

LSE

THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE

A Global Deal for Climate
Change

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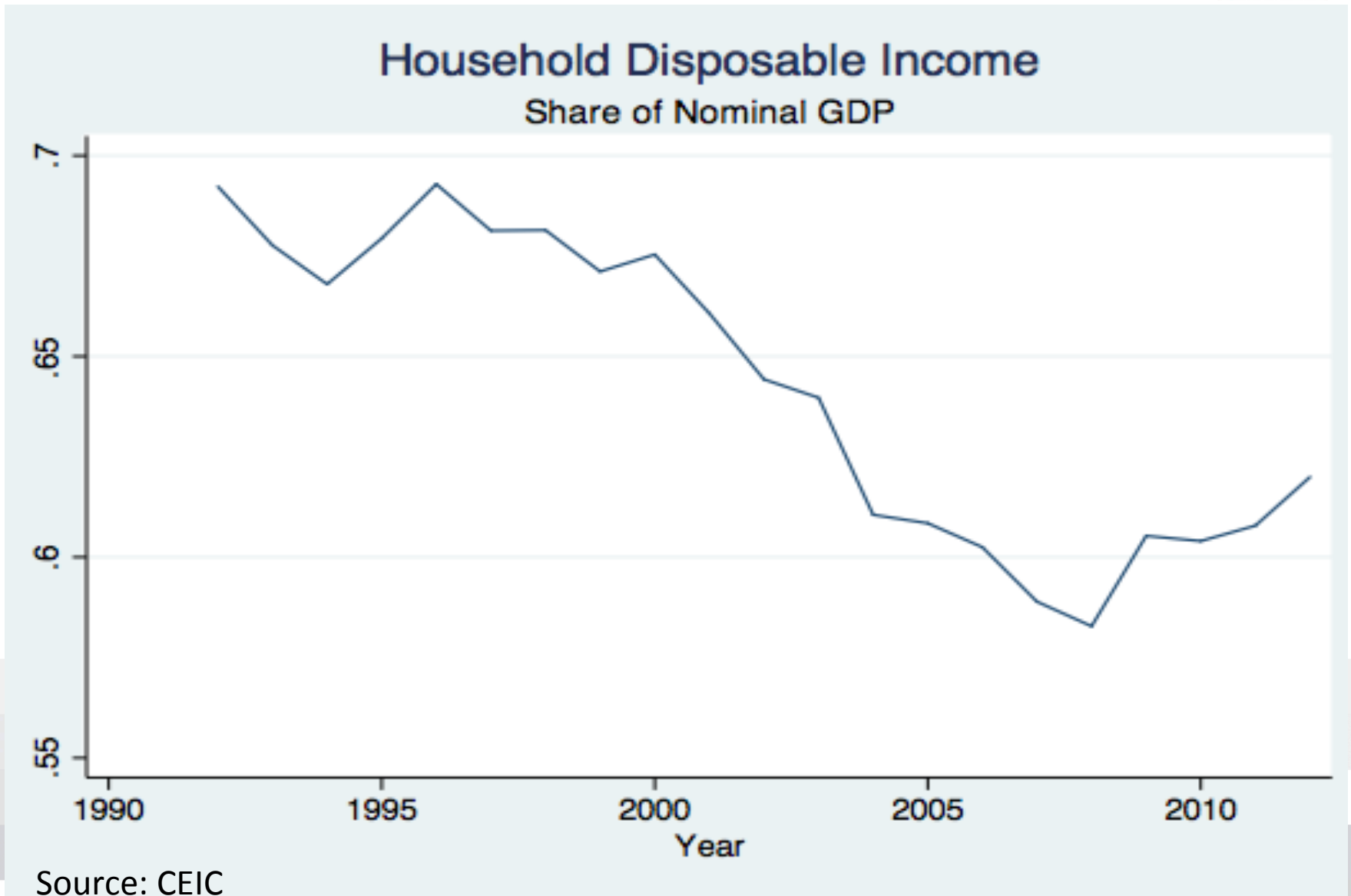


China: Present Challenges and Future Opportunities

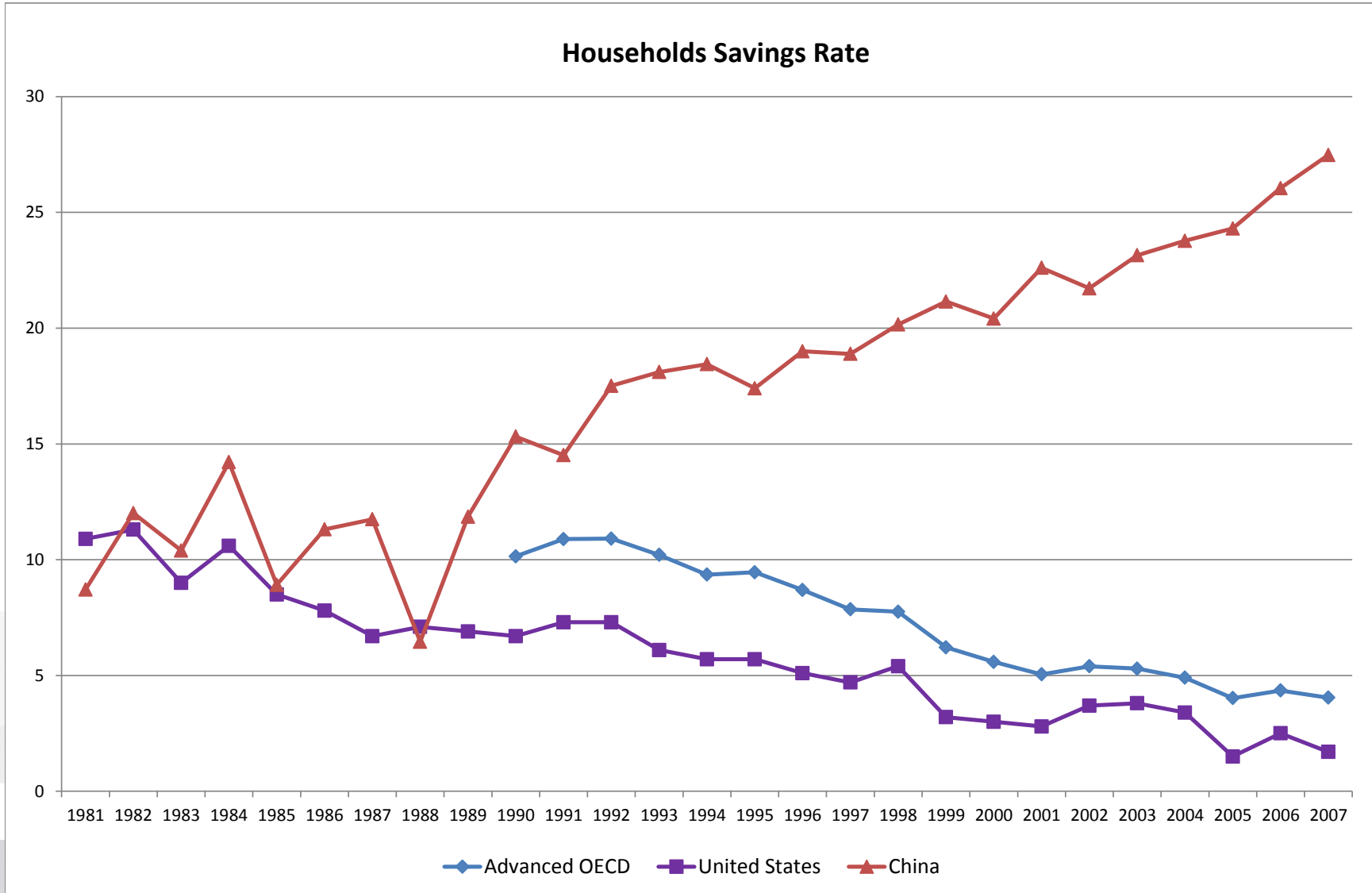
Keyu Jin

Banco Central de la República Argentina
April 5th 2017

1. Declining Household Share



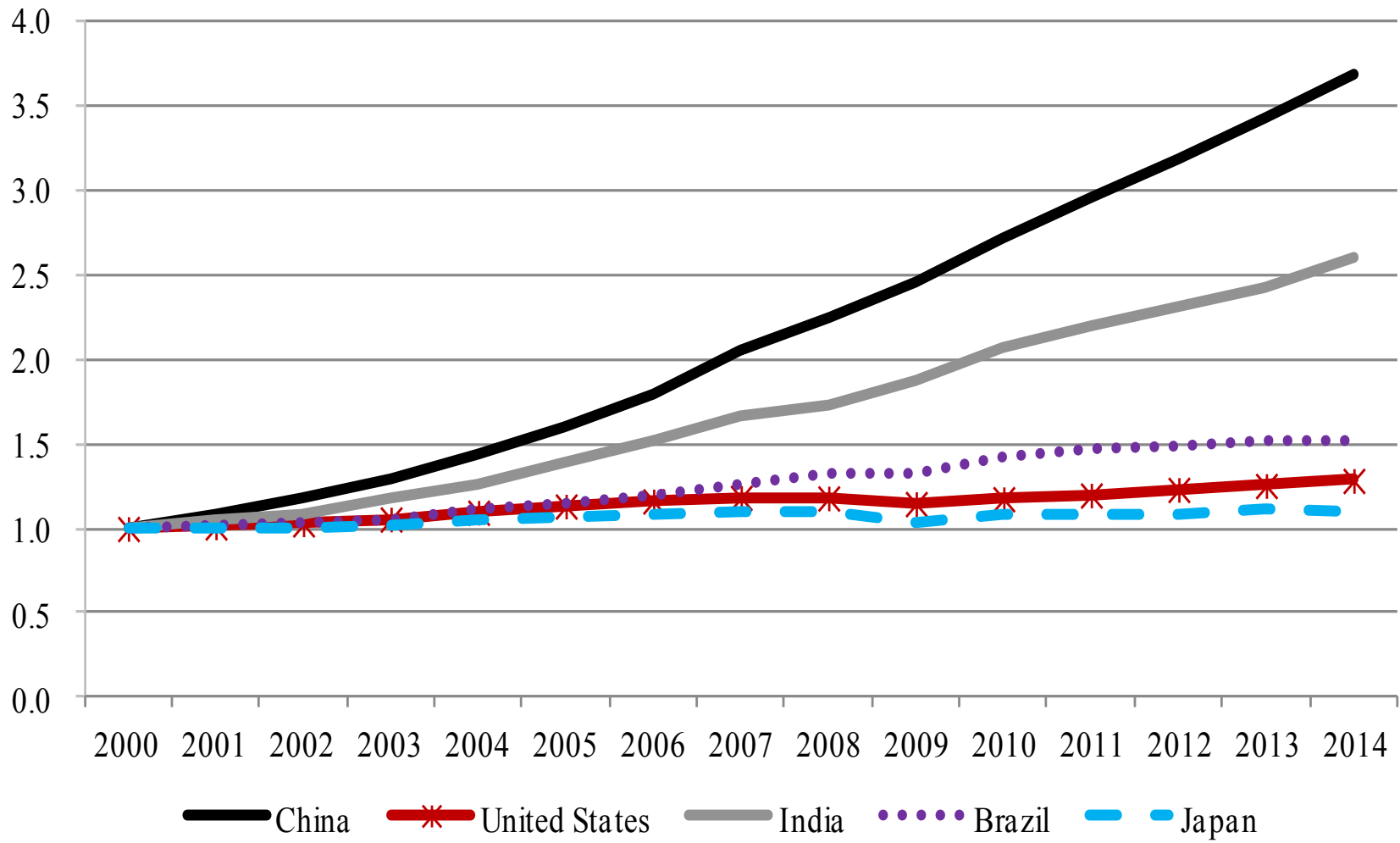
2. Rising Household Saving Rate



3. Best Performing Economic Growth



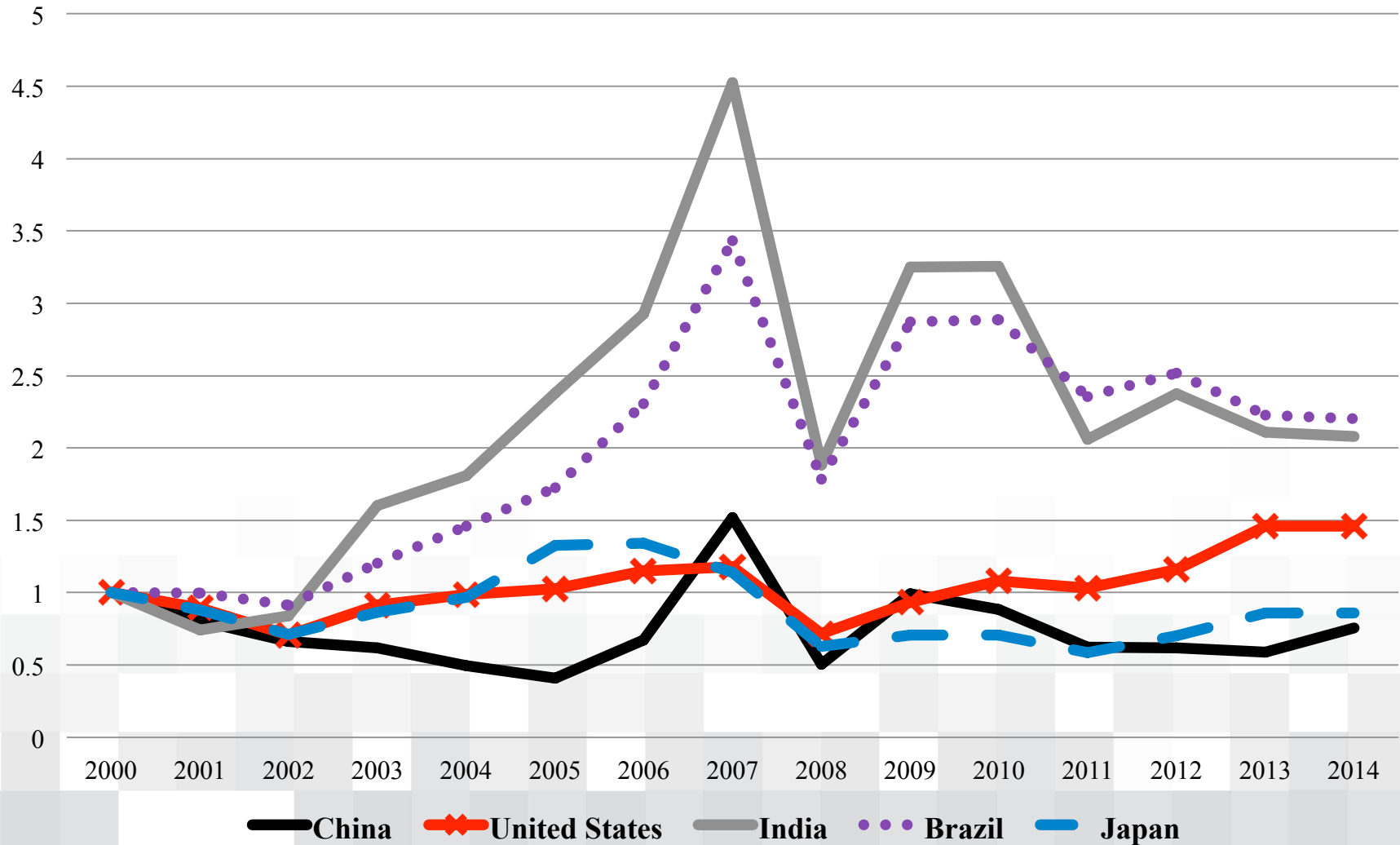
Panel B. Real GDP in Large Countries from 2000 to 2014



