



北京大学国家发展研究院  
National School of Development



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# China's Slowdown and Rebalancing

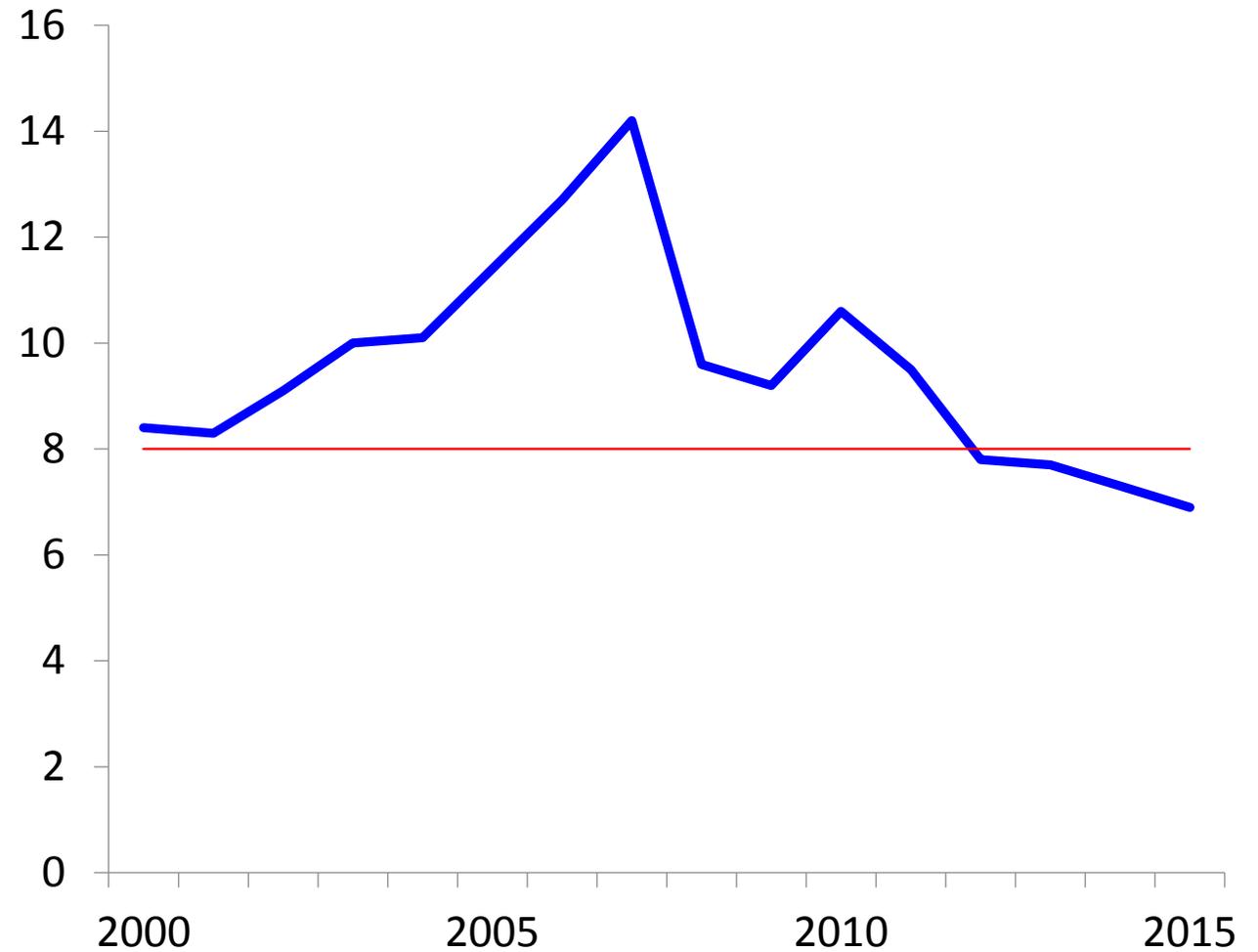
HUANG Yiping

November 7, 2016, Tokyo

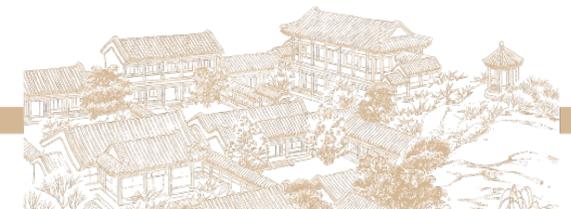


# Growth moderation since 2010

- Is it a cyclical change or a trend change?
- L-shaped growth trajectory

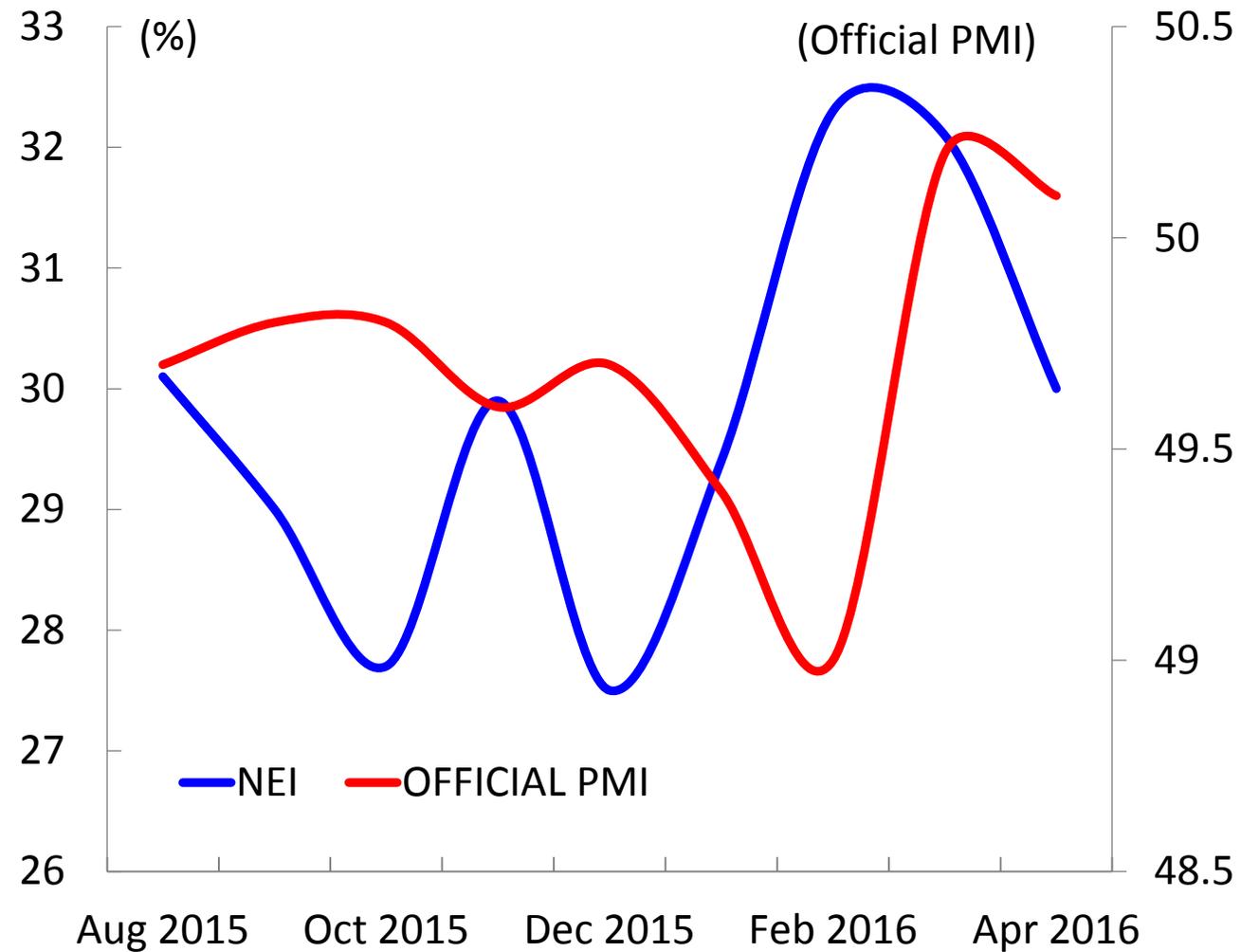


China's annual GDP growth rate (%)



# Battle between new & old economies

- The old industries lost competitiveness
- New industries, such as telecom equipment, large machinery, robot, internet companies, are growing.



New Economy Index (NEI) and official manufacturing PMI.  
Source: Caixin.



