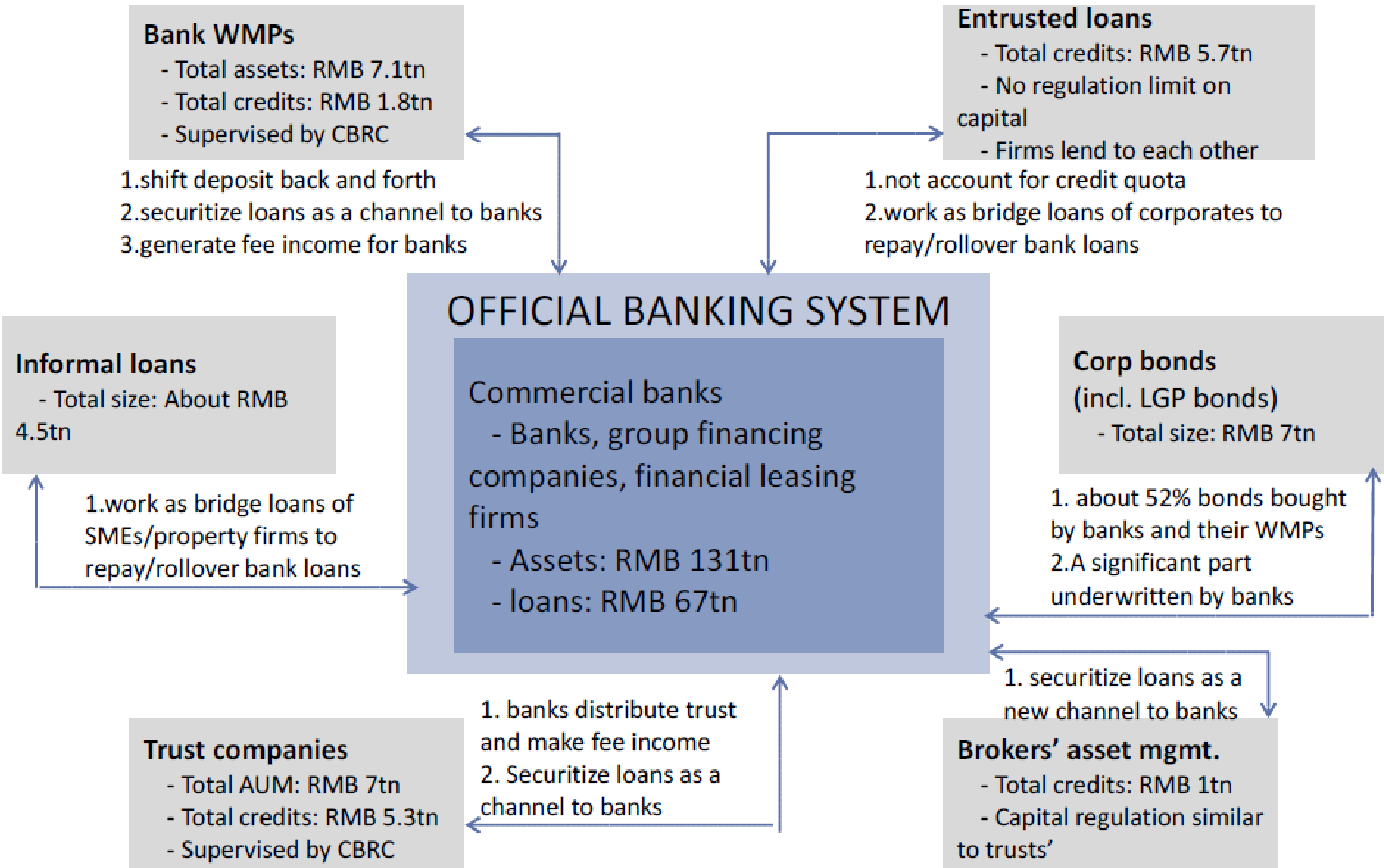
Source: CEIC

Chinese Micro-credit Business Model

Joe Zhang: *Inside China's Shadow Banking* – the Next Subprime Crisis (2014)