...Worst Performing Stock Market



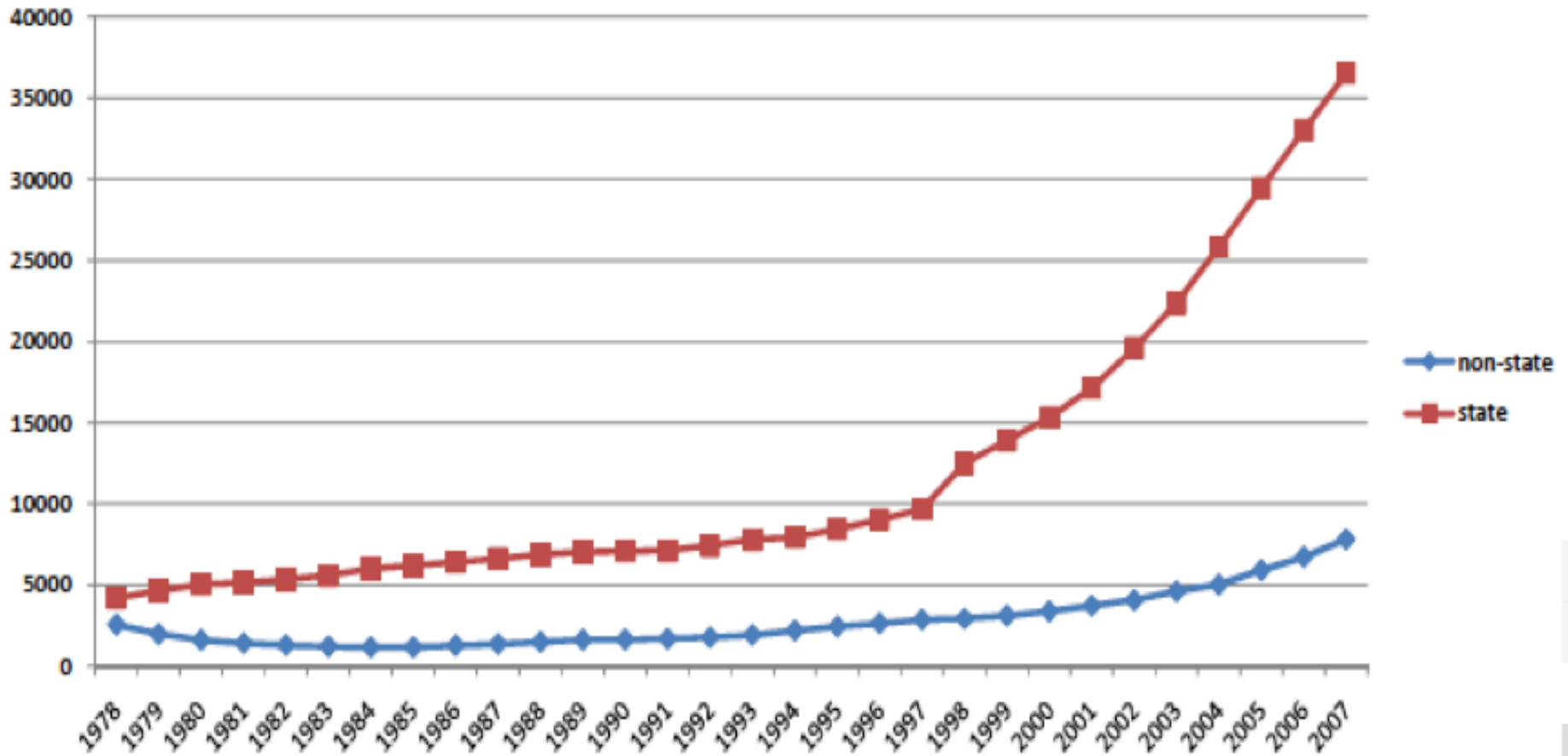
Value-Weighted Buy-and-Hold Returns



Buy-and-Hold Returns of Listed Stocks in Large Countries

Source: Allen, Qian, Shang, Zhu (2015)

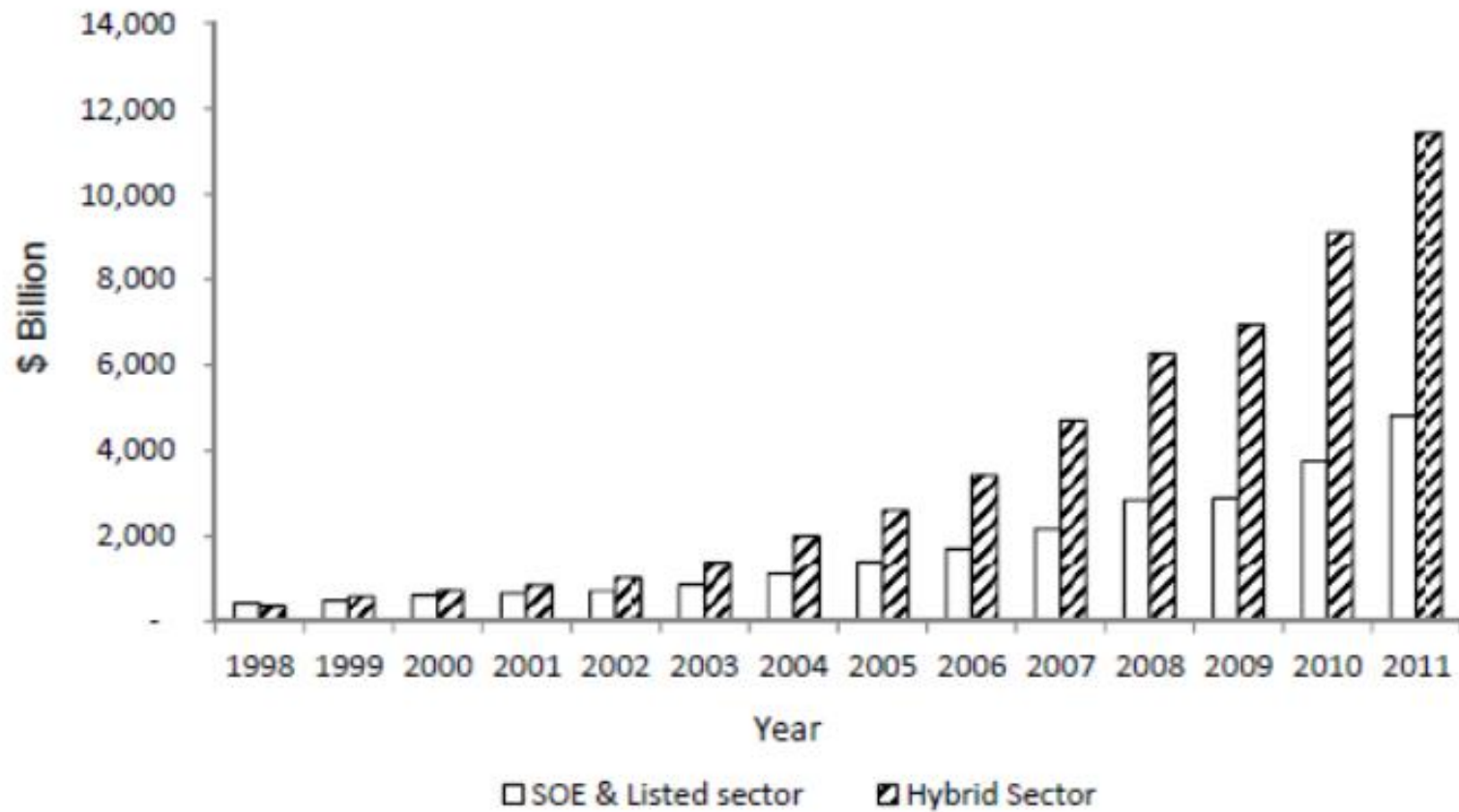
4. Large Misallocation of Capital



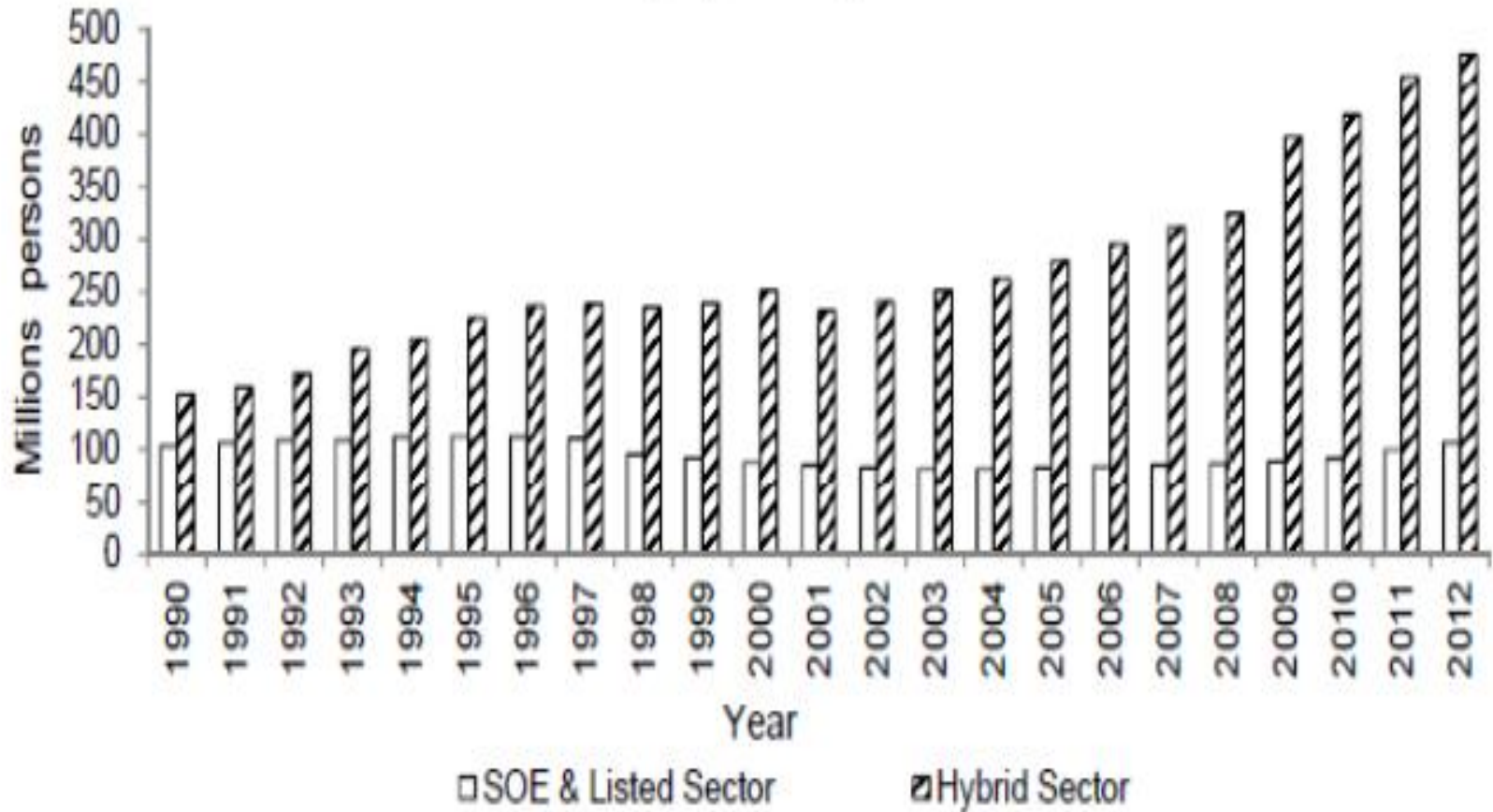
5. Thriving Private Sector



Industrial Output by Sectors (above Designated Size)



Employment by Sectors



The Coming Collapse of China (2001)

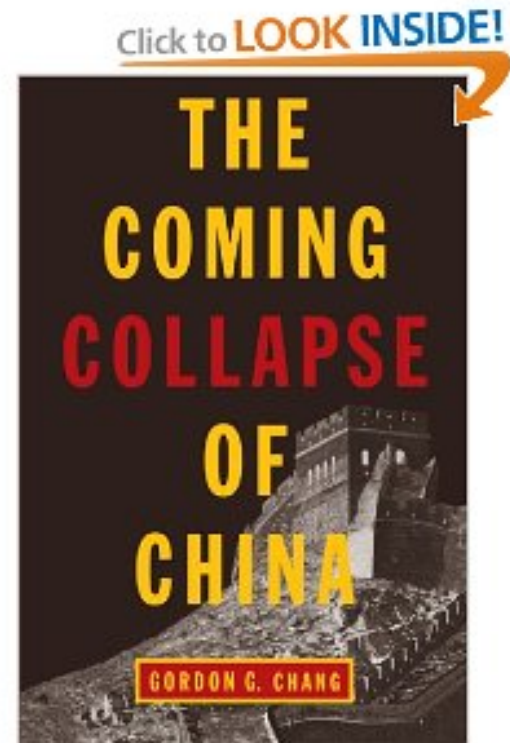


Chapter 2: “Lake of Gasoline: The discontent of the people is explosive”

Chapter 3: “Industrial Theme Parks: State-owned enterprises are dying”

Chapter 6: “The Banks That Sank: Chinese banks will fail”

Chapter 7: “Biting the Snakes: The state attacks the private sector”



China's 'Imminent Collapse'



Gordon Chang (2001):

The end of the modern Chinese state is near. The People's Republic has five years, perhaps ten, before it falls. This book tells why.

As Chang discovered, China is a nation of contradictions. Many of its state industries are virtually [bankrupt](#); its banking system sits on a mountain of unrecognized [bad debts](#); its agriculture is primitive; [pollution](#) is out of control; and government interference and [corruption](#) are killing off a number of new business ventures...

— *The New York Times*, September 9, 2001

And Again...



"The Coming Collapse of China: 2012 Edition", published by Foreign Policy magazine website, Gordon C. Chang admitted that his prediction was wrong, arguing that he was off only by one year: "Instead of 2011, the mighty communist party of China will fall in 2012. Bet on it."

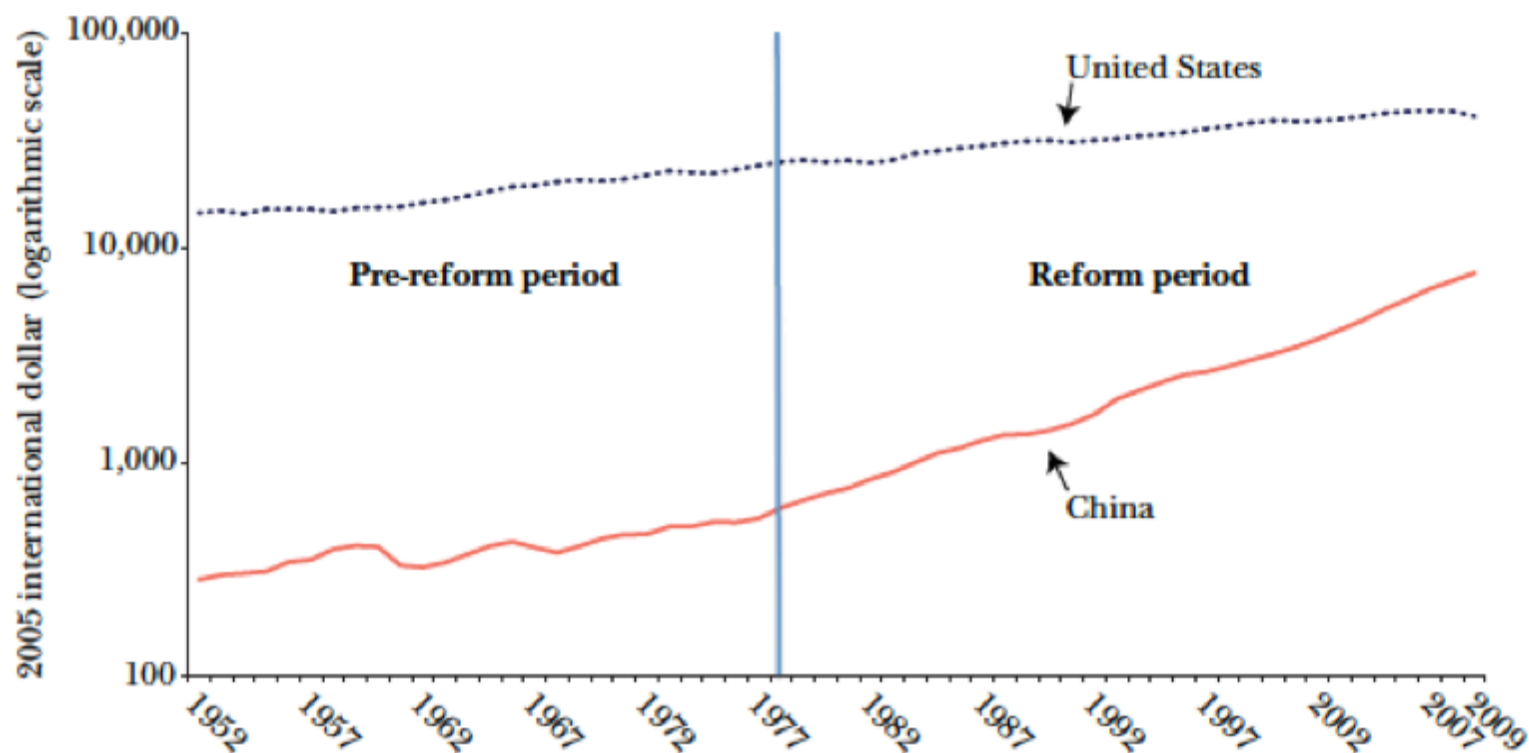
Shambaugh (2015):

Omens of millenarian change. The "endgame of Chinese communist rule has now begun," the system is close to "breaking point" and we are "witnessing the final phase."

