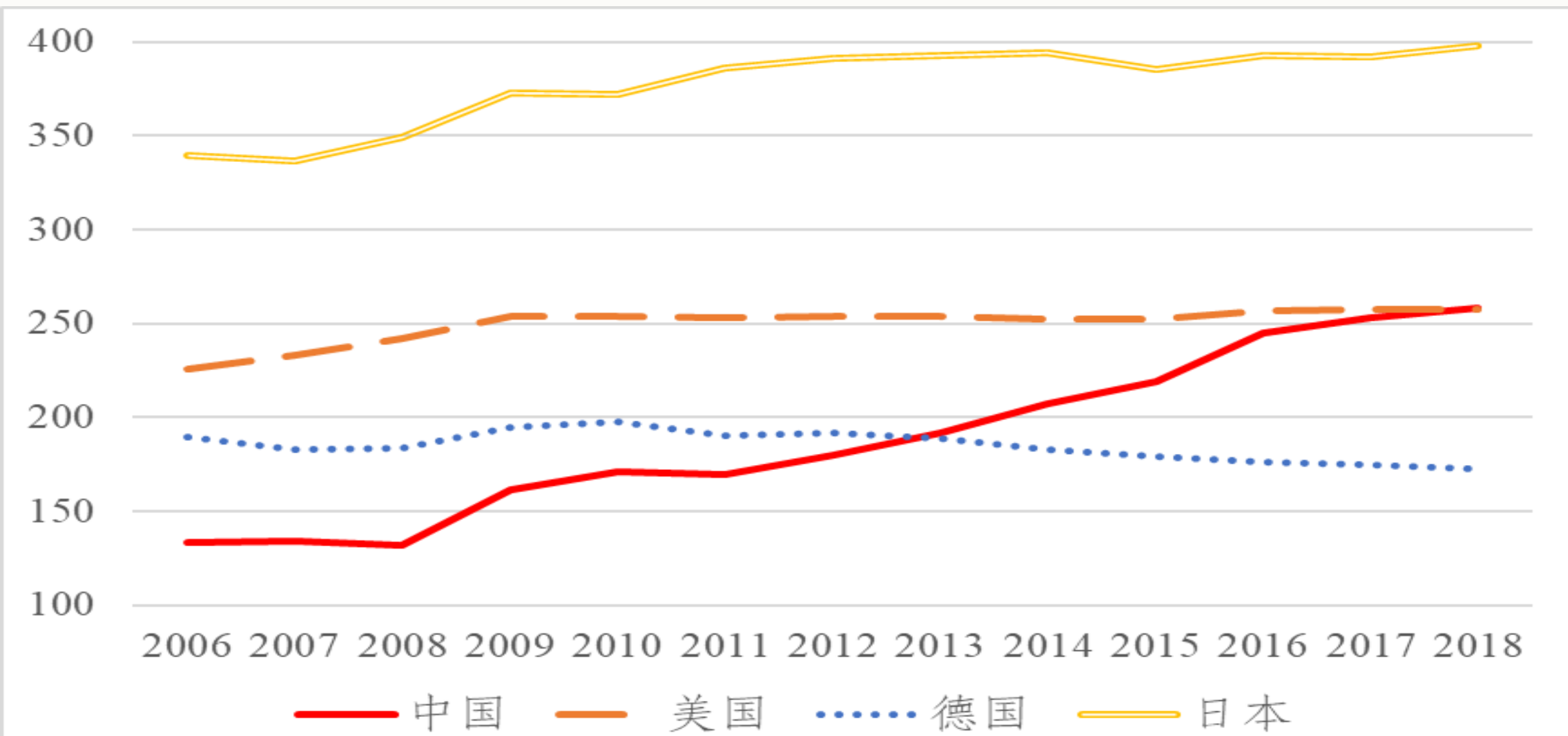


第五讲：债务问题

债务占GDP比重

数据来源：IMF全球债务数据库

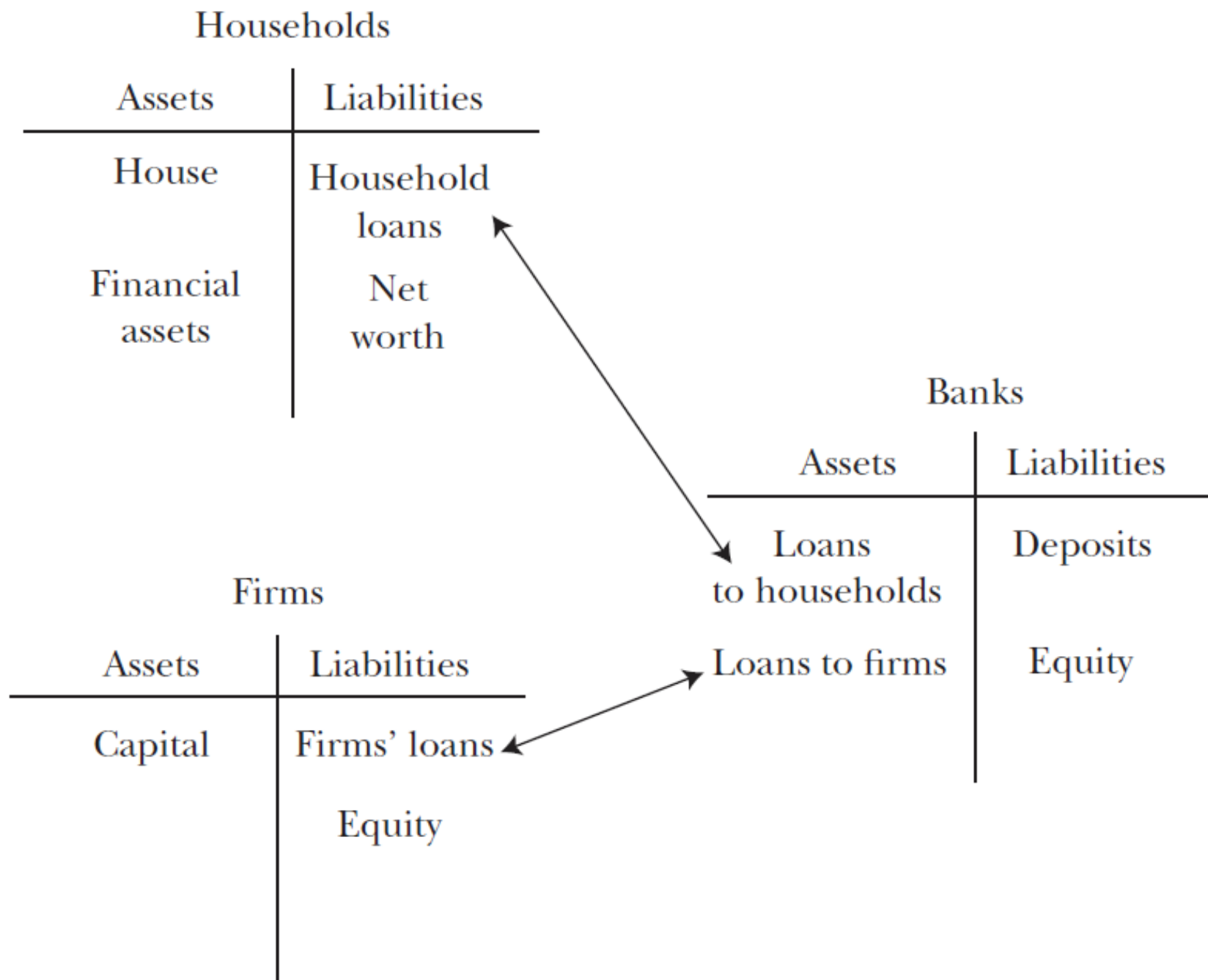


债的风险

- “固定回报” 就是风险低么？
- 信贷突然收缩的风险
- 无法平滑调整，资产价格跳水
- 银行流动性风险
- 债务积压和通缩风险：债务-通缩-萧条
- 加剧不平等

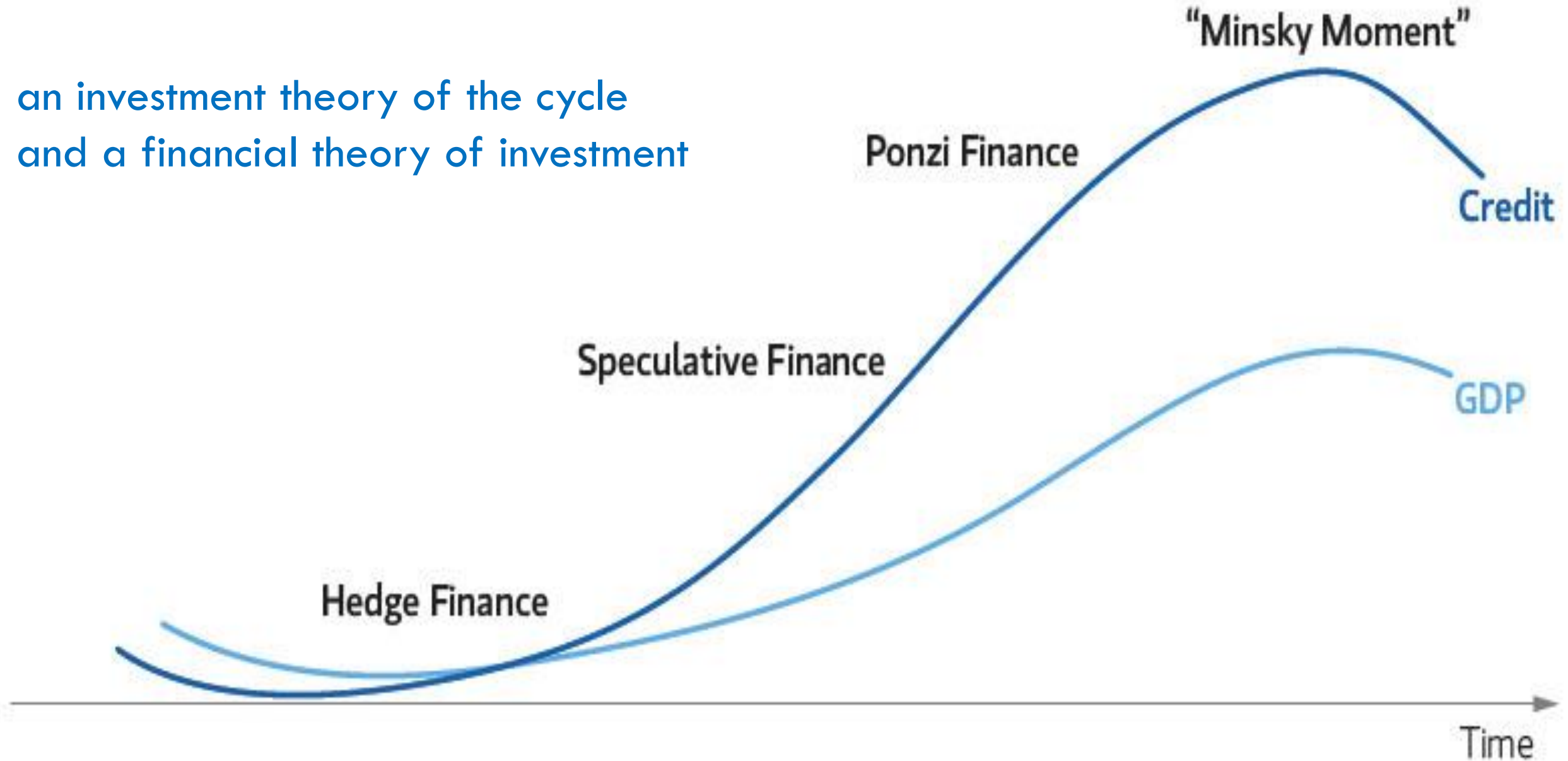
资产负债表衰退

Gertler & Gilchrist (2018)

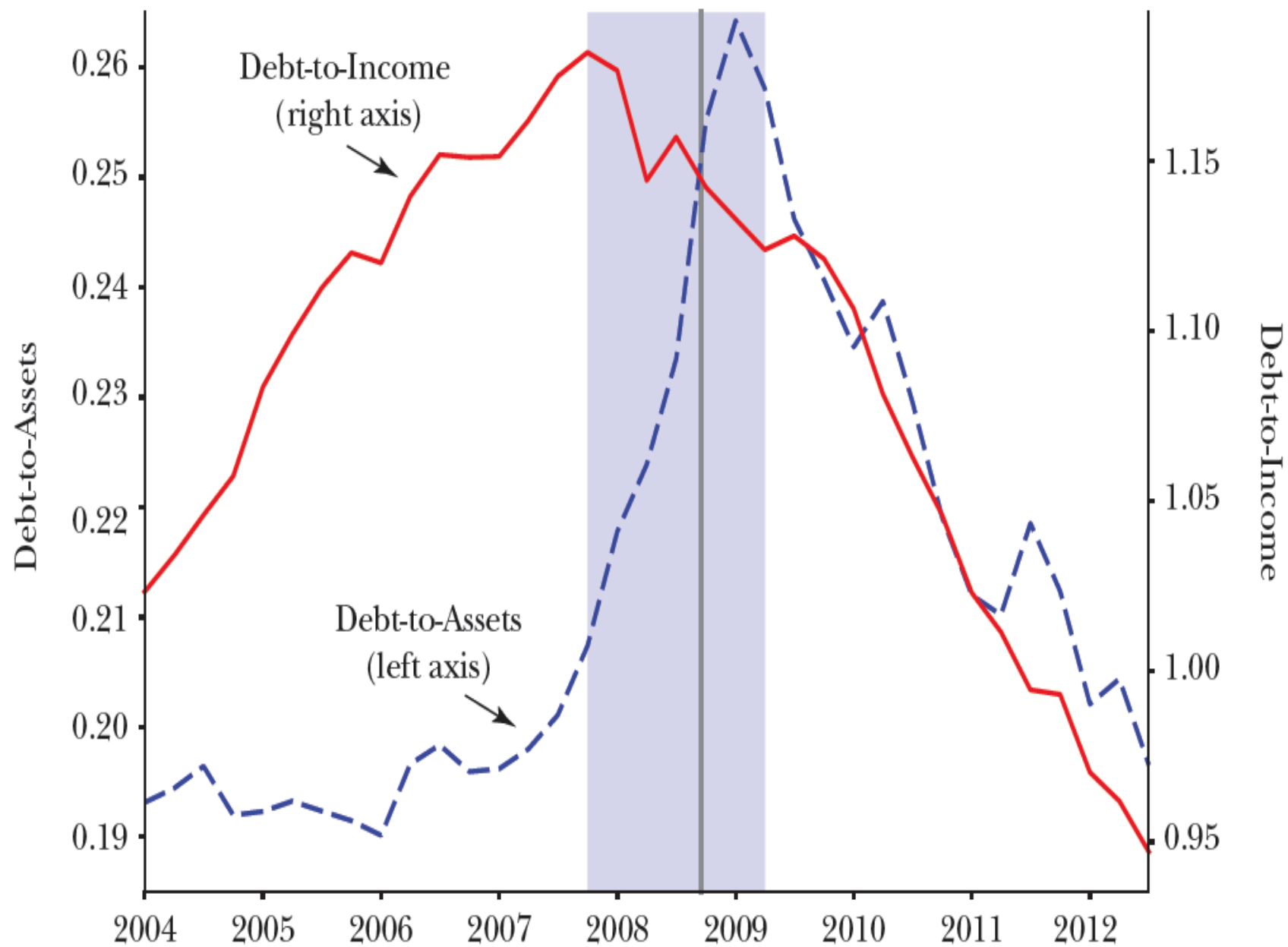


Stylized "Minsky Cycle"

an investment theory of the cycle
and a financial theory of investment



Debt/Income and Debt/Assets: Households



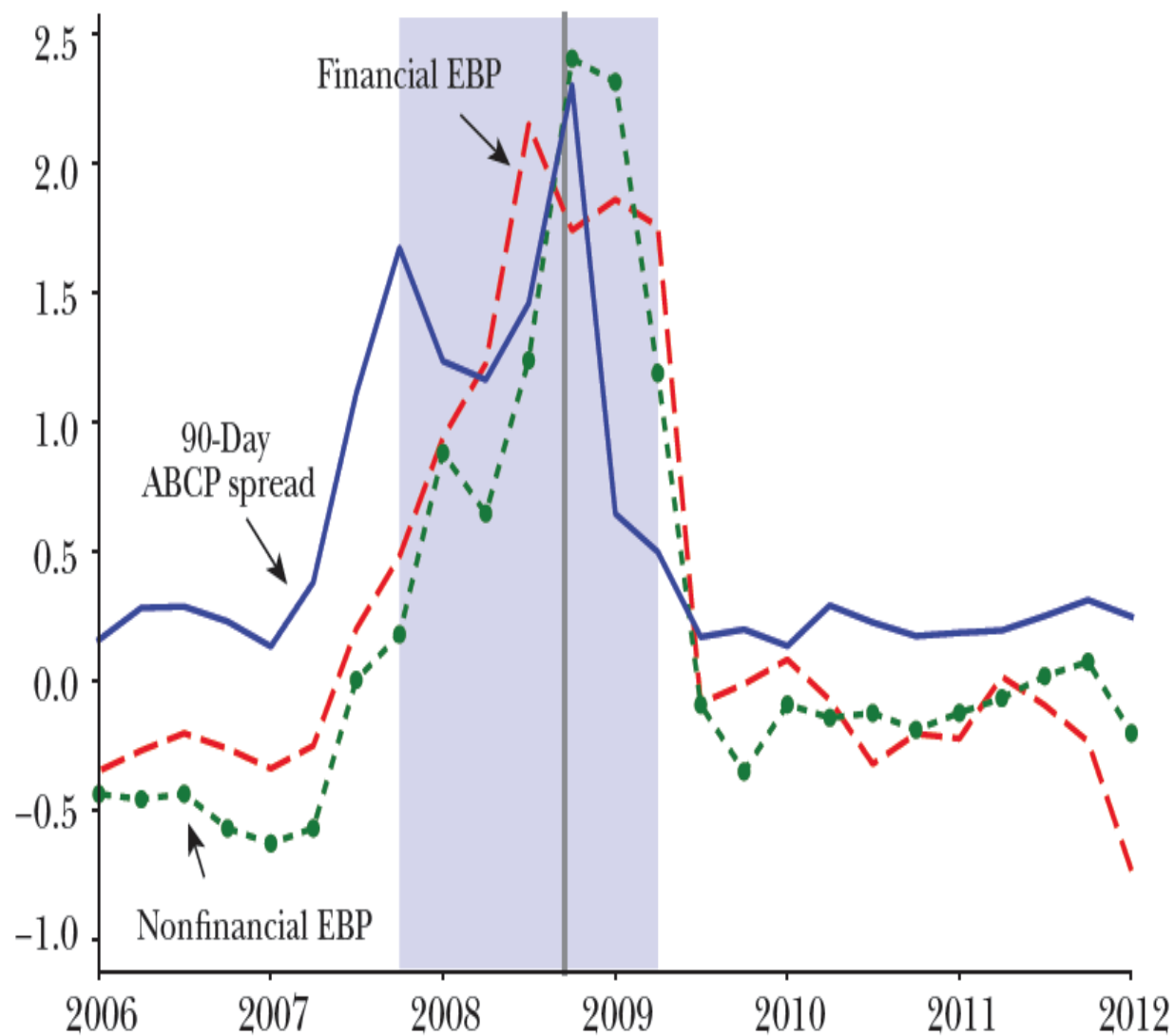
去杠杆

Gertler & Gilchrist (2018)

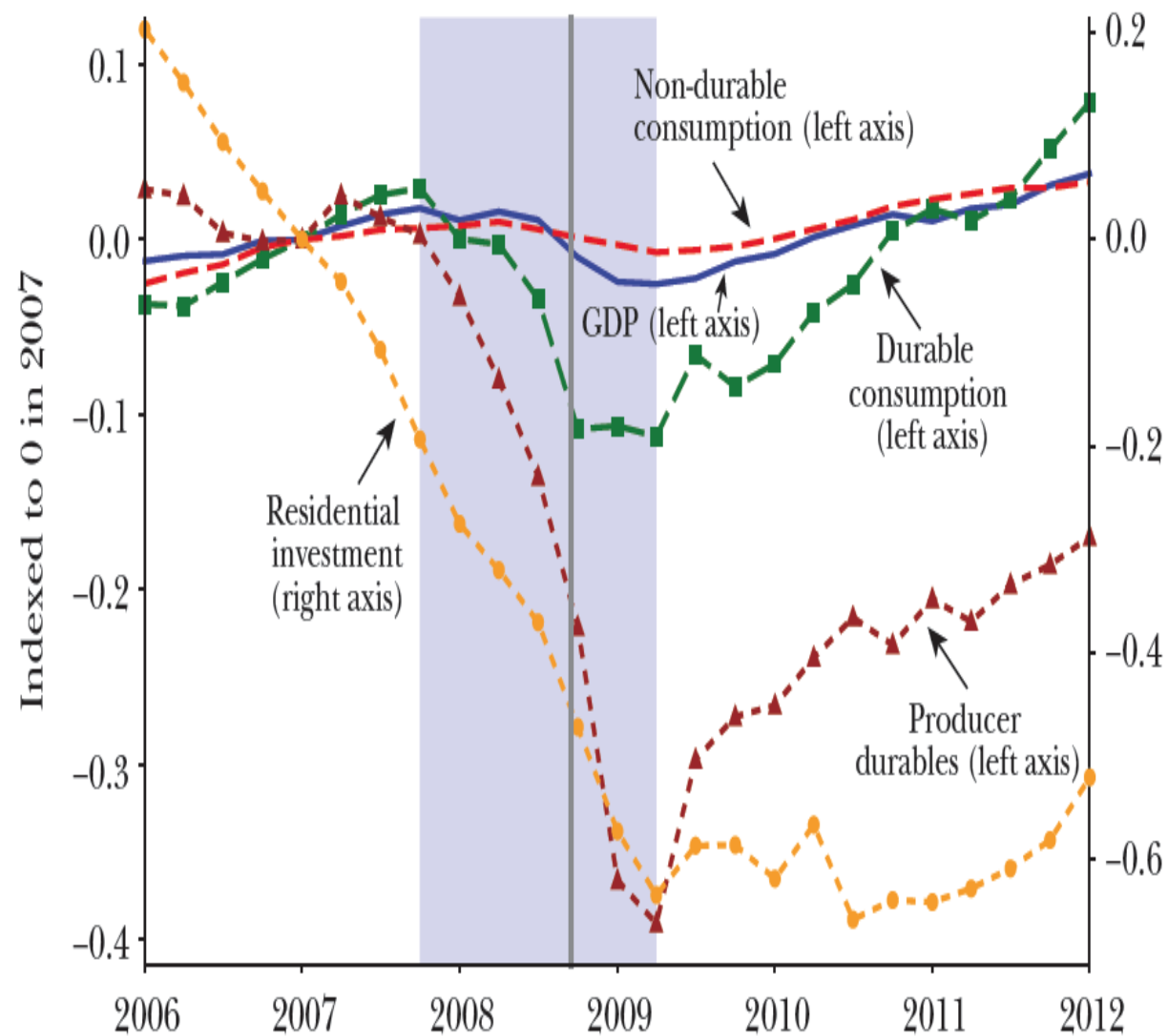
信贷紧缩与信贷的顺周期性

Gertler & Gilchrist (2018)

A: Spreads



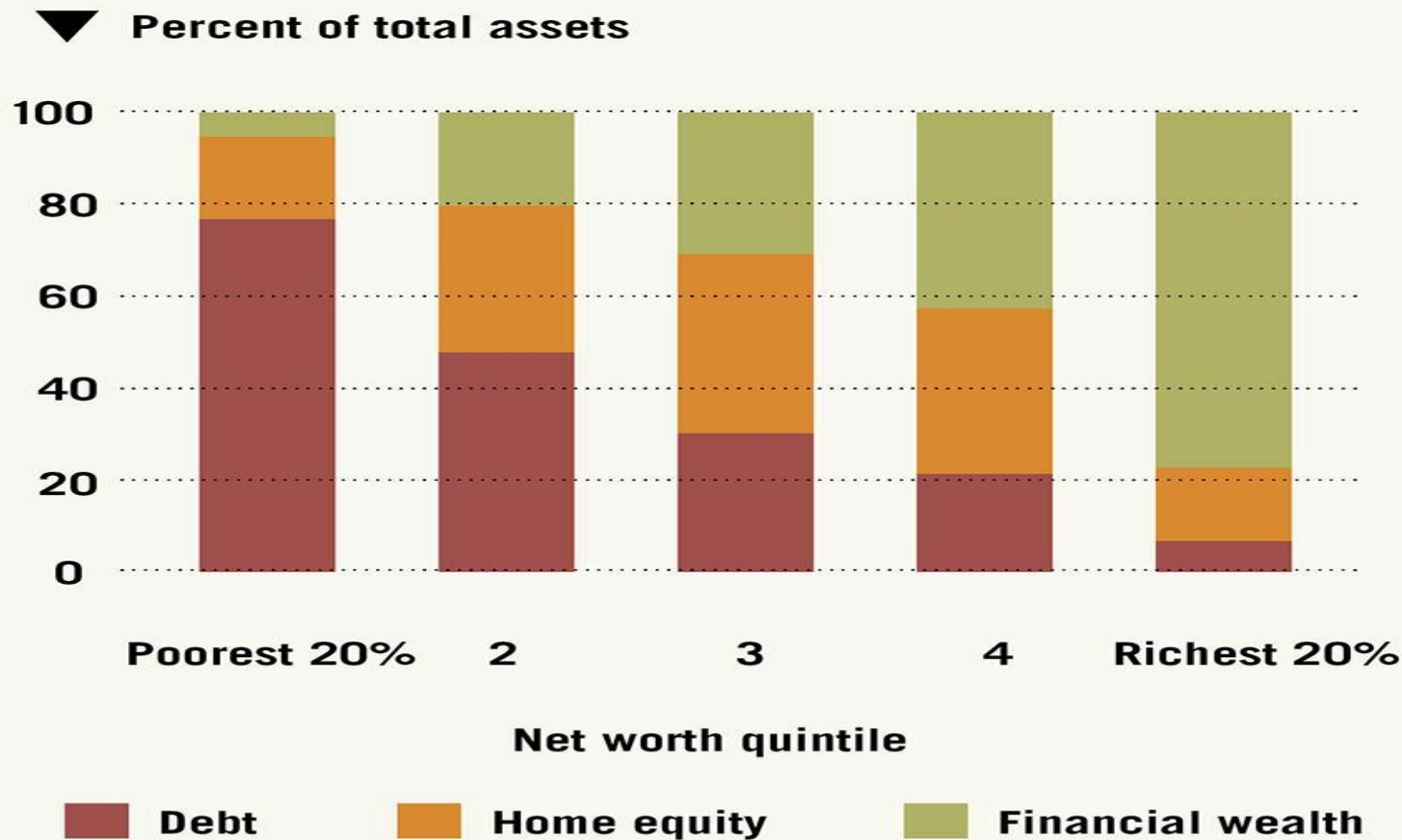
B: Real Sector



The rich were different

In 2007, the richest homeowners had less debt and more nonhousing assets, such as stocks.