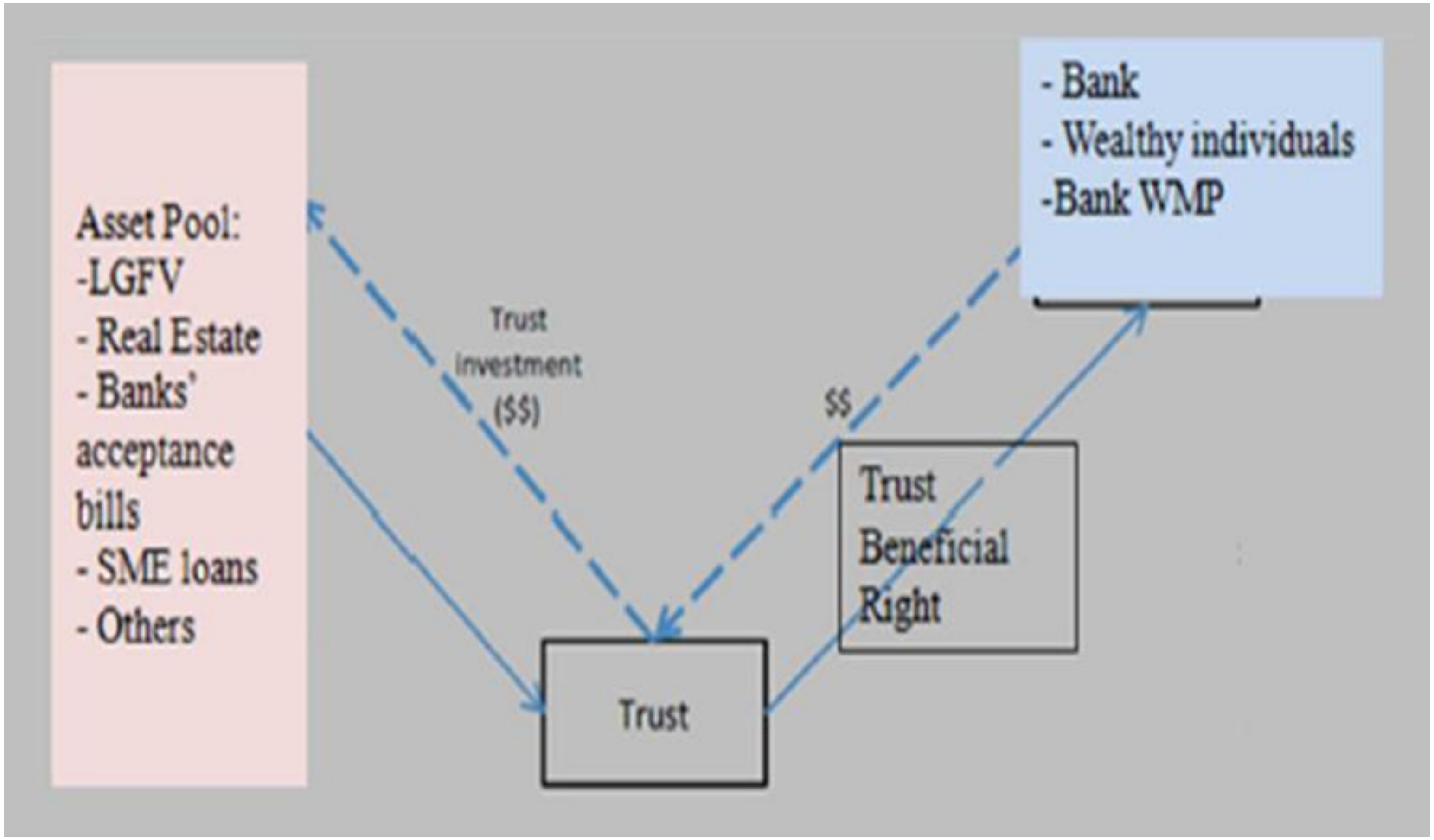
• Micro-credit lending rate ≈	20-24% p.a.
• Less credit guarantee fee −	(3%) p.a.
• Cost of funds (from selling to trust co)	11% p.a.
- Profit on lending to SME ≈	10% p.a.
• Trust co/Asset manager margin from packing into WMP	(3%)
• Legal fees & admin	(2%)
= Interest on WMP by investor ≈	6% p.a.
Official deposit rate on 1 yr FD	3.5%