1. Growing Like China



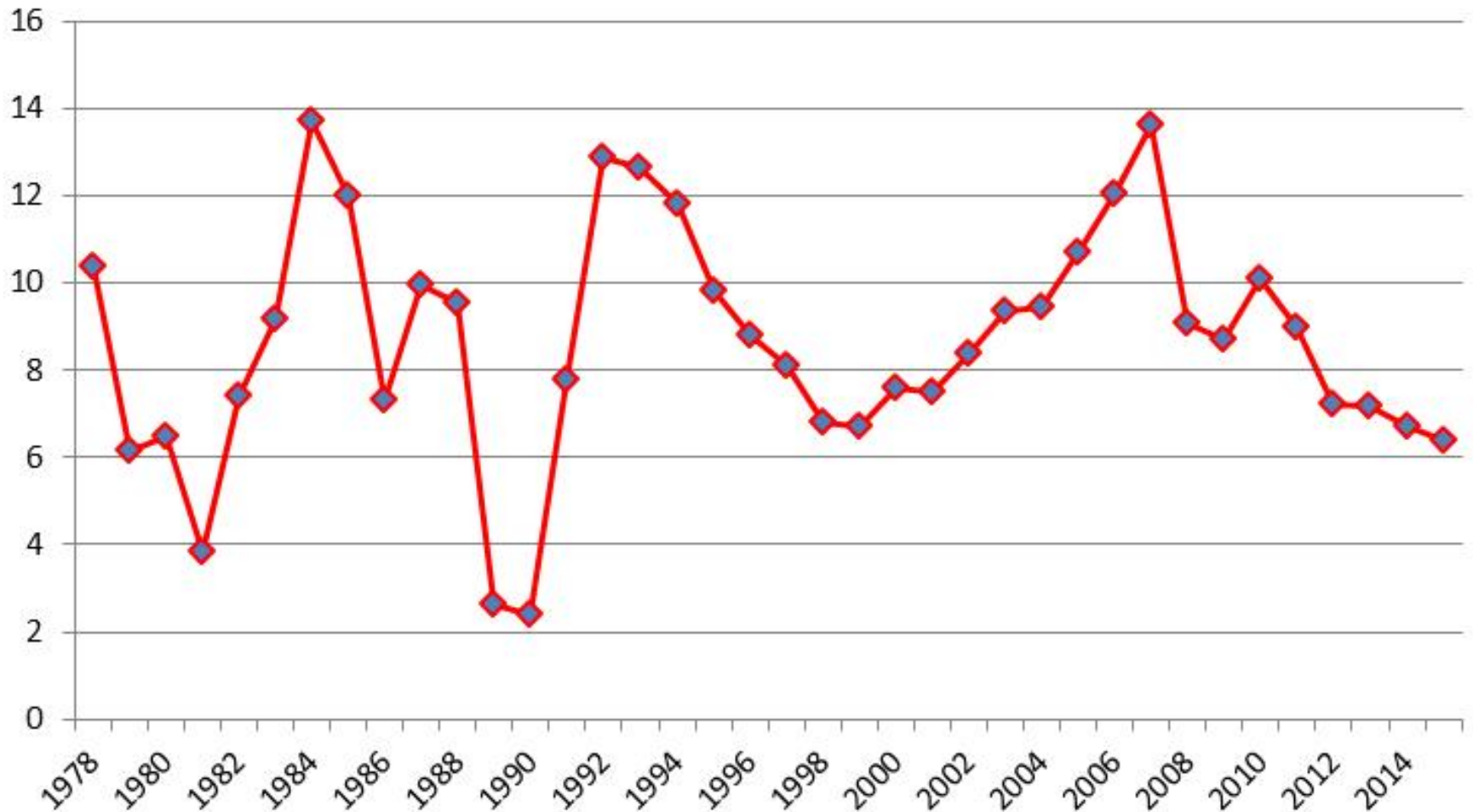
GDP per capita of China and US: 1952–2009



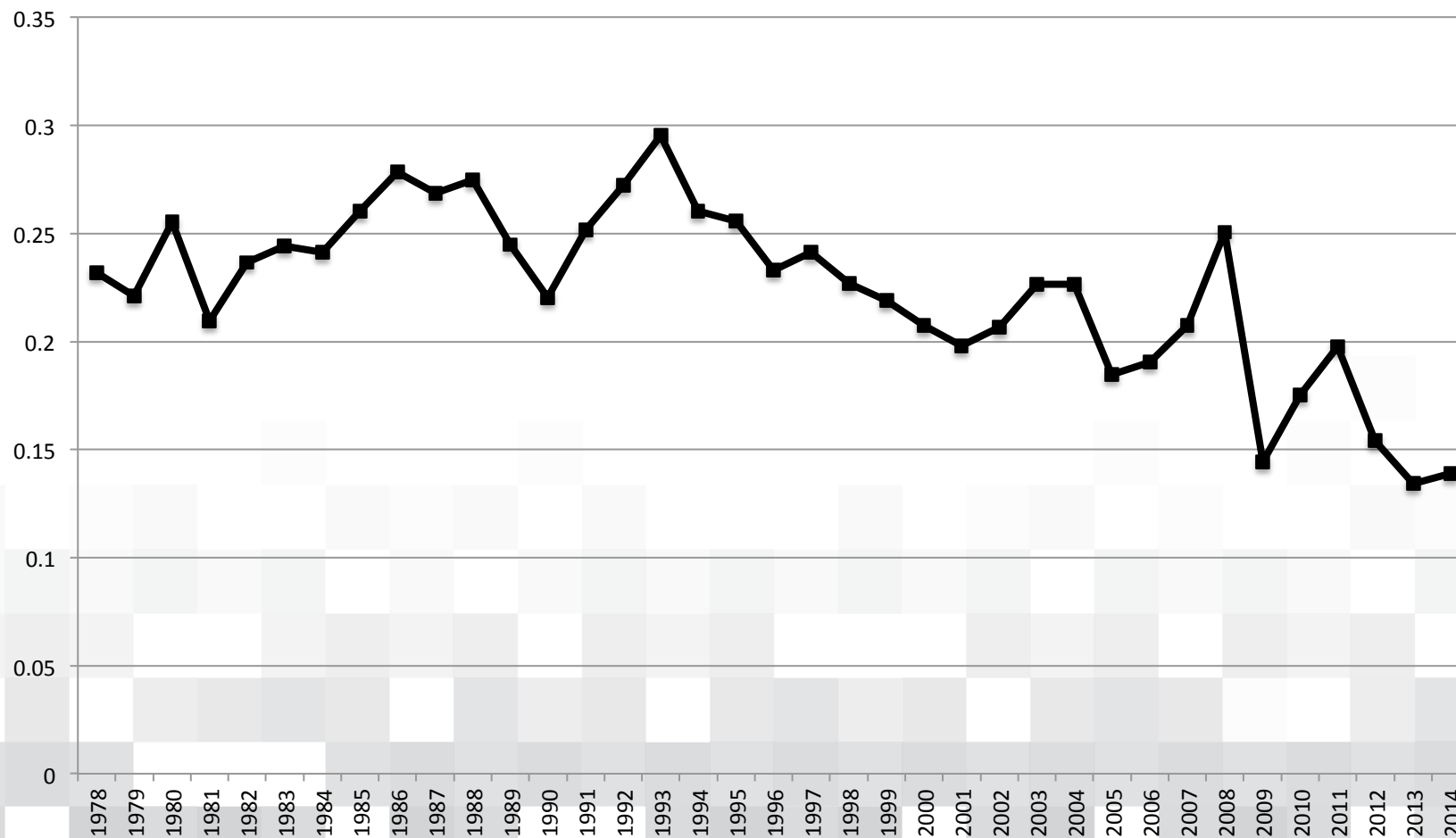
Reform Driven Growth Cycles



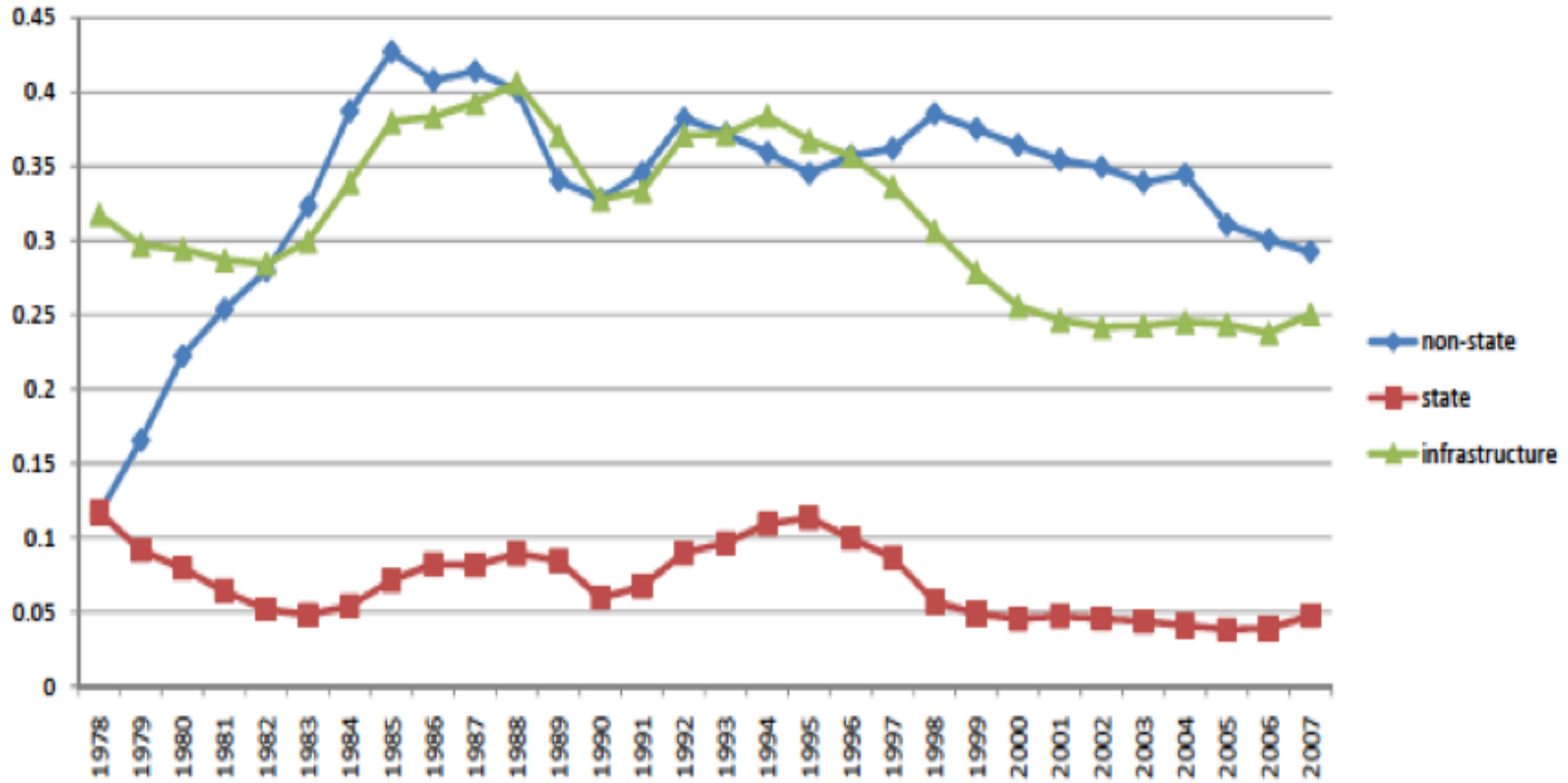
GDP per capita growth, annual %



Returns to Capital in China (1978-2014)



Return to Capital



Sources of Growth

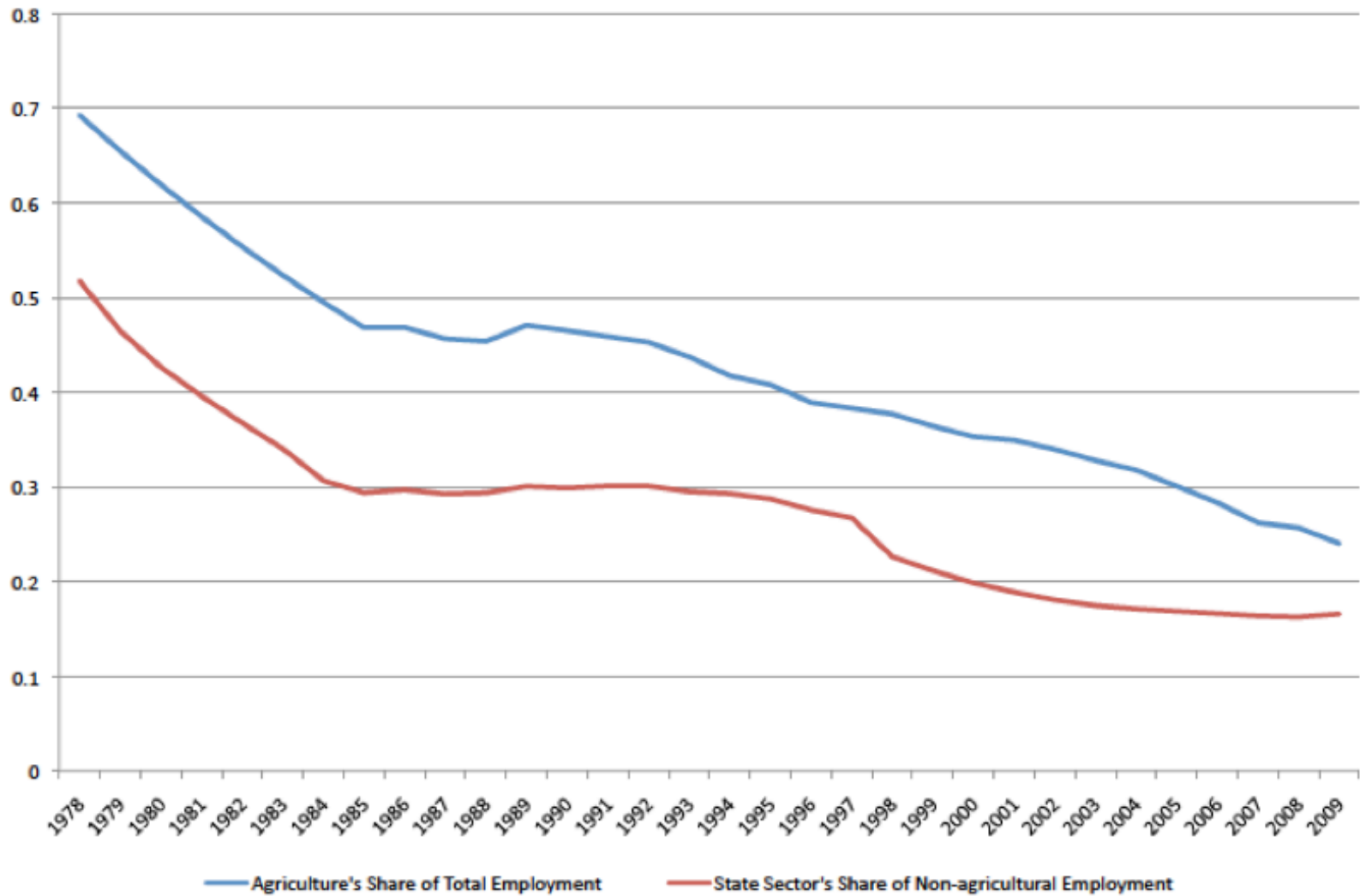


Decomposing China's Growth: 1952–2007

<i>Average annual growth rates (%)</i>					
<i>Period</i>	<i>GDP per capita</i>	<i>Labor participation rate</i>	<i>Capital/output ratio</i>	<i>Average human capital</i>	<i>TFP</i>
1952–1978	2.97	0.11	3.45	1.55	-1.07
1978–2007	8.12	0.57	0.04	1.18	3.16
<i>Contributions to per capita GDP growth</i>					
<i>Period</i>	<i>GDP per capita</i>	<i>Labor participation rate</i>	<i>Capital/output ratio</i>	<i>Average human capital</i>	<i>TFP</i>
1952–1978	100	3.63	116.15	52.25	-72.03
1978–2007	100	7.05	0.51	14.55	77.89

Non-State	1978-2007	1978-1988	1988-1998	1998-2007
Output per worker	6.88	5.94	7.64	7.09
capital per worker	2.14	-0.15	2.53	4.25
TFP	4.74	6.09	5.11	2.84
State	1978-2007	1978-1988	1988-1998	1998-2007
Output per worker	6.58	5.35	4.95	9.74
capital per worker	5.21	3.64	5.03	7.17
TFP	1.36	1.71	-0.08	2.57

Two Structural Transformations



- Productivity Growth between 1978-2007
 - State sector (1.52%) vs. Private (4.56%)
- Also, rapid productivity growth in private helped absorb labor transferred out of agriculture (420 million jobs)
- Absent private sector productivity growth, GDP/per capita growth 3.79% lower annually
- If not for the large capital misallocation, even larger gains.