Leverage ratio for homeowners, 2007, by net-worth quintile



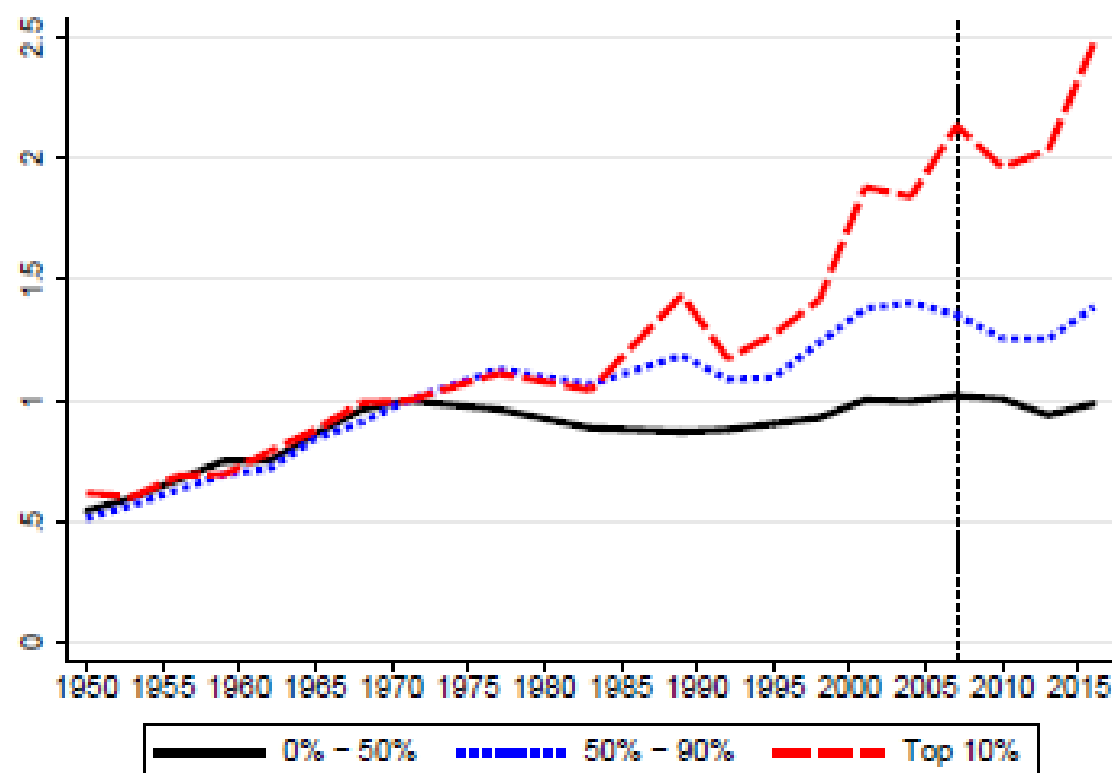
Source: Mian and Sufi, 2014

债务与不平等：

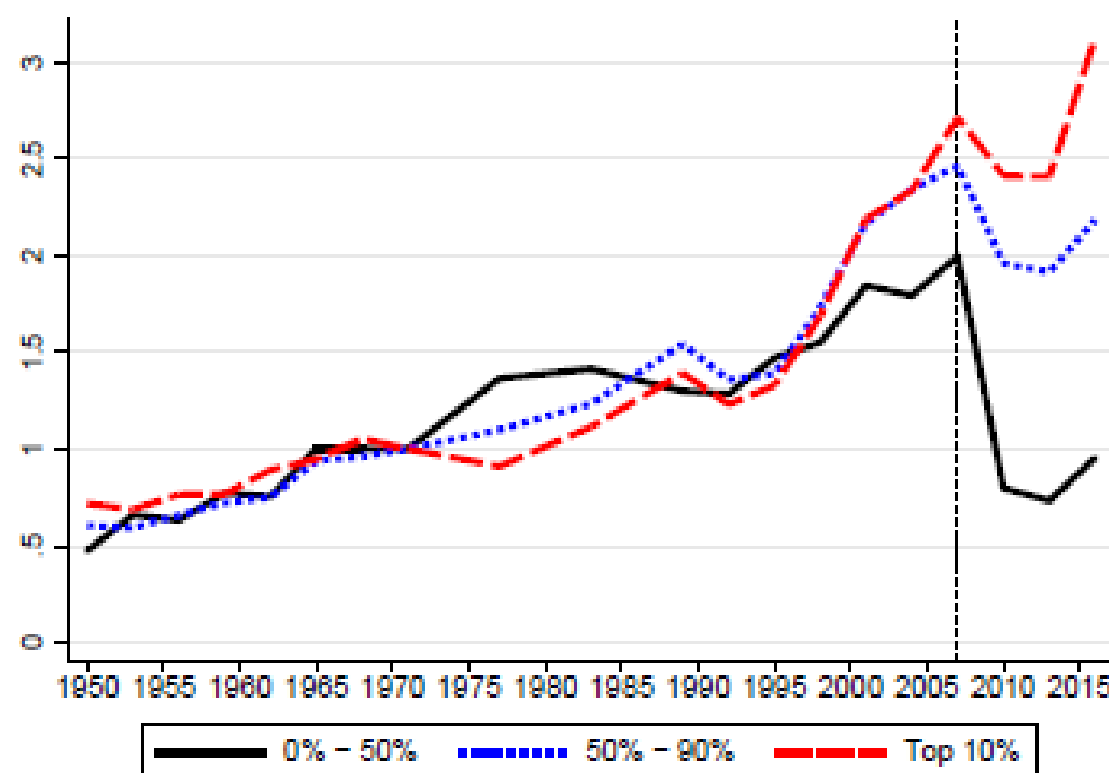
风险集中在债务人（穷人）身上 & 对债权人（富人）的优先保护

Mian & Sufi (2015)

Figure 12: Income and wealth growth along the wealth distribution



(a) Income growth



(b) Wealth growth

杠杆是怎么加上去的？

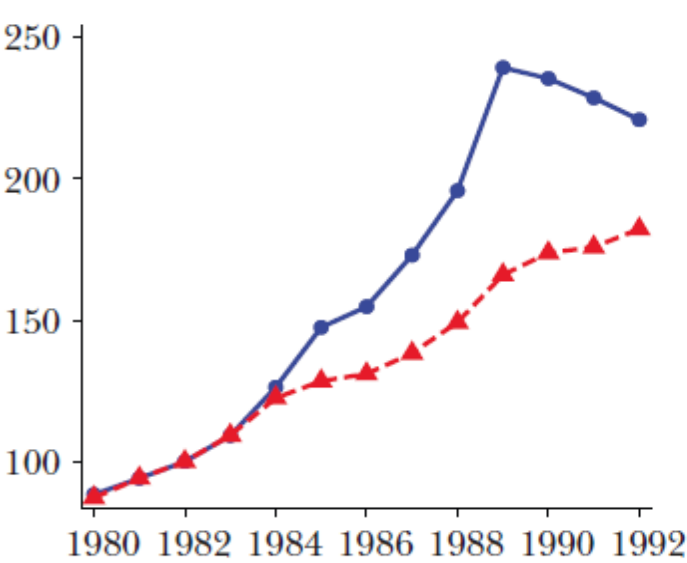
- 经济集聚与特定地区房地产供给不足的矛盾（第四讲）
- 金融放松管制，过度繁荣
- 长期实际利率下降促进投机行为与金融创新
- 实体企业投资需求不足
- 国内贫富差距
- 全球失衡
- 消失的通缩

加杠杆I：金融自由化

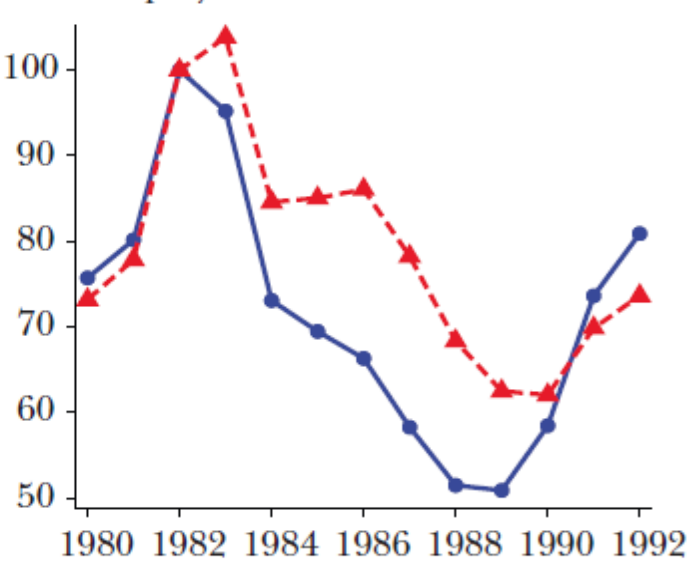
US Banking Deregulation Quasi-Experiment
(outcomes indexed to 100 in 1982)

Mian & Sufi (2018)

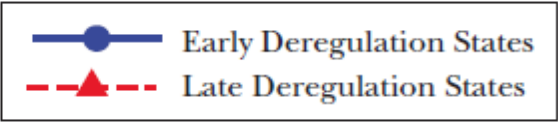
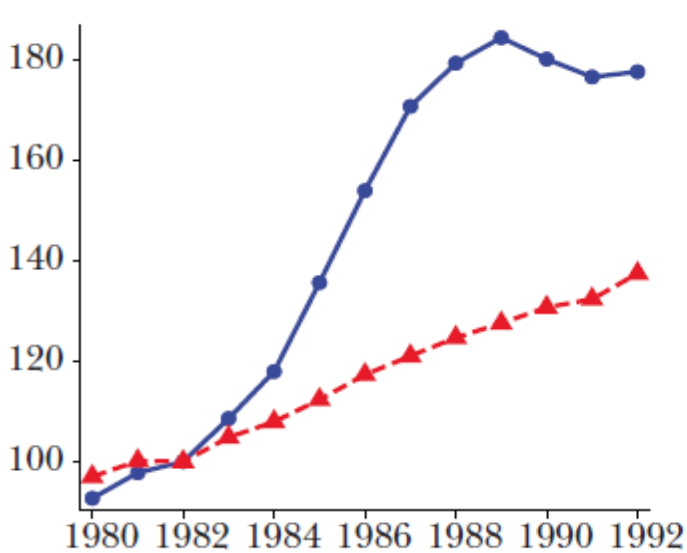
A: Total Bank Credit



B: Unemployment Rate



C: House Price



全球银行危机频率

1945-70	2
1970-80	9
1980-2010	153

Reinhart & Rogoff (2009)

银行与信贷创造：你从银行借10万

银行			
资产		负债	
贷款	10万	存款	10万

你			
资产		负债	
银行存款	10万	借款	10万

限制银行无限扩张的因素：资本充足率，法定准备金率等

银行的炼金术与风险

- 杠杆率太高
- 短期负债与长期资产的错配
- 存款保险下的机构挤提
- 货币市场基金所带来的风险
- 大而不倒？
- 与提高生产率无关的过度信贷（比如房地产）
- 信贷的顺周期性

包商银行破产：资产负债规模**5000**多亿，**2200**多亿资不抵债

- 存款保险：普通储户；**5000**万以下机构；**5000**万以上机构
- 耗尽存款保险基金，**1000**多亿
- 二级资本债**65**亿清零
- 同业负债高于一般储蓄

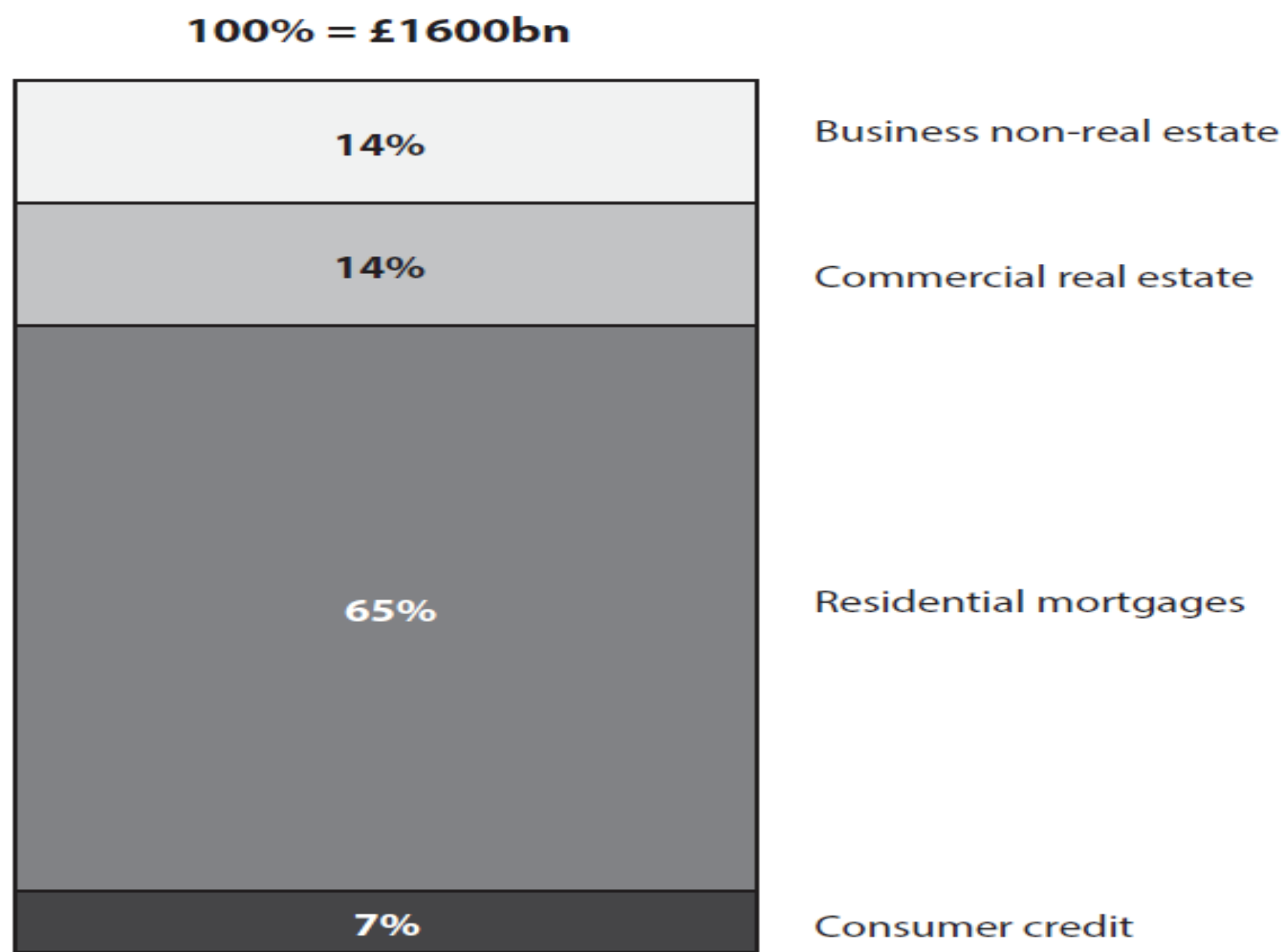
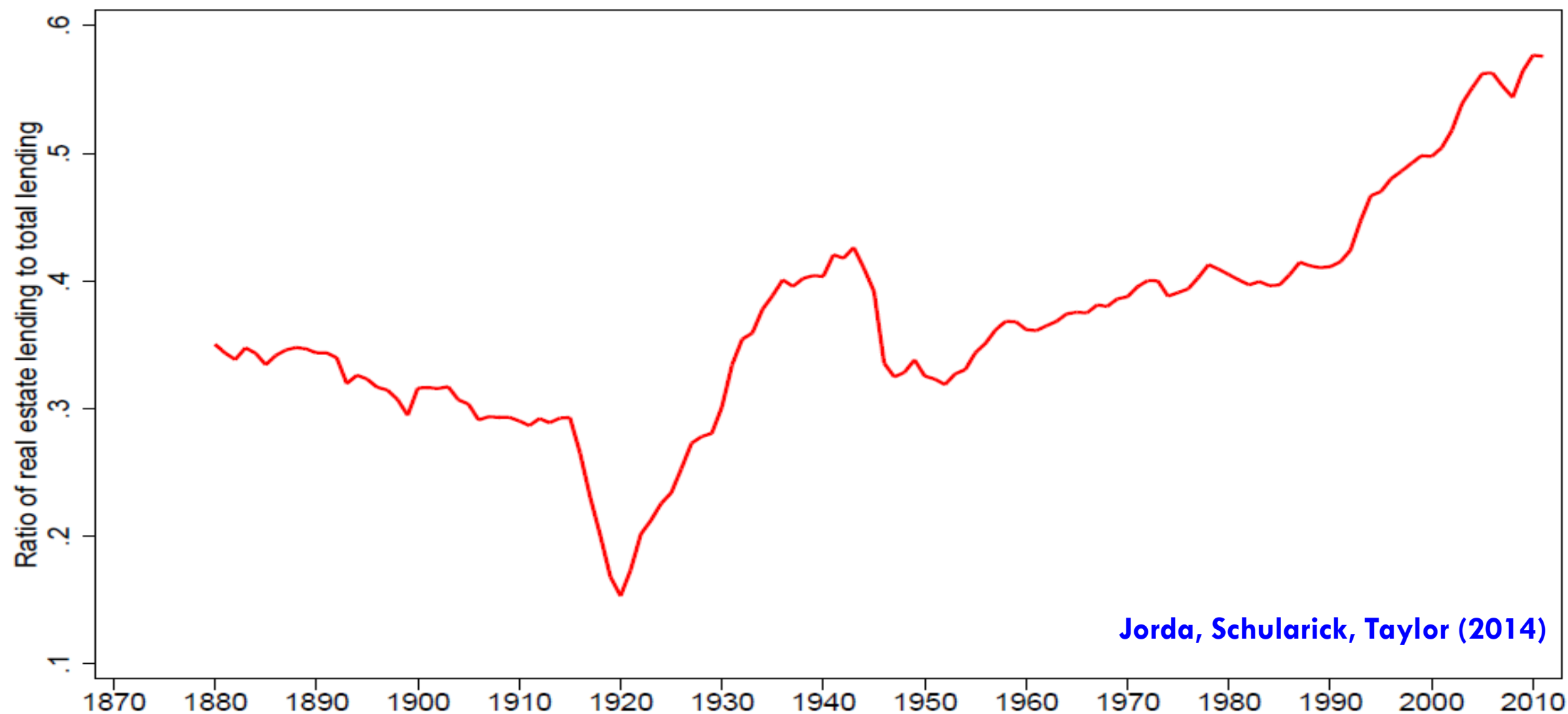


Figure 4.1. Categories of bank lending in the United Kingdom, 2012

Source: Bank of England.

Figure 4: *Aggregate share of real estate lending in total bank lending*



Notes: Share of real estate lending to total lending averaged across 17 countries. Before 1880 the sample size is too small for use. See text.

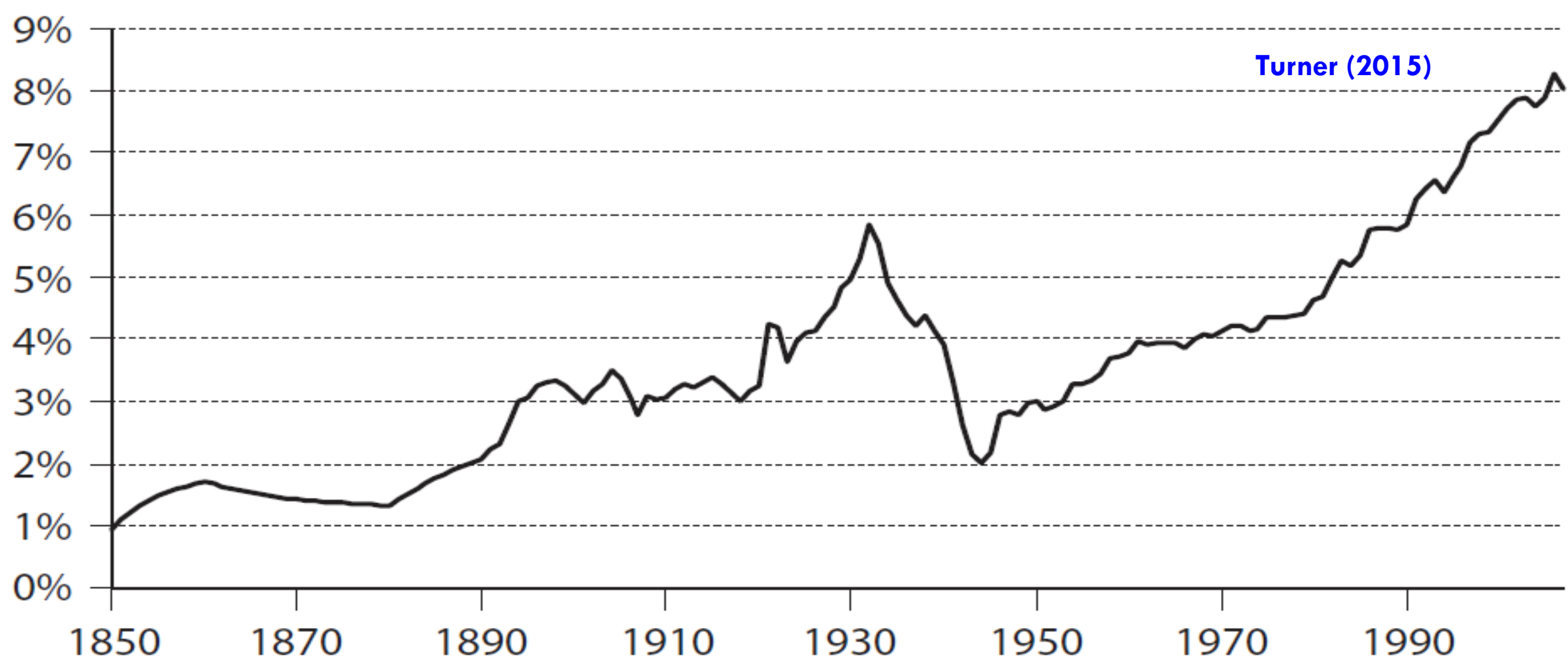


Figure 1.1. Share of the financial industry in U.S. GDP

Source: Philippon (2008) (as referenced by Haldane, Brennan, and Madouros 2010). Used with permission.

金融部门挤占大量人才……直到危机发生

Philippon & Reshef (2012)

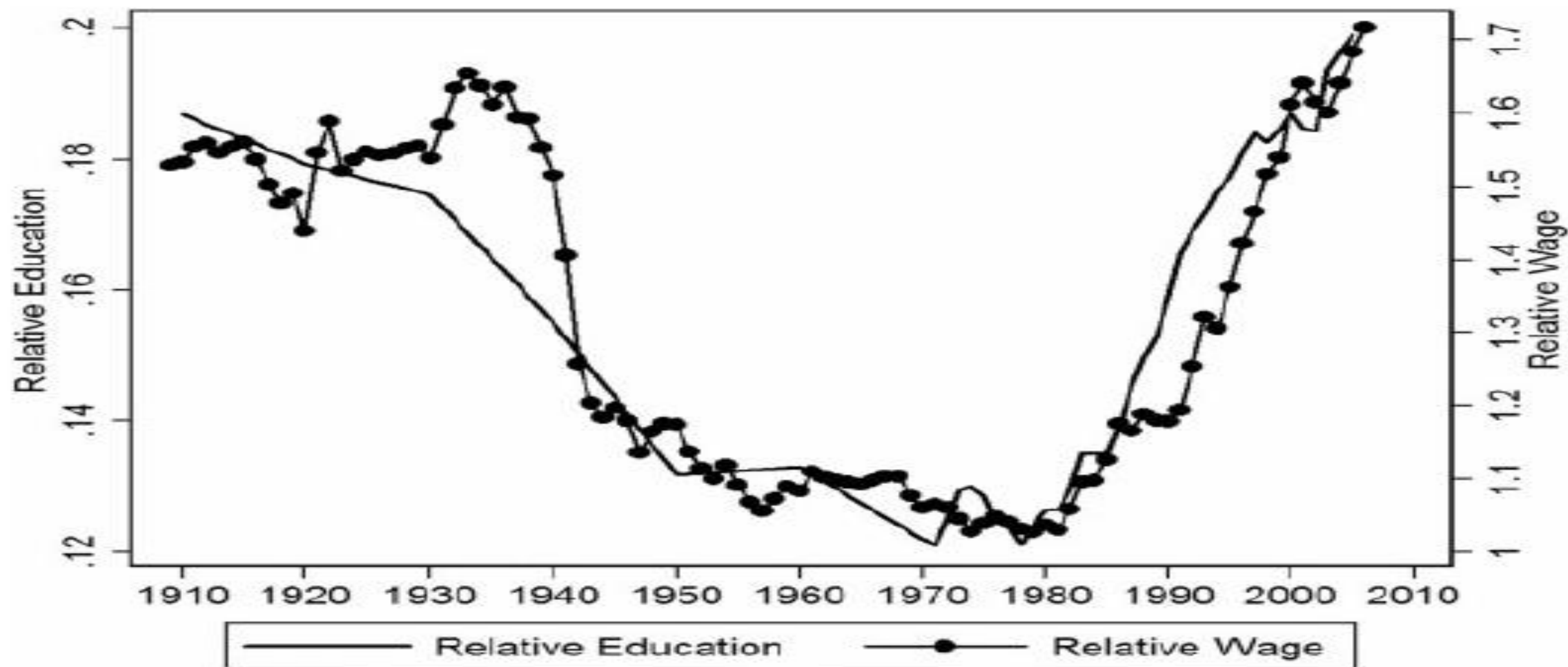


FIGURE I

Finance Relative Wage and Relative Education

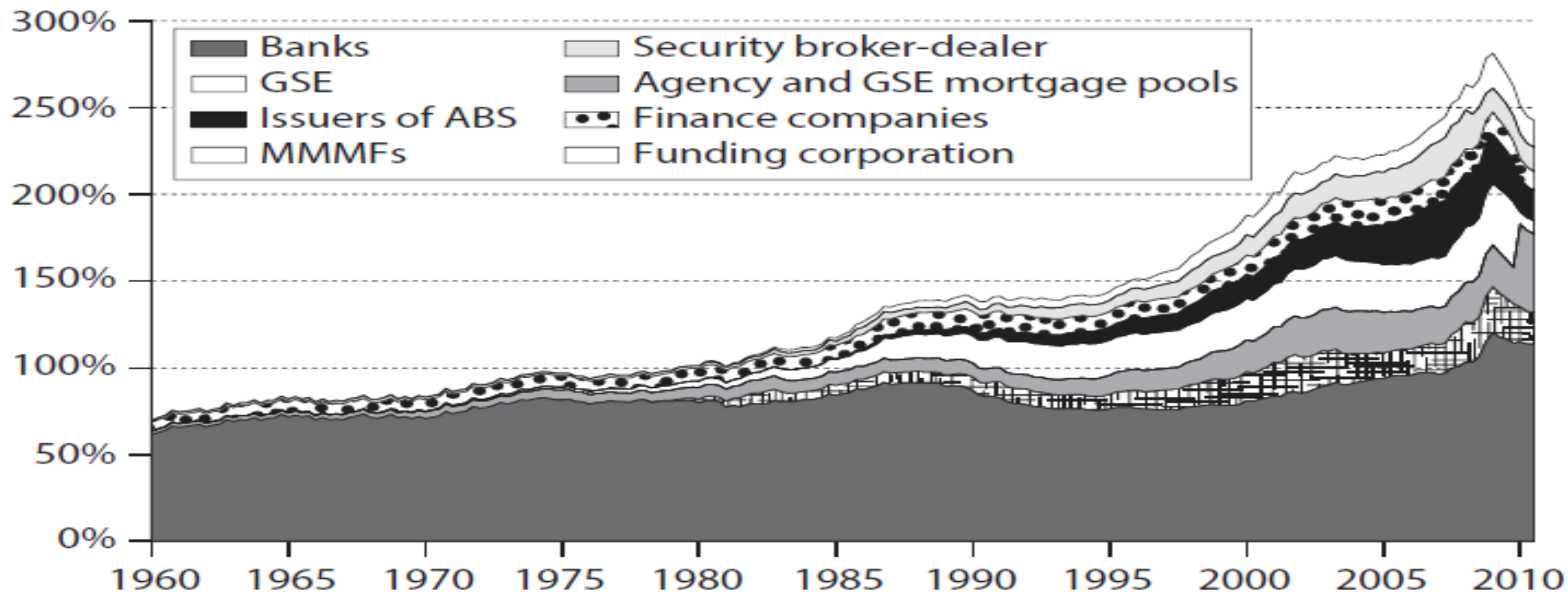


Figure 6.1. U.S. financial sector assets as percentage of GDP

Note: ABS, asset backed securities; GSE, government sponsored enterprise; MMMFs, money market mutual funds.

