

China in the World Economy

Jeffrey Frankel

Harpel Professor, Harvard University

MAS Term Professor, Public Lecture

National University of Singapore, May 25, 2017

A view of recent Chinese financial and macroeconomic developments

- ...just the viewpoint of an American economist,
 - which is not the viewpoint of an American politician,
 - as will become clear shortly.

2015: Chinese financial turmoil

- In June 2015, Shanghai stock market began a long plunge.
- In August 2015, China surprised world markets by devaluing 3%.
- The “China shock” to markets continued through January 2016.

China's stock prices fell sharply from June 2015

FRED

— Total share price, all shares



Source: Organization for Economic Co-operation and Development

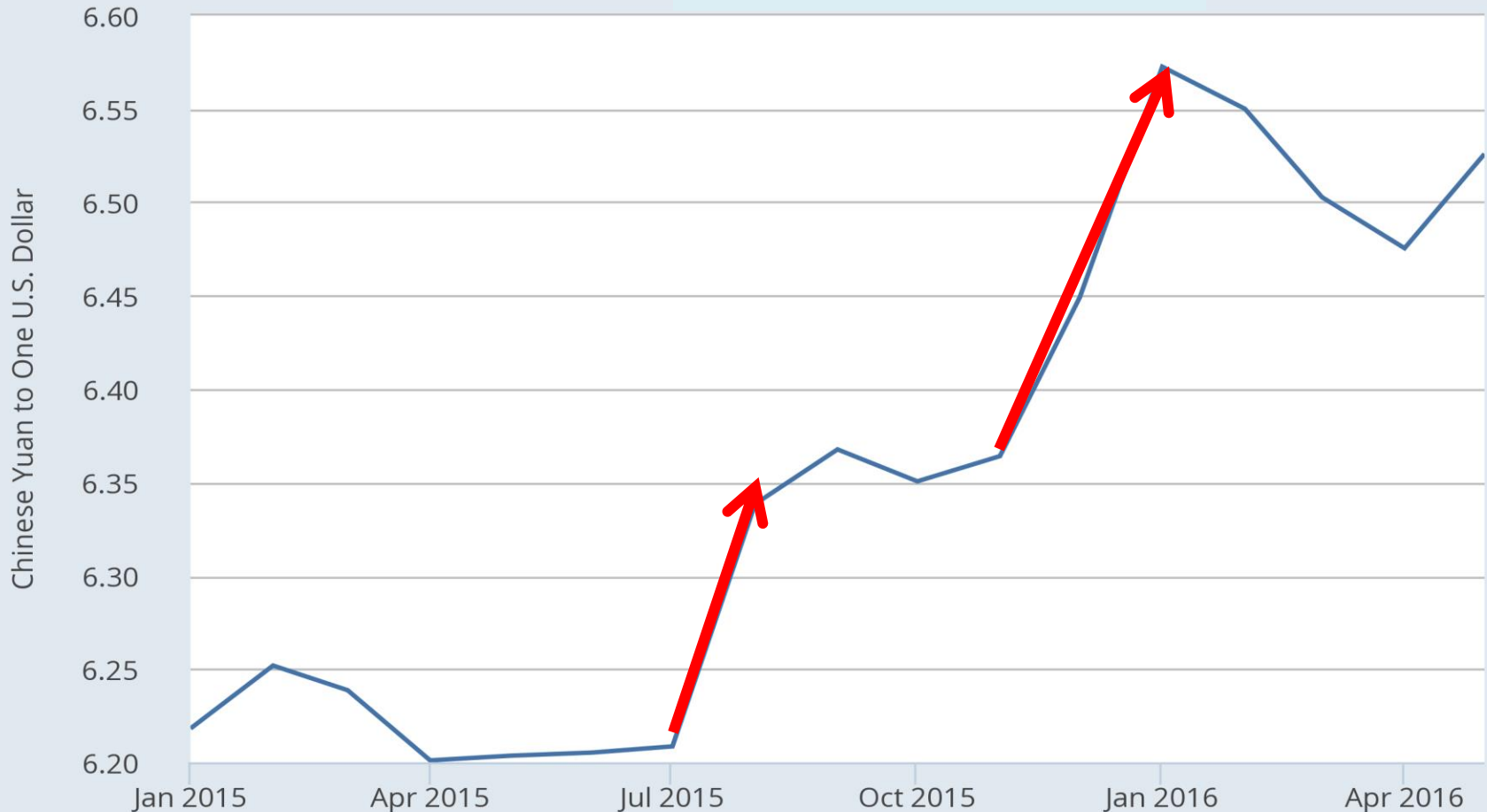
fred.stlouisfed.org

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RMB/\$ rate rose sharply, Aug. 2015 & Jan. 2016.