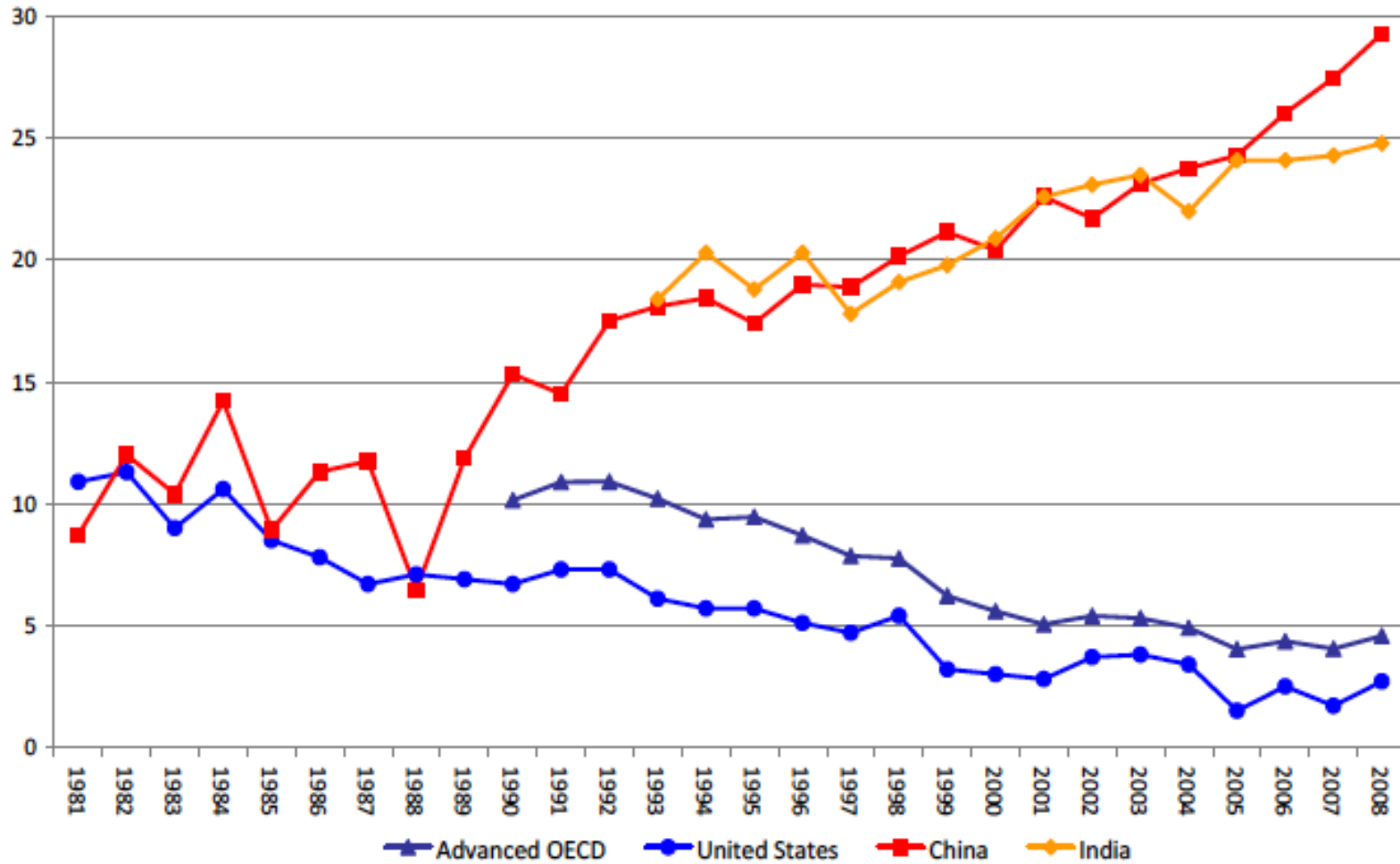
2. Saving and Global Imbalances



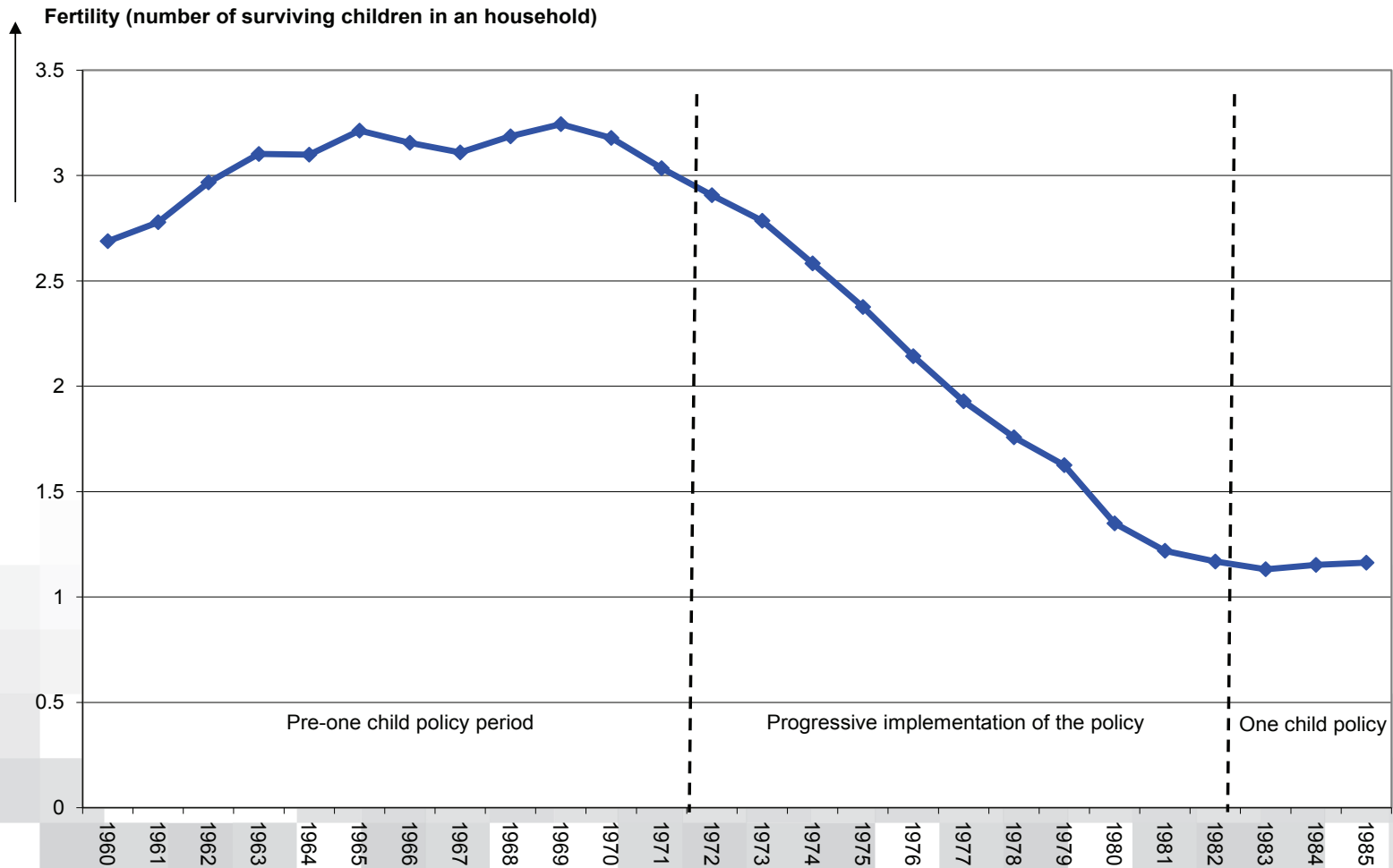
Household Saving Rate



(b) Household Saving Rates

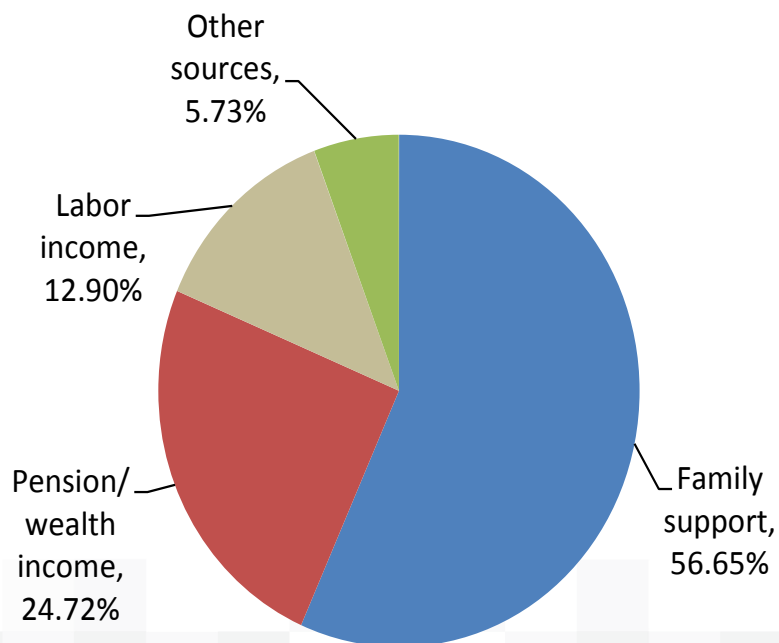


The One Child Policy...

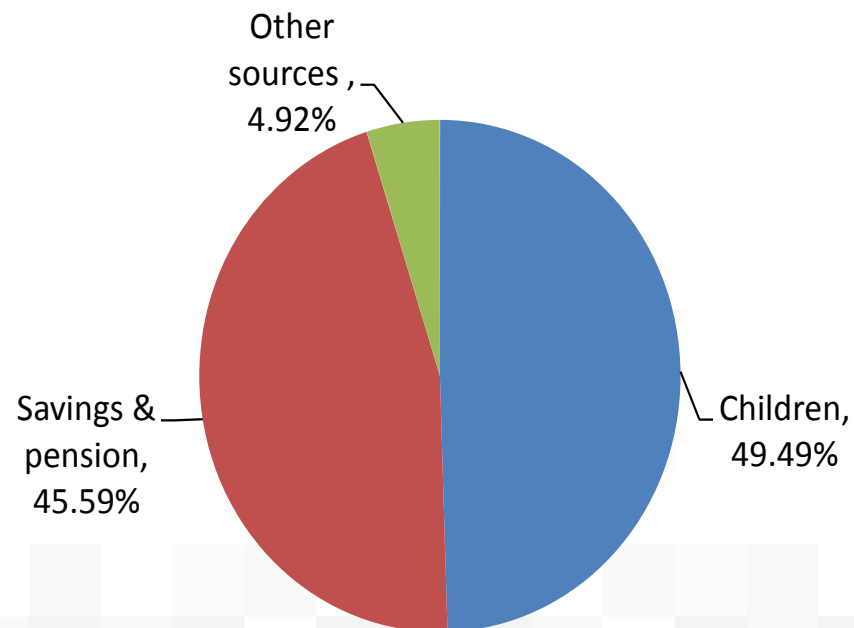


	1970	2010	2050
Share of young (age 0-20)	51%	27%	18%
Share of middle aged (age 30-60)	28%	44%	39%
Share of elderly (age above 60)	7%	14%	33%
Median age	19.7	34.5	48.7
Fertility (urban areas)	3.18 <small>(1965-70)</small>	1.04 <small>(2004-09)</small>	- n/a -

Note: UN World Population Prospects (2011).



census 2005 - Main source of livelihood (65y+)



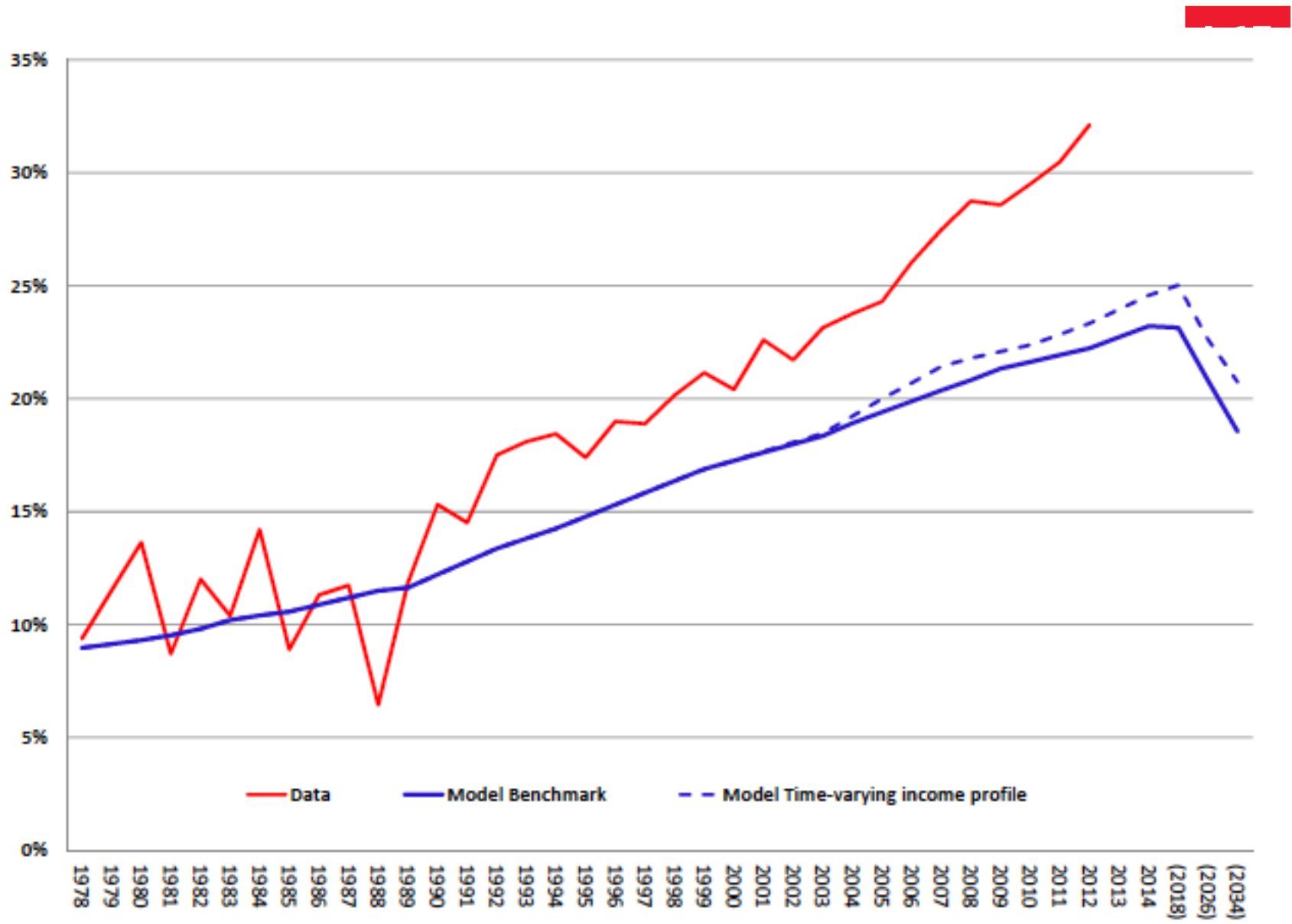
Charls 2011 - Expectations of old-age support (45-65y)