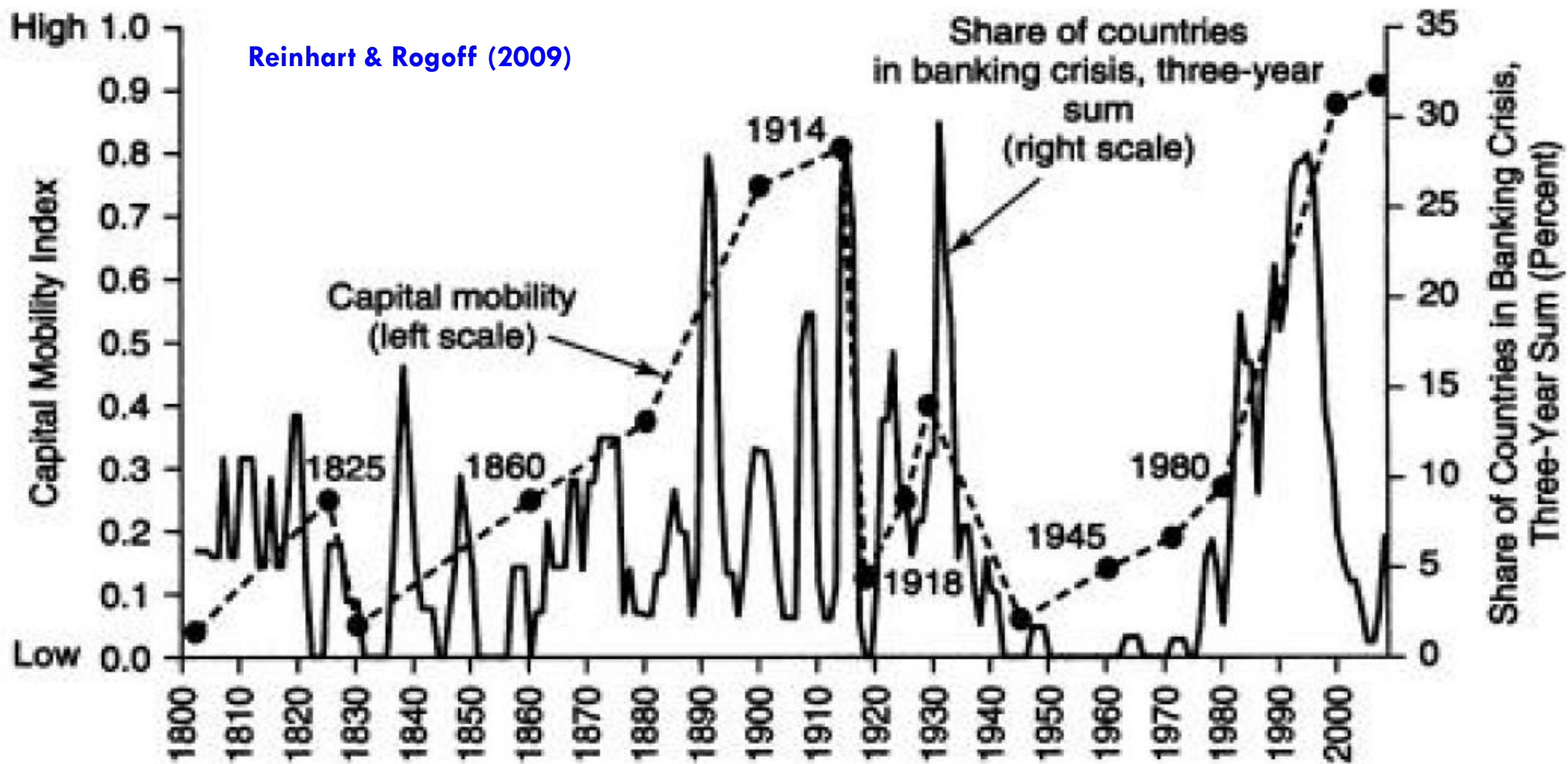
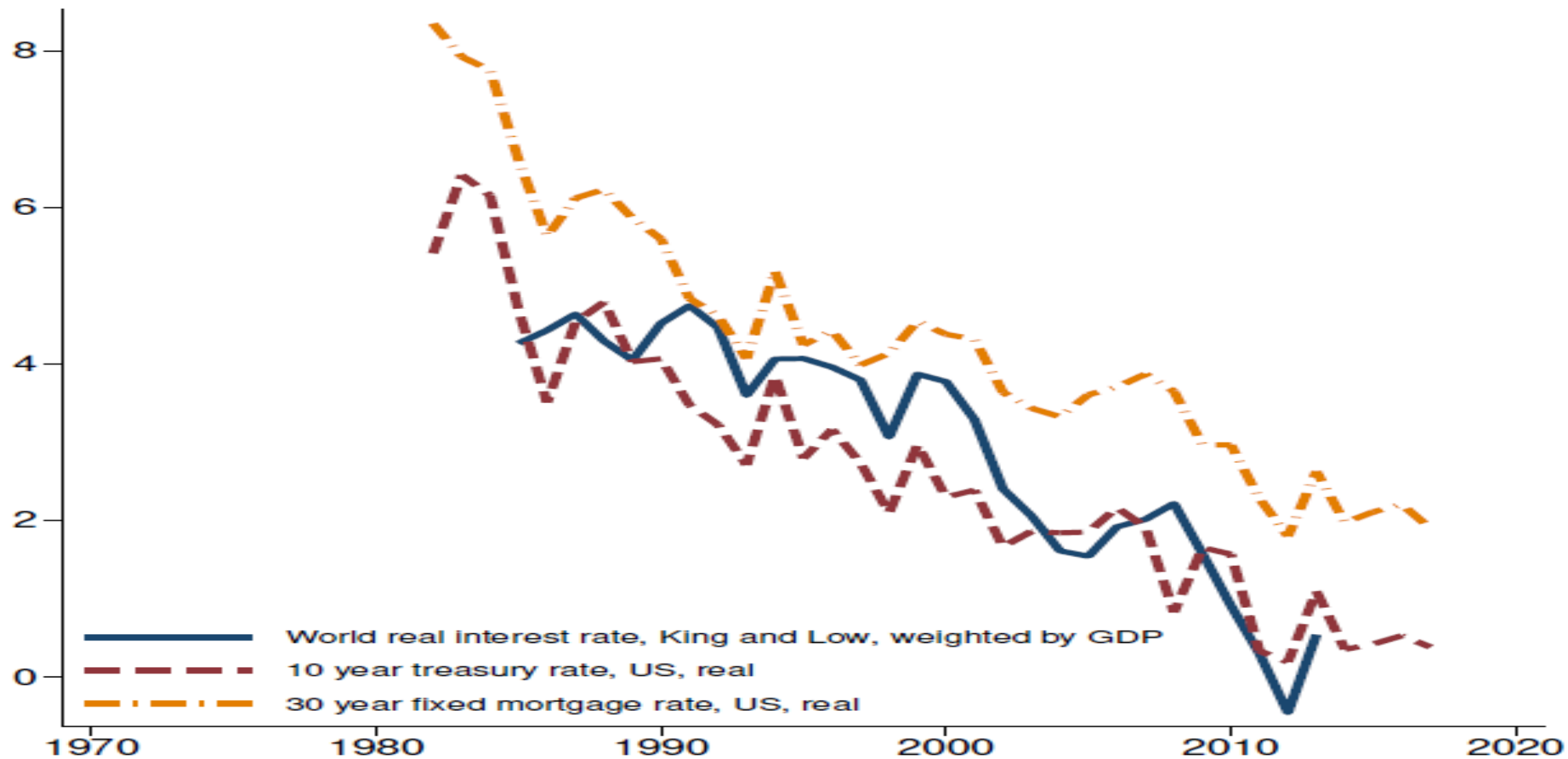


Figure 10.1. Capital mobility and the incidence of banking crises:
All countries, 1800-2008.

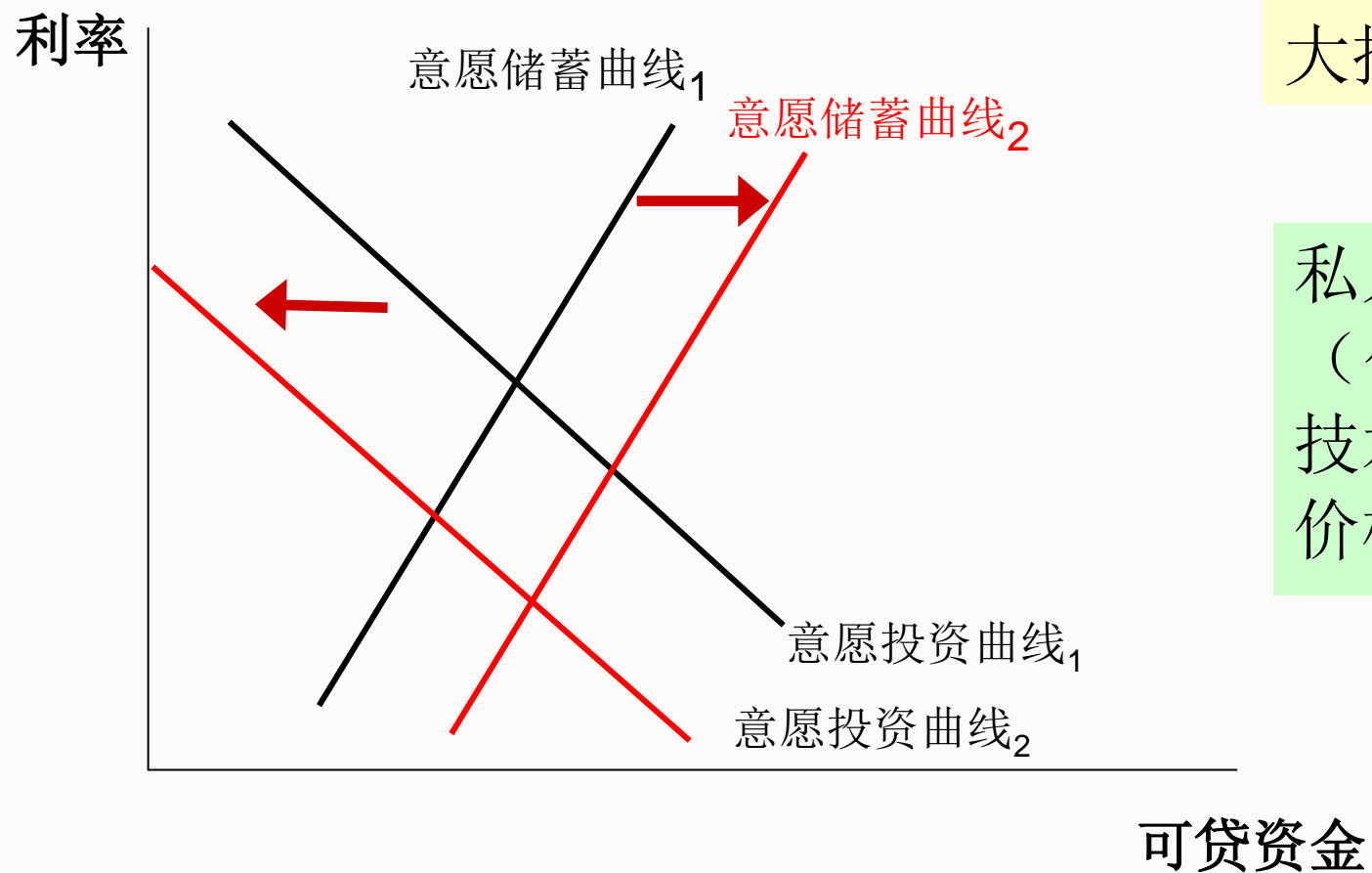
加杠杆II：长期利率下降与金融投机

长期利率下降助推金融投机盛行

Mian, Straub, Sufi (2020a)



均衡利率下降



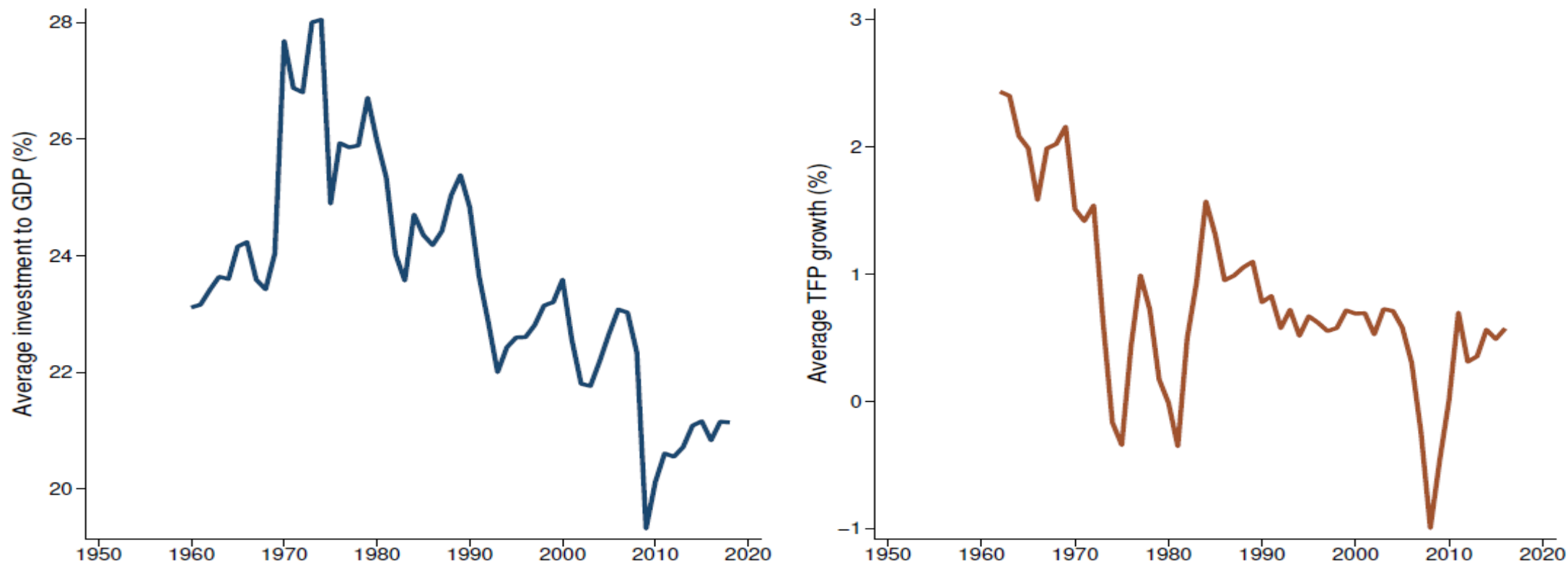
老龄化和贫富差距扩大推动储蓄曲线右移

私人部门投资量下降
(公司持有大量现金, 技术发展降低了设备价格)

实体经济投资需求不足

Mian, Straub, Sufi (2020a)

Figure 3: Secular decline of investment and TFP growth.



Left panel shows cross-country average gross capital formation as a percentage of GDP and the right panel shows cross-country average total factor productivity growth, where the averages are weighted by real GDP in 1970. The countries in the sample are Australia, Canada, Finland, France, Germany, Italy, Japan, New Zealand, Norway, Portugal, Spain, Sweden, United States and United Kingdom. Cross-country averages are constructed over 3-year moving averages at the country-level. Data come from the Penn World Tables and World Bank World Development Indicators.

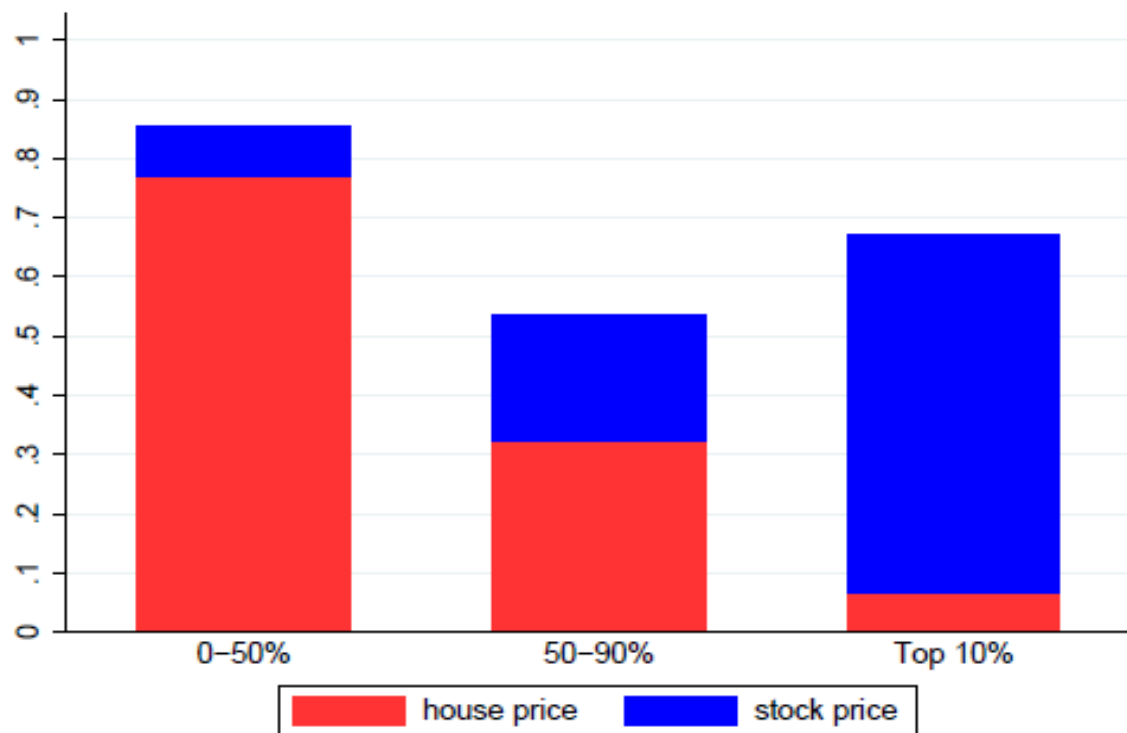
低利率推升资产价格，加大不平等 [Kuhn, Schularick, Steins \(2020\)](#)

Figure 15: Shares in total asset holdings by wealth group for selected years

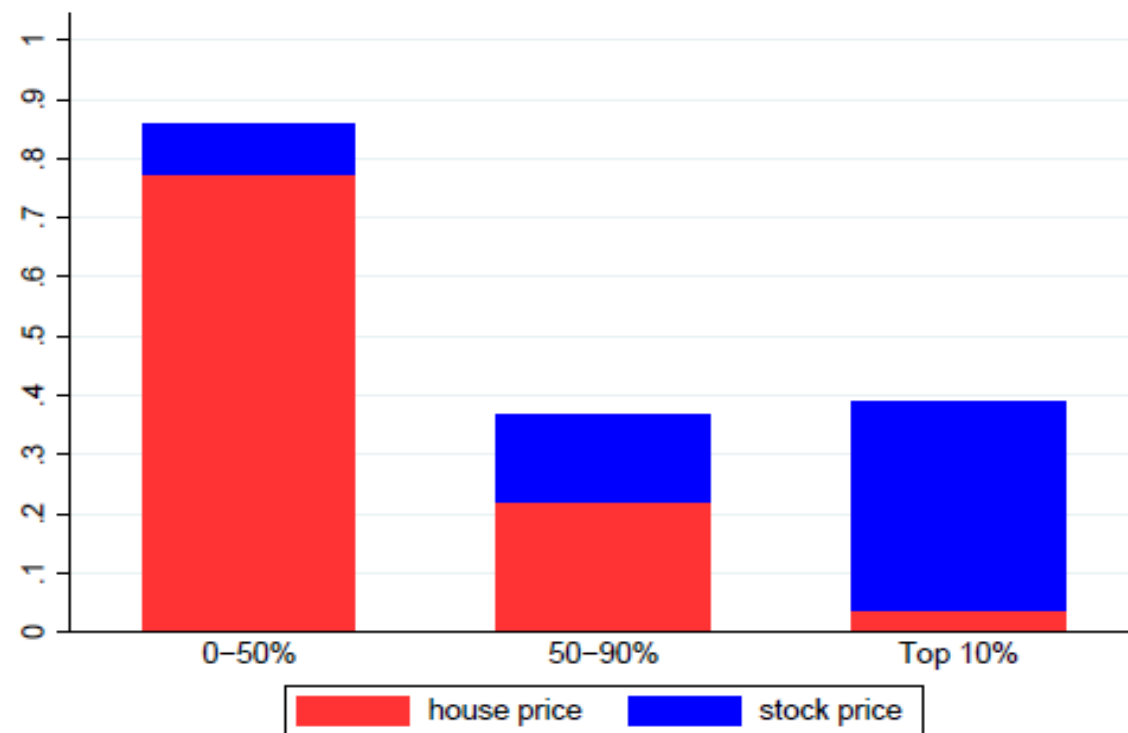


低利率推升资产价格，加大不平等 Kuhn, Schularick, Steins (2020)

Figure 18: Wealth growth from asset price changes, 1971-2007



(a) Wealth growth from asset prices



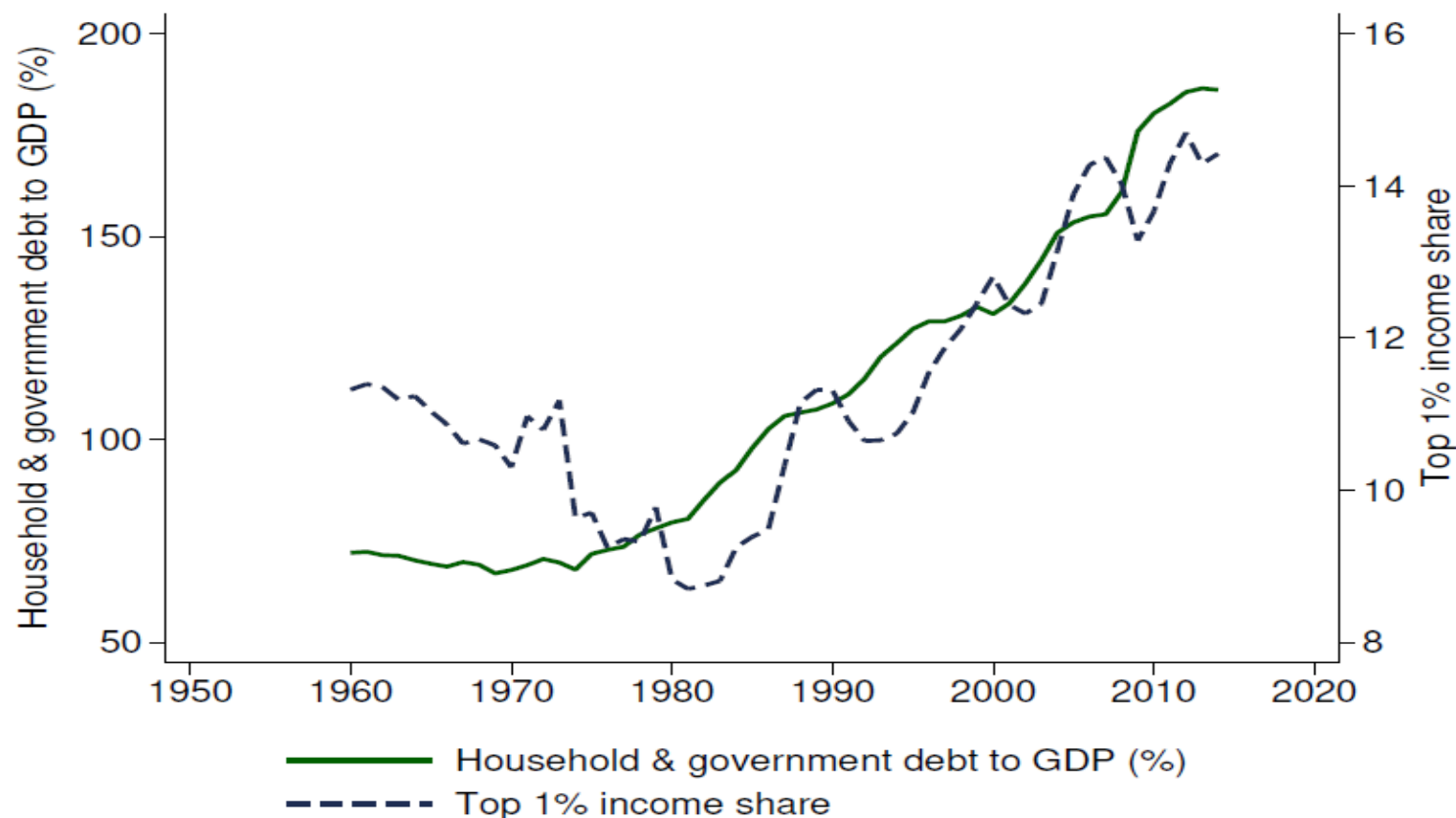
(b) Share in total wealth growth

加杠杆III：国内贫富差距

贫富差距与债务上升

Mian, Straub, Sufi (2020a)

Figure 4: Rising inequality and rising debt.