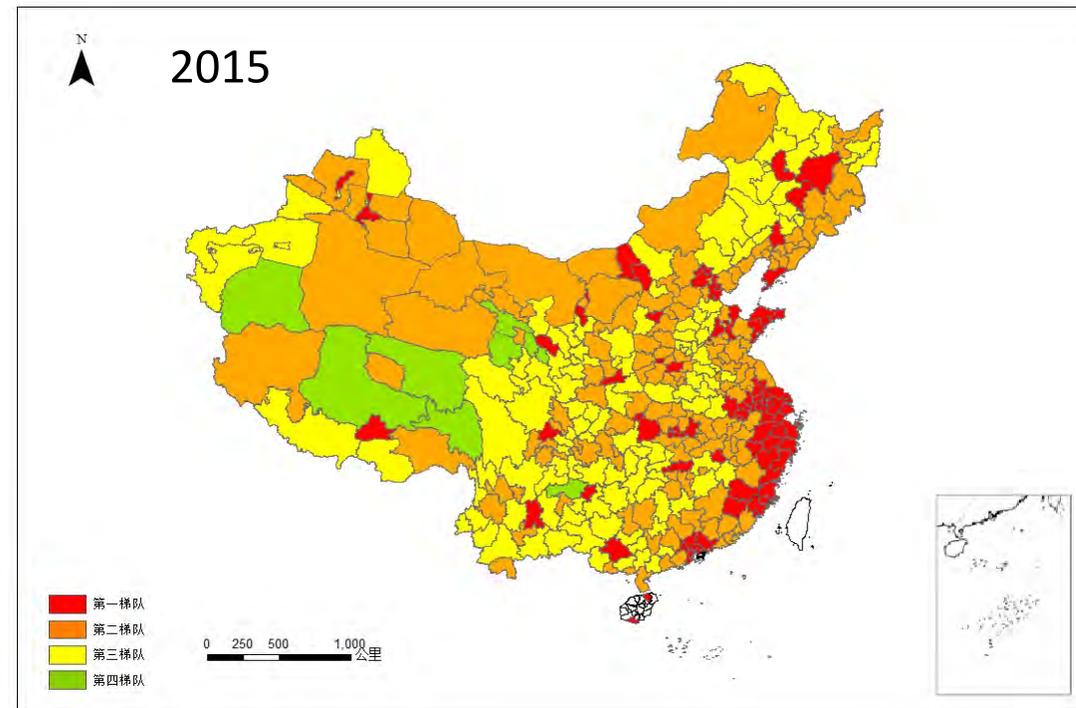
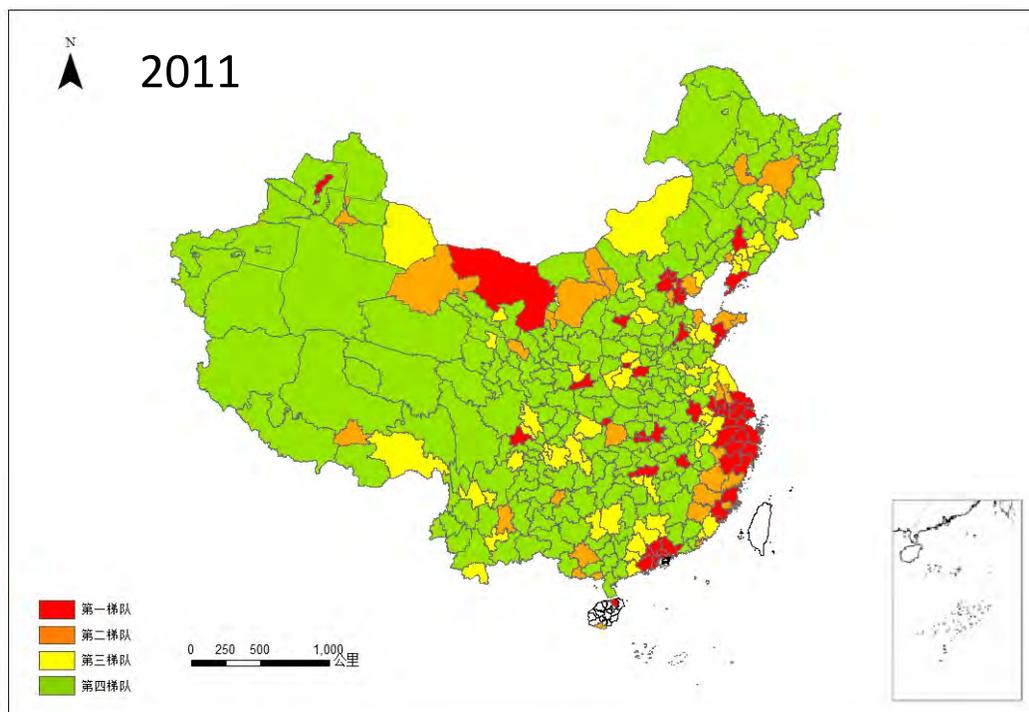
# China is already a global leader in digital finance

- Reasons: market demand; digital technology (mobile terminals and big data analysis + lots of IT engineers); and tolerant regulation
- But can China continue lead the industry, according to the product cycle theory of Vernon?

	Company 公司	Founded 成立时间
	Ant Financial Services 蚂蚁金服	2004
	PayPal	1998
	Lufax 陆金所	2011
	Zhong An 众安保险	2013
	JD Internet Finance 京东金融	1998
	Square	2009
	Stripe	2010
	Credit Karma	2007
	Lending Club	2007
	SoFi	2011



# Digital inclusive finance: Convergence

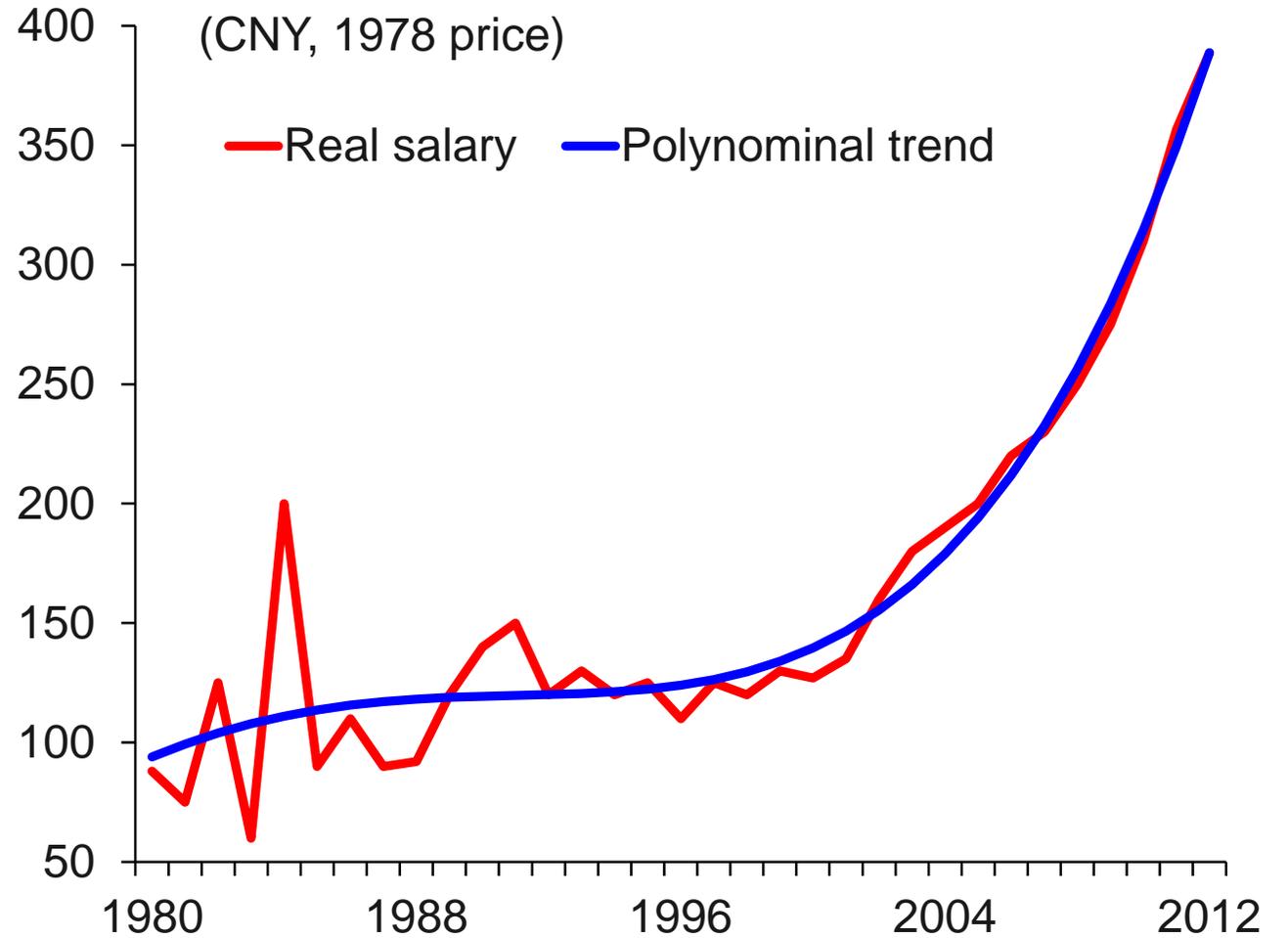


Four levels: Highest 100% as the benchmark; tier 1 (red) > 80%; tier 2 (orange) 70-80%; tier 3 (yellow) 60-70%; and tier 4 (green) <60%. Source: Peking University Institute of Internet Finance.

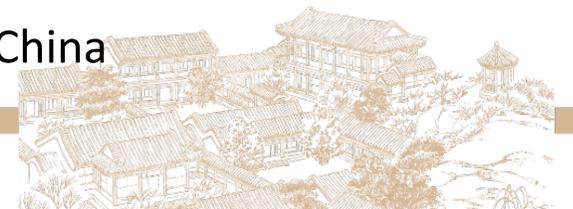


# Labor market remains robust

- Wages continue to grow, except in the mining industry, although the pace slowed.
- Consumption is also holding up reasonably well.