...And Unintended Consequences

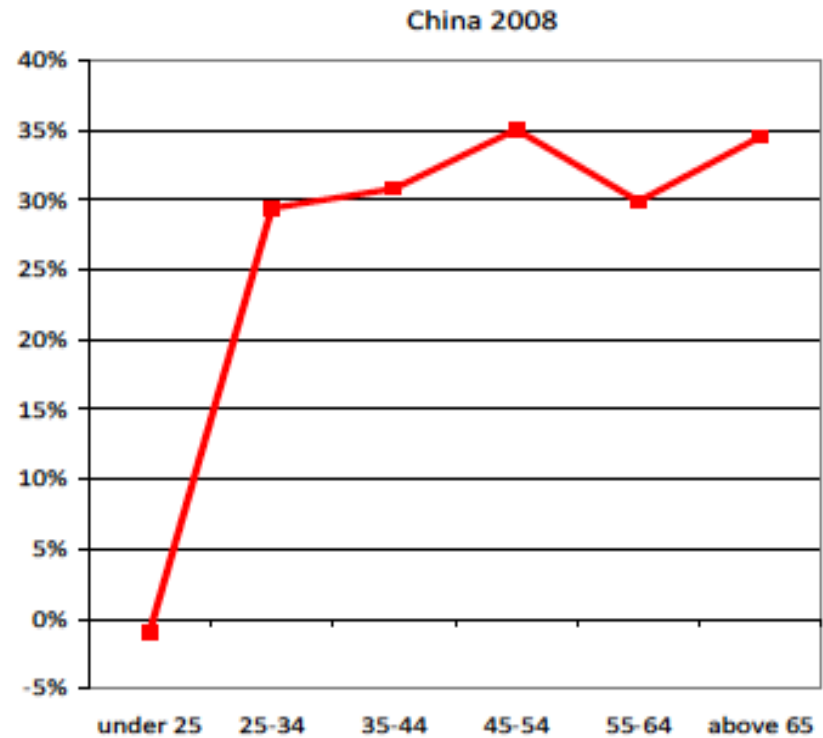
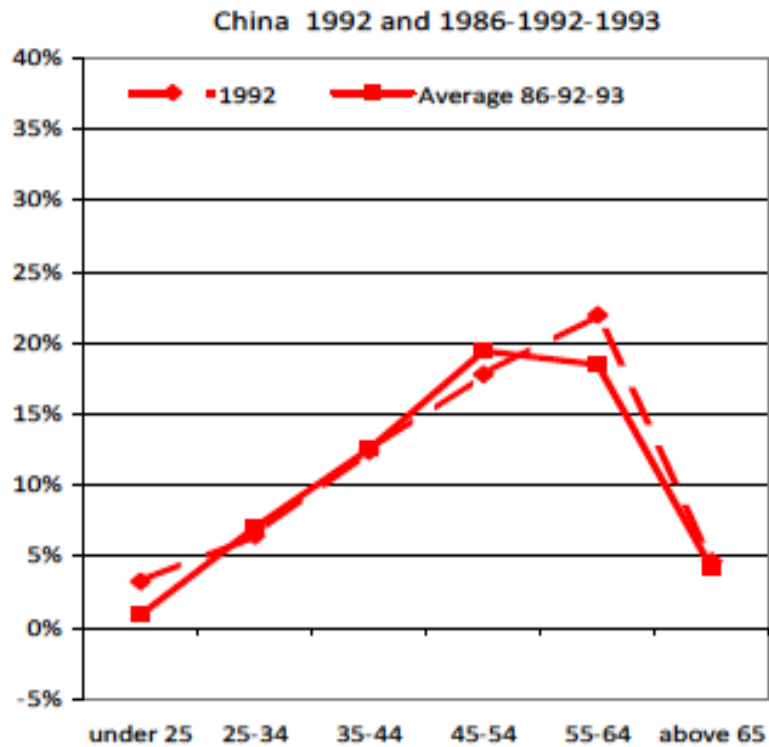


Household Saving Rate	Only Child	Twins	Difference
Average	21.3	12.8	8.5
Income Quintile (low to high)			
1	6.4	-2.9	9.3
2	18.3	16.6	1.7
3	23.7	10.3	13.4
4	27.4	19.5	7.9
5	33.4	25.4	8

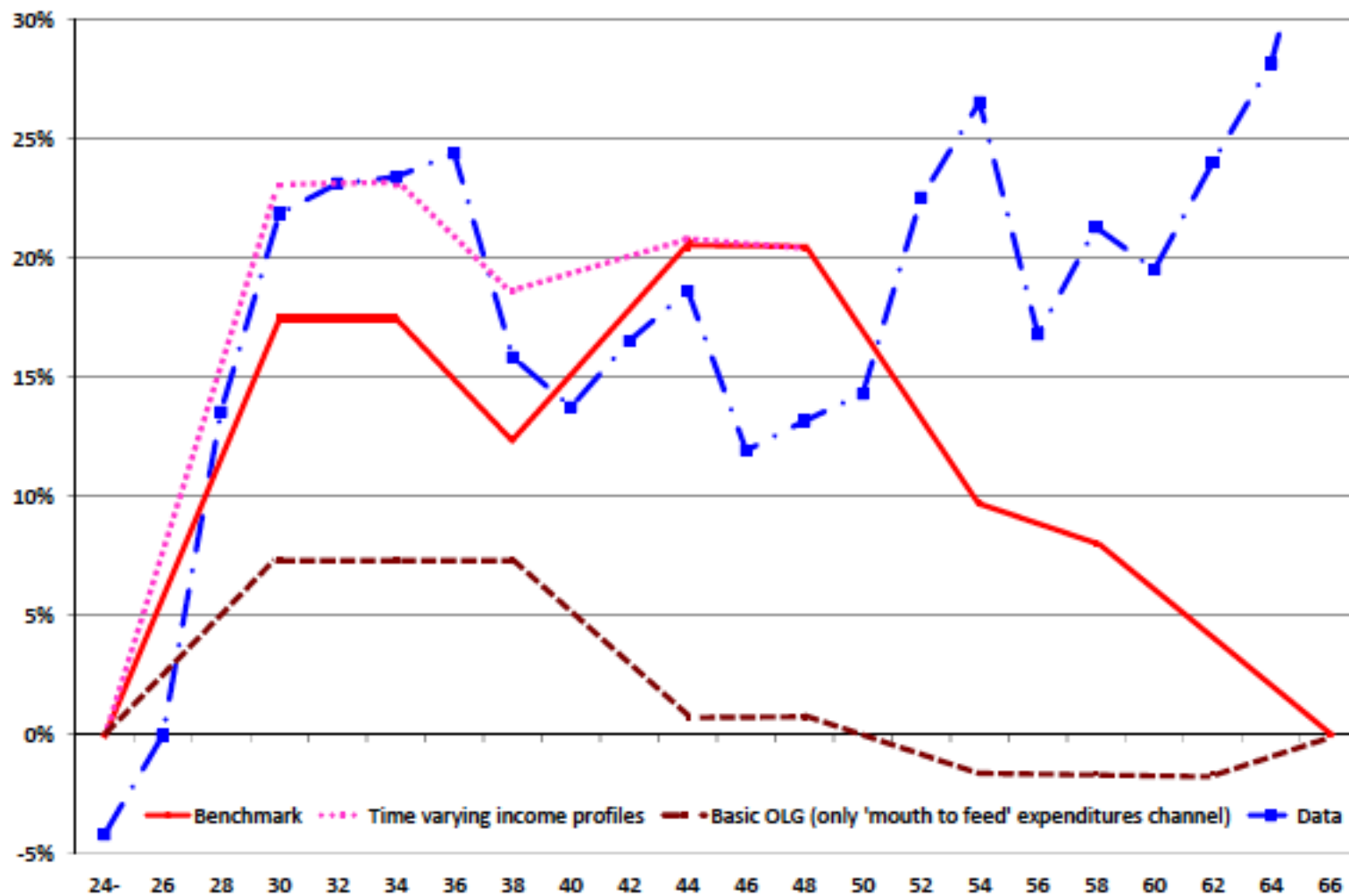
source: Choukhmane, Coeurdacier and Jin (2014)



Age Saving Profiles



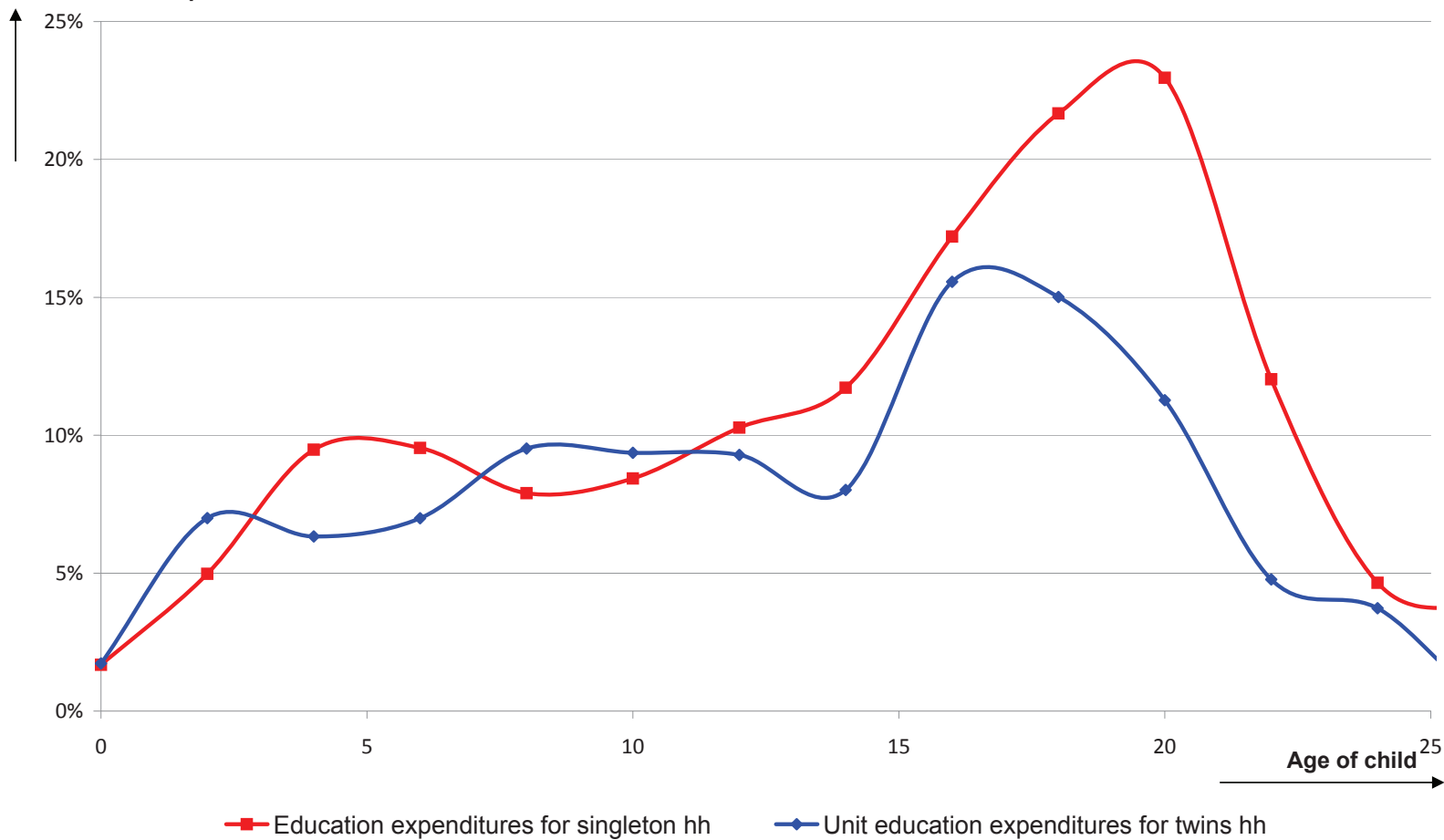
Change in Saving Rate



...And Unintended Consequences



% of household expenditures



Present Challenges, not "New Normal"



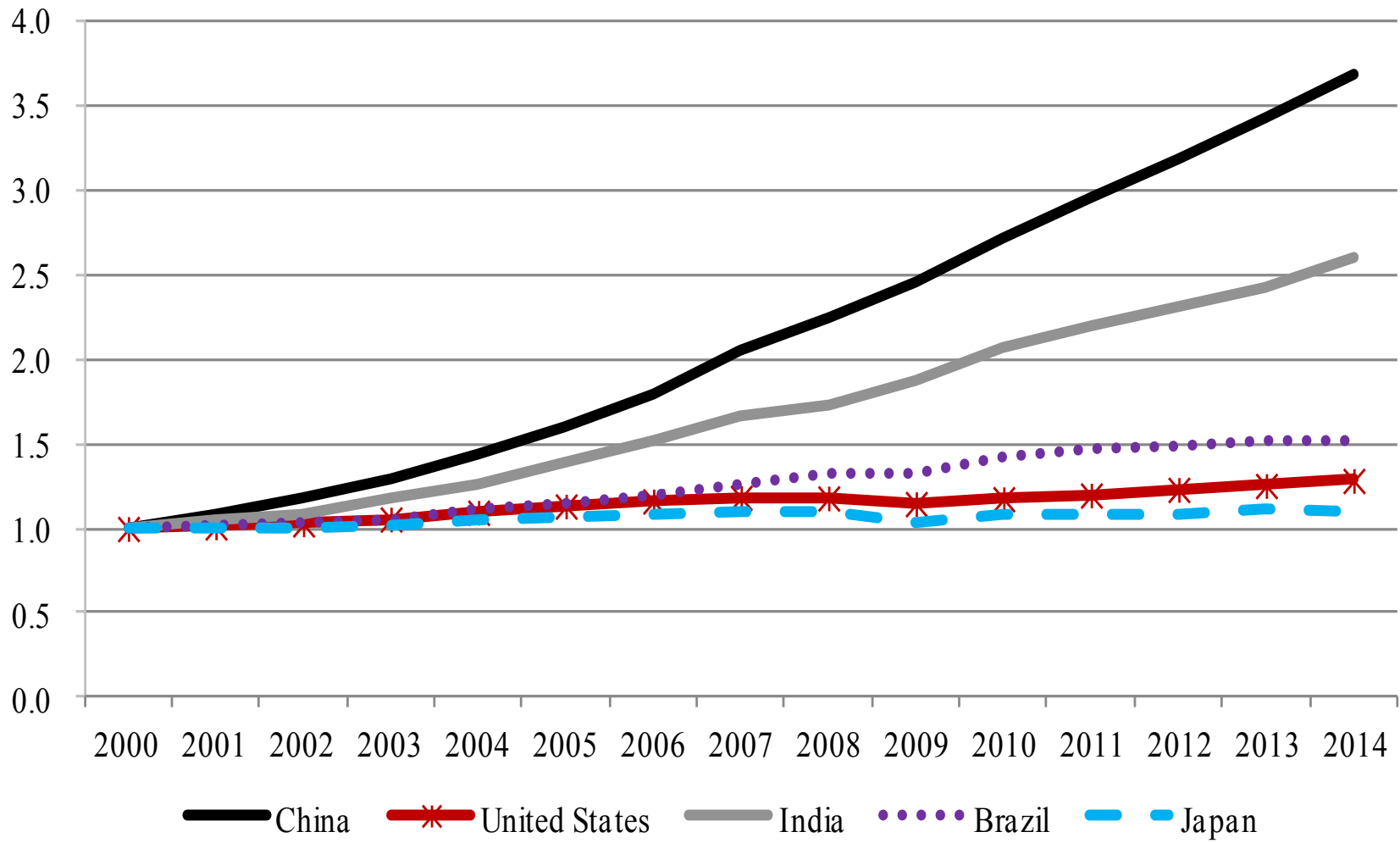
1. The Financial Markets

2. The Growth Model

3. Political Reforms

1. Stock market Disconnect

Panel B. Real GDP in Large Countries from 2000 to 2014



China's Stock Market Disconnect

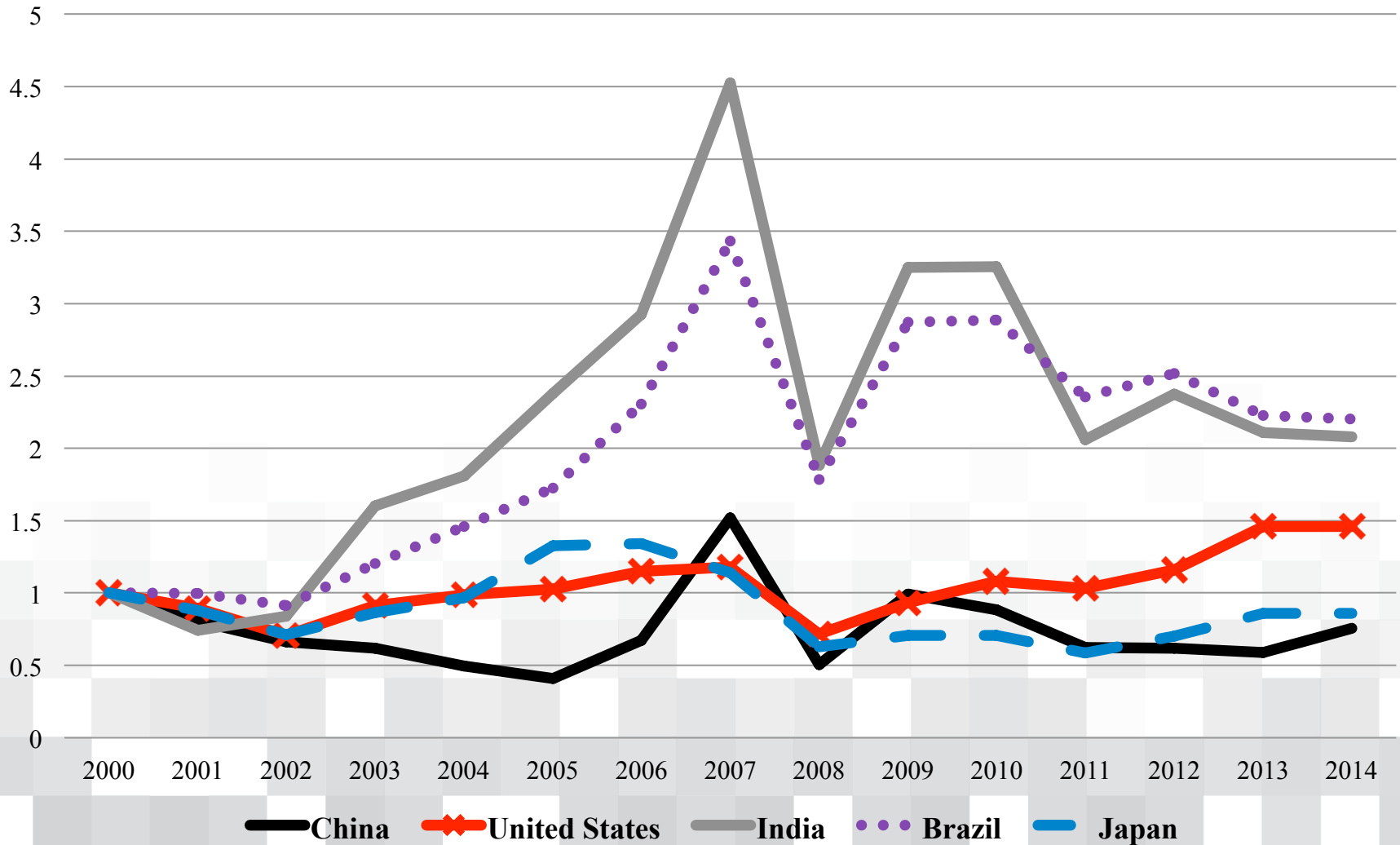
LSE

Ranking	Exchanges (2014)	MktCap (US\$M)	Turnover
1	NYSE	19,351,417.2	82.00%
2	NASDAQ OMX	6,979,172.0	175.34%
3	Japan Exchange Group - Tokyo	4,377,994.4	124.35%
4	Shanghai SE	3,932,527.7	154.74%
5	Euronext	3,319,062.2	58.81%
6	Hong Kong Exchanges	3,233,030.6	47.04%
7	TMX Group	2,093,696.8	67.26%
8	Shenzhen SE	2,072,420.0	286.67%
9	Deutsche Börse	1,738,539.1	84.54%
10	BSE India	1,558,299.7	7.91%
11	National Stock Exchange India	1,520,925.1	41.62%
12	SIX Swiss Exchange	1,495,314.2	53.27%