FRED 

— RMB/\$ exchange rate



Source: Board of Governors of the Federal Reserve System (US)

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2015 Chinese financial turmoil

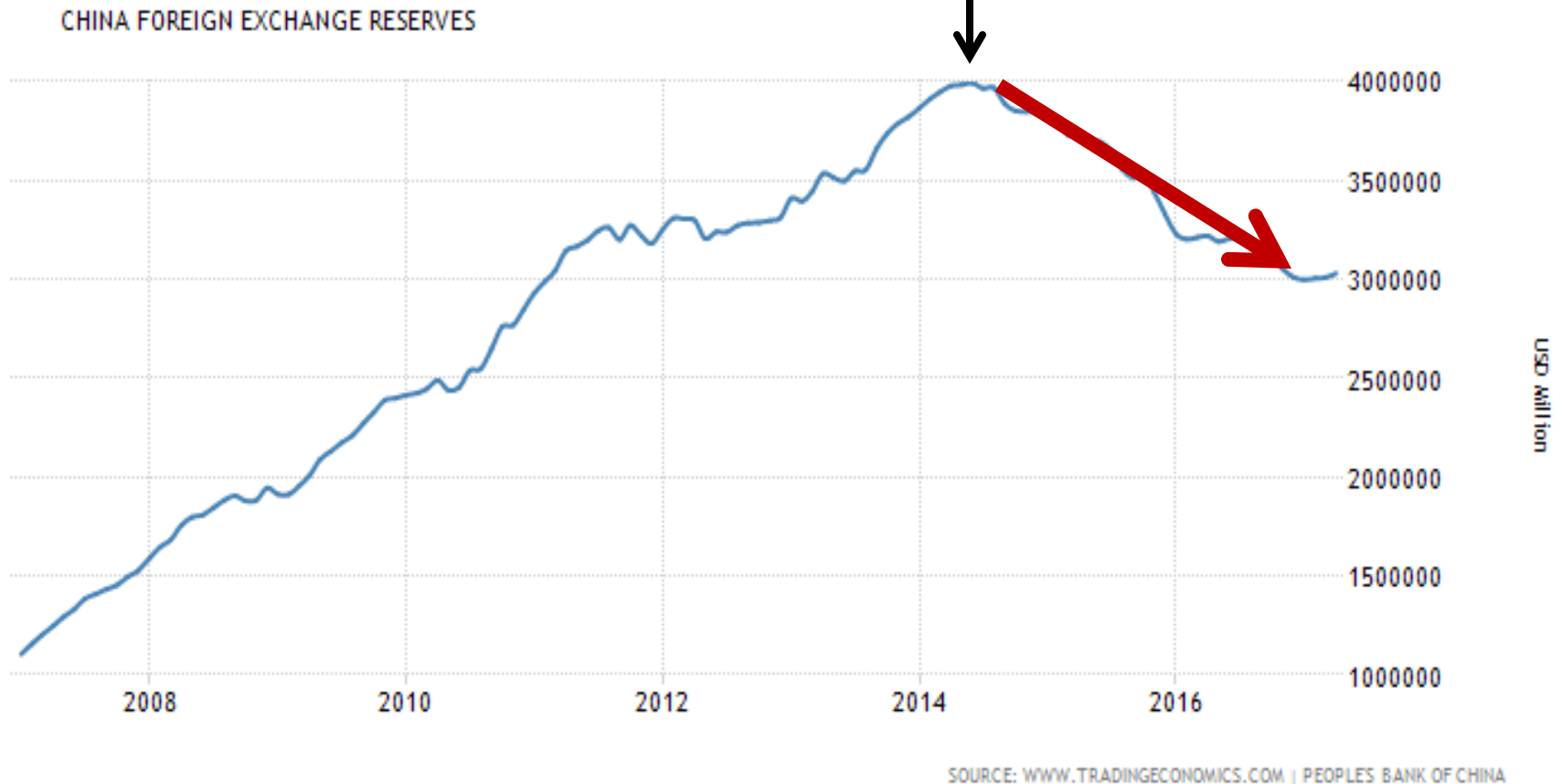
- Two very different reactions.
 - 1) In US politics: It is more “currency manipulation.”
 - 2) In financial markets:
 - It is evidence of trouble in China’s economy,
 - mismanagement by the authorities
 - of exchange rate & stock market.
 - A hard landing, as the Chinese economy slows.
 - Both reactions were wrong.

1) Clear evidence: it was not currency manipulation.

- China's FX reserves peaked in June 2014.
- Since then, the PBoC has spent a record \$1 trillion to *slow* RMB depreciation vs. the \$.
- The most essential of the criteria used to define “currency manipulation” is reserve *accumulation*.
- Yet American politicians were very slow to realize that China was no longer manipulating the RMB;
 - If the PBoC were to stop FX intervention and move to a fully market-determined rate, under post-2014 conditions its currency would *depreciate*, not appreciate.

China's foreign exchange reserves peaked at \$4 tr. in June 2014

& fell by \$1 trillion through April 2017.