Most Chinese Shadow Banking Activities Interconnected with Banks, 2012



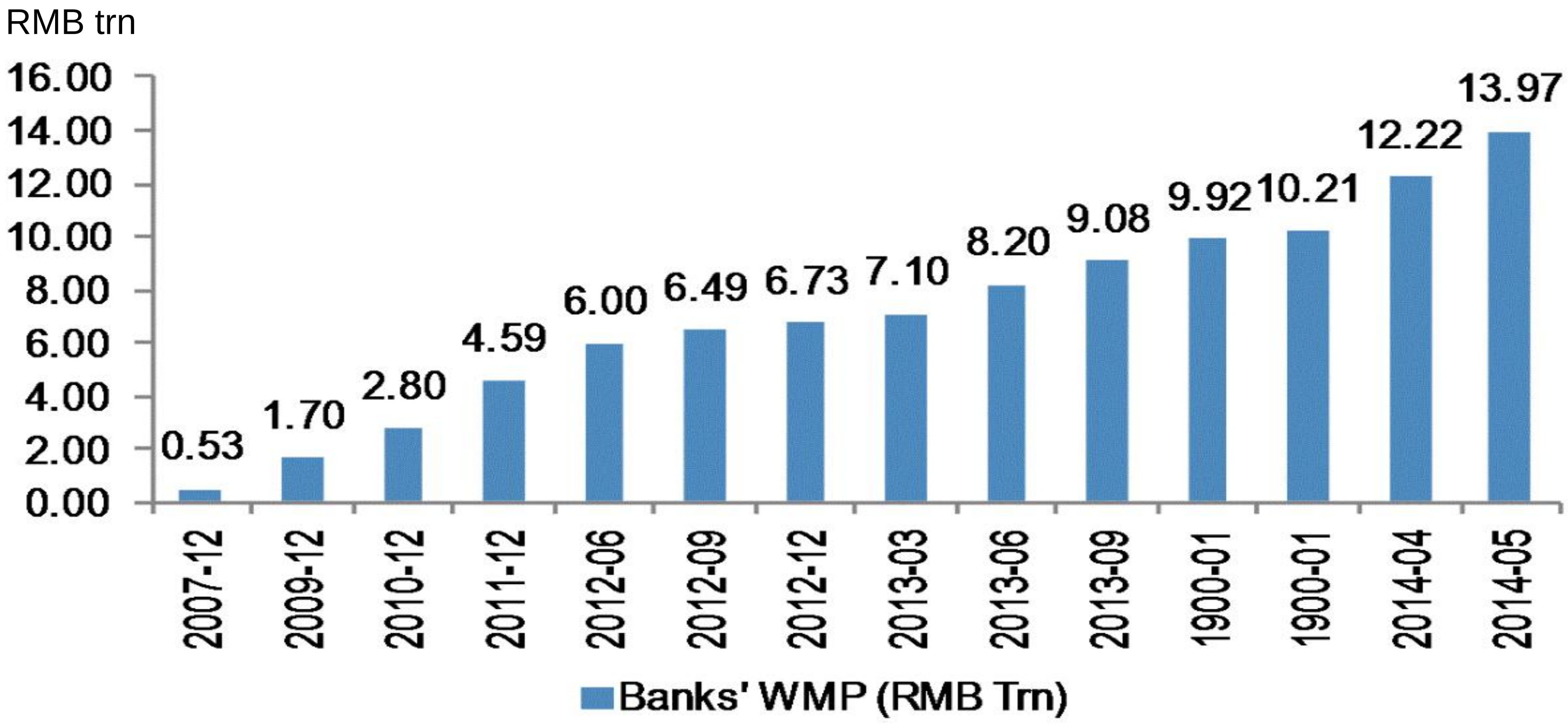
Source: Gao Hua Securities Research estimates.

Trust companies act as key intermediary between banks and savers through wealth management products (WMP)



Source: JP Morgan.

Bank WMPs by Scale – Reached as high as RMB 14 trn, end-May 2014



Source: JP Morgan quoting CBRC statistics.

Shadow Banking must be seen within perspective of National Balance Sheet, 2011

Unit: RMB trillion

Assets		Liabilities and government net worth	
Government deposits with central bank	2.3	Central government debt	7.1
FX reserve assets	21	Sovereign debt	2.9
Land and natural resource assets	52	Local government debt from non-financing platform enterprises	6.11
State-owned assets of administrative units and agencies	8.8	Local government financing platform debt	11.42
Net assets of state-owned non-financial enterprises (NFEs)	70.3	Debt of state-owned non-financial enterprises (excluding local government debt from financing platform)	37.18
Net assets of state-own financial institutions	11.1	Debt of policy banks	6.5
		Bank Non-performing assets	0.4
		Debts from clearing bank non-performing assets	4.2
Net assets of state-owned social security funds	0.8	Implicit debt of pension and retirement funds	3.5
Total assets	166.3	Total liabilities	79.31
		Government net worth	86.99

Source: Li Yang (2013), CASS Table 3-1, pg. 37

China Shadow Banking Still Small by Global Standards, Relative to GDP and Banking System Assets (2012)

	China			US			World		
	US$ Trn	% GDP	% bank assets	US$ Trn	% GDP	% bank assets	US$ Trn	% GDP	% bank assets
FSB	2.1	26	10	26	167	172	71	117	61
FGI	4.2	50	20						
JP Morgan	5.8	70	27						

Source: FSB, J.P. Morgan, FGI estimates, IMF

“China’s shadow banking is not a global threat”

- Liao Min CBRC (ft.com blog titled China’s shadow banking is risky, but how risky?) http://blogs.ft.com/beyond-brics/2014/07/10/guest-post-chinas-shadow-banking-is-risky-but-how-risky/

Net International Investment Position (NIIP) China vs US

		In USD trn.		In % of GDP	
Country	**Item**	**2007**	**2013**	**2007**	**2013**
China	**NIIP**	1.2	2.0	34	21
	Assets	2.4	5.9	69	64
	Liabilities	(1.2)	(4.0)	35	43
US	**NIIP**	-1.3	-5.4	-9	-32
	Assets	20.7	23.7	148	141
	Liabilities	(22.0)	(29.1)	157	173

Data source: China State Administration of Foreign Exchange, US Department of Commerce, Bureau of Economic Analysis, World Bank.