Buy-and-Hold Returns of Listed Stocks in Large Countries (2000-2014; inflation adjusted; dividends included)



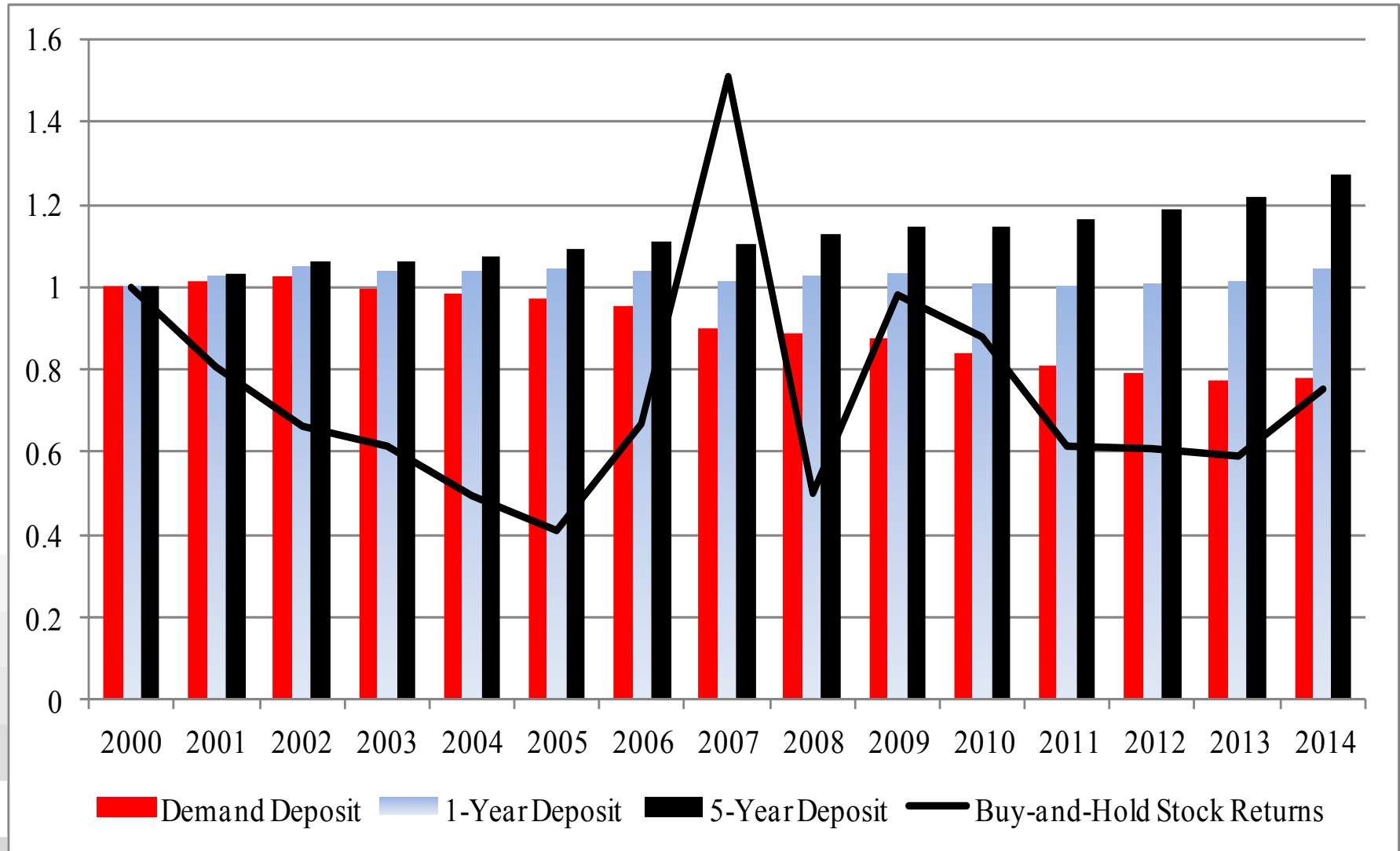
Value-Weighted Buy-and-Hold Returns



Buy-and-hold Returns of Stocks vs. Bank Deposits in China



(2000-2014; inflation adjusted)



Correlation between Economic Growth and Stock Returns

(5-year rolling window until 2013)



Ranking	Country	Index	Period	Correlation	p-value
1	United States	S&P500 US	1950-2013	46.32%	0.0001***
2	China	SSE China	1992-2013	9.67%	0.7120
3	Japan	Nikkei Japan	1971-2013	65.04%	0.0000***
4	Germany	DAX Index	1992-2013	84.65%	0.0000***
5	France	CAC 40	1988-2013	77.63%	0.0000***
6	United Kingdom	FT30 UK	1956-2013	54.40%	0.0000***
7	Brazil	IBOV	1990-2013	43.49%	0.0627*
8	Russia	RTS Russia	1996-2013	74.49%	0.0035***
9	Italy	FTSE MIB Index	1998-2013	66.89%	0.0244**
10	India	BSE Sensex	1980-2013	4.32%	0.8238
11	Canada	SPTSX Index	1961-2013	9.15%	0.5364
12	Australia	ASX 200 Index	1993-2013	73.38%	0.0012***
13	Spain	IBEX 35 Index	1988-2013	53.58%	0.0123**
14	Mexico	Mexbol Index	1995-2013	14.48%	0.6213
15	South Korea	KOSPI Korea	1981-2013	55.39%	0.0022***
16	Indonesia	JCI Index	1984-2013	54.78%	0.0046***
17	Turkey	XU100 Index	1989-2013	10.08%	0.6725
18	Netherlands	AEX	1984-2013	76.68%	0.0000***
19	Saudi Arabia	DFMGI Index	1995-2013	18.61%	0.5241
20	Switzerland	OMX	1987-2013	19.02%	0.3966
A1	South Africa	TOP40 South Africa	1996-2013	84.96%	0.0002***
A2	Taiwan	TAIEX Taiwan	1981-2013	56.81%	0.0016***

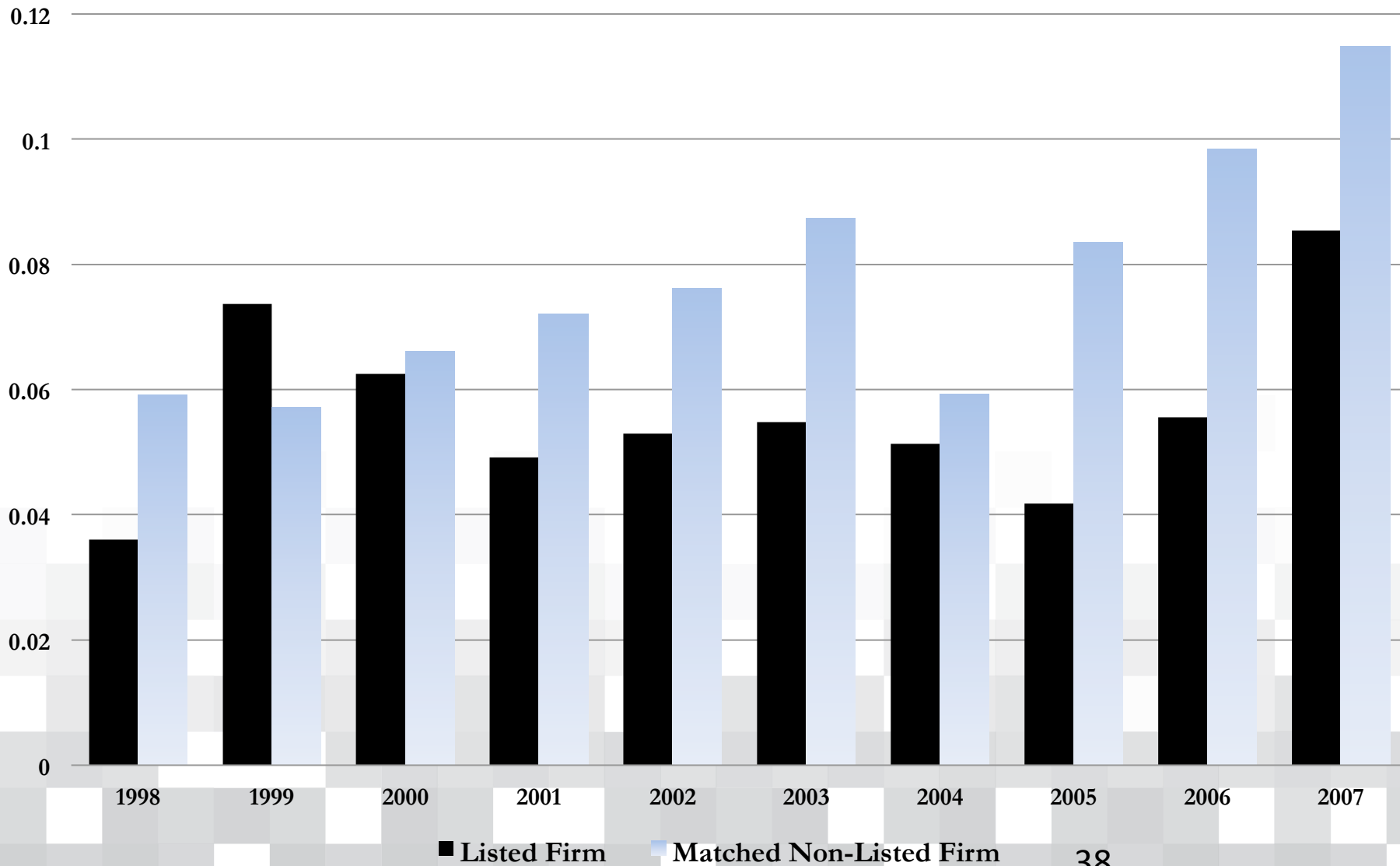
Why is there a divergence from overall economic growth?

Explanations:

- Selection Bias
- Entry (IPO) and Exit (delisting) and adverse selection
- How efficient is large-scale investment?

Allen et al. (2015)

Listed and Matching Unlisted Firms in China (ROA)



Corporate Sectors in China



Panel B1. Net Income Percentage

Year	SOE/All	Listed/All	Listed SOE/Listed All	Unlisted Non-SOE/Unlisted All
2000	53.74%	35.10%	89.94%	65.84%
2001	49.03%	24.96%	94.50%	66.09%
2002	44.10%	24.23%	90.71%	70.81%
2003	43.66%	25.42%	88.31%	71.55%
2004	41.41%	25.85%	89.85%	75.47%
2005	39.58%	23.72%	92.46%	76.87%
2006	39.92%	22.15%	90.26%	74.40%
2007	36.63%	21.20%	86.68%	76.84%
2008	27.98%	17.45%	85.02%	84.07%
2009	26.02%	15.73%	80.97%	84.24%
2010	27.34%	15.14%	79.88%	82.04%
2011	25.65%	14.42%	77.43%	83.08%
2012	23.48%	13.70%	78.17%	85.20%
2013	21.25%	17.62%	79.20%	91.14%
2014	NA	19.32%	75.55%	NA

Corporate Sectors in China



Panel B2. Net Income Growth

Year	All	SOE	Non-SOE	Listed	Unlisted	Listed SOE	Listed Non-SOE	Unlisted Non-SOE
2001	0.077	-0.008	0.181	-0.192	0.238	-0.217	0.018	0.197
2002	0.222	0.102	0.344	0.270	0.203	0.107	1.307	0.264
2003	0.441	0.457	0.428	0.625	0.366	0.586	0.743	0.381
2004	0.431	0.421	0.439	0.418	0.437	0.468	0.278	0.470
2005	0.241	0.196	0.279	0.130	0.294	0.132	0.122	0.305
2006	0.318	0.302	0.330	0.215	0.361	0.176	0.341	0.329
2007	0.392	0.272	0.485	0.382	0.396	0.327	0.538	0.477
2008	0.125	-0.160	0.314	-0.355	0.304	-0.361	-0.339	0.412
2009	0.130	0.025	0.175	0.403	0.080	0.291	0.668	0.140
2010	0.536	0.587	0.517	0.588	0.523	0.556	0.646	0.504
2011	0.157	0.117	0.173	-0.014	0.200	0.010	-0.056	0.199
2012	0.008	NA	NA	-0.111	0.033	-0.134	-0.070	NA
Average	0.257	0.210	0.333	0.197	0.286	0.162	0.350	0.334
Correlation	0.597**	0.388	0.531*	0.390	0.610**	0.410	0.170	0.531*
P-Value	0.040	0.239	0.093	0.210	0.035	0.186	0.597	0.093

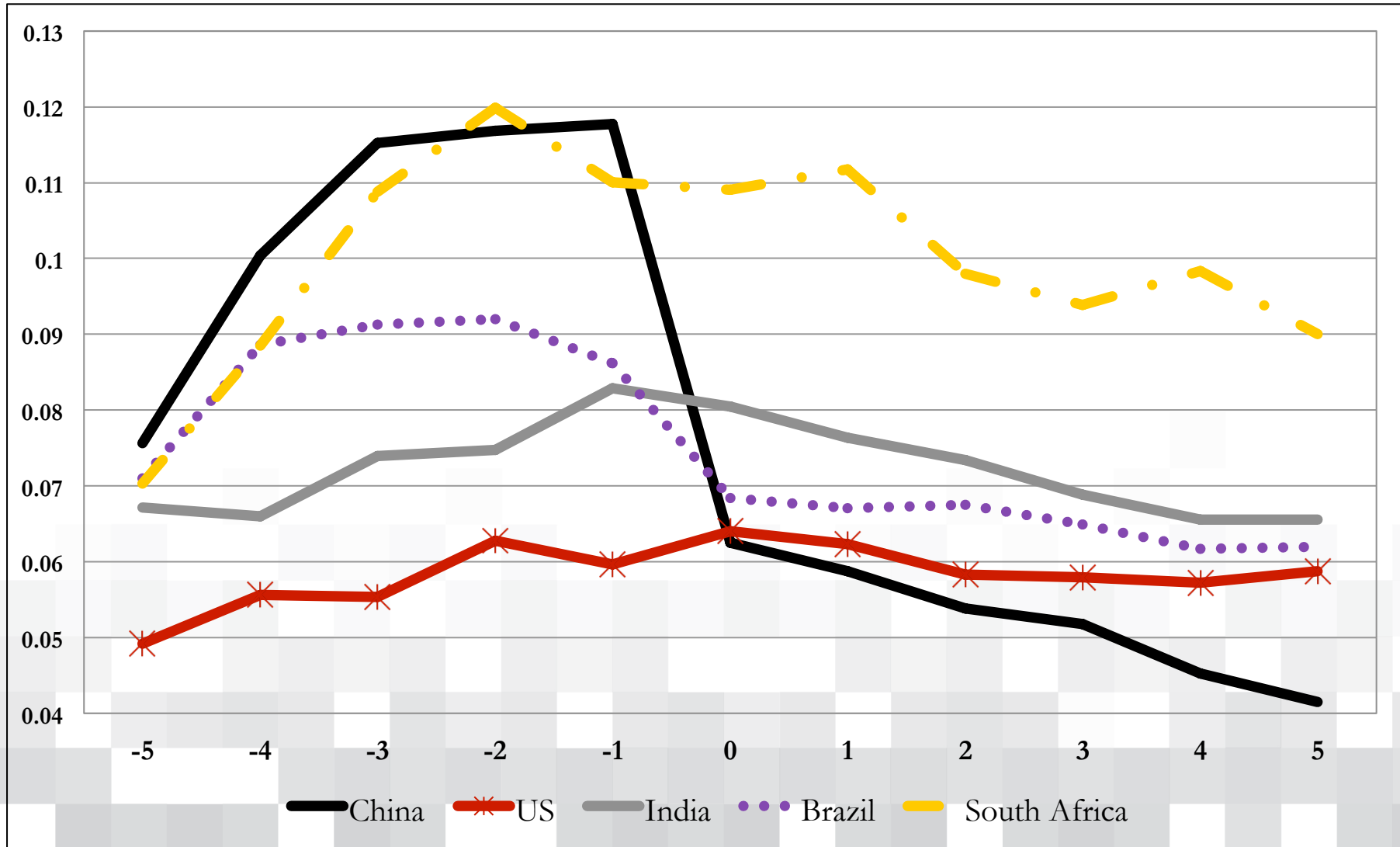
Problematic Listing Process



*BAT---Baidu, Alibaba and Tencent all publicly listed—
abroad*

- Each IPO must be approved by the CSRC, and now explicit quotas allocated to different regions
- Firms must also show profits in 3 consecutive years, among other financial requirements
- Initial purpose of setting up stock market was to help privatization of SOEs
- Firms with connections to regulators are more likely to be listed