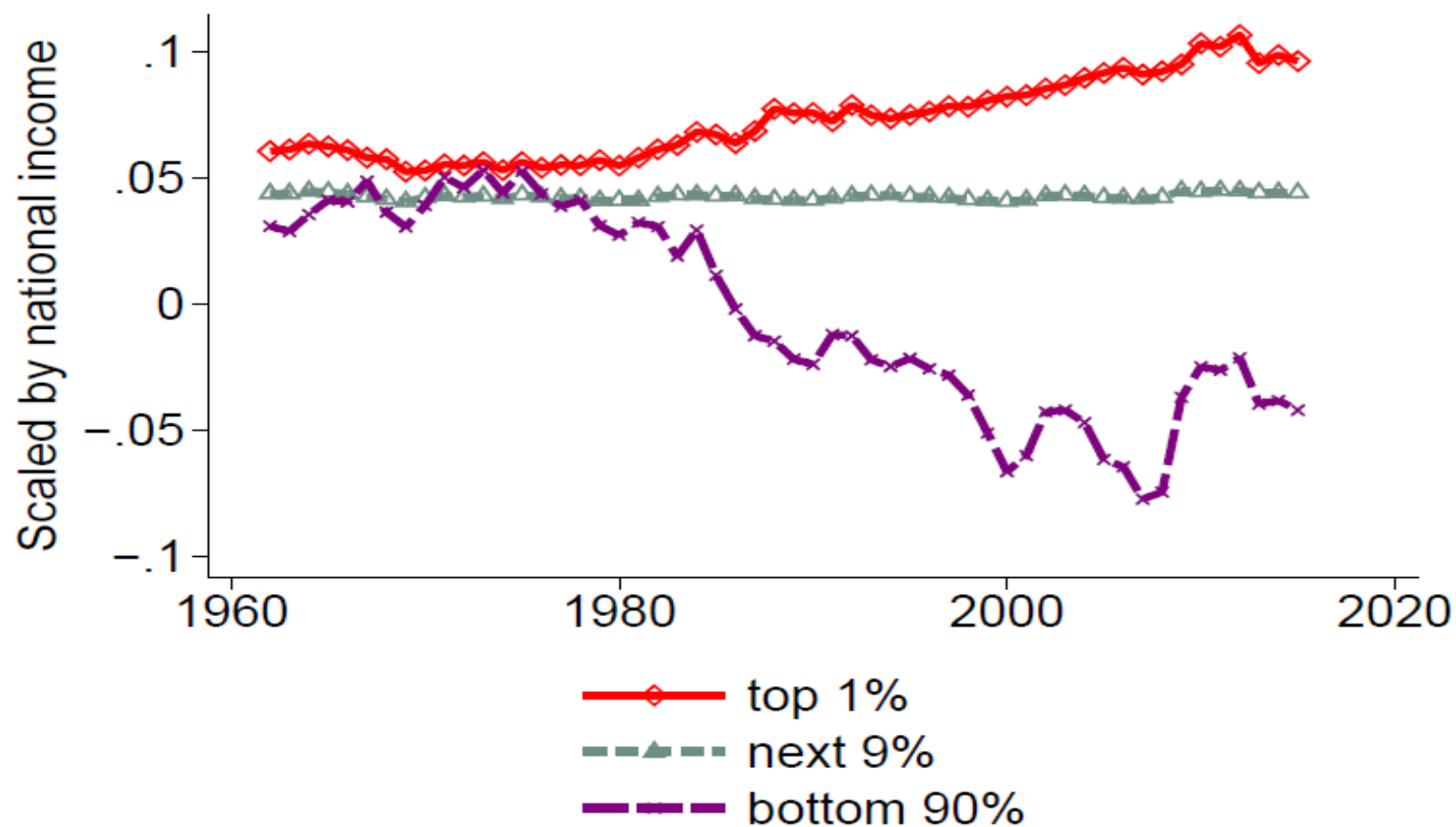


Series are cross-country averages, weighted by real GDP in 1970. The countries in the sample are Australia, Canada, Finland, France, Germany, Italy, Japan, New Zealand, Norway, Portugal, Spain, Sweden, United States and United Kingdom. Data come from the World Inequality Database, IMF Global Debt Database, the Jorda-Schularick-Taylor Macrohistory Database and the New Zealand Treasury.

富人储蓄，穷人借债

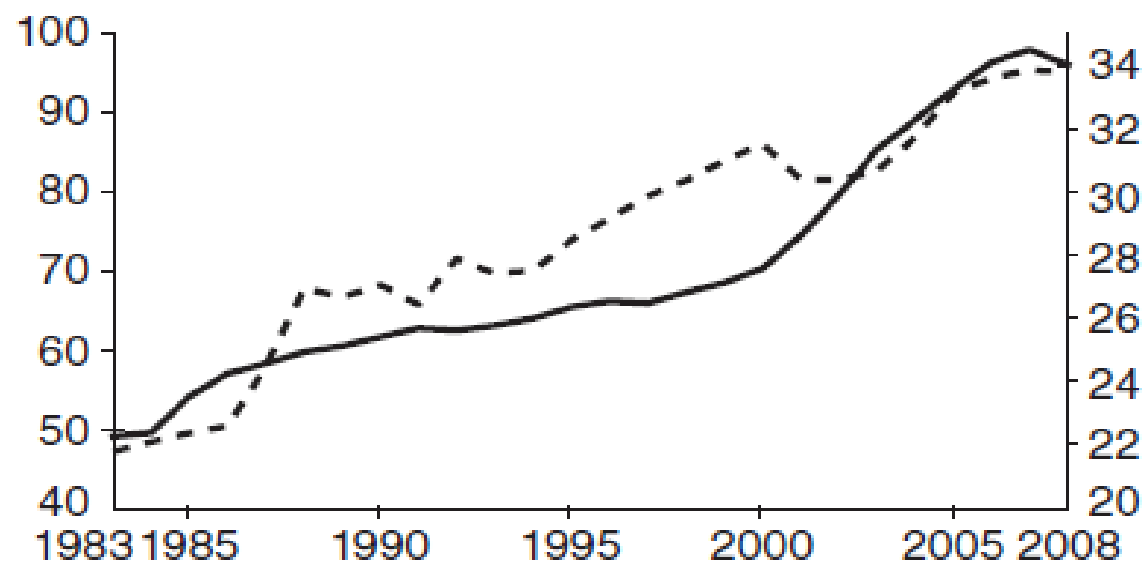
Mian, Straub, Sufi (2020b)

Figure 6: Saving Glut of the Rich and Saving of the non-Rich

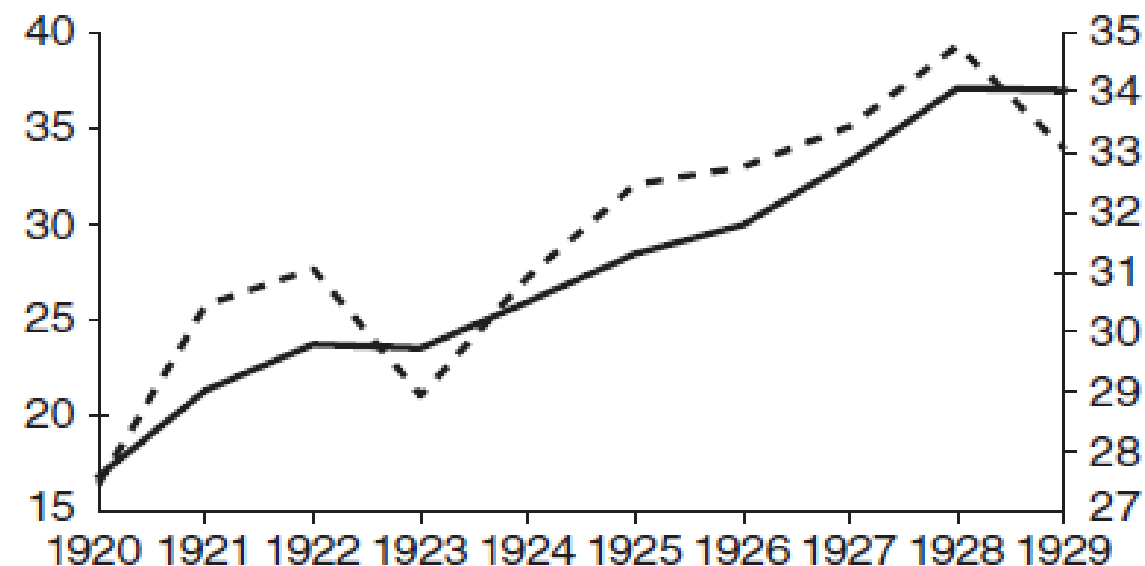


The saving glut of the rich is defined to be the after-tax income of the top 1% of the income distribution minus personal consumption of the top 1% of the income distribution, scaled by national income. The savings of the other two groups is similarly defined.

Panel A. Great Recession



Panel B. Great Depression



Kumhof, Ranciere, Winant (2015)

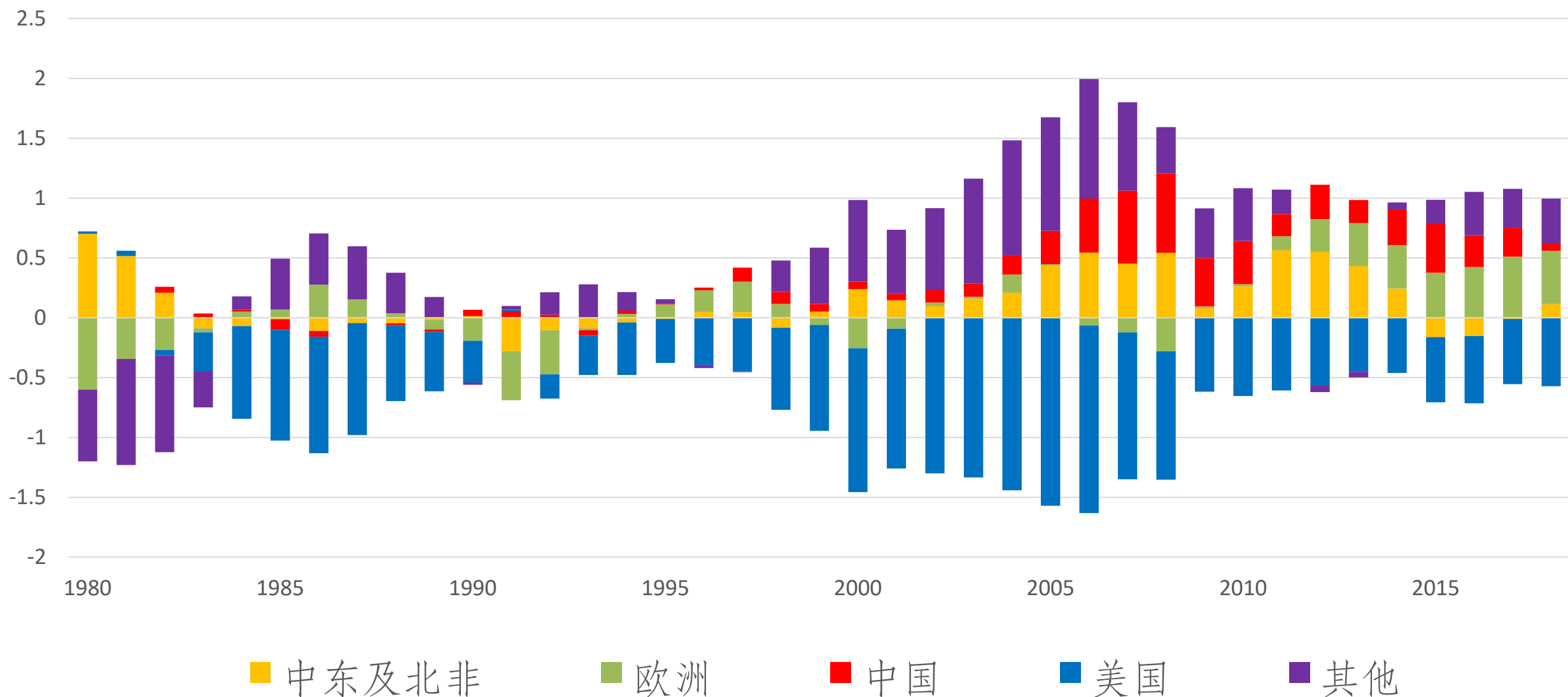
— Household debt to GDP (l.h.s.)
 - - - Share of top 5 percent of income distribution (r.h.s.)

FIGURE 1. INCOME INEQUALITY AND HOUSEHOLD LEVERAGE

Sources: Panel A: Income shares from Piketty and Saez (2003, updated). Income excludes capital gains. Household debt-to-GDP ratios from Philippon (2013), based on Flows of Funds database and Bureau of Economic Analysis (BEA). Income shares from Piketty and Saez (2003, updated). Panel B: Income excludes capital gains. Household debt-to-GDP ratios from Philippon (2013), based on Historical Statistics of the United States (Millennial Edition) and Surveys of Current Business.

加杠杆IV：国际收支不平衡

全球经常账户余额占GDP比重



美国服务贸易顺差（十亿美元）

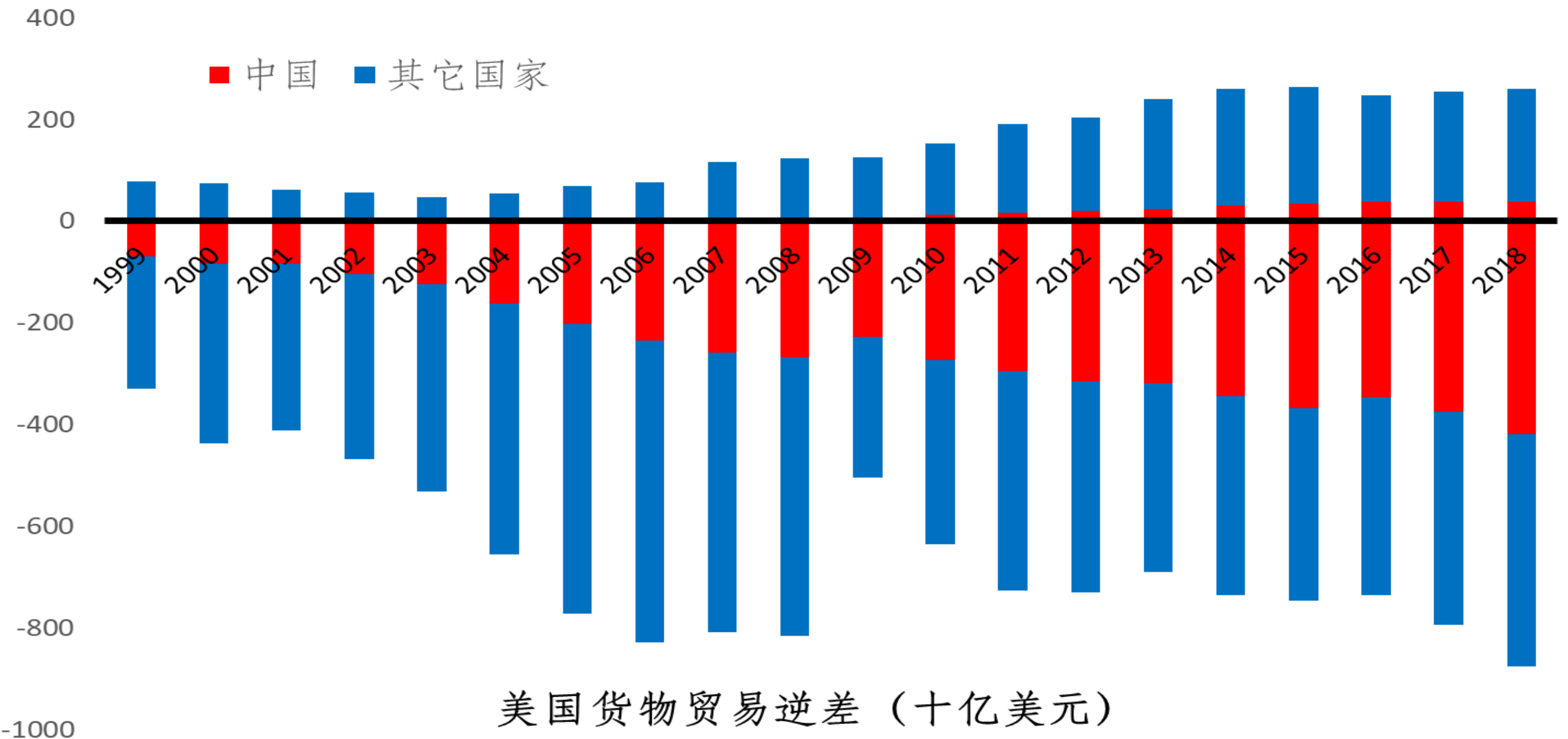
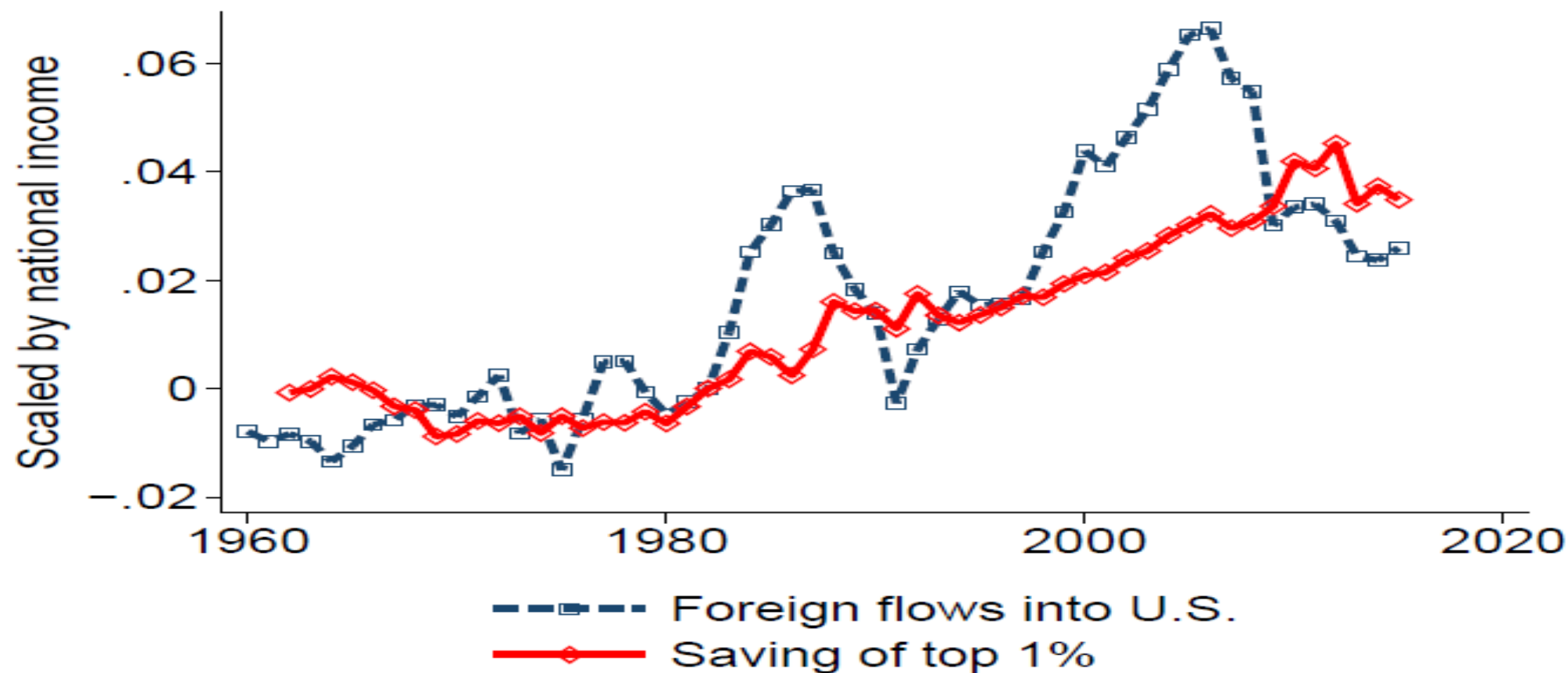
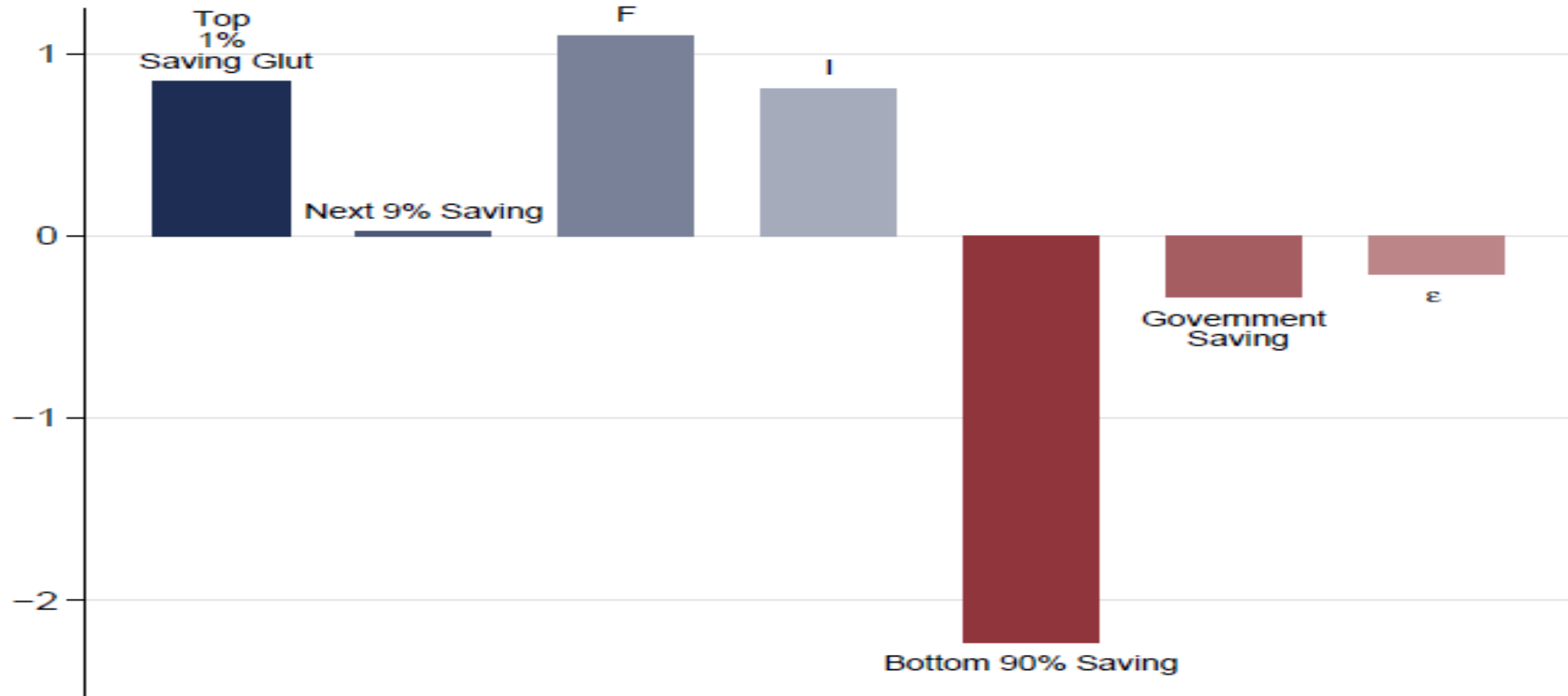


Figure 5: Saving Glut of the Rich and the Global Saving Glut



$$S(\text{private}) + S(\text{government}) = I + NCO$$

Figure 7: Absorption of the Accumulated Saving Glut of Rich



不能只看单向“净流量”，还要看双向总量

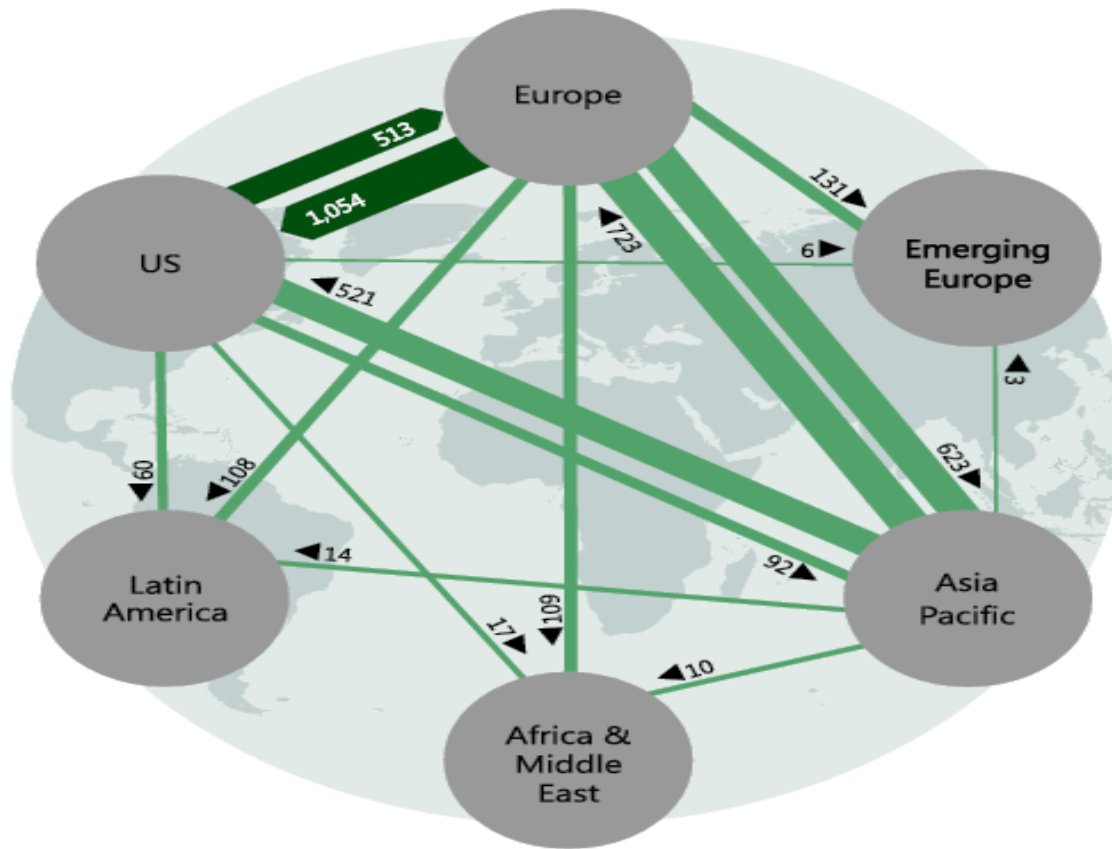
Cross-border bank claims (denominated in all currencies)¹