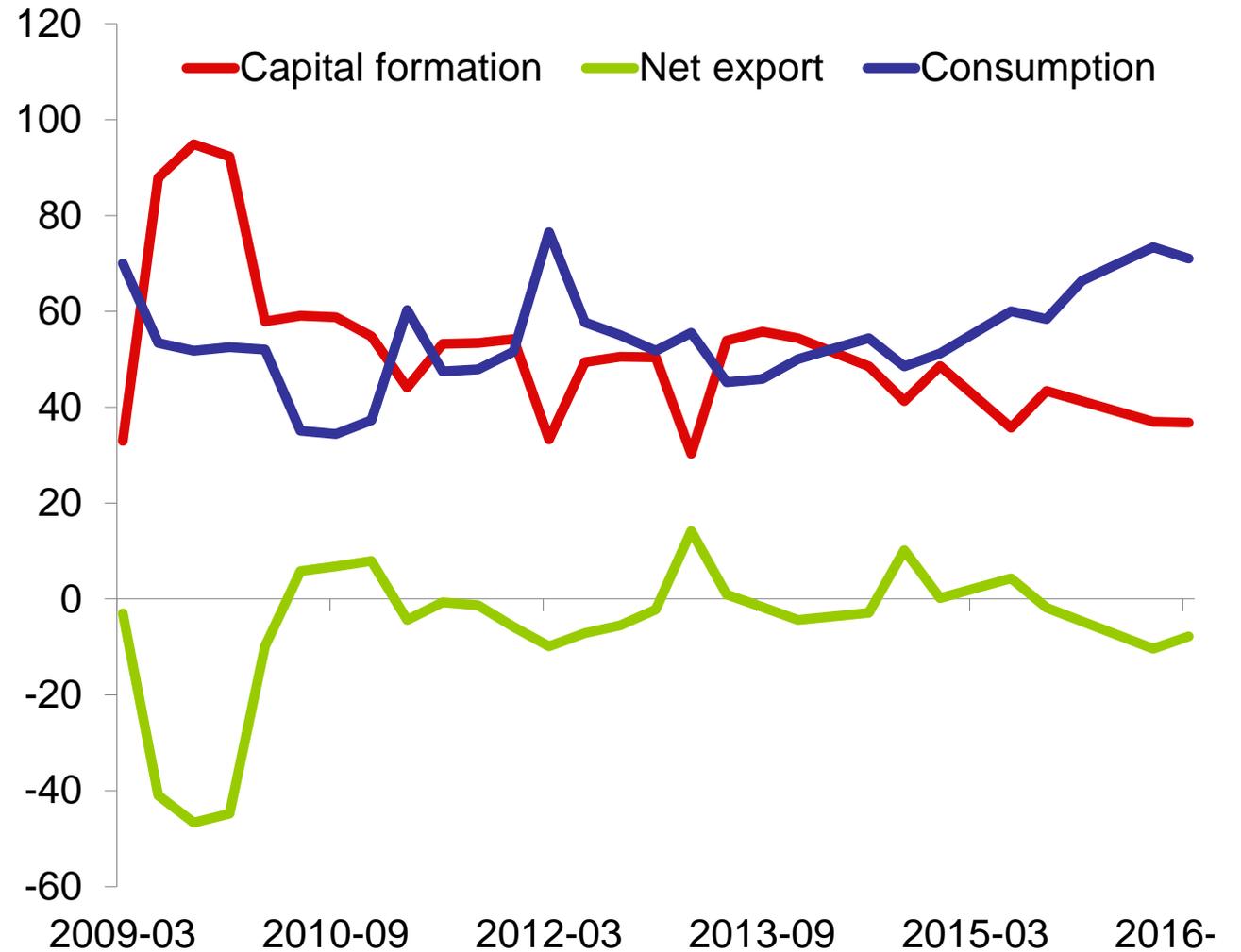


Monthly wages of migrant workers in China



# Contribution to GDP growth

- From export and investment engines to consumption engine

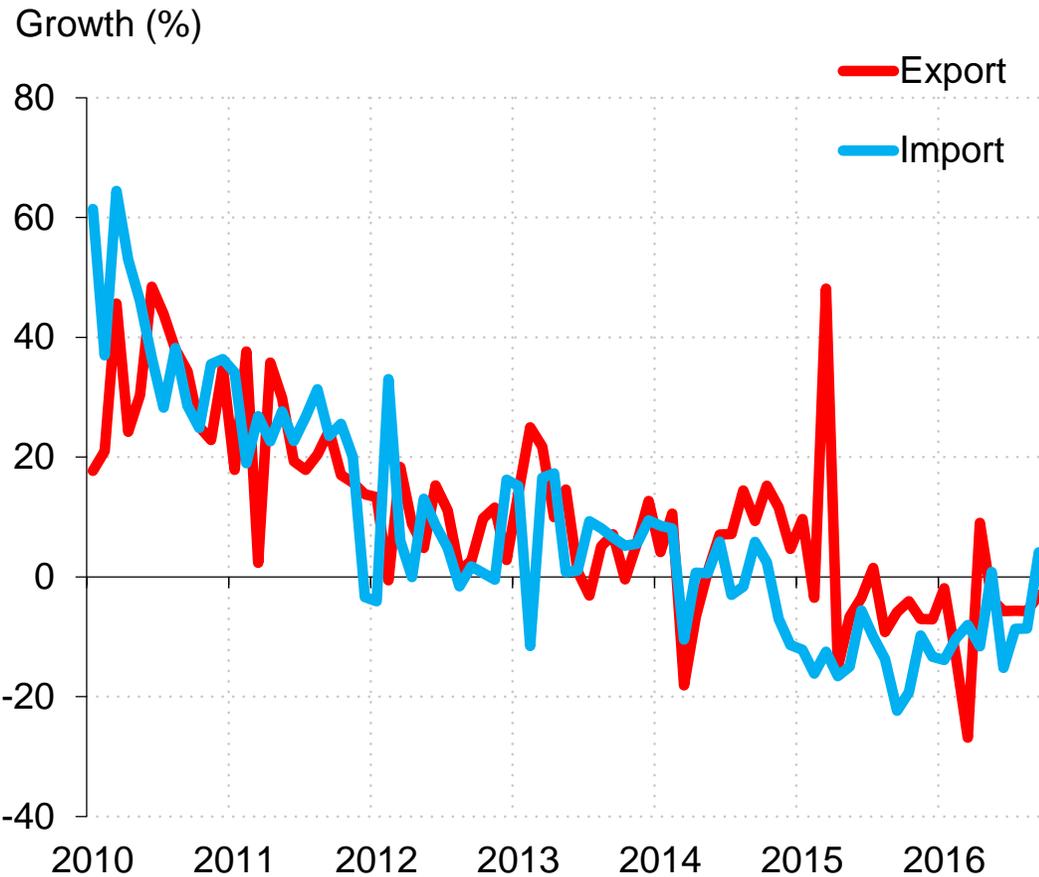


Contribution of consumption, investment and net export to GDP growth, 2009-2016

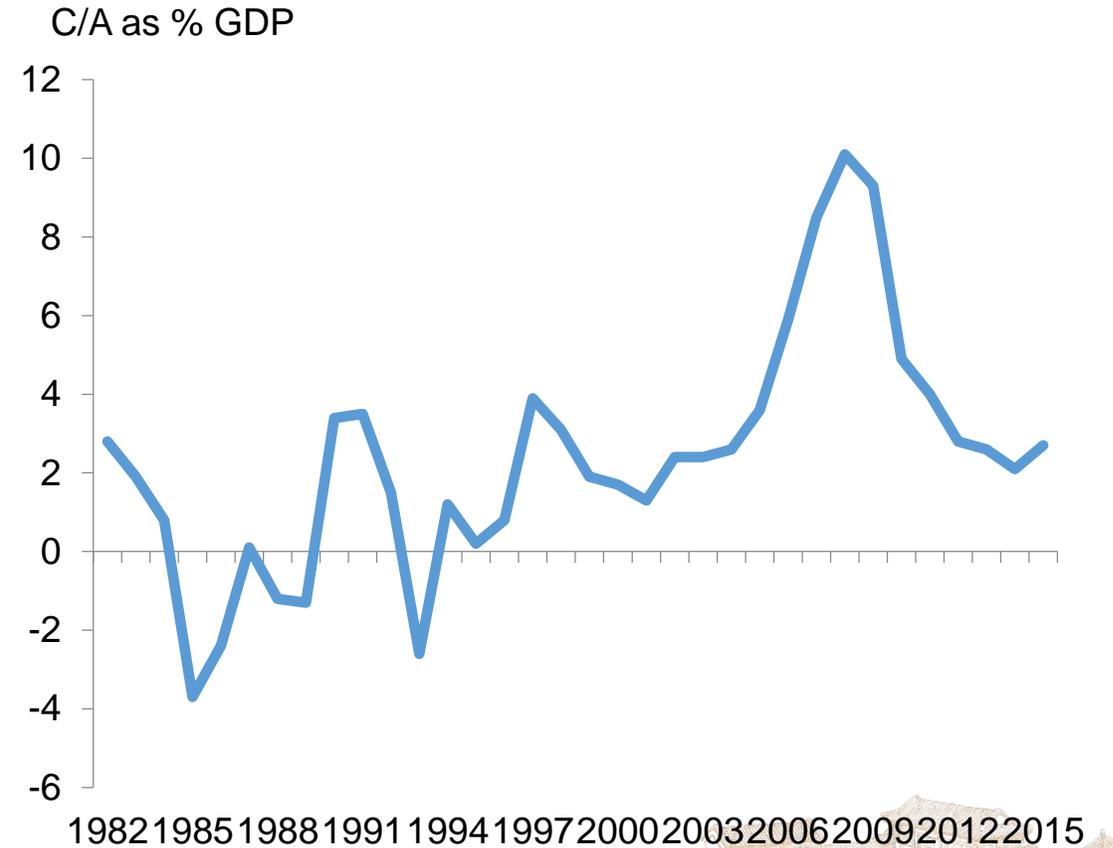


# Trade and trade balance

## Growth of export and import

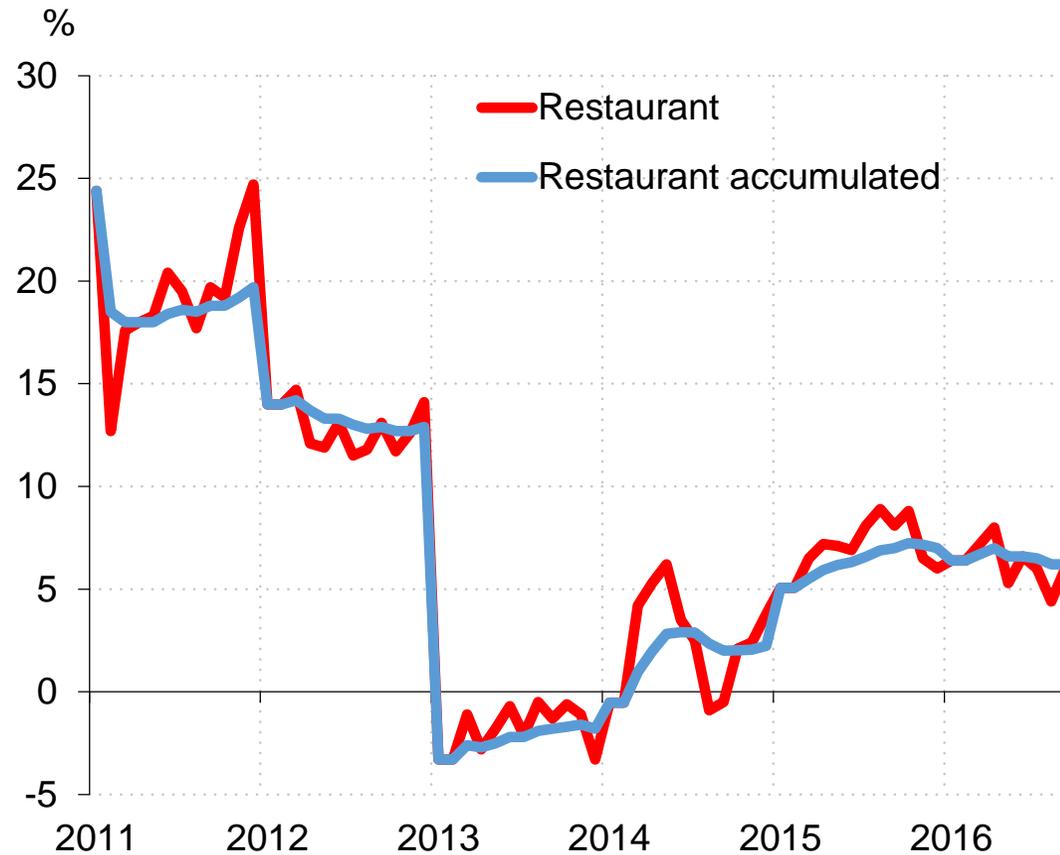


## Current account balance/GDP

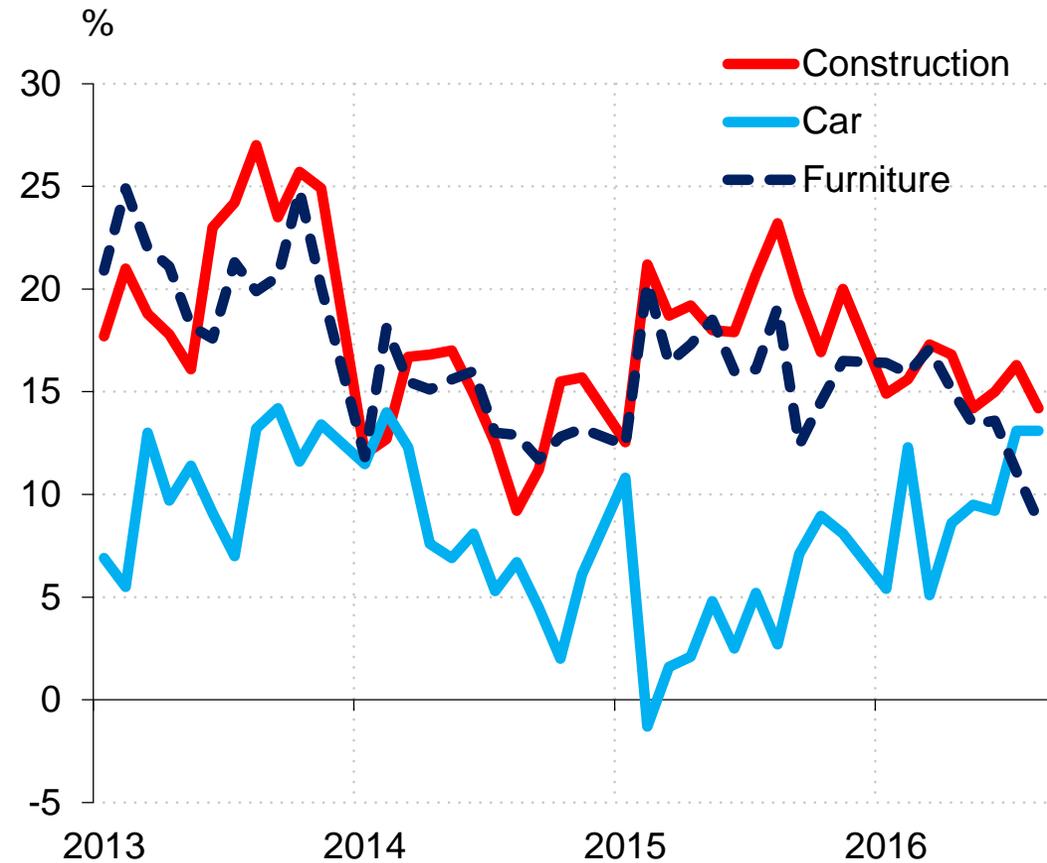