ROA around IPO: Listed firms



Problems with Exit, and Tunneling



- **Bad firms don't exit**
 - 1% delisted every year (compared to 10-20% on average in other countries)
 - Fewer than 10 firms delist due to negative earnings.
 - Valuable 'shell'
 - Poor performing firms that linger contribute to the poor stock performance
- Also, listed firms make larger but less inefficient investment (8% capital exp/assets compared to 3.5% in US and yet lower net cash flows)
- Controlling shareholders divert assets by providing loan guarantees to related parties (**deficiencies in corporate governance**)

Why Stock Market Reform is key



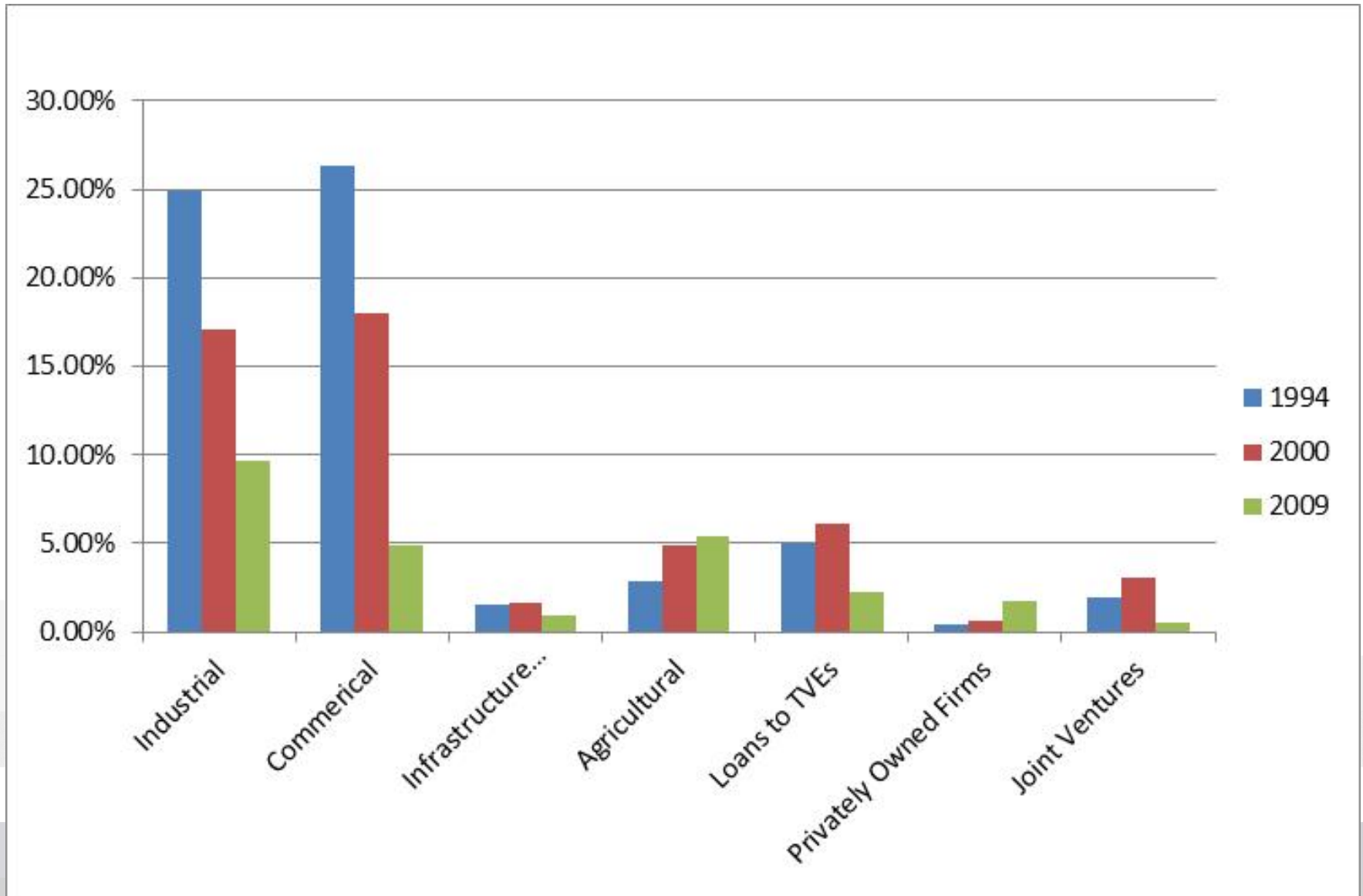
- Resources flow into real estate
- Major real distortions
- Deprives source of funding for consumption and service, high tech sectors
- Risk and rising household saving

Overview of China's Financial Markets



1. 2001-2011: China's stock market is 63% of GDP (compared to 57% for average of major EM)
2. Value traded (size of market): 82% of GDP (compared to 29% in EM)
3. Bank Credit/GDP: 111% compared to 40% in EM
4. NPLs/Loans at 11% compared to 8% (low efficiency)
5. Bank credit **more important** than stock market compared to EM, also comparatively **less efficient** than markets, and by law commercial banks **face tighter restrictions**

Breakdown of Bank Loans



Room for Catching Up: productivity growth

- In 1978, China's productivity was only 3% level of U.S.
- After three decades of rapid growth, productivity still only at 13%
- Even with the same relative growth for another 2 decades, productivity will be at 40% of U.S. level
- Comparing to: Japan's TFP was at 83% of U.S. level by 1975 , Korea 63% by 1990, Taiwan 80% by 1990.
- Even with Russia's institutions, GDP per capita twice as high as that of China

Where will it come from?

1. Removing distortions and inefficiencies in its production
 - Reforms in financial sector is key
 - Need more decentralized banking system
 - Entry of small private financial institutions

2. Adopting and learning best practices and frontier technologies from developed economies
 - Innovation-oriented economy
 - FDI as major driver of technology transfer
 - Large amount of resources to develop local innovation capabilities to complement foreign technology transfer
 - Innovation driven by larger domestic markets and increase in income levels

- Evidence
 - R&D investment share rose from 0.7% to 1.84% in 2011 (compared to 1.94% in E.U. and 2.77% in U.S.)
 - Comparable in industry-related R&D investments
 - 820,000 researches in business enterprises compared to 1.1 million in U.S.
 - 172000 Chinese patents compared to 225000 from U.S. Patent office and 152000 from European Patent Office

3. Reduce State monopoly in key industries and services

- Energy
- Telecommunication
- Banking
- Transportation
- Healthcare
- Education

4. Reduce barriers to labor mobility

- Even with 250 million migrant workers, cost of labor market distortions has not declined

Misallocation



Large differences in capital-labor ratio

- State (1.75) vs. Private (0.67)
- Investment/GDP ratio increased from 24% to 45% between 1978-2008
- 2.51% average growth for non-state, 6.43% for state

State absorbs half of the investment, while contributing to less than 1/3 of GDP.

Despite repressive financial markets, extraordinary growth

1. Stock market inefficiency and ineffectiveness in allocating resources
2. Bank loans primarily lent to SOEs
3. How did firms grow? **Alternative Financing**

Alternative Financing



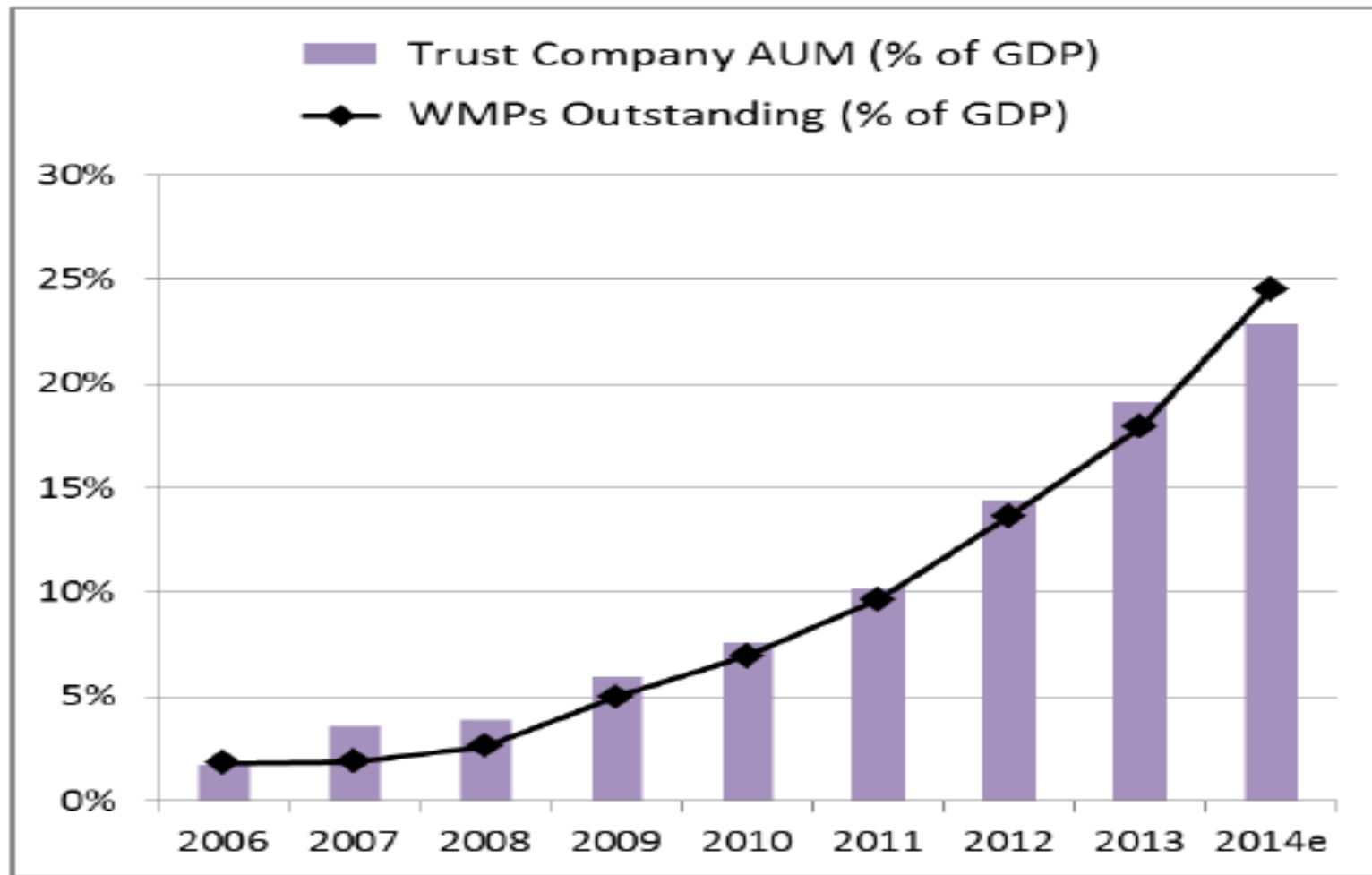
During startup phase

- a. funds from family and friends
- b. Since 2010, peer-to-peer lending (\$1.6 billions)
- c. Internal financing

Even illegal channels, smuggling, bribery, insider trading and speculations of financial markets and real estate, underground or unofficial businesses to accumulate seed capital

Growth phase: financing from private credit agencies and trade credits rather than banks

The Rise of Shadow Banking



Source: PBOC, CBRC, IMF from Hachem and Song (2015)

Rise of Shadow Banking



Circumvent regulatory requirements

- a. Funding demand much higher than supply of bank loans due to regulatory restrictions
- b. Restrictions on real estate loans falls short of meeting local gvt financing platform and demand in real estate (only through trust loans)
- c. Chinese households demanding higher required return than deposit interest rates
- d. Banks have to meet LTD by raising funds issuing wealth management products (WMP)
 - 2011-2013 : 2.3 trillion to 9.5 trillion RMB

Corporate Governance? Institutions?



How to overcome lack of legal and contract enforcements?

1. Competition in product and input markets, only strongest firms survive
2. Reputation, trust, and relationships
3. Absent religion, Confucian social values, highest level of social trust among a group of 40 countries

Evidence that reputation and relationships make financing channels and governance mechanism work

Key Financial Reforms



Banking Sector:

- Increasing consumer loans (1% to 17% between 1998-2013)
- Privatizing banks (listing) enhances efficiency
 - 4 of the 10 largest banks are Chinese
- More competition through entry of private and foreign banks?
- Government being majority owner (enhance regulation of large financial institutions and prevent banking and financial crises)
- Poor and inconsistent enforcement of bankruptcy laws and credit protection