In billions of USD

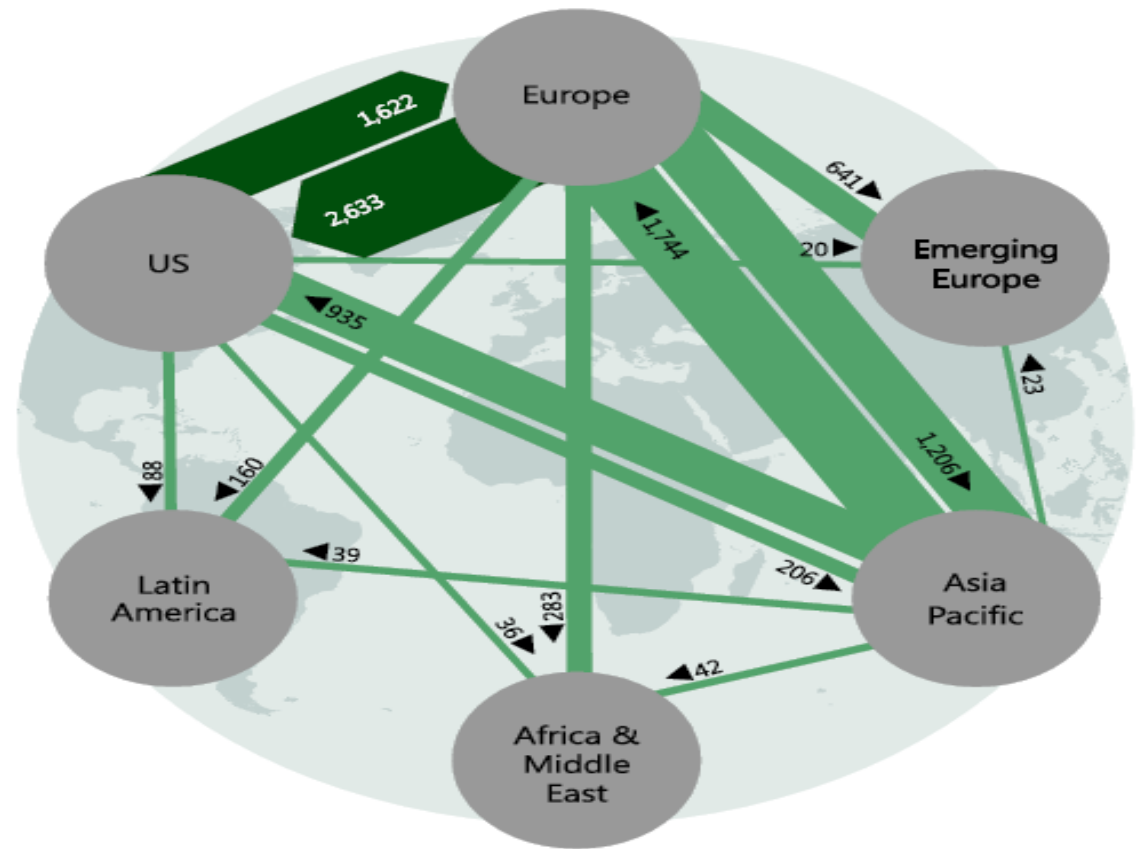
Avdjiev, McCauley, Shin (2015)

Graph 6

2002



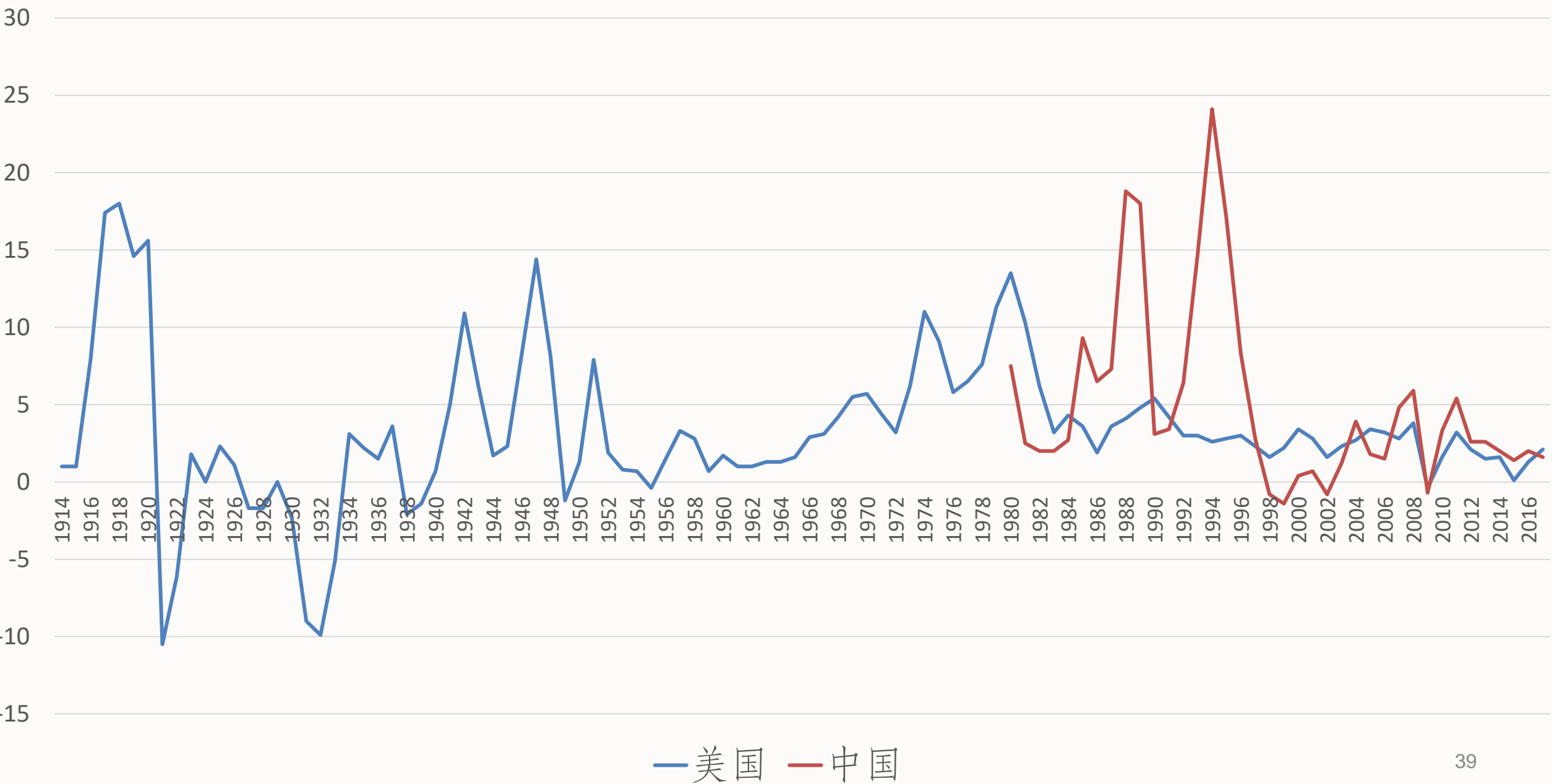
2007



¹ The thickness of the arrows indicates the size of the outstanding stock of claims. The direction of the arrows indicates the direction of the claims: arrows directed from region A to region B indicate lending from banks located in region A to borrowers located in region B.

加杠杆V：通货紧缩消失

消失的通缩：CPI历史数据



中国的情况

宏观杠杆率

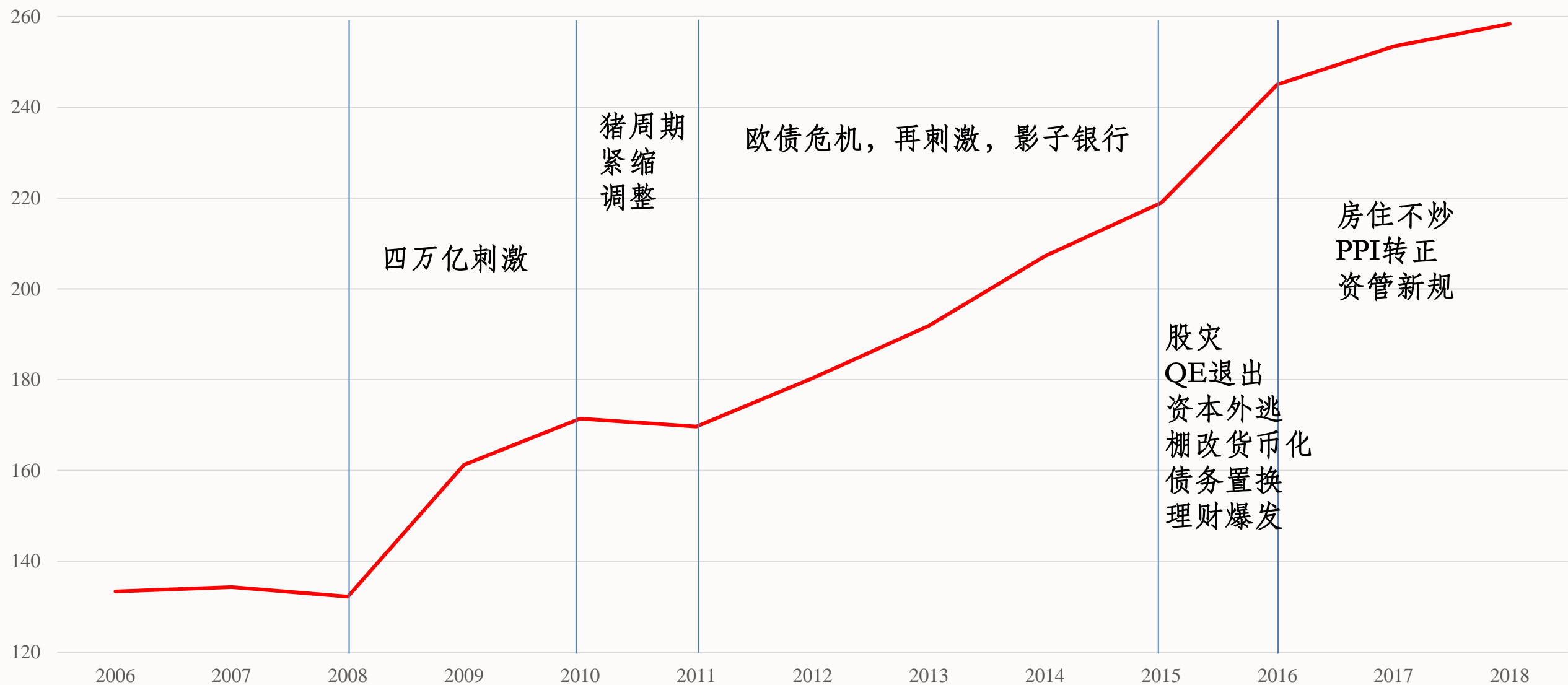
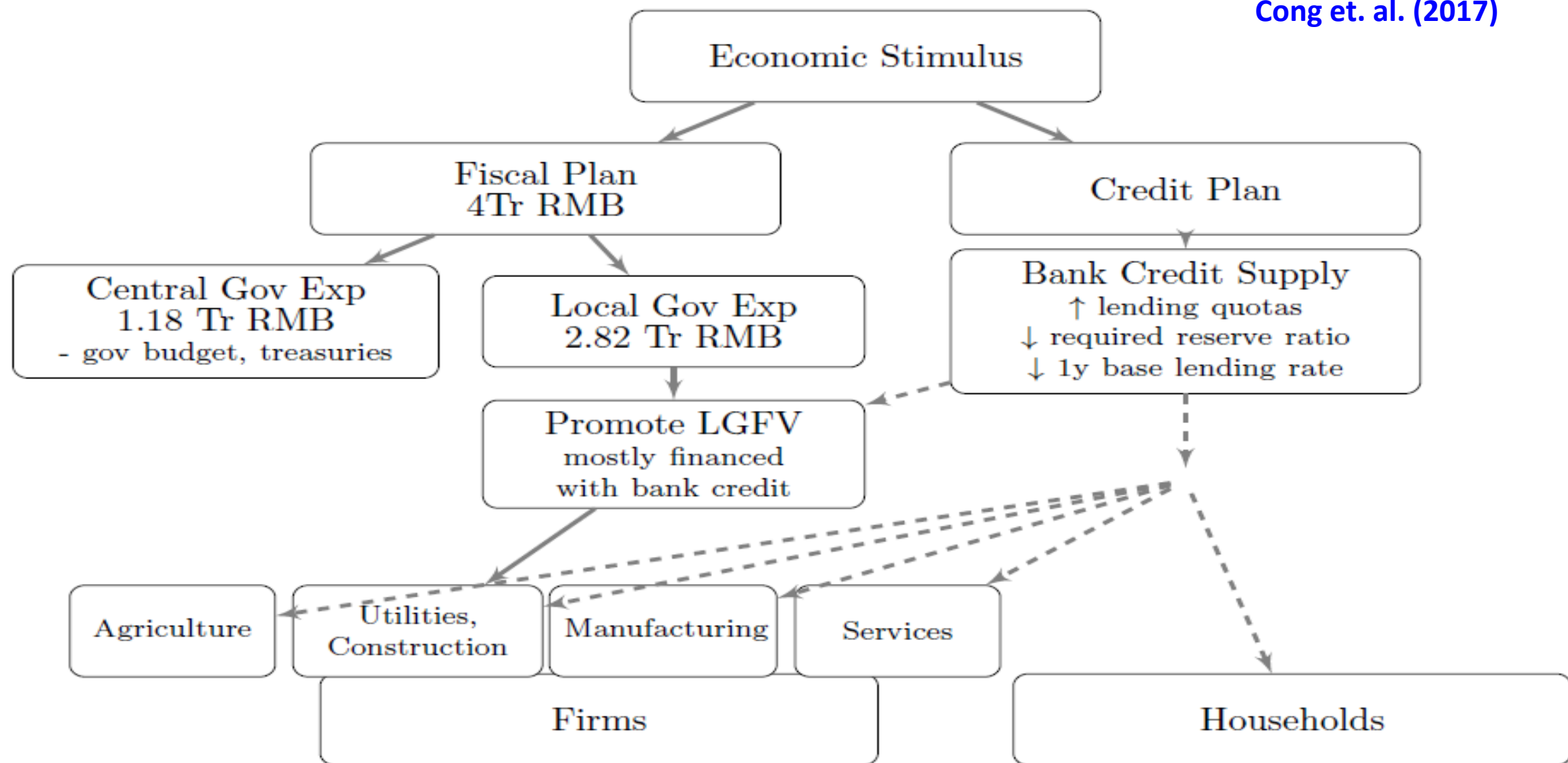


Figure 1: Structure of China Economic Stimulus Plan

Cong et. al. (2017)

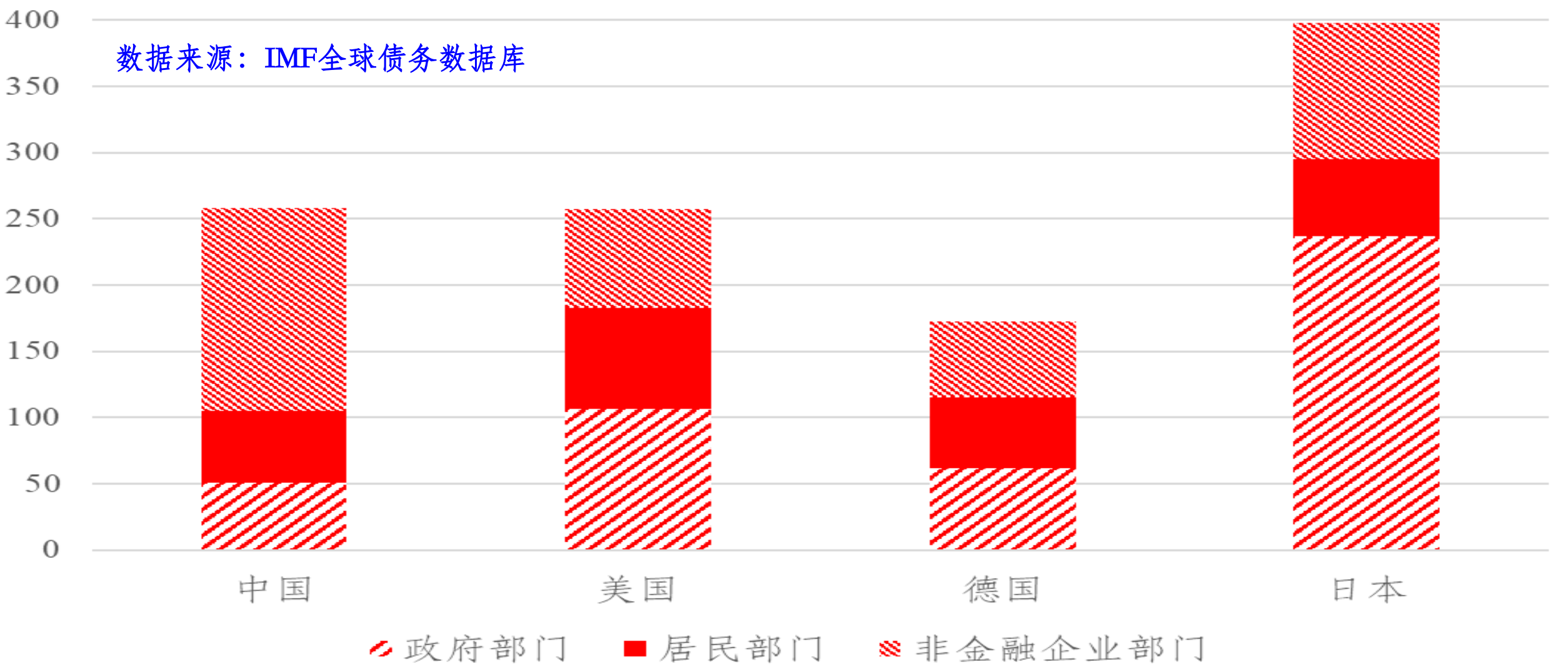


中国的债务风险

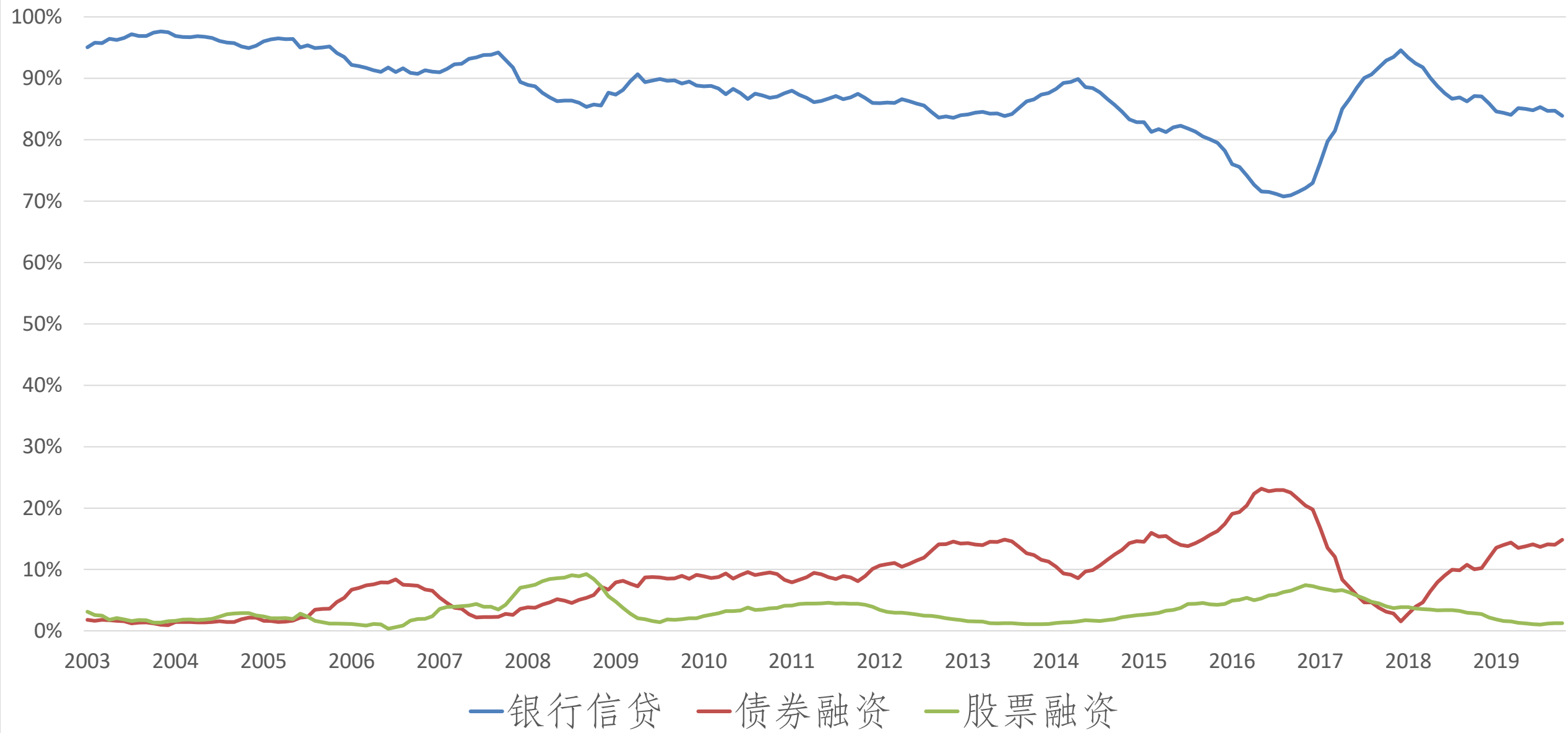
- 居民户：房子和消费贷的风险（第四讲）
- 地方政府：地方债和地价的风险（第三讲）
- 企业风险
- 银行风险

企业债务占GDP比重，2018

数据来源：IMF全球债务数据库



社会融资规模中各种融资方式占比



资料来源：Wind

地方政府融资平台的资产回报率

企业风险I：资本
使用效率下降

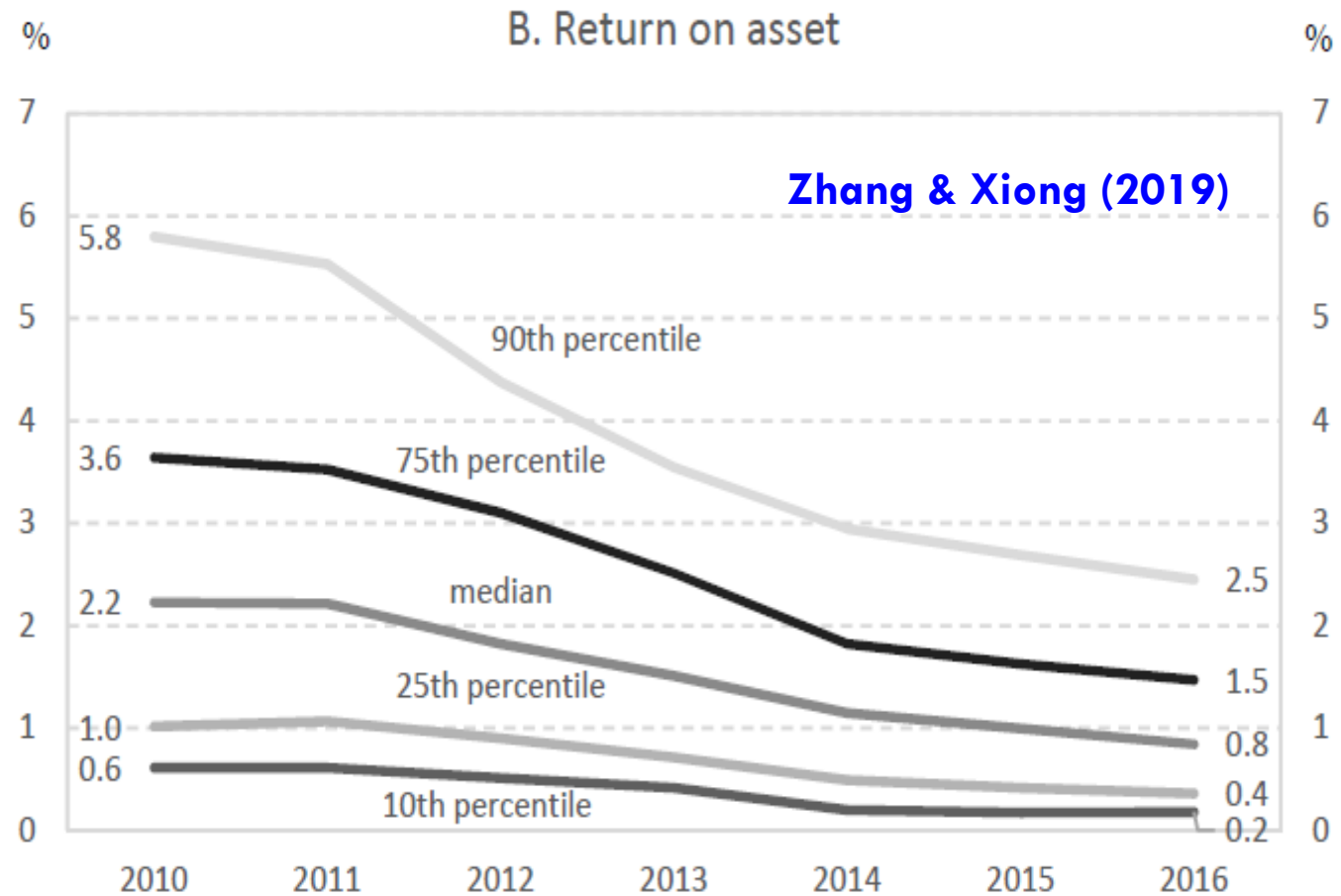


Figure 5 LGFV debt-to-asset ratio and return on asset

Source: Author's calculations, WIND. Based on a balanced panel of 1109 LGFVs.