Chinese Enterprises have High Debt, but also High Deposits: Key Exposure is Inter-Enterprise credit (credit bundling)

	2007	% of GDP	2013	% of GDP	USA 2012
GDP (RMB trn)	26.6	100.0%	56.9	100.0%	100%
Non-financial corporate sector deposits	19.5	73.3%	51.2	90.0%	11.4%
NF Corporate loans	22.7	85.3%	60.0	105.4%	76.3%
Net credit	3.2	12.0%	8.8	15.4%	64.9%
Deposits as % of loans	85.9%		85.3%		14.9%
Household deposits	n.a.	n.a.	46.7	82.1%	

Source: PBOC Credit Survey (by sector), 2007 and 2013. US data from Fed Flows of Fund 2013

Section 3

Risk inherent in Chinese Shadow Banking

Evergreening and bundling of risks
Uncertainty as to who pays for losses

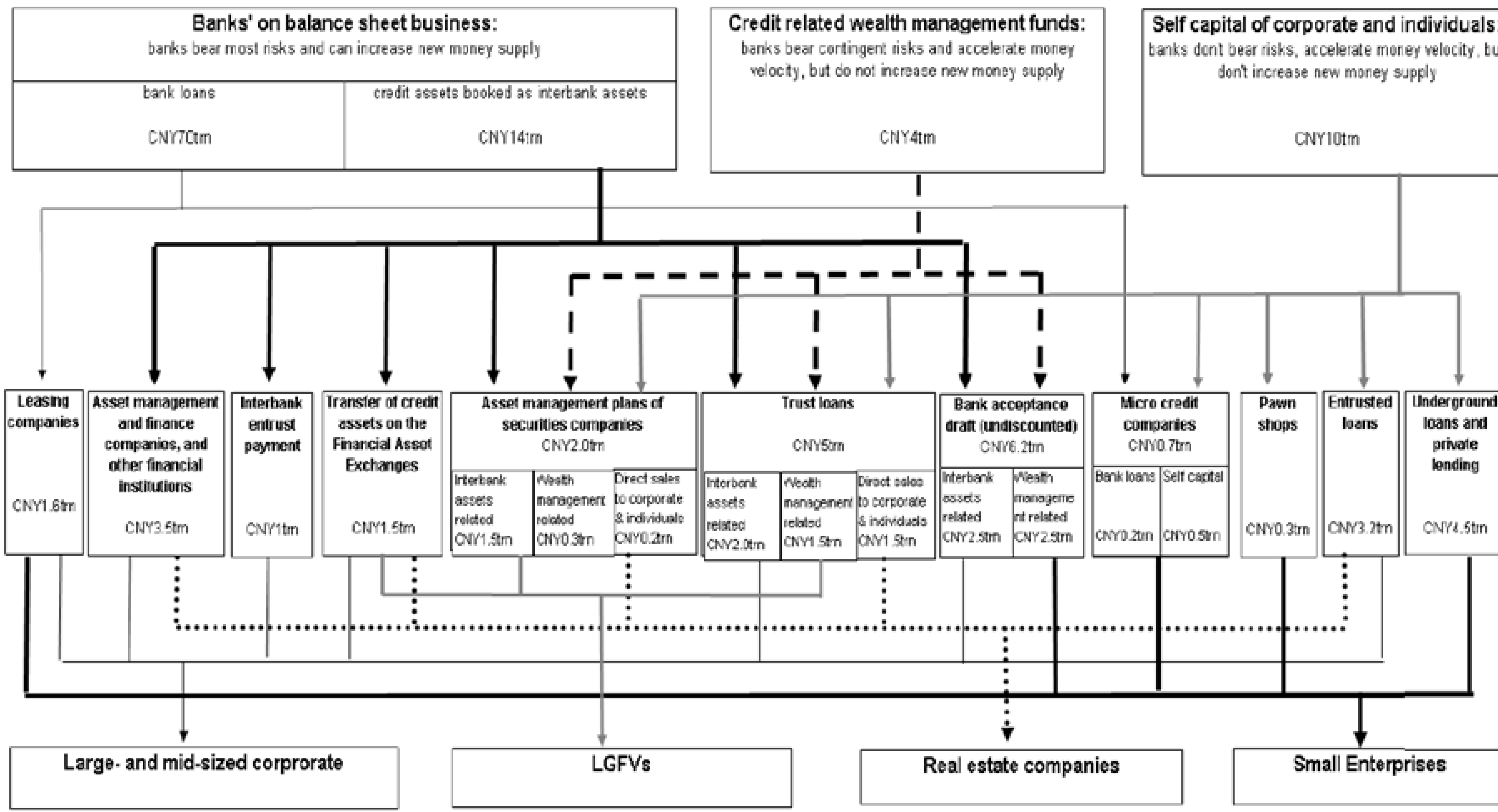
Credit with Chinese Characteristics

- Banks like to lend to large corporations with ***collateral and guarantees***
- ***Immediate drawdown, with loan credited to deposits*** (explains *high enterprise deposit base*)
- They ***require repayment before extending new loans*** (creates need for bridge loans)
- In period of high credit growth, ***evergreening*** (borrow from Peter to pay Paul) occurs. Hence low NPL ratio as debt paid on expiry
- ***Bundling of credit risks*** through (a) inter-corporate guarantees and (b) corporate purchase of WMPs that contain other corporate risks