Present Challenges

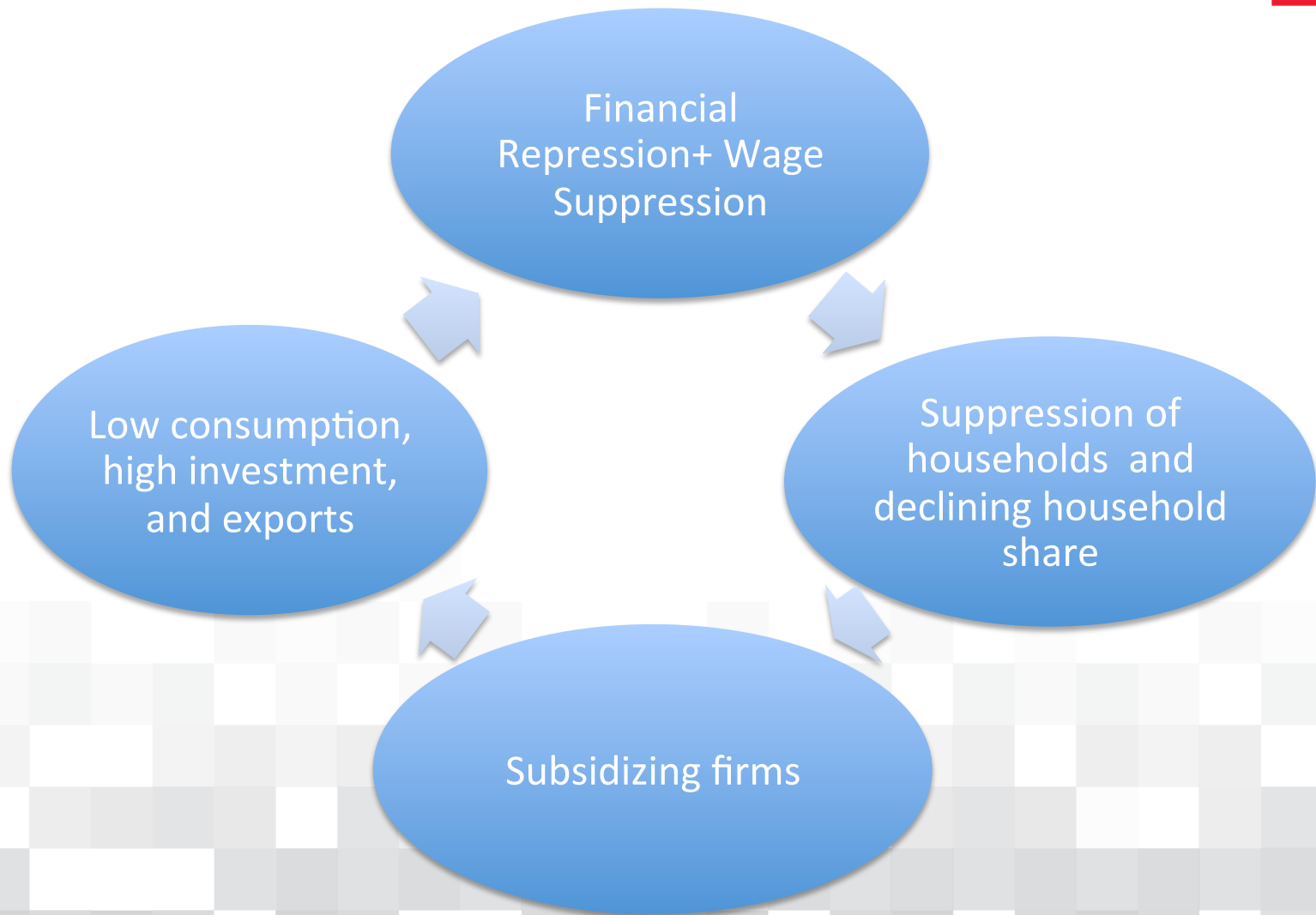


1. The Financial Markets

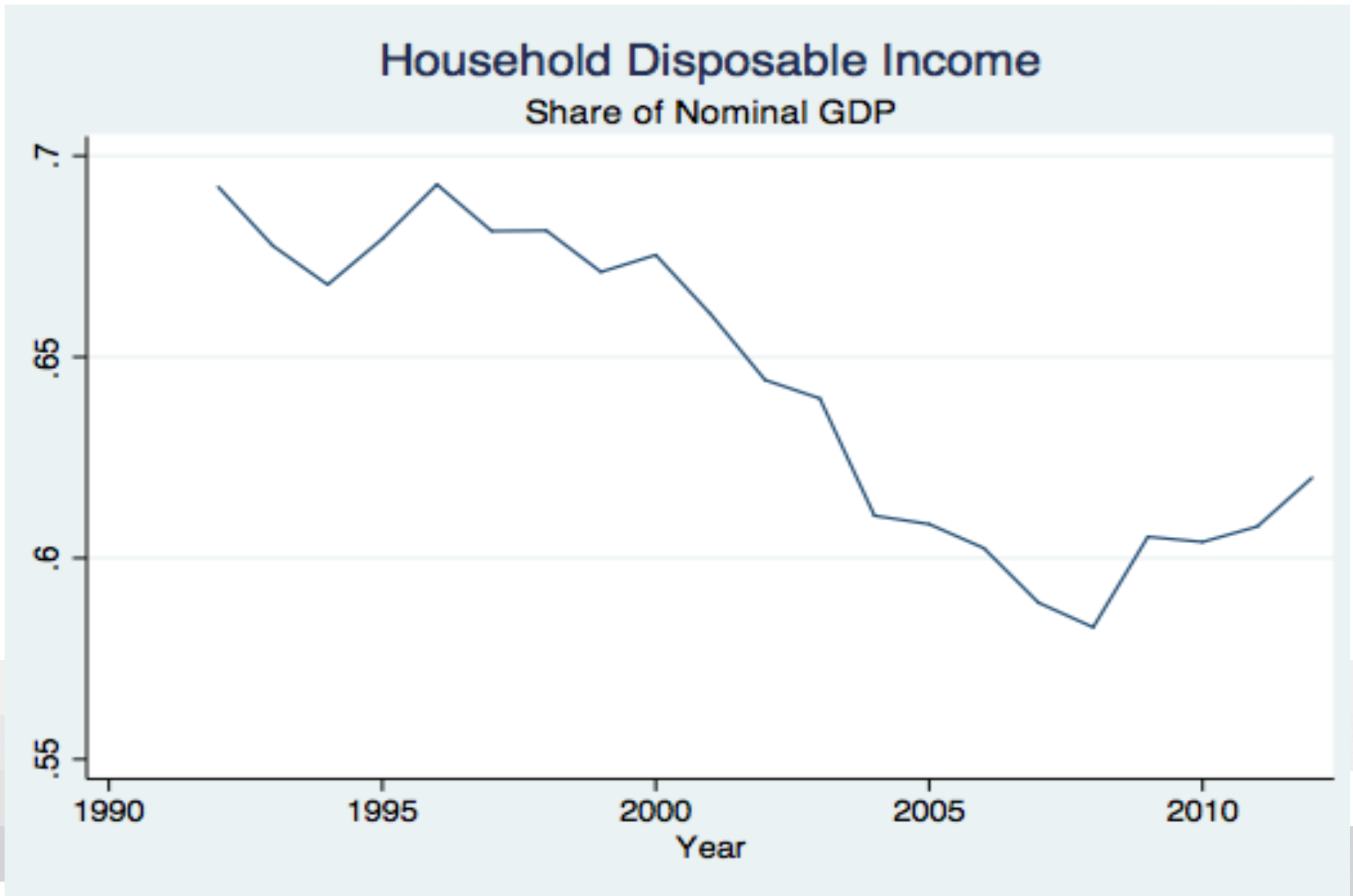
2. The Growth Model

3. Political Reforms

Vicious Loop



A new normal of consumption-led growth?



3. Reform Challenges



- First ideological shift: **economics**
- Second ideological shift: **institutions**
- New Normal or hard work about to begin?
- Necessity of **Political Reforms**
 - Conflicts of interest
 - Social concerns

Some Room for Optimism?



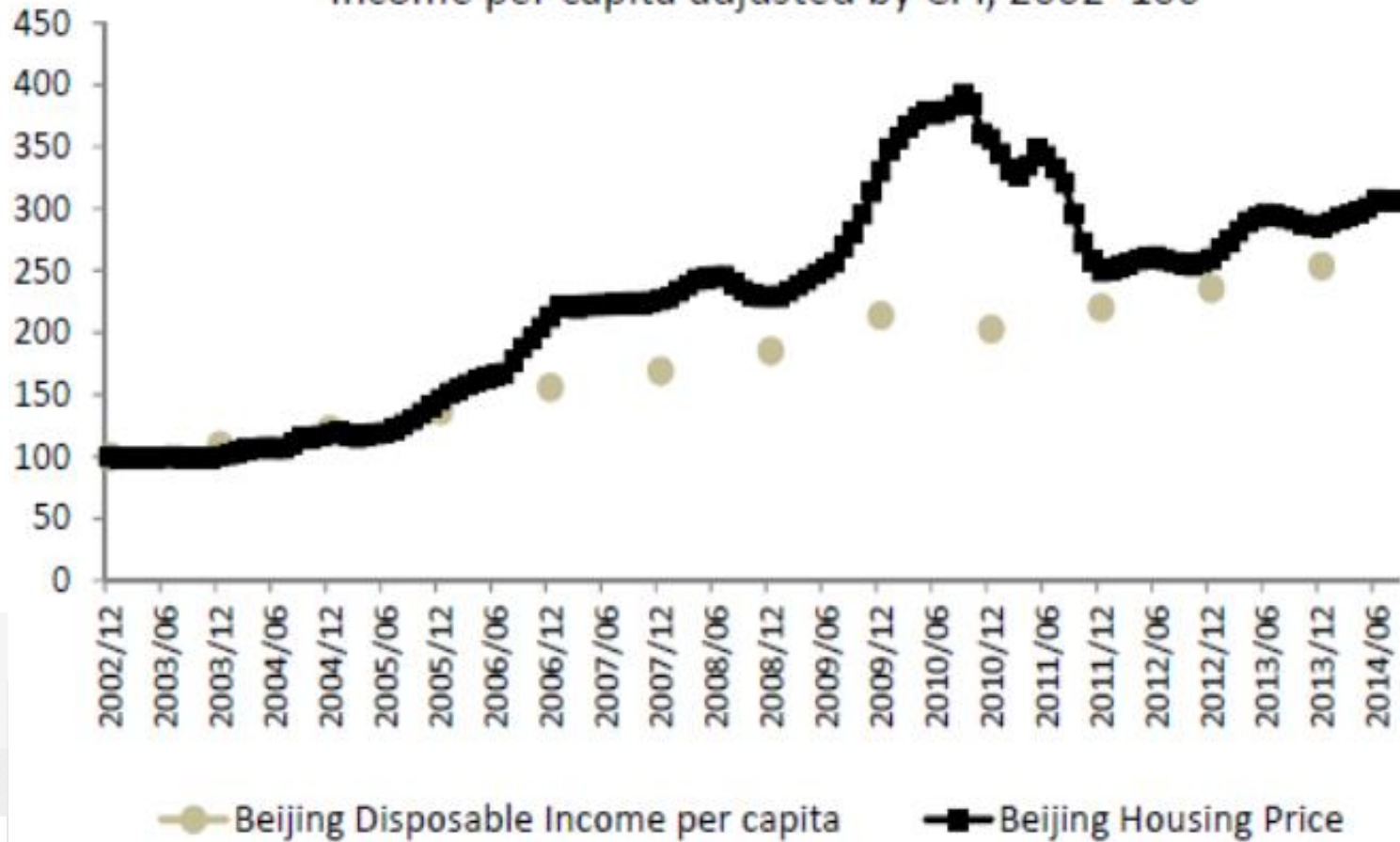
- Urbanization
- Developing services
- Human capital
- Government levers

“The old world is dying, and the new world struggles to be born: now is the time of monsters.”

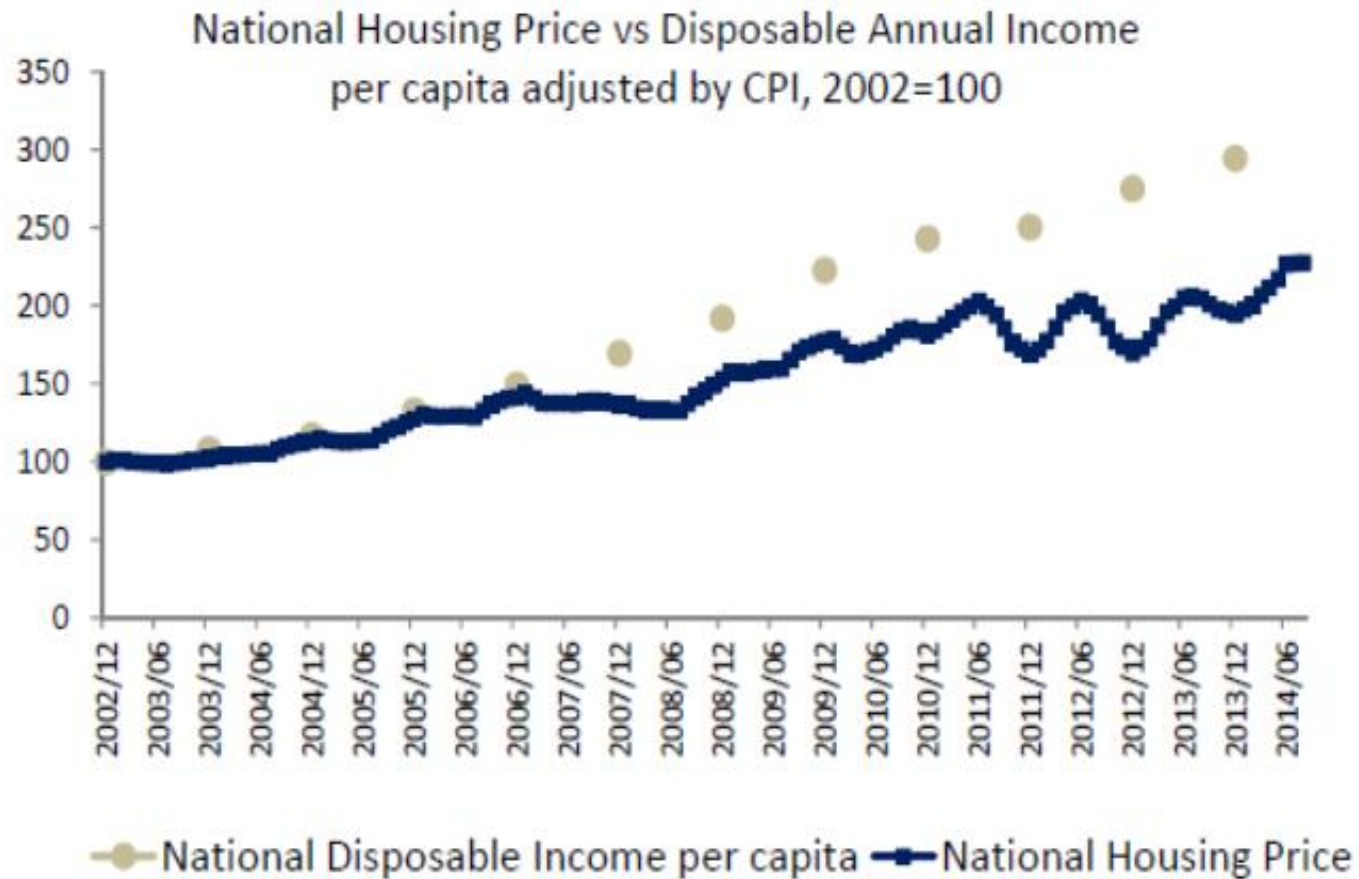
----Gramsci

Housing Bubble?

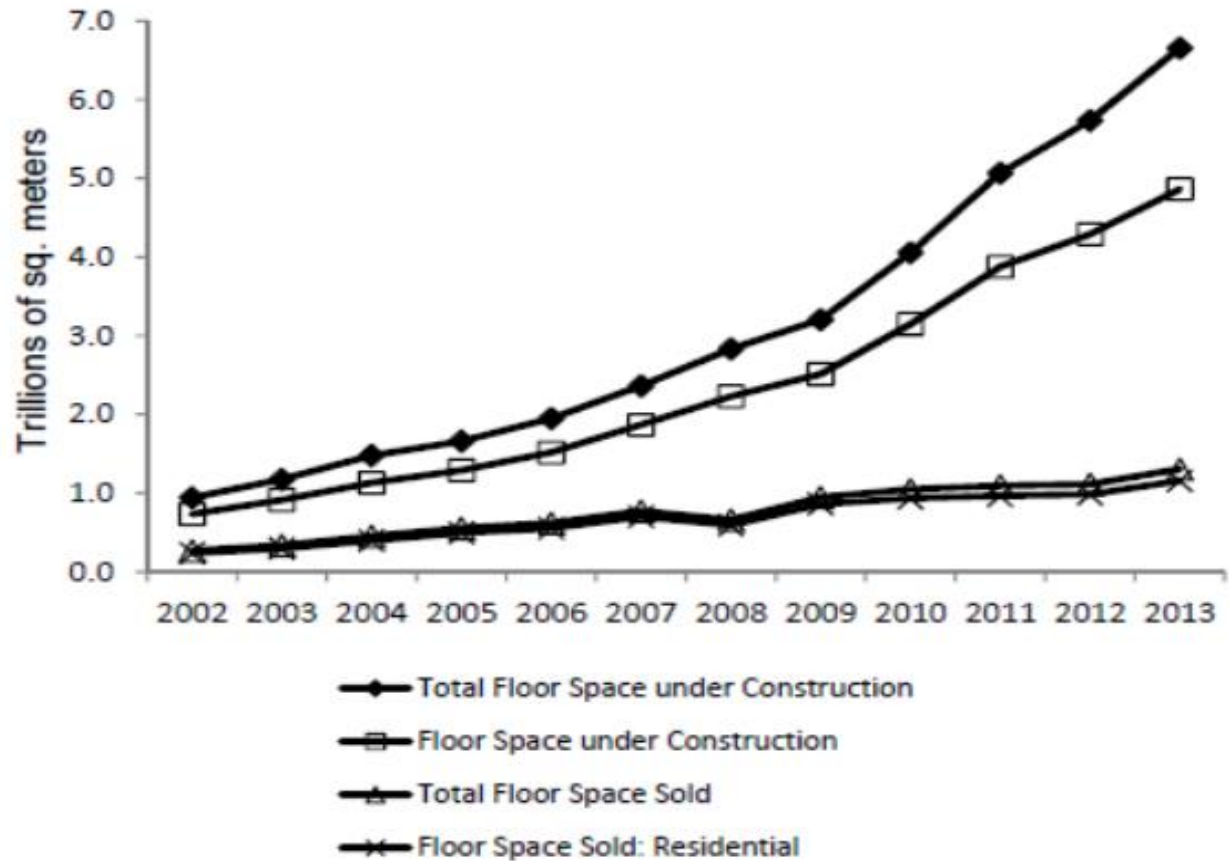
Beijing Housing Price (6-month average) vs Disposable Annual Income per capita adjusted by CPI, 2002=100



Housing Bubble?



Real Estate Market



Local Government Debt



- 2013: total local gvt debt RMB 10.72 trillion (33% of GDP)
- Growth rate of 22.7% between 2011-2013
- Funding sources:
 - 57% from bank loans
 - 12% from trust and leasing financing
 - 10% from bond issuance
- Usage: municipal construction (32%), communication and transportation (23%), land overhaul and preservation (10%)