企业风险II：“国进民退”？

- 2008-2017

国企资产总额：4.4倍（1998-2007：1.6倍）

国企负债/GDP（含企业间负债）：78% - 144%

国企营收/GDP：72% - 65%

国企利润/GDP：4.2% - 3.9%

- 关于国企数据的说明：财政部 vs. 国资委

- “僵尸企业”/破产重组

Figure 11: Firm Debt Revenue Ratios

Bai, Hsieh, Song (2016)

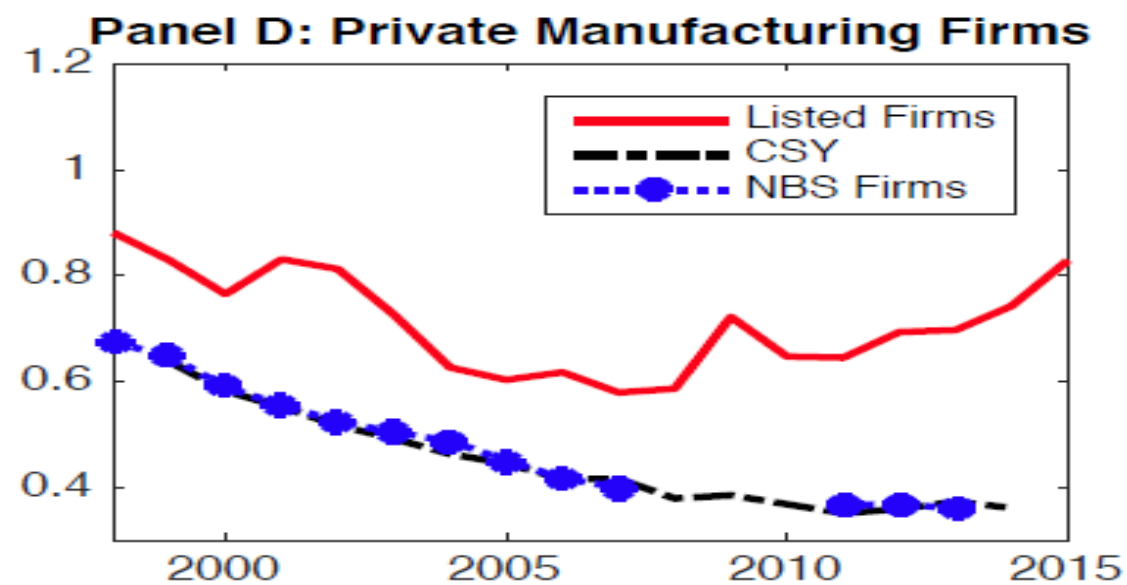
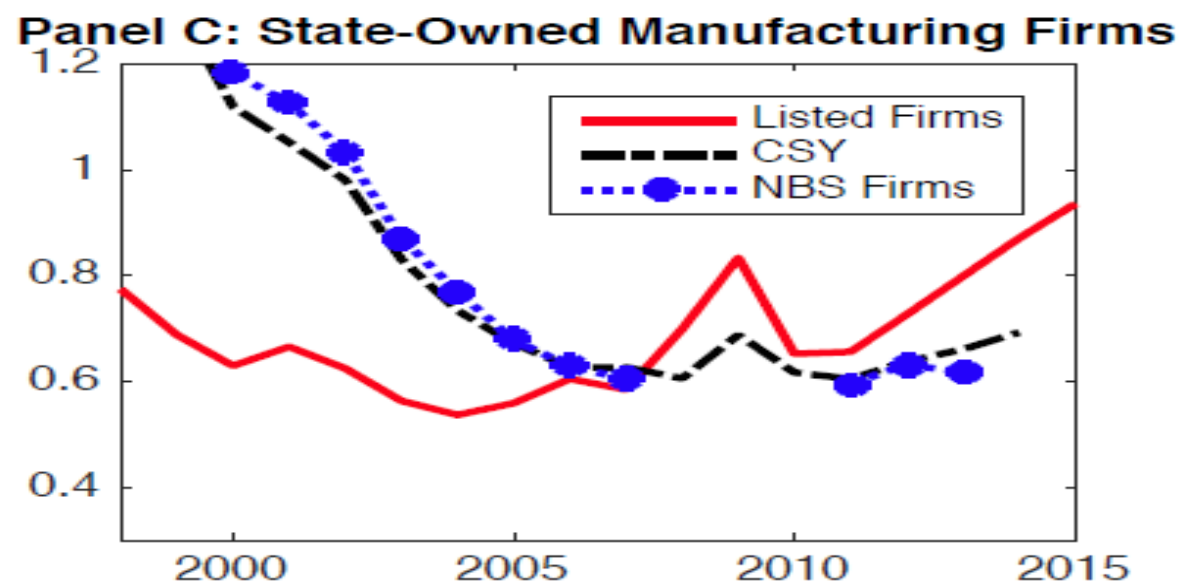
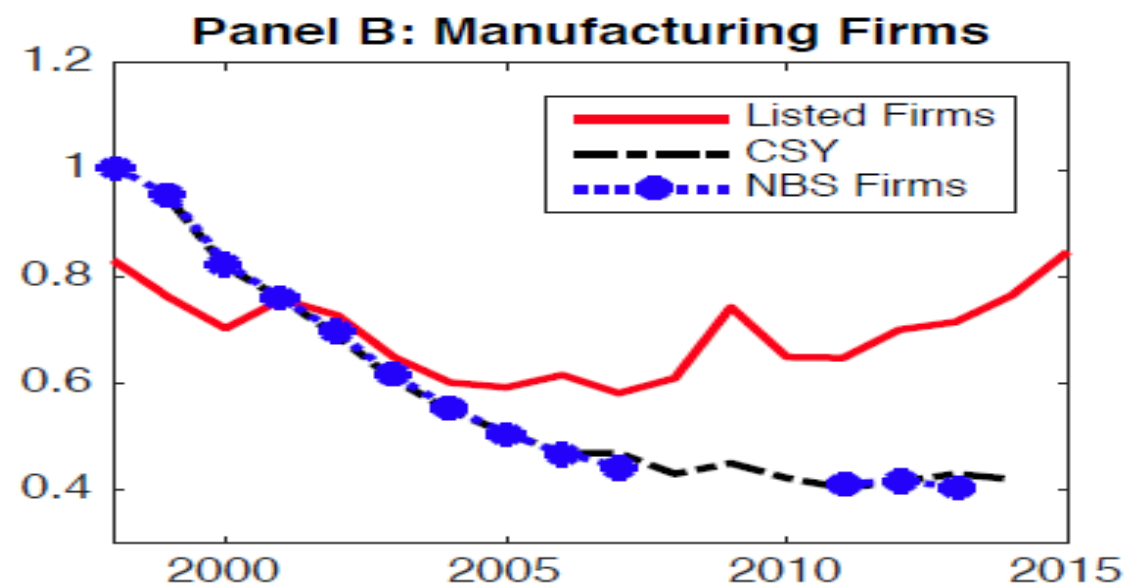
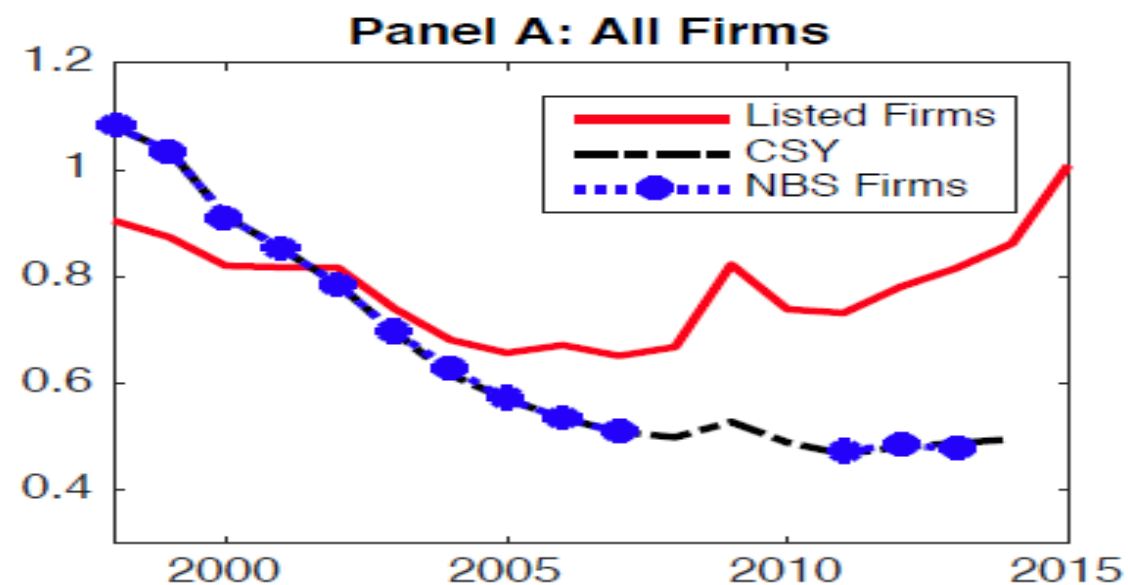


Figure 12: Dispersion in Average Product of Capital

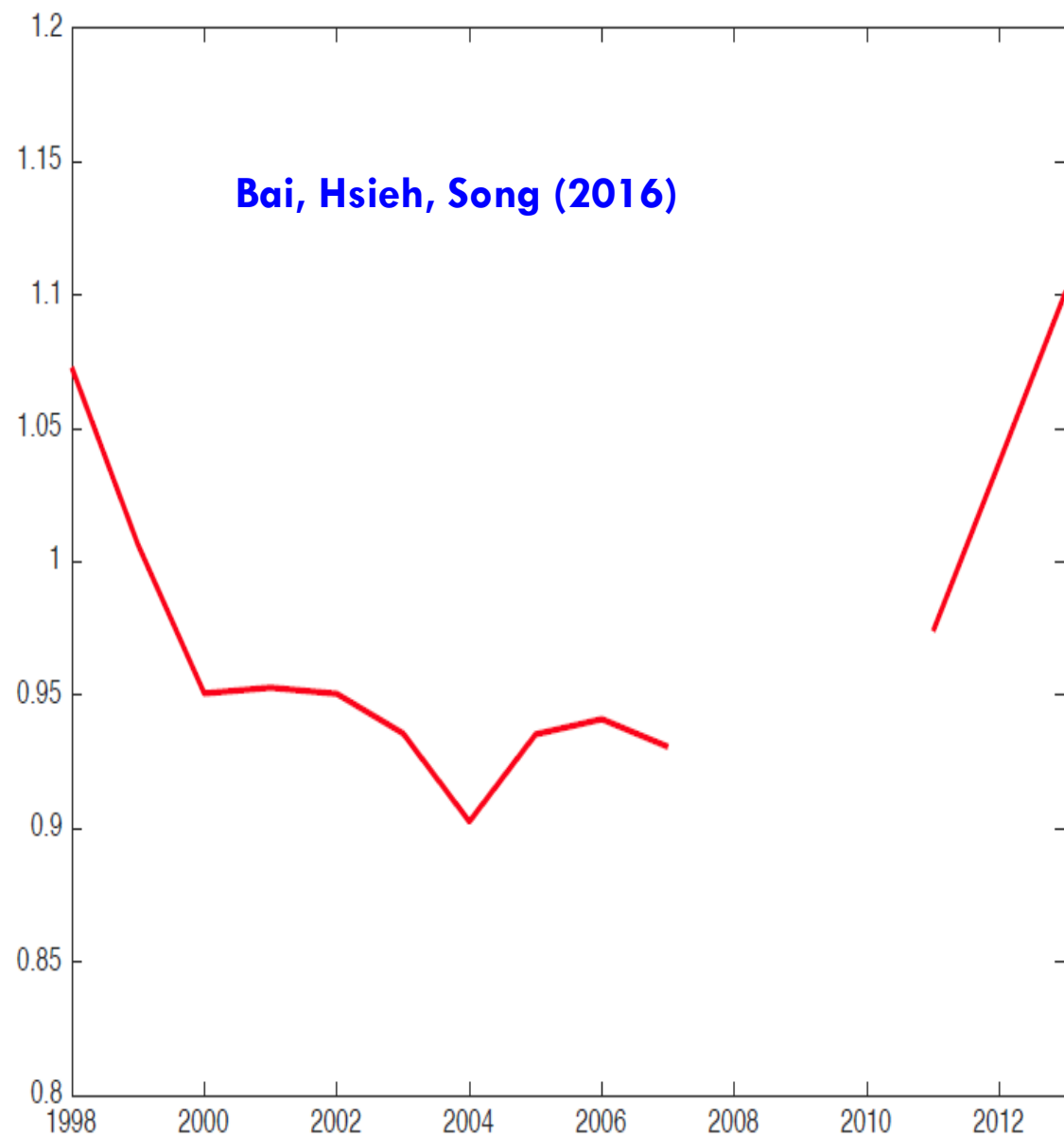
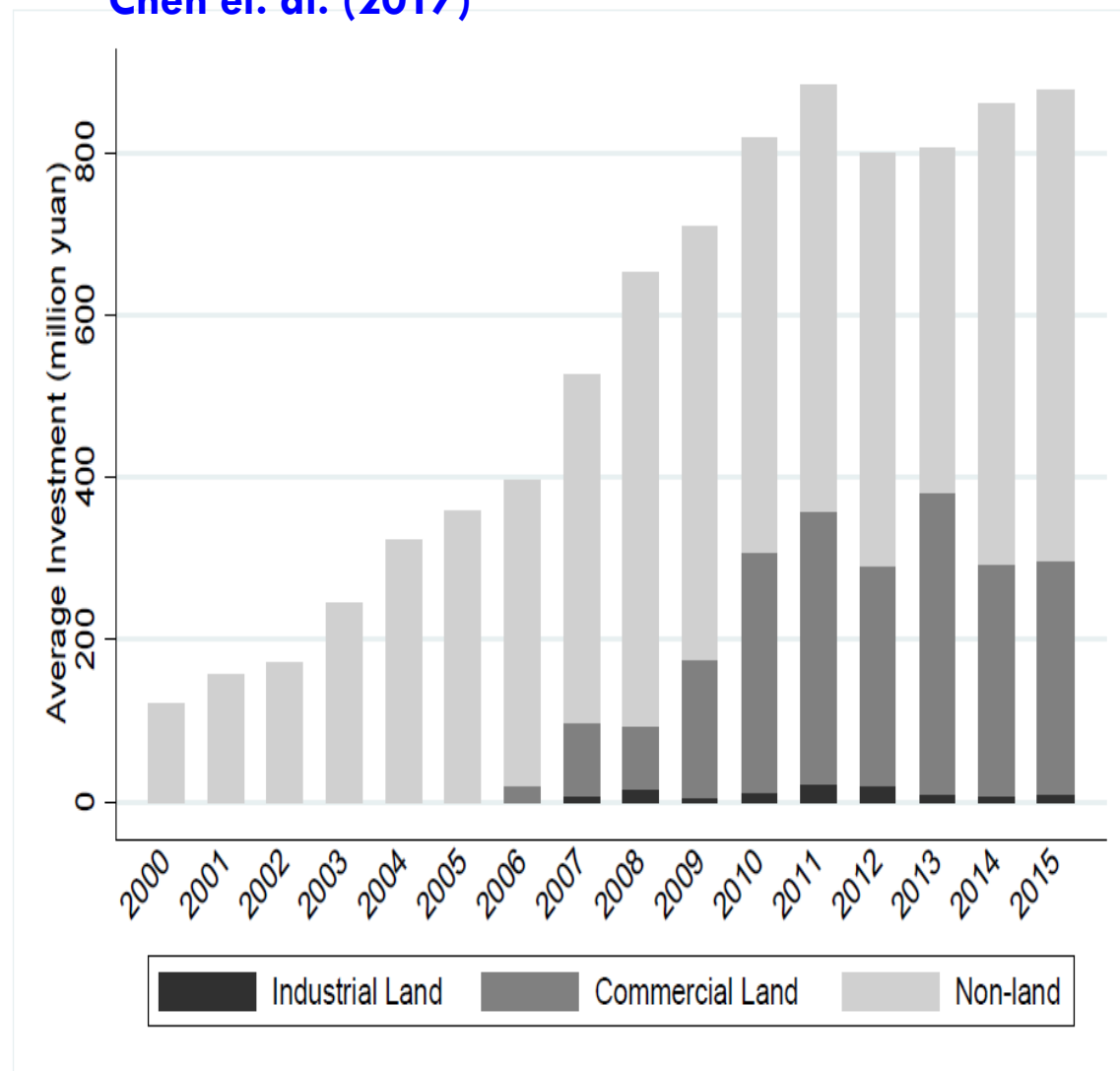


Figure 3. Firm Investment, 2000-2015

This figure depicts the average quantity of firm investment, divided into three components: non-land, commercial land, industrial land, for all publicly listed firms in our sample from 2000 to 2015.

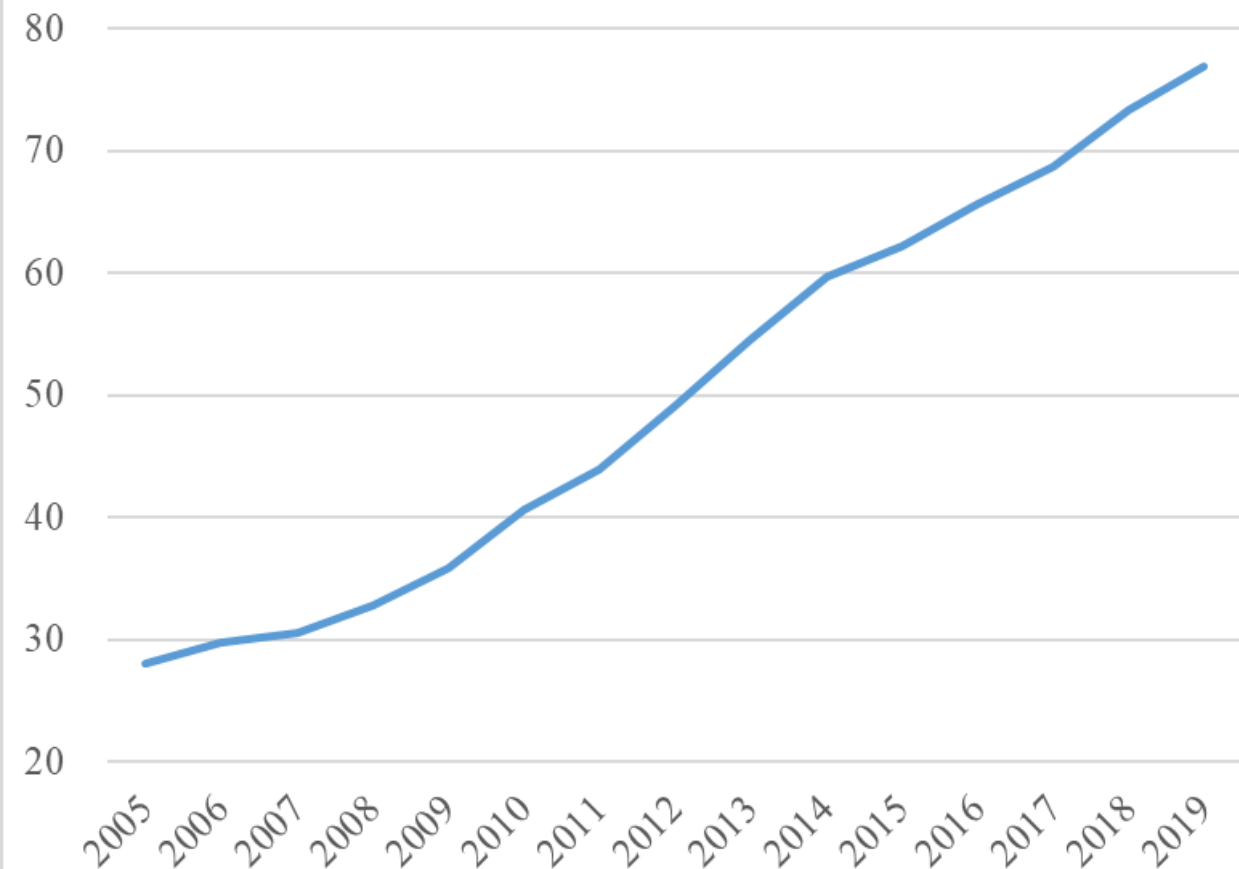
Chen et. al. (2017)