Ultimate exposure of Banking and Shadow Banking in Enterprises, Real Estate and LGFVs

Richard Xu, Morgan Stanley

Ultimate funding sources/risk takers will review the nature of innovations, and we believe banks will remain key drivers of TSF growth, 2012



Source: CEIC, WIND, Morgan Stanley Research

Net risks of bank+shadow banks boil down to credit risks at 5 levels

① **Highly leveraged enterprises with excess capacity**/losses – creative destruction as China changes growth model

② **Local Government Financing Platforms (LGFP** (strictly domestic sovereign debt)

③ **Real estate companies** – consolidation in industry inevitable

④ Contagion due to **inter-enterprise credit and guarantees** which drag down relatively good companies

⑤ **Fraud** – this element cannot be under-estimated, involving collusion between different parties

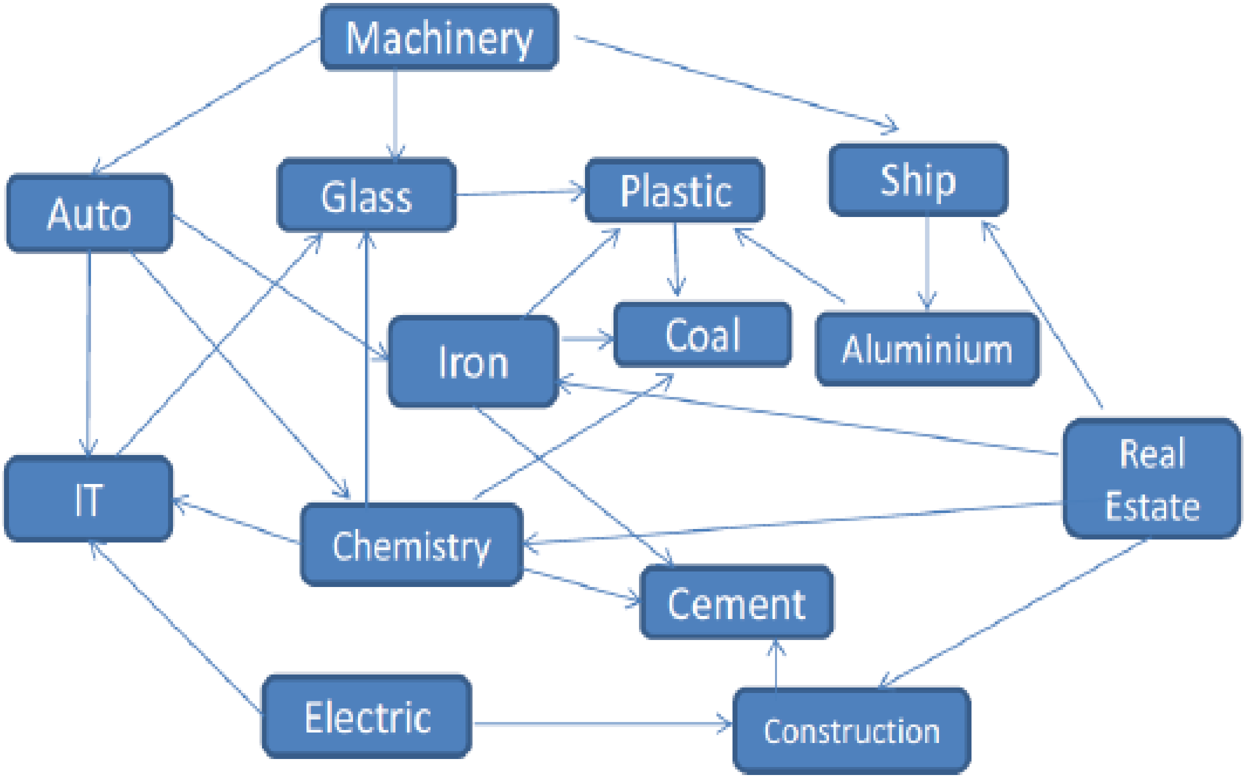
2. LGFP – National Audit results – largely domestic sovereign debt issue

RMB bn

Entity	Debt for which govt has repayment responsibility	Debt guaranteed by govt	Other relevant debt (govt may rescue)
LGFPs	4,075.6	883.3	2,011.6
Govt departments and institutions	3,091.3	968.4	0.0
Institutions with govt subsidies	1,776.2	103.2	515.7
Govt- owned/controlled corporations	1,156.3	575.4	1,403.9
Independent institutions	346.3	37.8	218.5
Public institutions	124.0	83.1	0.0
Others	316.3	14.4	189.6
Total	10,885.9	2,665.6	4,339.4

Source: NDRC: Briefing on Local Government Debt, based on National Audit Commission survey, June 2013.