# Consumer spending

## Growth of restaurant business (%)

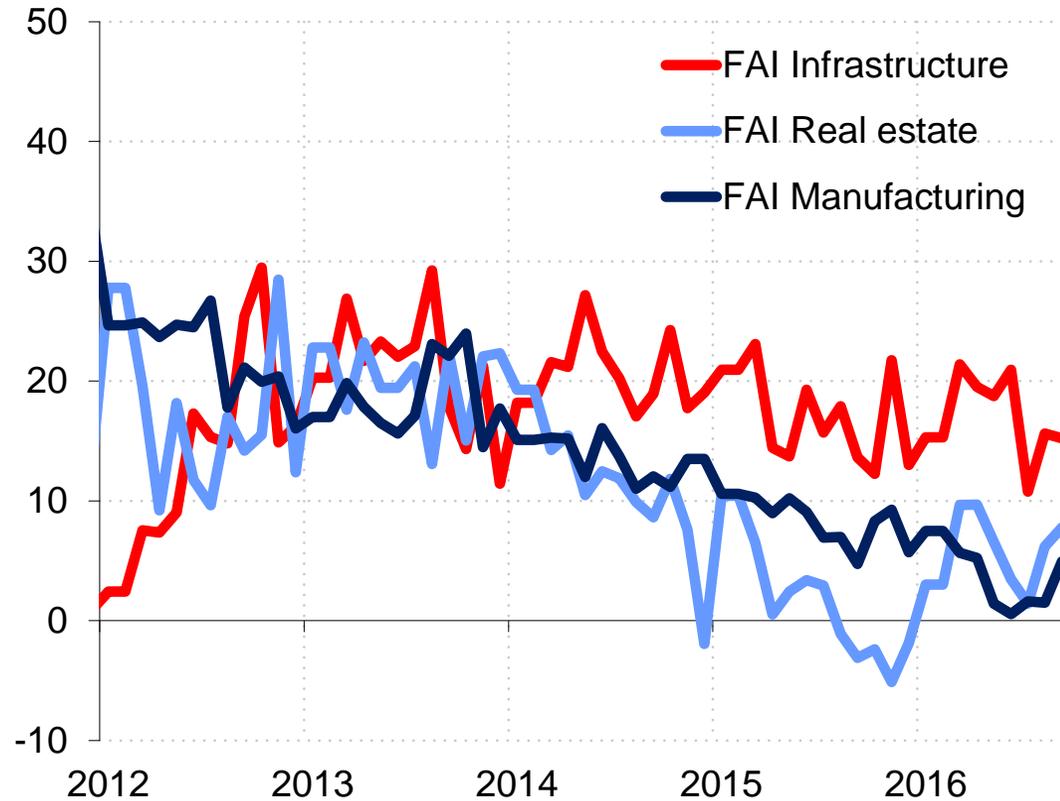


## Sales of construction goods, car and furniture (%)

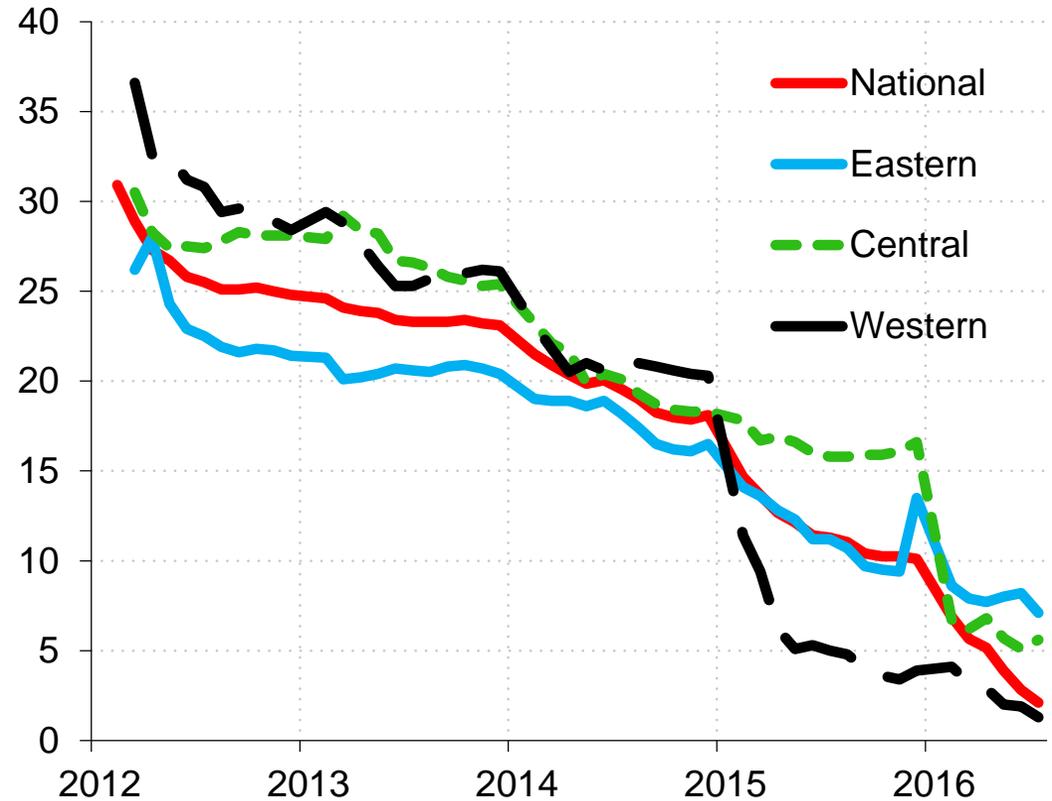


# Fixed-asset investment

Infrastructure, real estate and manufacturing  
Nominal growth (%)



National, eastern, central and western regions  
Private sector FAI (%)



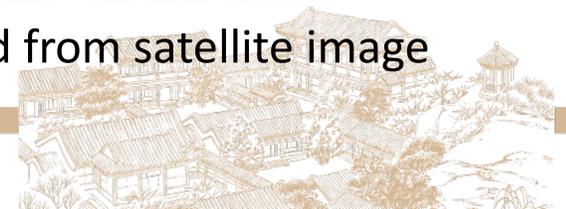
# Is the economy stabilizing?

- Evidence from big data analysis
- But is it sustainable?



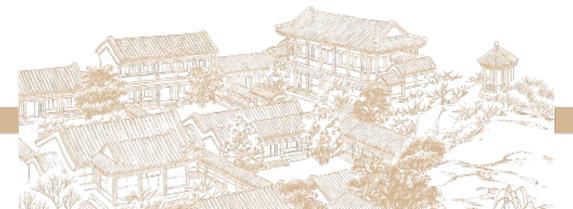