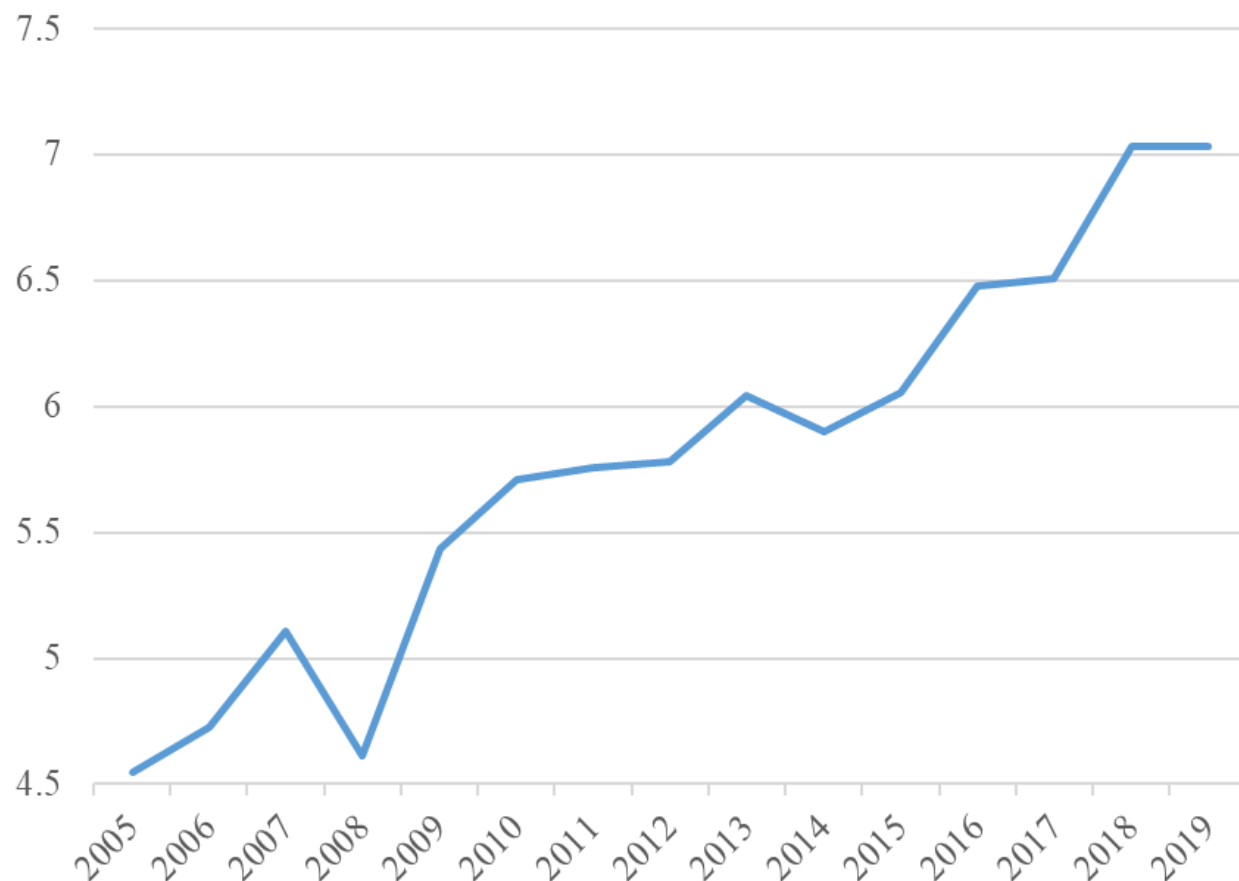
企业风险III：房地产企业

资料来源：统计年鉴

房地产企业负债占GDP比重，%



房地产业增加值占GDP比重，%



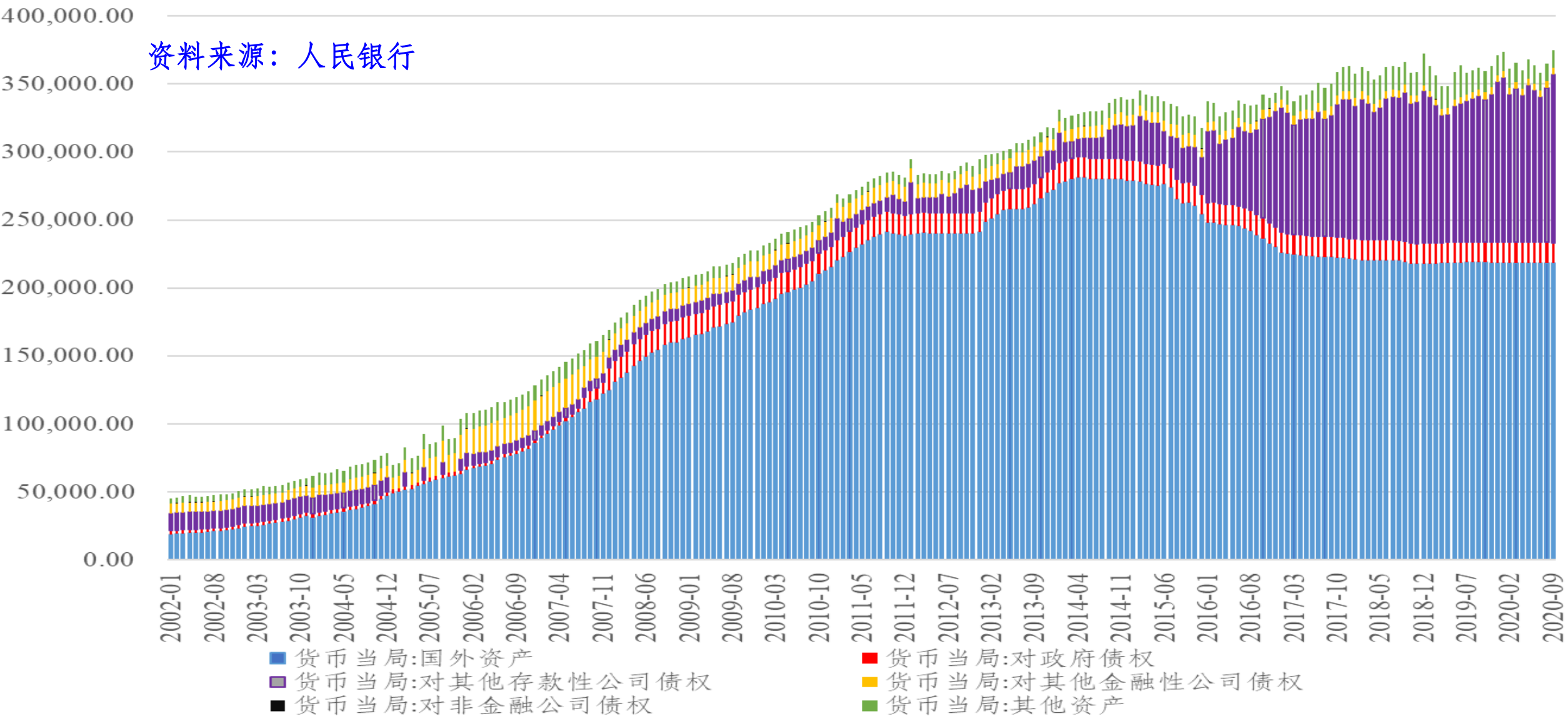
案例阅读：房企降杠杆开始；房企境外发债为何收紧

银行风险

中国，从“宽货币，紧信用”到“紧货币，宽信用”到再回来

人民银行总资产，亿元

资料来源：人民银行



金融机构总资产比GDP

资料来源：人民银行

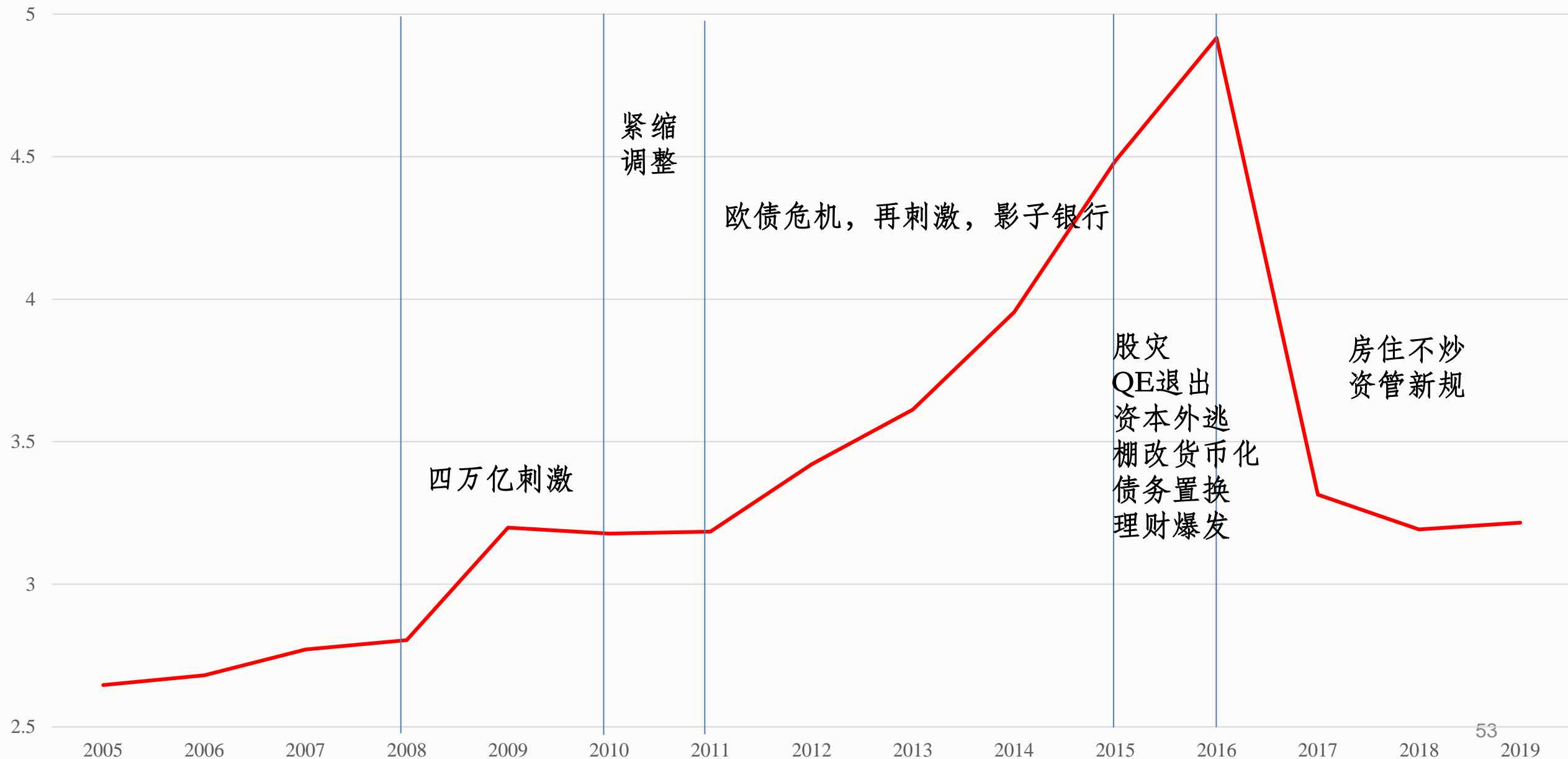
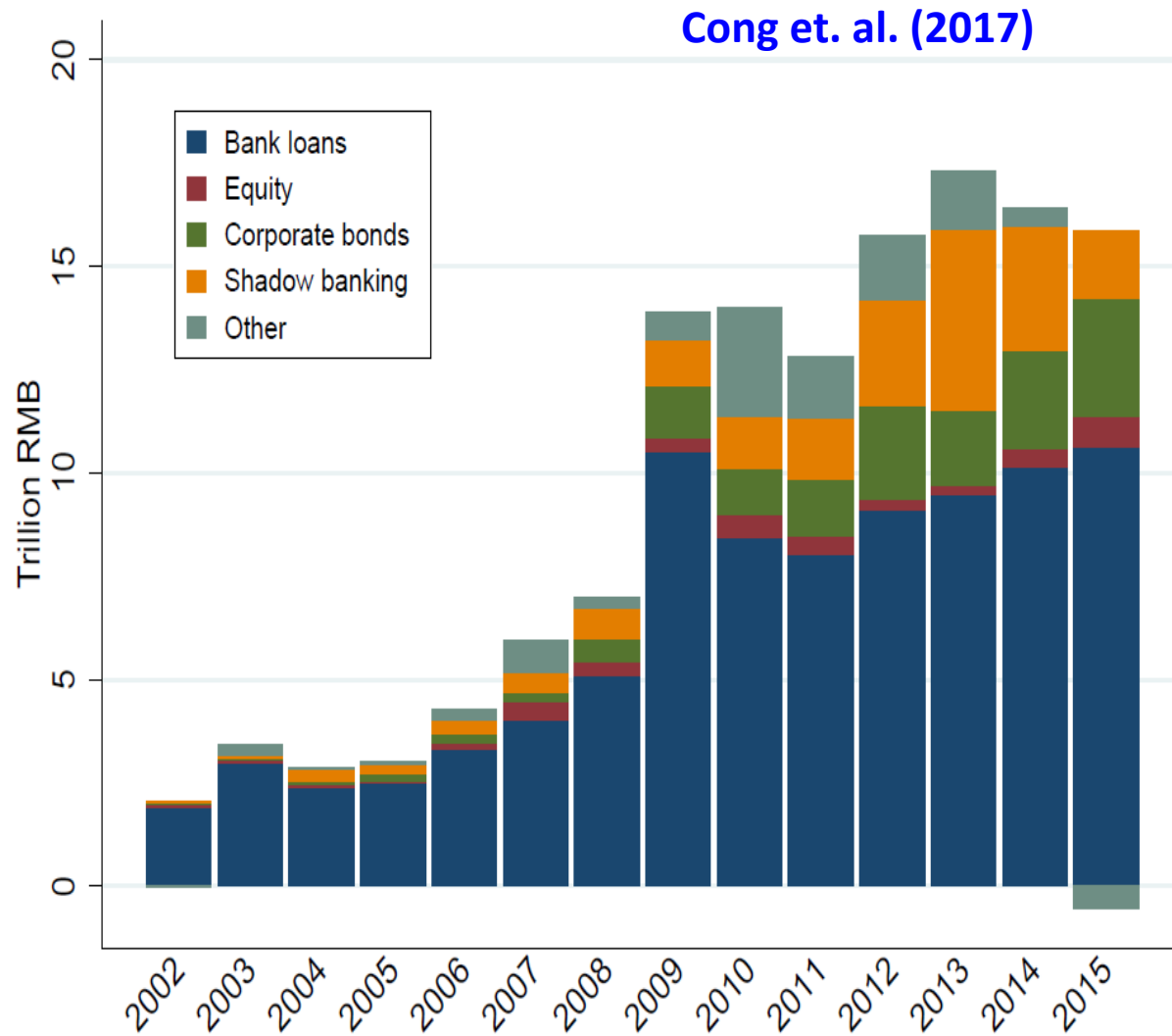
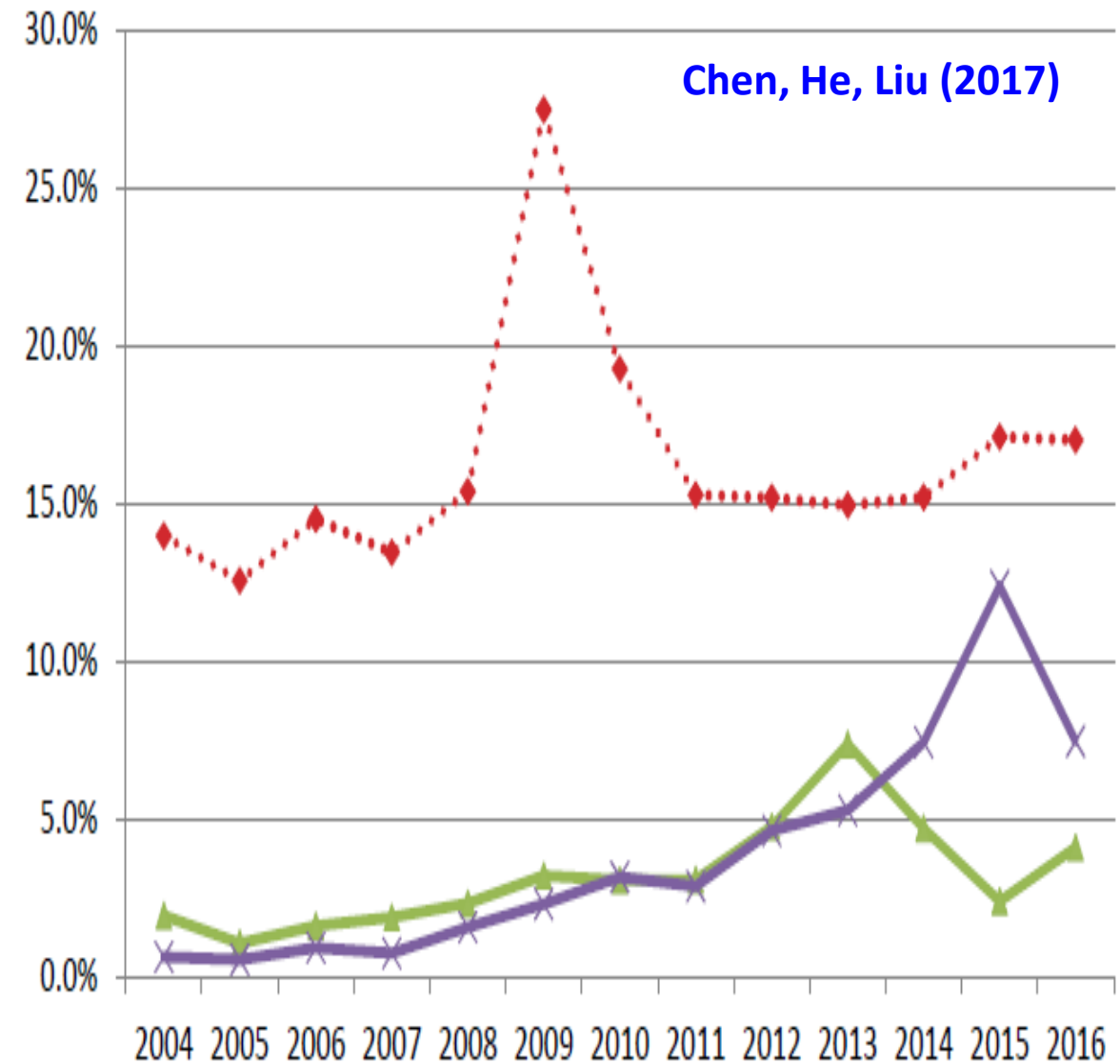


Figure 2: Aggregate Financing to the Real Economy



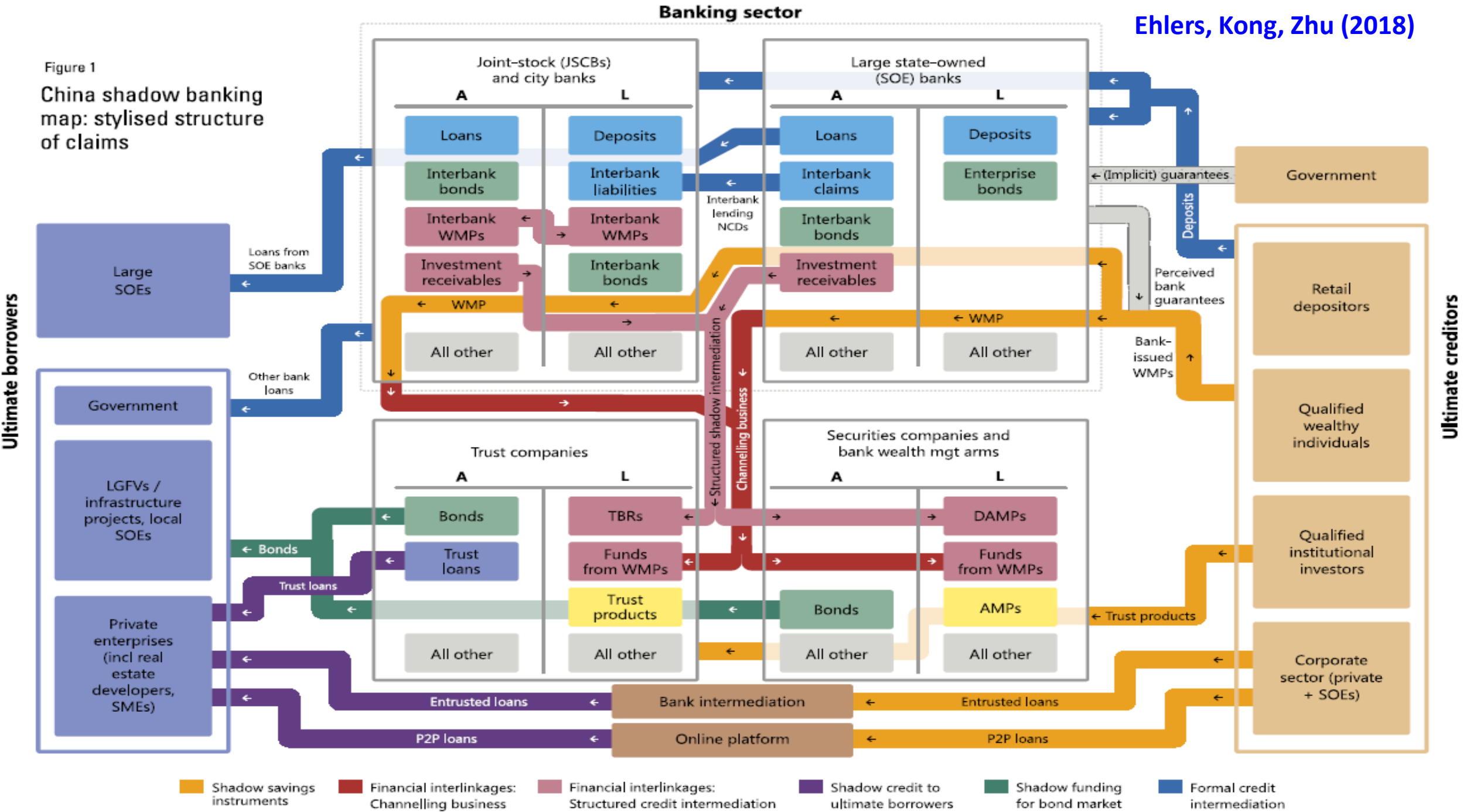
Panel A: New Entrusted/Trust Loans and Increase in WMP



Notes: Source: Total Social Financing Dataset (TSF) of the People Bank of China. The category "shadow banking" includes loans by trust companies (trust loans) and entrusted firm-to-firm loans (entrusted loans). The category "other" includes bankers' acceptances and credit operations categorized under "other" in the TSF data.

◆◆◆ New Bank Loan/GDP ▲ New Entrusted and Trust Loans/GDP × WMP Increase/GDP

Figure 1
China shadow banking map: stylised structure of claims



默克尔：雄心犹在，胸襟渐开	20	人民币：双向波动来了	42	显影：病房学校	66
信托业寒冬将至	36	央行：降准	60	干细胞商业化前景	74

财新周刊

Caixin Weekly

金融监管谋变

是构建超级监管者，还是做实国务院金融稳定发展委员会？目标都是为了解决分业监管的种种弊端

P.50

财新周刊

Caixin Weekly

赖小民在华融做了什么

中央纪委与国家监委合署办公后的第一个金融大案，为什么以中国最大资产管理公司的董事长赖小民为目标？

P.38

特别报道

C8污染魔影

P.68

财新周刊

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浙商银行灰色扩张

在表外运作平台上激进扩张，浙商银行急速膨胀为资本市场中的影子巨人

P.50

财新周刊

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金控监管大计

加强金控监管，选择五家试点机构的用意何在？以产融结合为出发点的金控模式面临反思

P.38

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私募基金漩涡

各类中国式奇葩运作模式，风险不断，监管意欲“从严”，何处下手？

P.30

沙特原油期货	24	欧洲央行	42	美国：联储加息北京新机场	74
PPP监管时代来临	36	富士康转型	60	特朗普“接地气”	68

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约束大资管

“严监管”基调未变，也留下弹性空间，目标如何约束刚性兑付，非标投资，监管套利

P.54

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俘获项俊波

从监管俘获到监管腐败，谁为近年保险监管废弛付出代价？

P.34

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终结通道“炼金术”

何以几十万亿资金奔涌在形形色色的通道之中？怎样回归本源？

P.46

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穿透安邦魔术

2014年安邦为满足监管要求一季增资499亿元，通过101家公司层层叠叠上溯到80名个人股东，凭借循环出资放大资本，明星涉嫌利用自己控制的保险资金虚假注资

P.30

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统一大资管

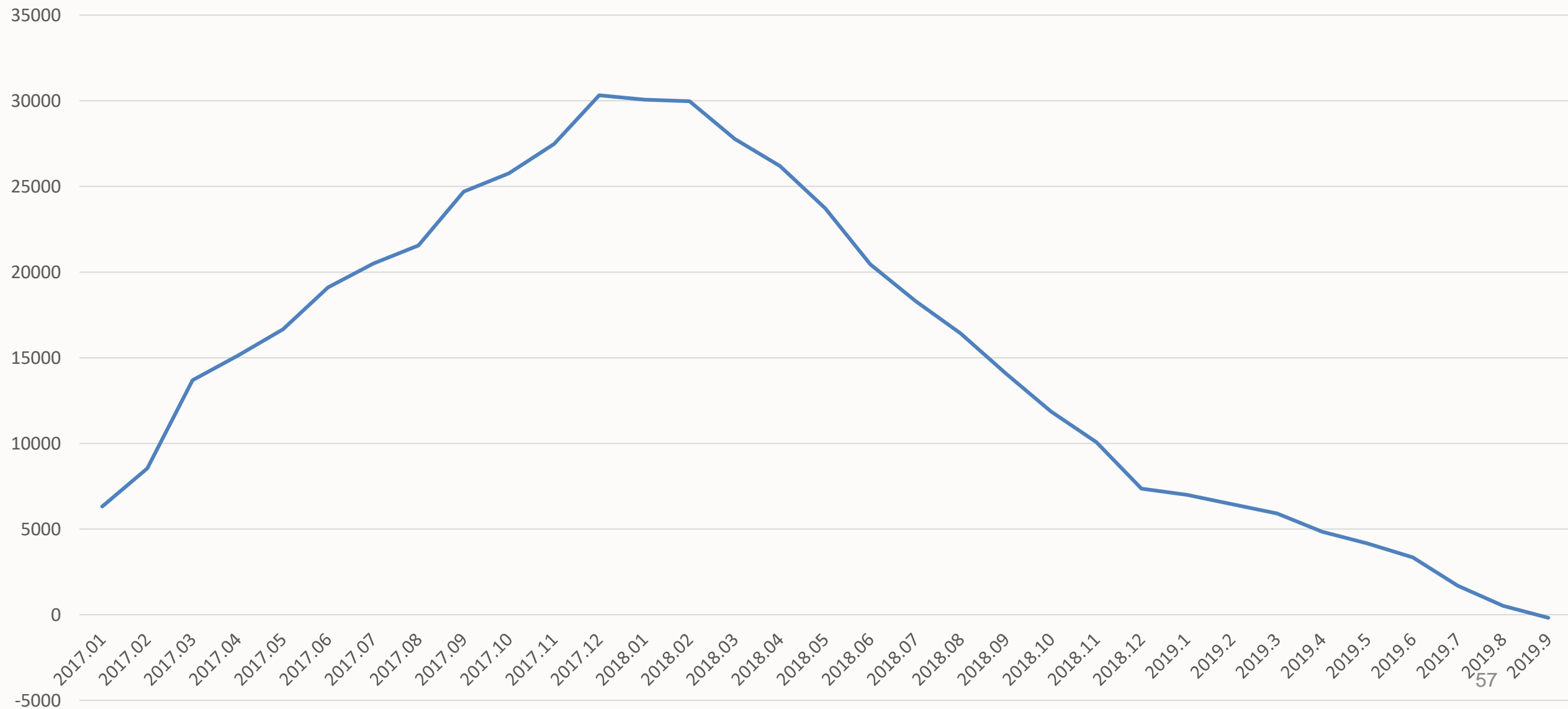
各路资管齐整上阵，监管统一，目标：资产管理业务全面纳入监管，以最小成本实现，打破行业壁垒，实现风险控制

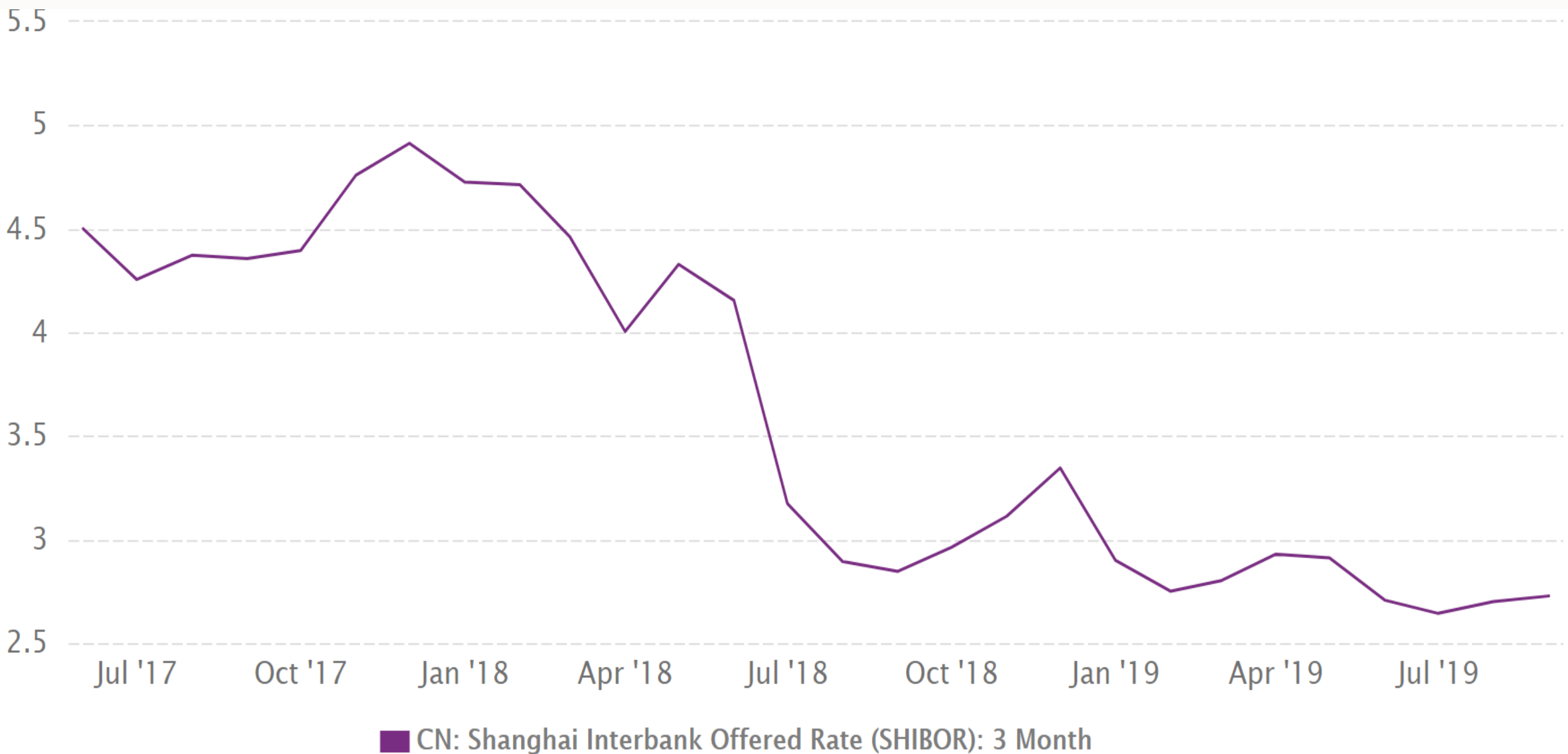
P.10

资管新规卡死影子银行

资料来源：Wind

信托与委托贷款累积增量（相对于2016年末，亿元）





政府担保与三重“预算软约束”