3. Real Estate value 253% of GDP in 2011 impacts on almost every sector



Source: Zhang *et al*. May 2014. HKIMR Working paper No.11/2014: "*How strong are the linkages between real estate and other sectors in China*".

NPL vulnerable to sharp drop in real estate prices

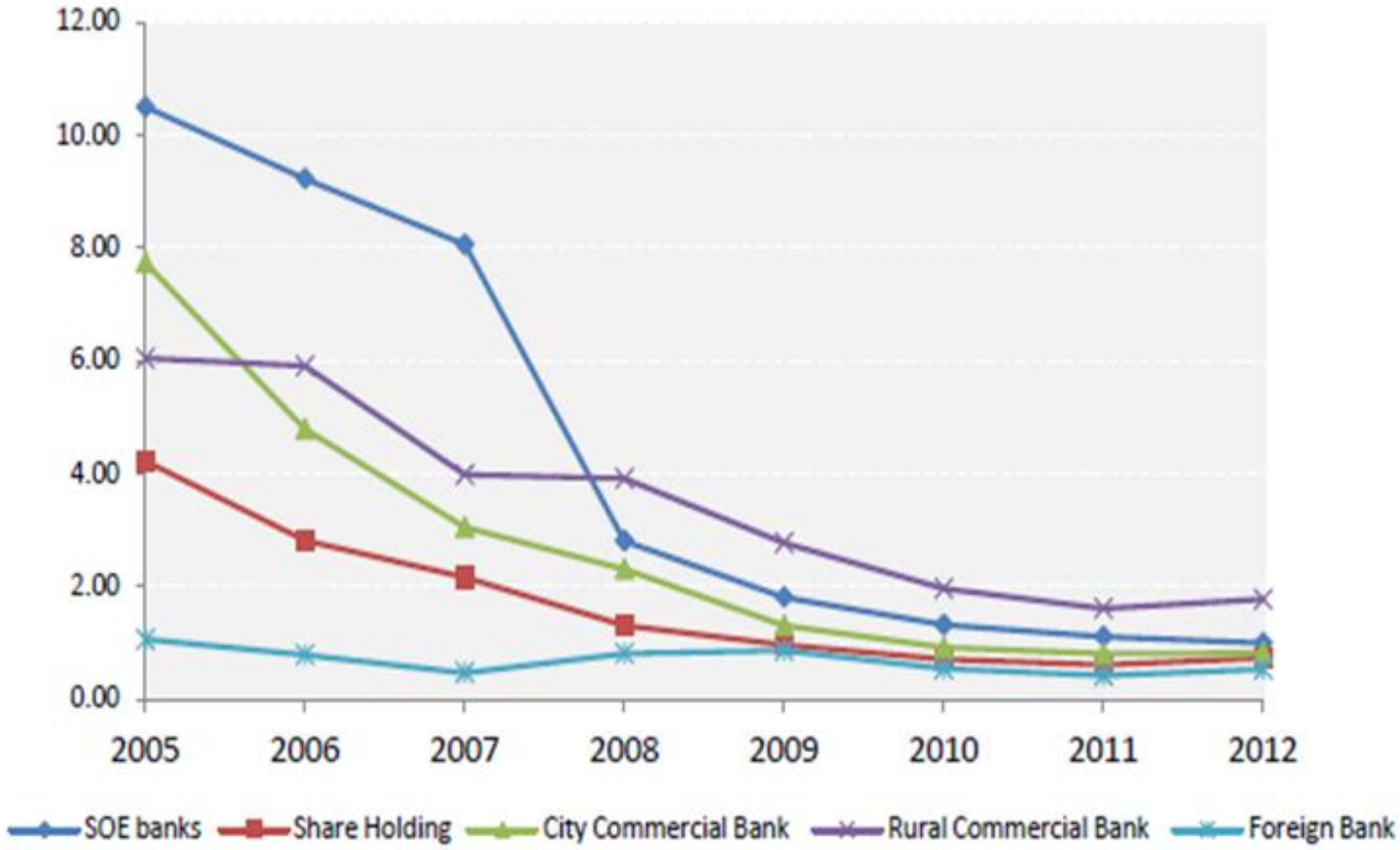
Drop in real estate prices	Incremental NPL ratio of real estate loans	Incremental NPL ratio of mortgages	Total increase in NPL ratio
<30	negligible	Negligible	0.1-0.2
30-40	1.4-2.8	0.6-1.3	1.9-3.8
40-50	2.8-4.2	1.3-1.9	3.8-5.6
>50	>5	>2	>7