Growth and inflation factors estimated from satellite image of industrial emission.

Source: DeepMacro.com



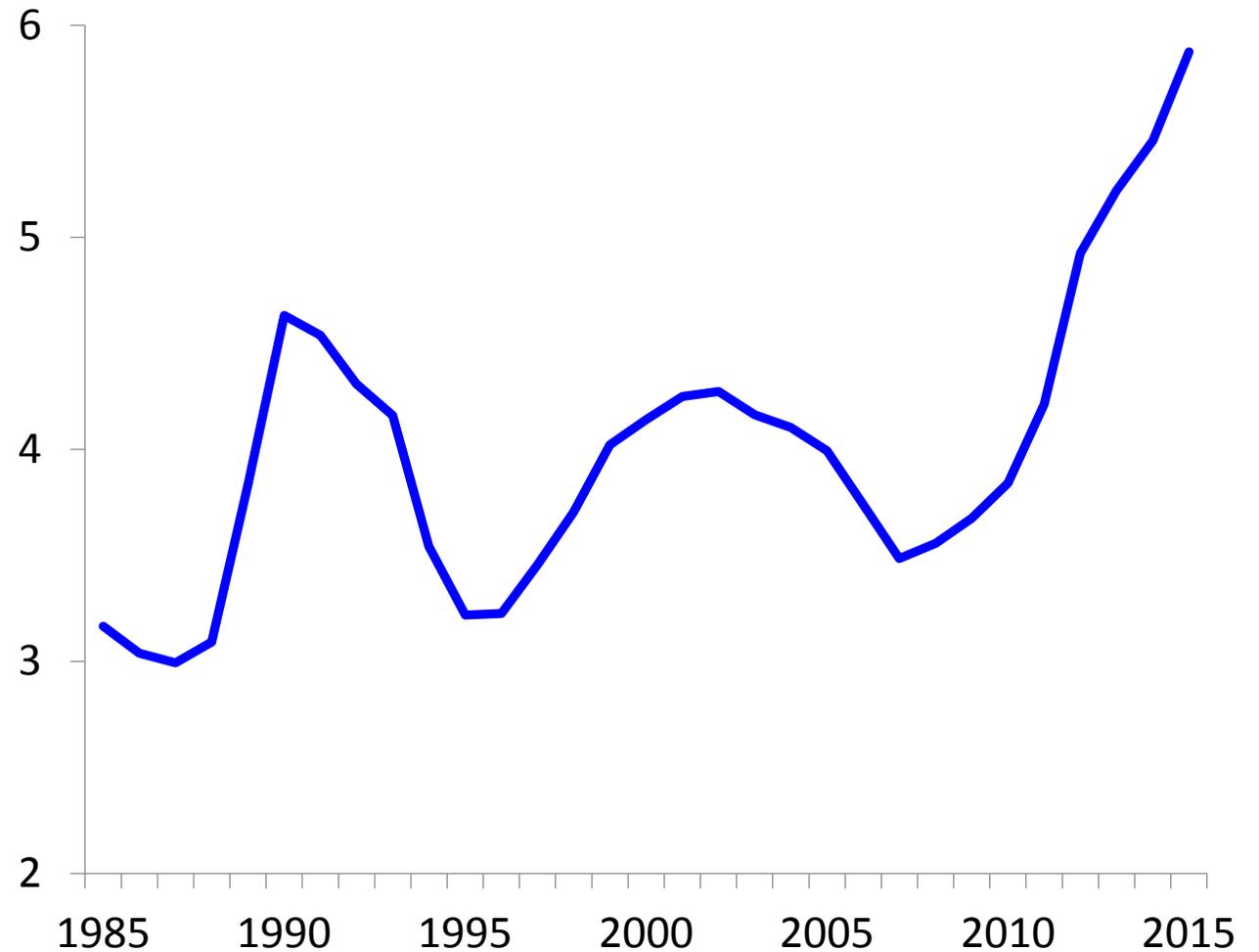
# Growth sustainability and “risky trinity”?

- “Risky trinity” (BIS 2016):
  - Falling productivity
  - Narrowing policy room
  - Rising leverage

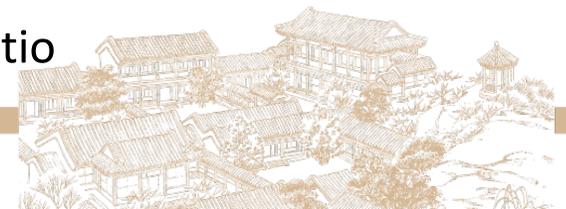


# Rising ICOR

- The incremental capital-output ratio (ICOR) increased from 3.5 in 2007 to 5.9 in 2015.
- Stimulus policy won't be as effective as before.
- Perhaps the greatest risk is growth stagnation?