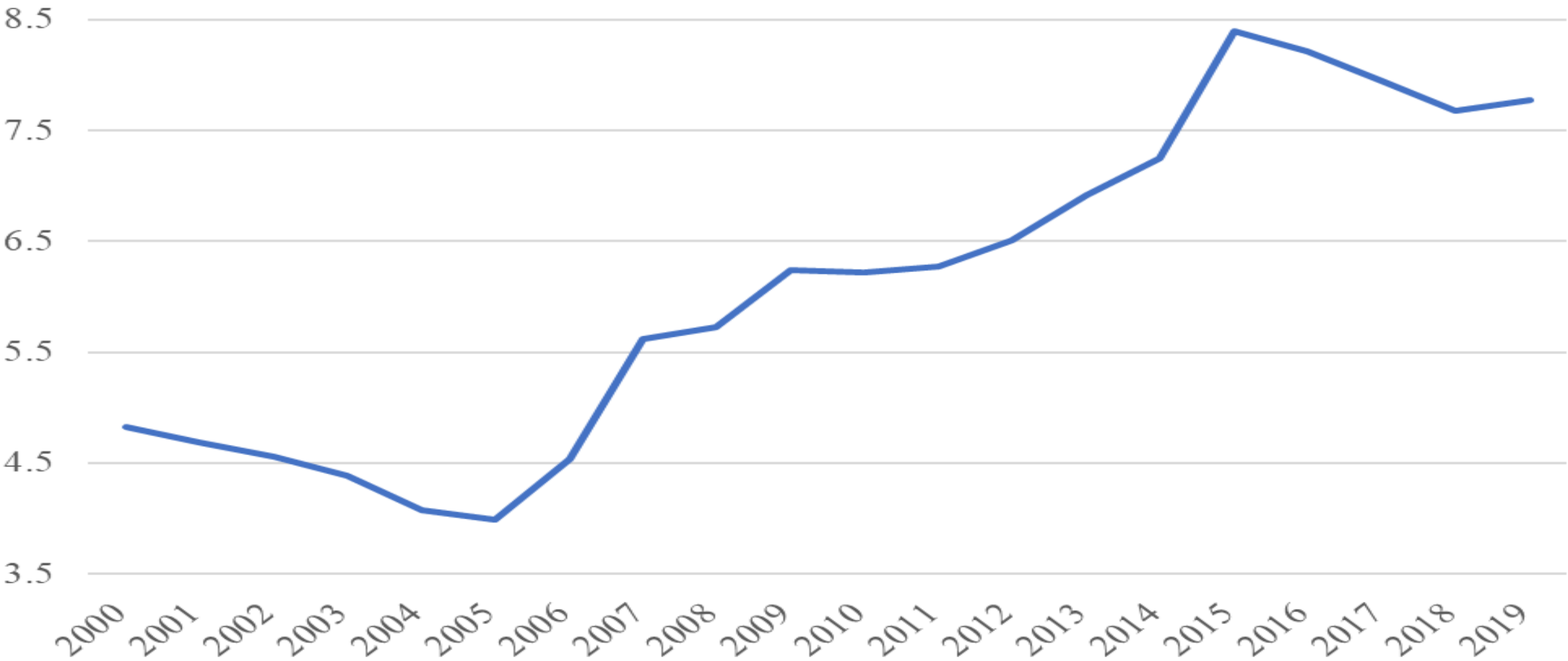
- 地方政府
- 国有企业
- 国有银行体系

价格机制和风险机制配置资源的效率降低

金融黄金十年谢幕

资料来源：统计年鉴

金融业增加值占GDP比重，%



偿还已有债务 & 遏制新增债务

偿还已有债务：四种降杠杆的痛苦方式

- 勒紧裤腰带，压缩支出，变卖资产
- “印钱”和通胀
- 债务违约和重组
- 财富从富人到穷人的再分配

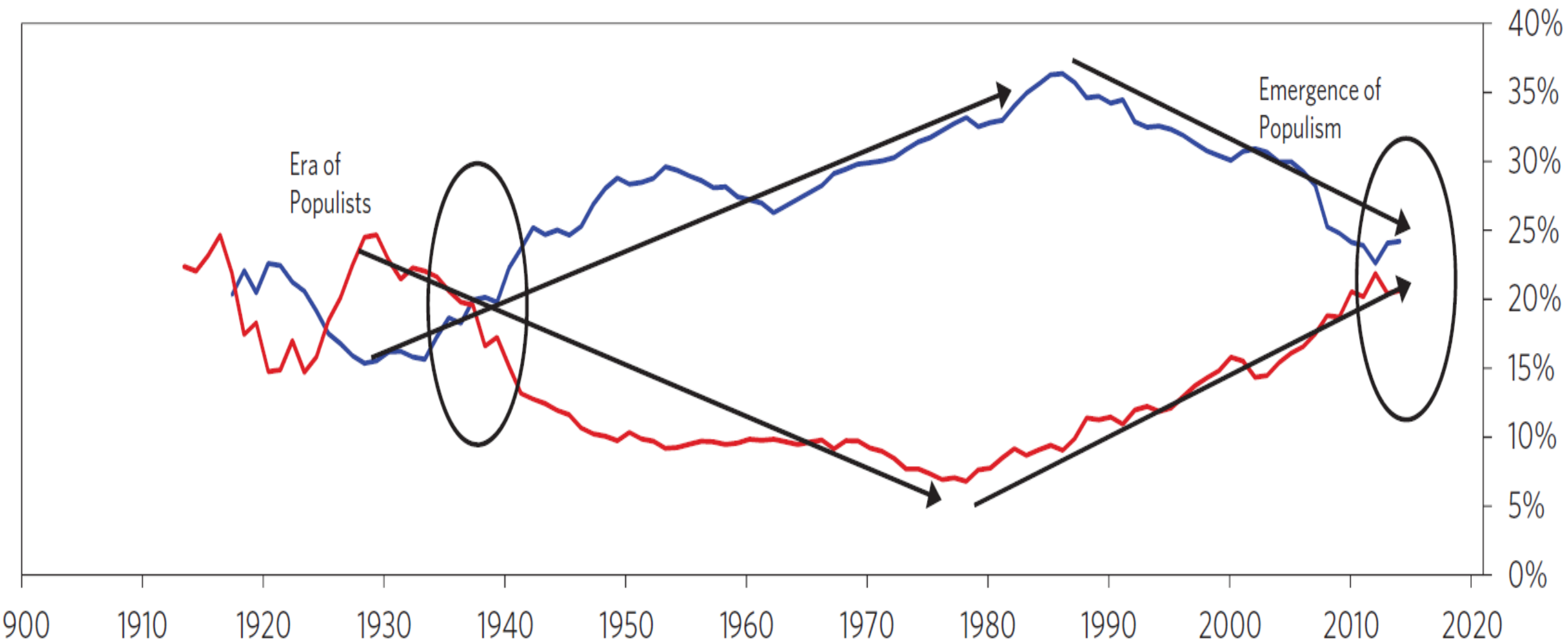
案例阅读：地方启动去杠杆

“印钱”

- 传统货币政策
- “量化宽松”与通胀
- 赤字货币化与“现代货币理论”的争议

US Net Wealth Shares

Bottom 90% Top 0.1%



“You know what I am? I’m a nationalist, O.K.? I’m a nationalist. Nationalist! Use that word! Use that word!”



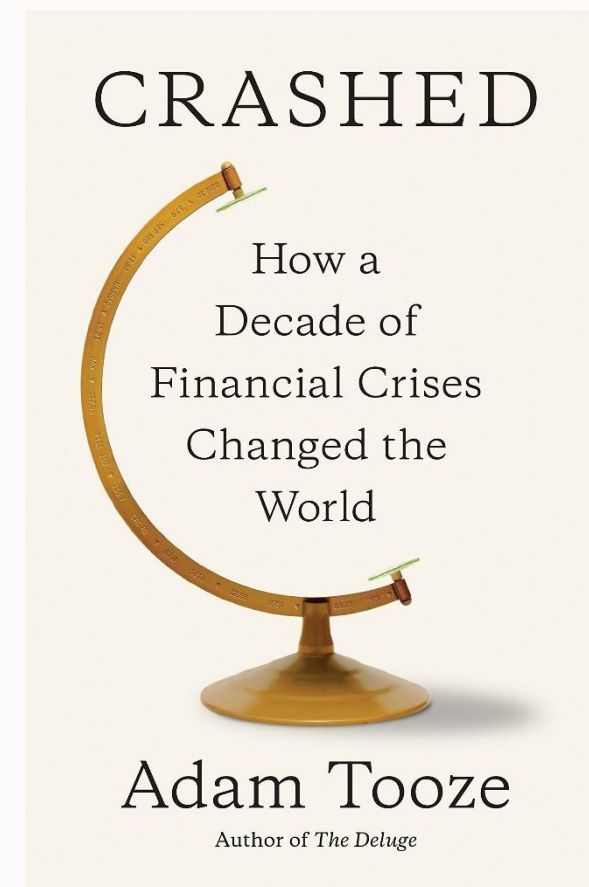
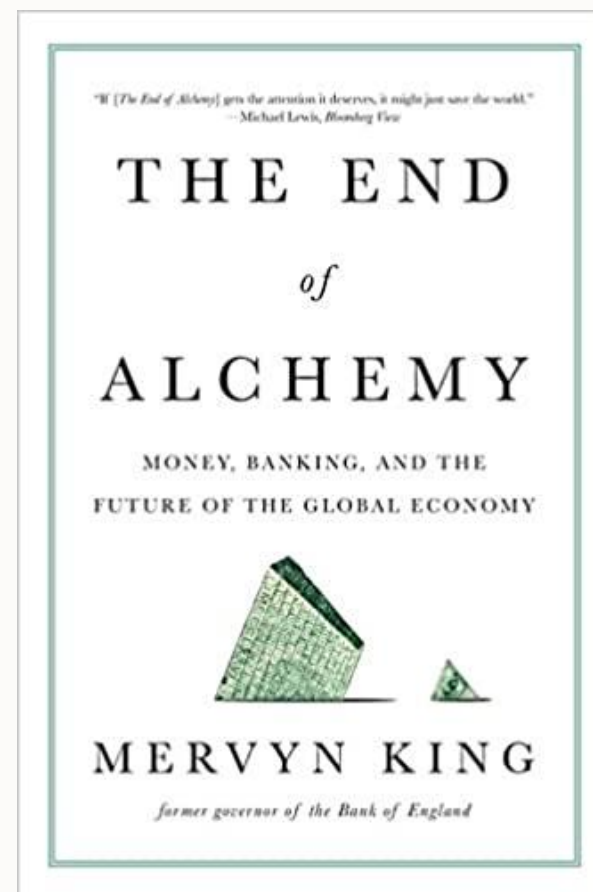
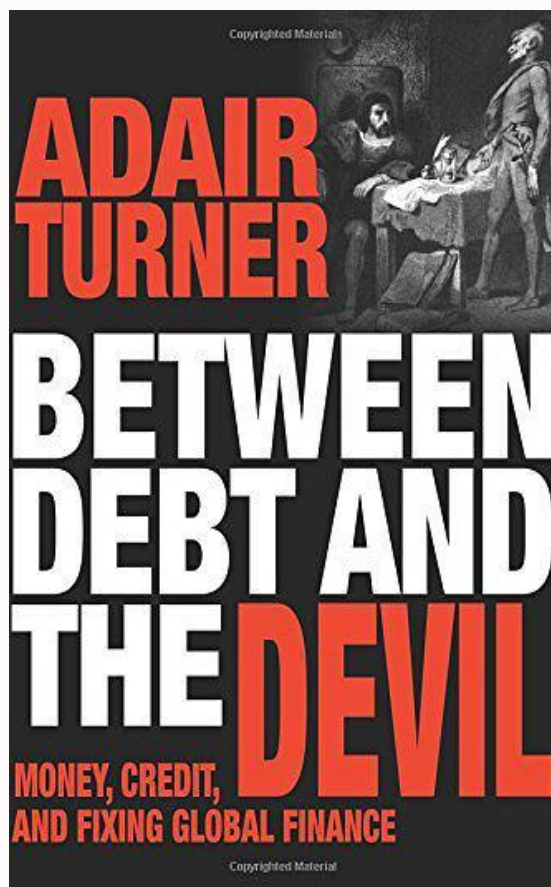
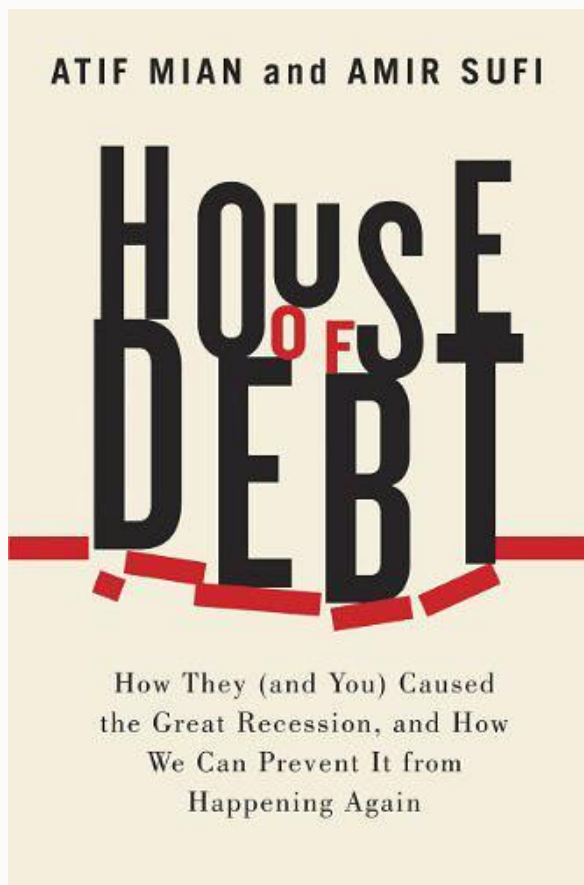
遏制新增债务

- “土地财政”和“土地金融”模式的反思
- 供给侧结构性改革：严控房价上涨、资管新规、限制土地融资、债务置换、反腐、推进国企混改.....
- 资本市场改革迟缓的根本原因
- 原则：融资体系与投资体系（主体和风险）适应

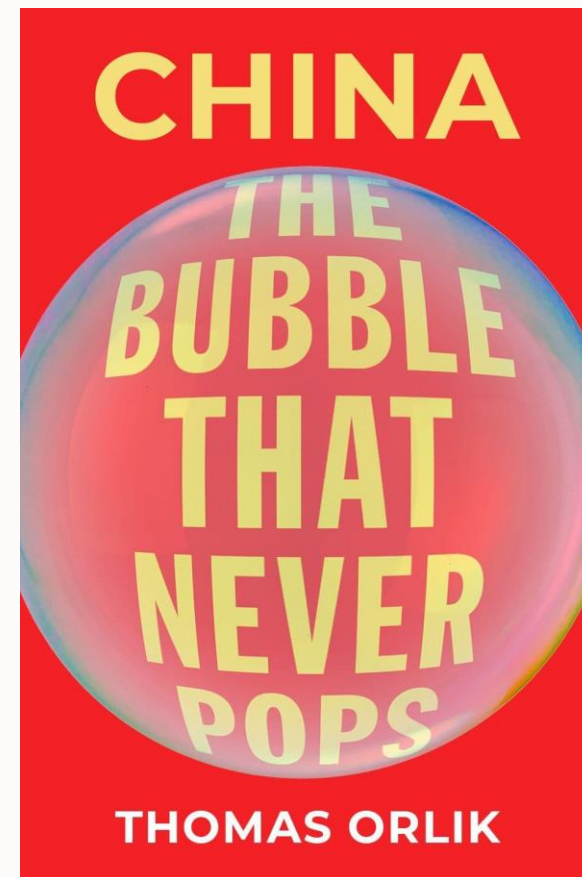
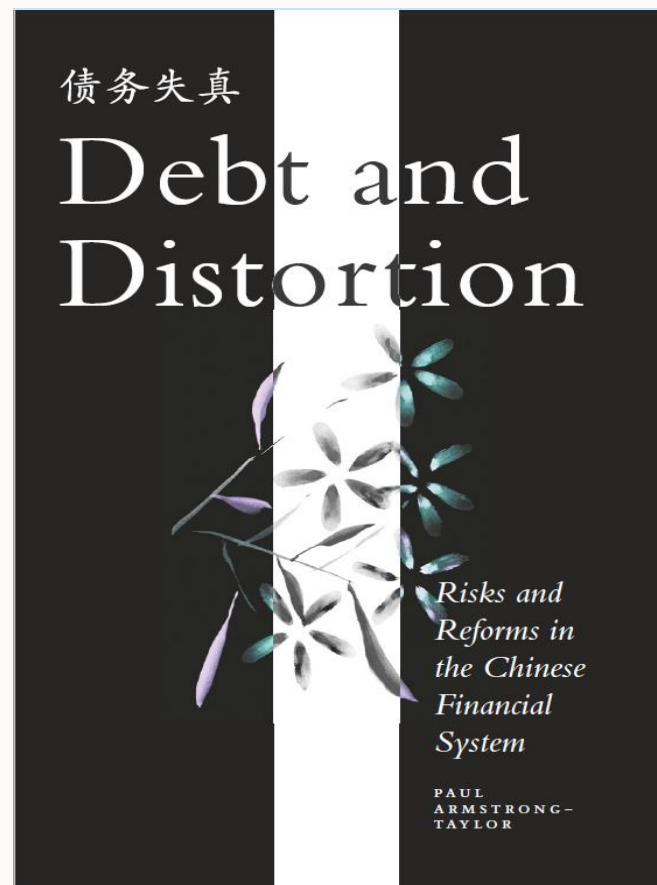
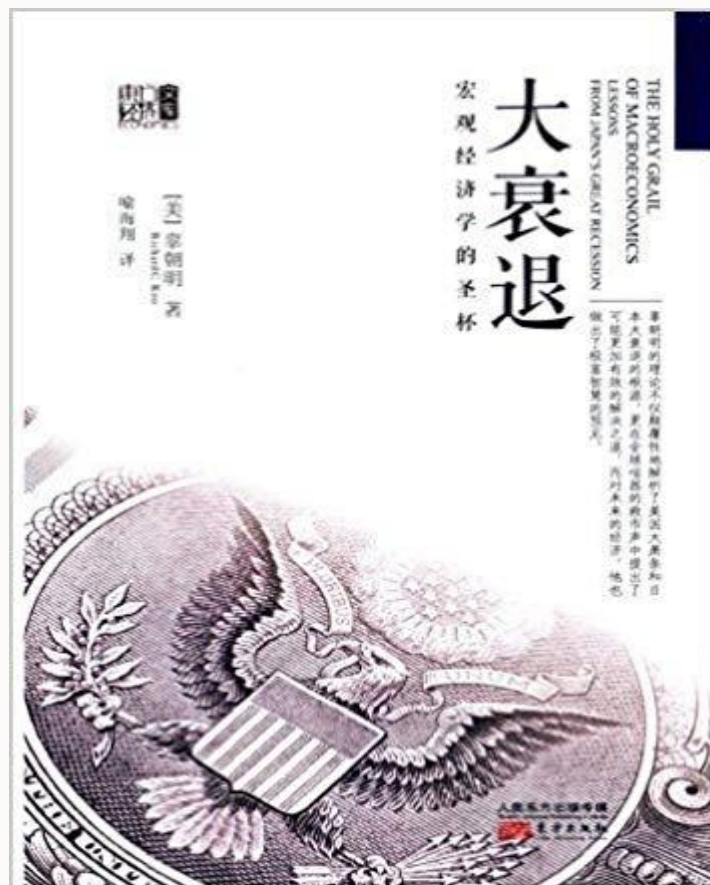
西方式金融危机 vs. 中国式效率损失？

案例阅读：US Debt Crisis and Adjustment

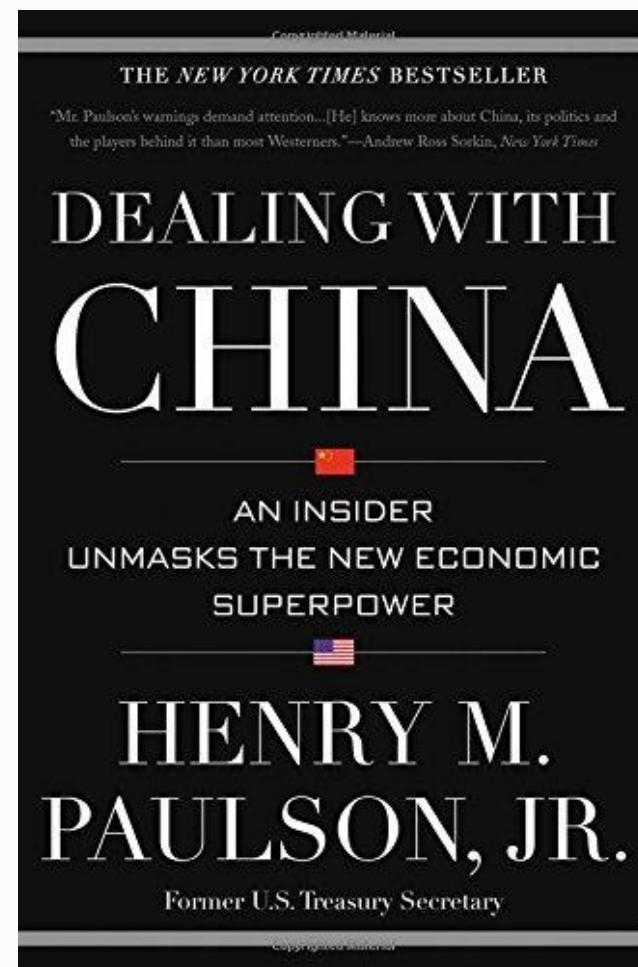
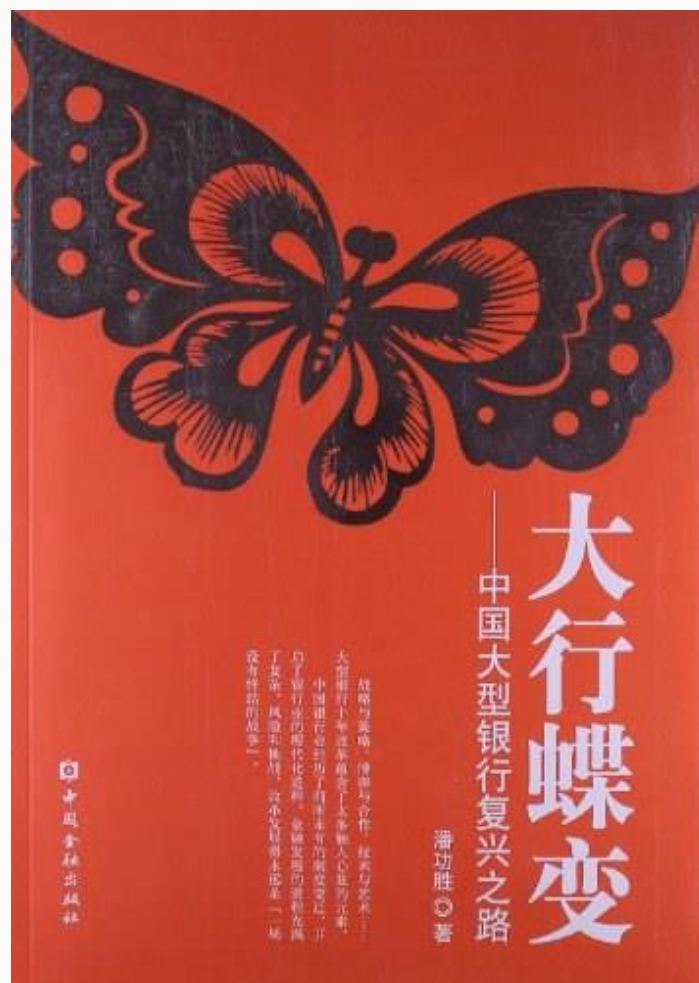
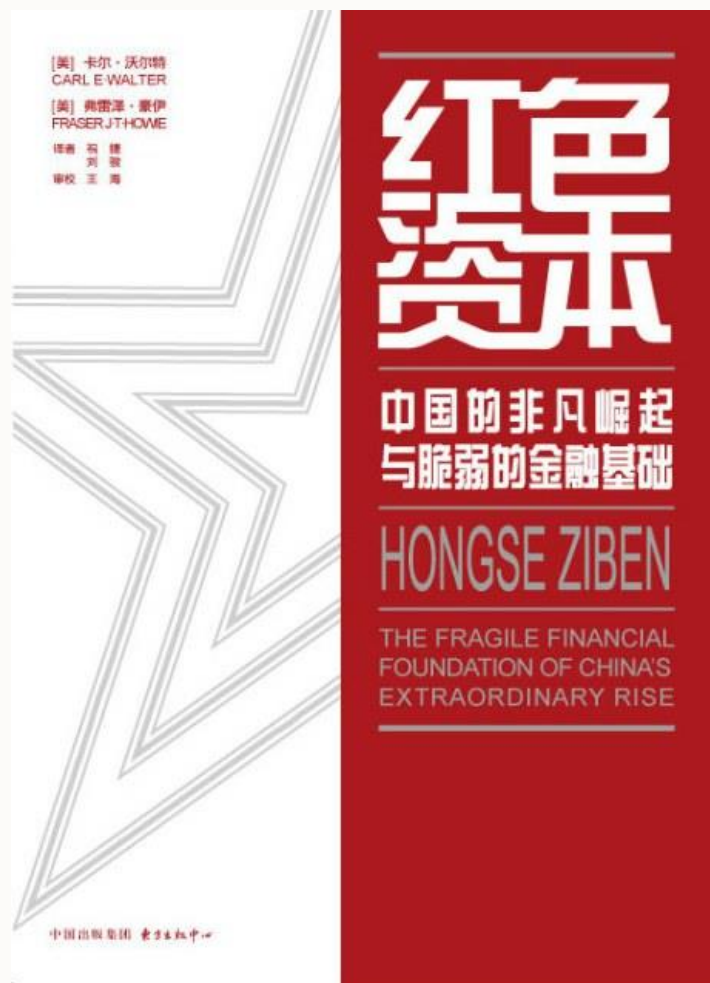
拓展阅读



拓展阅读



拓展阅读



References

- Avdjiev, Stefan, Robert N. McCauley, and Hyun Song Shin (2016). "Breaking Free of the Triple Coincidence in International Finance." *Economic Policy* 31.87: 409-451.
- Bai, Chong-En, Chang-Tai Hsieh, Zheng Song (2016), "The Long Shadow of a Fiscal Expansion", *Brookings Papers on Economic Activity*: 129-65
- Chen, Zhuo, Zhiguo He, Chun Liu (2017), "The Financing of Local Government in China: Stimulus Loan Wanes and Shadow Banking Waxes", *working paper*
- Chen, Ting, Laura Xiaolei Liu, Wei Xiong, Li-An Zhou (2017) "Real Estate Boom and Misallocation of Capital in China," *Working paper*
- Cong, Lin William, Haoyu Gao, Jacopo Ponticelli, Xiaoguang Yang (2017), "Credit Allocation under Economic Stimulus: Evidence from China", *working paper*
- Dalio, Ray (2018), *A Template for Understanding Big Debt Crisis*, Bridgewater
- Ehlers, Torsten, Steven Kong, and Feng Zhu (2018), "Mapping Shadow Banking in China: Structure and Dynamics", *BIS working papers N.701*
- Gertler, Mark, and Simon Gilchrist (2018), "What Happened: Financial Factors in the Great Recession," *Journal of Economic Perspective* 32 (3): 3-30
- Jorda, Oscar, Moritz Schularick, Alan M. Taylor (2014), "The Great Mortgaging: Housing Finance, Crises, and Business Cycles", *NBER Working Paper 20501*
- Kuhn, Moritz, Moritz Schularick, and Ulrike I. Steins (2020). "Income and Wealth Inequality in America:1949-2016" *Journal of Political Economy*.
- Kumhof, Michael, Romain Ranciere, and Pablo Winant (2015). "Inequality, Leverage, and Crisis." *American Economic Review* 105.3: 1217-45.
- Mian, Atif, and Amir Sufi (2015), *House of Debt: How They (and You) Caused the Great Recession, and How We Can Prevent It from Happening Again*. University of Chicago Press.
- Mian, Atif, and Amir Sufi (2018), "Finance and Business Cycles: The Credit-Driven Household Demand Channel," *Journal of Economic Perspective* 32 (3): 31-58
- Mian, Atif R., Ludwig Straub, and Amir Sufi (2020a), "Indebted Demand." *NBER Working Paper* No. w26940.
- Mian, Atif R., Ludwig Straub, and Amir Sufi (2020b), "The Saving Glut of the Rich and the Rise in Household Debt." *NBER Working Paper* No. w26941.
- Philippon, Thomas, and Ariell Reshef (2012). "Wages and human capital in the US finance industry: 1909–2006." *Quarterly Journal of Economics* 127.4: 1551-1609.
- Reinhart, Carmen M., and Kenneth Rogoff (2009), *This Time is Different*, Princeton University Press.
- Turner, Adair (2015), *Between Debt and the Devil: Money, Credit, and Fixing Global Finance*, Princeton University Press.
- Zhang, Zhiwei, Yi Xiong (2019), "Infrastructure Financing", *working paper*