Date source: Bank of Communications, Financial Research Center

4/5: Inter-enterprise credit and fraud

- ***Inter-enterprise credit carries high risk*** because of contagion – one failure triggers default to other corporate guarantors. This can only be sorted out by proper corporate governance to ensure that companies do not authorize guarantees without proper board approval, and that banks do proper due diligence on the value of such guarantees
- Similarly, ***fraud can only be controlled by proper corporate governance and enforced disc***ipline against those who engage in white collar fraud at both bank and corporate level
- Anticorruption exercise and bank and enterprise sorting out of NPL will be the best opportunity to clean up inter-enterprise debt and fraud cases

Chinese Bank NPL dropped to below global standards since 2007



Source: PBOC 2013; CEIC

Chinese Bank NPLs very Low by international standards

Non-Performing Loans (% of total loans)

Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
China	8.6	7.1	6.2	2.4	1.6	1.1	1	1	1
Greece		61.8	53.7	4.7	7	9.1	14.4	23.3	31.3
Iceland	1.1	0.8			14.1	18.3	11.6	6.4	5.1
Ireland	0.5	0.5	0.6	1.9	9.8	12.5	16.1	24.6	24.6
Italy	7	6.6	5.8	6.3	9.4	10	11.7	13.7	15.1
Spain	0.8	0.7	0.9	2.8	4.1	4.7	6	7.5	8.2
United States	0.7	0.8	1.4	3	5	4.4	3.8	3.3	3.2

Source: World Bank

Scenario Analysis: The Impact of Shadow Banking NPL on Banks' NPL

	NPL of Shadow Banking	Estimated Banks' NPL	
		Banks' current NPL (1.4%) + Shadow banking NPL's impact	Banks' current NPL (1.4%) + Provision (2.1%) + Shadow banking NPL's impact
Optimistic Scenario	15%	4% - 4.5%	6.1.% - 6.6%
Stable scenario	20%	5% - 5.5%	7.1% -7.6%
Pessimistic scenario	30%	6.5% - 7.5%	8.6% - 9.6%

Source: CEIC, FGI estimation

Chinese high NIM allows room for write off of NPLs

Net interest income as % of GDP

	2012	Peak since 1970s	Year of peak
China	5.0%	5.0%	2012
USA	2.7%	2.7%	2010
Japan	1.7%	2.2%	1989
Germany	3.2%	3.5%	1983

Source: CEIC, Morgan Stanley Research

Section 5

Impact of Technology is Changing Finance Business Model

“If Chinese banks do not change, then they will be forced to change!”

MA YUN, chairman of Alibaba Group

How does Yu’E Bao work?

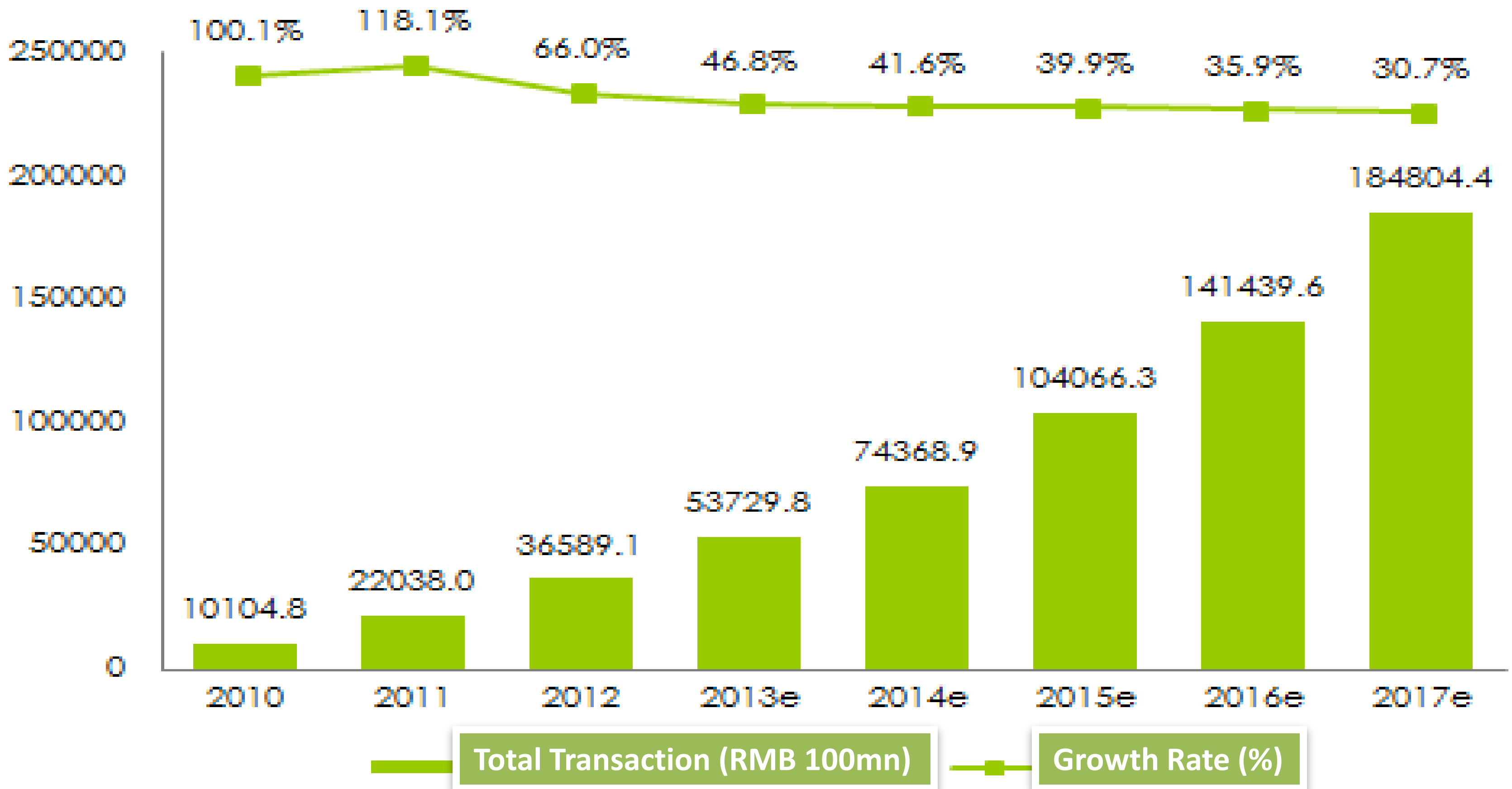
Yu’E Bao, the biggest single public fund in China, is an example of how online wealth management products work. But note that fund products vary in such methods.