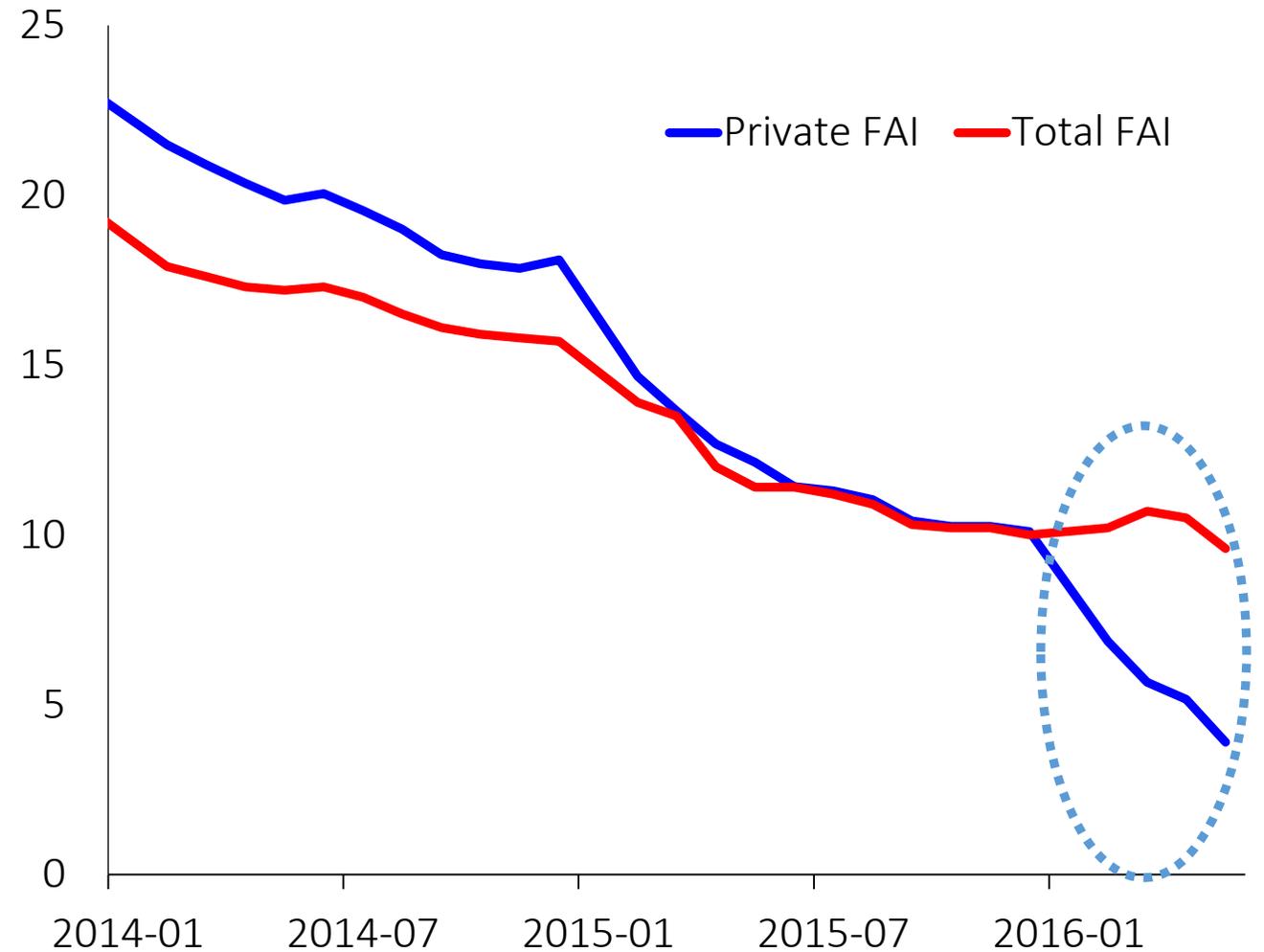


China's Incremental Capital-Output Ratio



# Free fall of private investment

- Recent rapid deceleration of private investment attracted a lot of attention.
- Why?
  - Bad economy
  - Light-asset industry
  - Crowding-out
  - Statistics

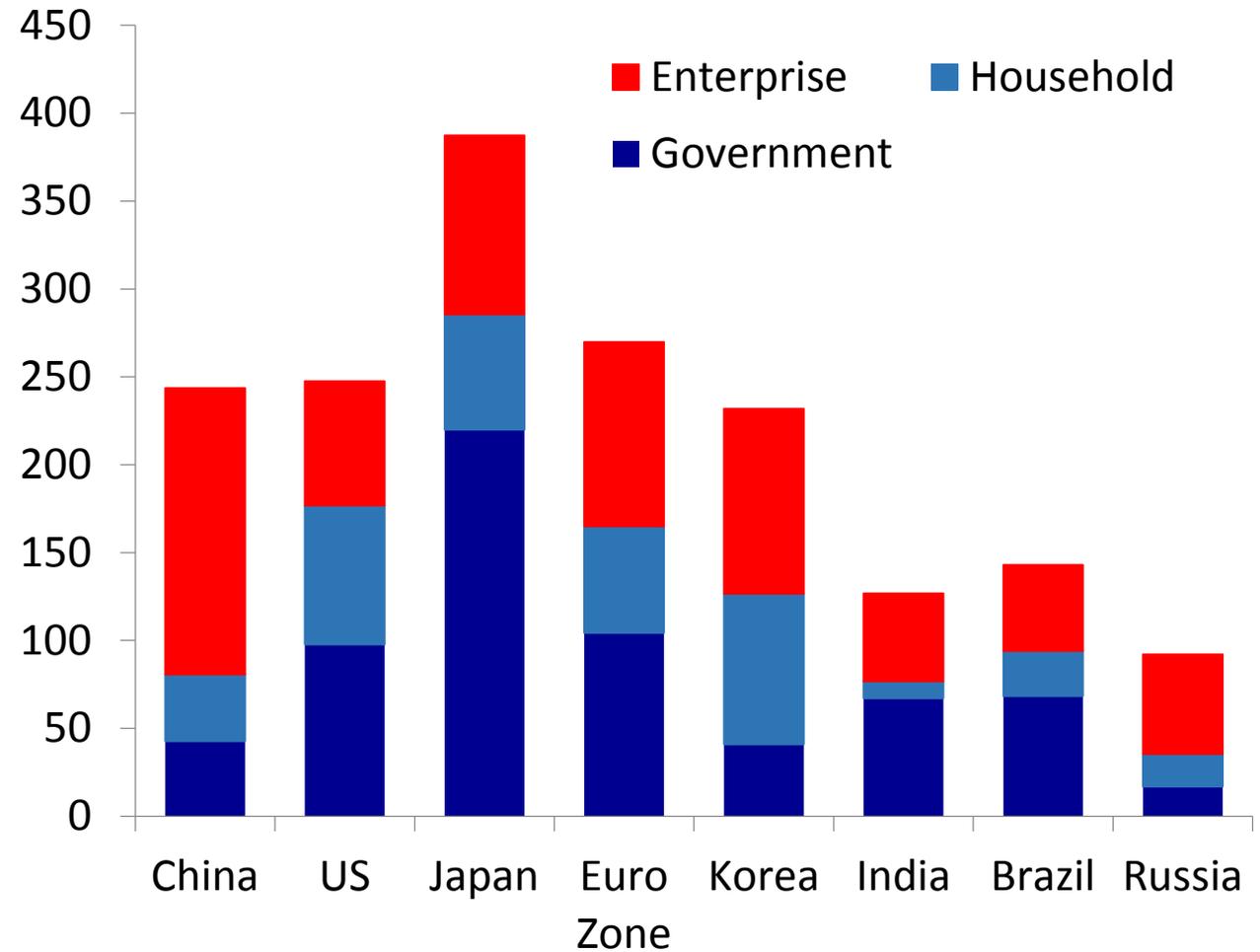


Year-on-year growth of total fixed asset investment and private fixed asset investment



# High leverage: Minsky Moment?

- $M2/GDP = 200\%$
- Credit growth = 13% p.a.
- Non-financial borrowing/GDP = 170%

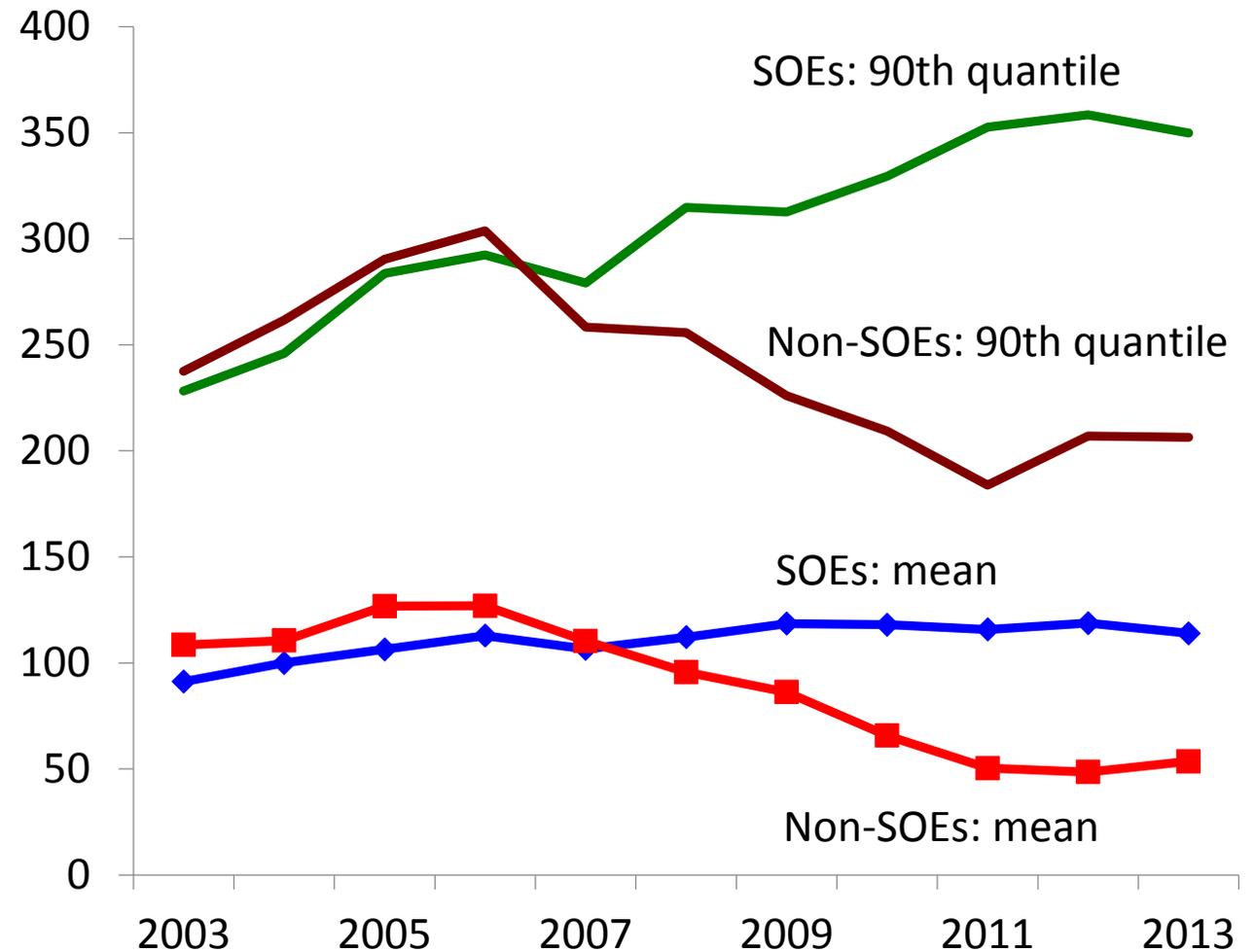


Borrowings by enterprise, household and government as proportions to GDP (%)



# State advancing, private sector retreating

	SOEs	Non-SOEs
TFP	0.9	1.3
Capital output ratio	1.2	2.4
Profitability	7.6	28.7
Interest coverage	5.0	30.2
Financial cost	3.1	4.5

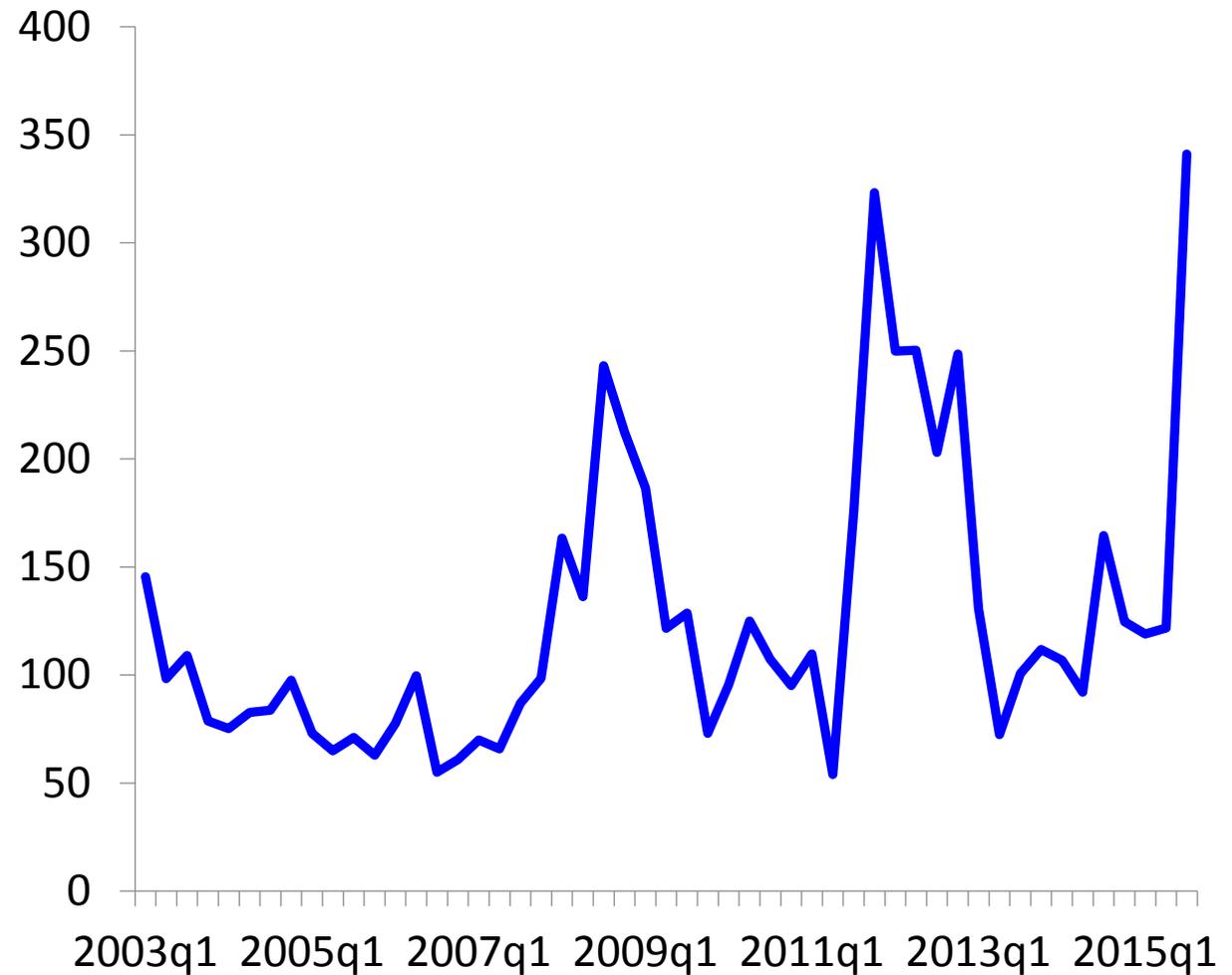


“The state advancing, the private sector retreating” in corporate leverage in China



# Economic Policy Uncertainty Index

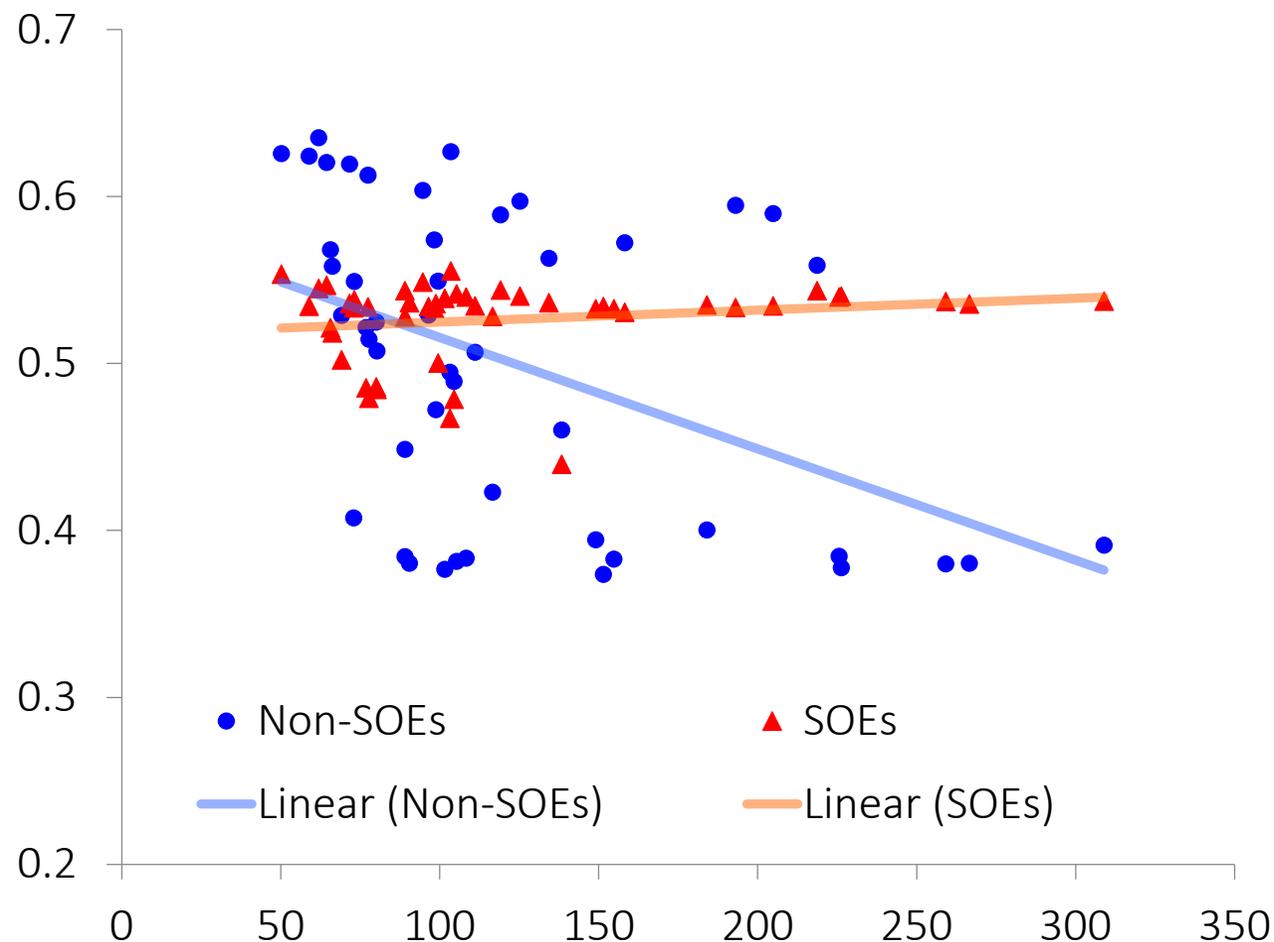
- Why rising SOE leverage and falling non-SOE leverage?
- Discrimination of ownership, size and industry?
- Economic policy uncertainty
- *South China Morning Post*, Counting proportions of articles containing E\*P\*U\*C



Baker, Scott, Nicholas Bloom, Steven J. Davis, and Xiaoxi Wang, 2013. "A Measure of Economic Policy Uncertainty for China," work in progress, University of Chicago.