By He Yini / chinadaily.com.cn

Online Retailers' Sales Surpassed Department Stores in China

Source: i-Research

China Third-party Internet Payment Market Size Projection: 2010-2017



注释：1.互联网支付是指客户通过桌式电脑、便携式电脑等设备，依托互联网发起支付指令，实现货币资金转移的行为；2.统计企业类型中不含银行、银联，仅指规模以上非金融机构支付企业；3.艾瑞根据最新掌握的市场情况，对历史数据进行修正。

来源：综合企业及专家访谈，根据艾瑞统计模型核算。

Network Industries All Suffer Similar Business Model Challenges

AIRLINES

Top-end luxury business subsidised by state (e.g. Gulf airlines)

Middle segment under huge competition (e.g. Cathay Pacific)

Low-end budget airlines take away market share (e.g. Air Asia)

Profit Squeeze

BANKS

State-owned banks helped by state

Privately-owned banks subject to more and more regulatory costs

Low-end payments and business cannibalised by Financial Technology providers (e.g. Alibaba)

Section 6

The Way Forward: Opportunity for Reform

Immediate and medium-term Proposals

CBRC views on China Shadow Banking Regulation

YAN Qingmin, LI Jianhua *"Supervision of China's Shadow Banking"*

- **Recommended Regulation Framework**:
  - Improve information disclosure, reduce information asymmetry
  - Build up firewall between banks and shadow banking sector to block risk transmission channels
  - Improve investor education; implement risk principle of "Caveat Emptor"
  - Clarify scope of "Lender of Last Resort"
- **Recommendations on Regulations of Specific Shadow Banking Sectors**:
  - *Bank WMP*: strengthen data monitoring, establish bankruptcy mechanism
  - *Trust*: Transfer the sector back to traditional trust business and wealth management business
  - *Microcredit company*: relax current regulations on microcredit, allowing them to obtain funds from financial markets
  - *Guarantors*: prohibit guarantors from engaging in deposits taking and making loans
  - *Internet finance*: specific regulations to enable parallel development of internet finance and traditional finance
  - *Private financing*: clearly define private capital, its rights and obligations, to ensure private capital's function in supporting SME financing

Opportunity to Reform: Immediate Priorities

Third Plenum reforms in right direction

- Deposit insurance approved but not yet implemented
- Deposit interest rate liberalization (narrow gap with shadow rates)
- Exchange rate band widened + Shanghai FTZ

Flow approach to strengthening credit culture

- Change rules for loan classification, loss provisioning and interest suspension to capture ever-greening
- Survey and review inter-locking credit guarantees by enterprises and banks, especially due diligence processes
- Establish main bank system to monitor credit of conglomerates and related enterprises

Structural approach

- Implement exit resolution plan for failed bank/shadow banks
- Speed, transparency and predictability in failed enterprise resolution
- Create secondary mortgage corporation to start asset securitization market

Section 7

Concluding Remarks

Questions?

Concluding Thoughts

- China's shadow banks are a market response to real sector need and regulatory arbitrage
- While still manageable as a domestic debt problem, its fast growth reflects lack of clarity in credit accountability and therefore is potentially very damaging due to moral hazard
- Must untangle opaque bundling of risks across shadow-commercial banks and restore credit culture and accountability
- Key is clarity of property rights, credit discipline and allowing failed enterprises and weak banks to exit
- Holistic/systemic National Balance Sheet approach helpful to have long-term view of opportunities to reform

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