## Effects of EPU on corporate leverage

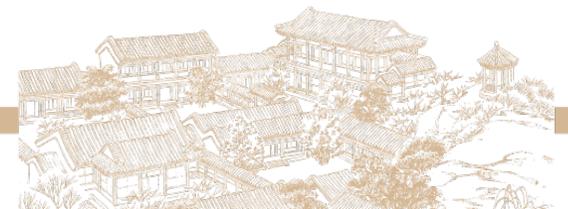
- Statistical analysis show, an increase in EPU by one standard deviation increases SOE debt-asset ratio by 3 ppt and lowers non-SOE debt-asset ratio by 2 ppt
- Divergence is greater where financial policy is more repressive



Economic Policy uncertainty index (horizontal axis) and debt-asset ratios of SOEs versus non-SOEs (vertical axis).

# Strategies for deleveraging

- One, tightening monetary policy (so that to slow borrowing)
- Two, increasing the proportion of direct finance in total financial intermediation
- Three, changing the composition of leverage



# What cause zombie firms?

- Zombie firms are those financially unviable but continue to operate, relying on government or bank support

	Zombie	Z1	Z2	Z3
Gov intervention	-0.08	-0.09	-0.04	-0.08
State-owned finance	0.05	0.05	0.08	0.05
Market intermediation	-0.15	-0.15	-0.18	-0.16
SOEs	0.14	0.14	0.17	0.15
Collective firms	0.02	0.02	0.03	0.03
Capital intensity	0.02	0.02	0.02	0.02
Export firm	-0.01	-0.01	-0.01	-0.01
Firm size	0.02	0.02	0.02	0.02
Debt-asset ratio	0.44	0.46	0.36	0.45
Establishment date	0.003	0.003	0.003	0.003
Fixed asset proportion	-0.12	-0.12	-0.11	-0.13
Profitability	-0.72	-0.85	-0.80	-0.72

Factors contributing to the formation of zombie firms

**Note:** All these coefficients are significant at 1% level.

**Source:** Yuyan Tan, Yiping Huang, Wing Thye Woo, 2016, "Zombie firms and the crowding-out of private investment in China", *Asian Economic Papers*.

# Zombies crowd out private investment

- Empirical analyses confirm that zombie firms not only raise funding costs for non-zombie firms but also lower their investment rates

	OLS	FE	2SLS
Non-zombie dummy *	0.013***	0.012***	0.041***
proportion of zombies			
Proportion of zombies	-0.010***	-0.009***	-0.018**
Non-zombie dummy	0.023***	0.011***	0.053*
Firm size	-0.001***	0.009***	0.013***
Establishment date	-0.000***	-0.000***	-0.000
Fixed-asset proportion	0.030***	0.003***	-0.002
Profitability	-0.009***	-0.022***	-0.066***

Determinants of enterprises' funding costs

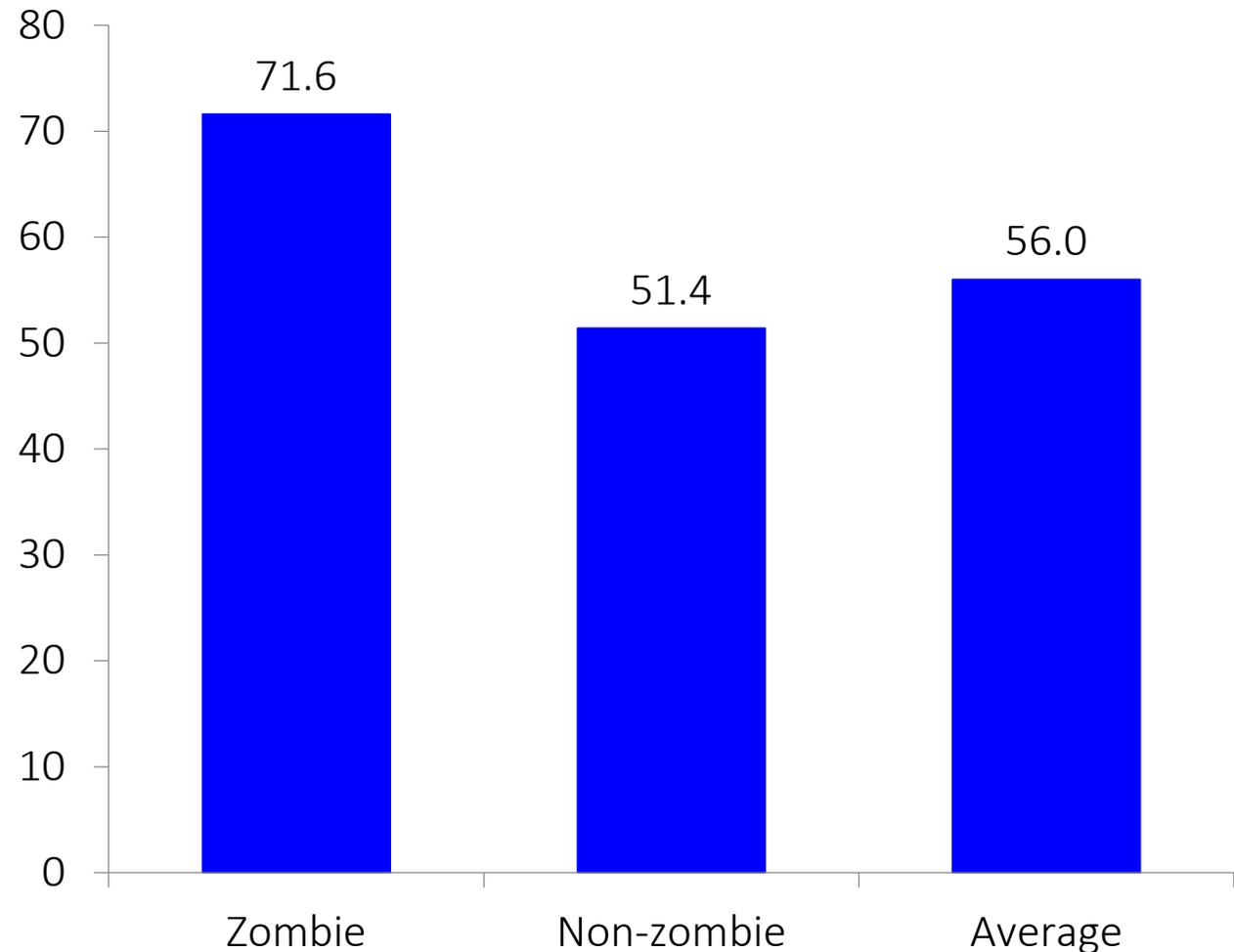
**Source:** Yuyan Tan, Yiping Huang, Wing Thye Woo, 2016, "Zombie firms and the crowding-out of private investment in China", *Asian Economic Papers*.



# Only discipline can save the economy

Resolving the zombie firms may raise:

- Growth of industrial production by 2.1 ppt
- Growth of capital stock by 1.4 ppt
- Growth of employment by 0.8 ppt
- Growth of productivity by 1.1 ppt

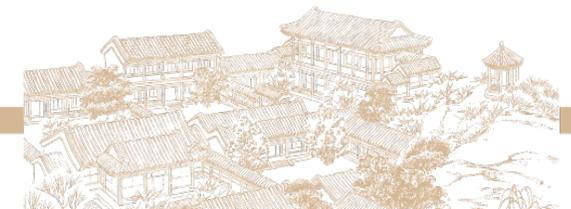


Three strategies for deleveraging: controlling money supply, increasing proportion of equity finance and resolving zombie firms.

# Estimates of growth potentials

- All slightly higher than the Lee estimates, but Lee's numbers look more realistic?

Economists/Institutions	Predictions
World Bank and Development Research Center	2011-15: 8.6%; 2016-20: 7%; 2021-20: 5.9%; 2026-30: 5.0%
Asian Development Bank and Peking University	2011-20: 8.0%; 2021-30: 6.0%
Fang Cai and Yang Lu	2011-20: 7.2%; 2016-20: 6.1%
Justin Lin and Fan Zhang	2011-30: 8.0% actual performance: >7.0%
Jong Wha Lee	2011-30: 5.5%



# Which picture best characterizes the future China?





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Thanks 感谢