PBoC is no longer intervening to push down the RMB. The opposite!

The end of RMB manipulation

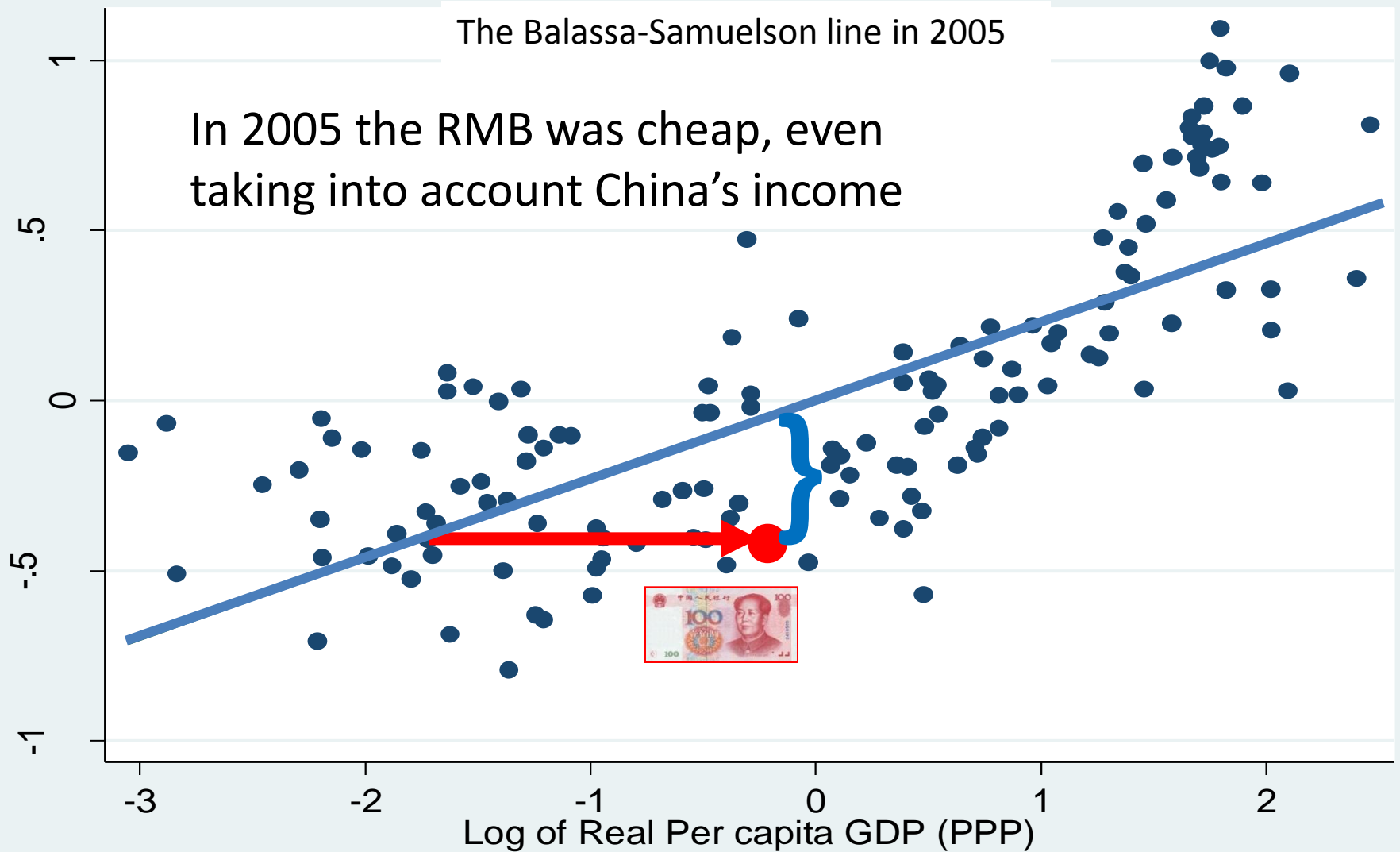
- The realization that China was no longer pushing the RMB down spread slowly.
- The last politician to get the message: President Trump.
 - As recently as February 23, he called China the “champion of currency manipulators,”
 - as he had throughout his election campaign.
 - On April 12, he suddenly changed: “they’re not currency manipulators,”
 - yet without admitting he had been wrong before.

True, ten years ago the RMB was undervalued by just about any criterion.

- \approx an estimated 25%-35%, by the price criterion:
 - income-adjusted PPP, estimated 2000, 2005, or 2009.
 - i.e., the “Balassa-Samuelson” relationship.
 - Frankel (2005, 06); Subramanian (2010); Chang (2012).
- \Rightarrow China ran big balance of payments surpluses for a decade.
- \Rightarrow The PBoC clearly was intervening to hold down the value of the RMB.

The Balassa-Samuelson line in 2005

In 2005 the RMB was cheap, even taking into account China's income

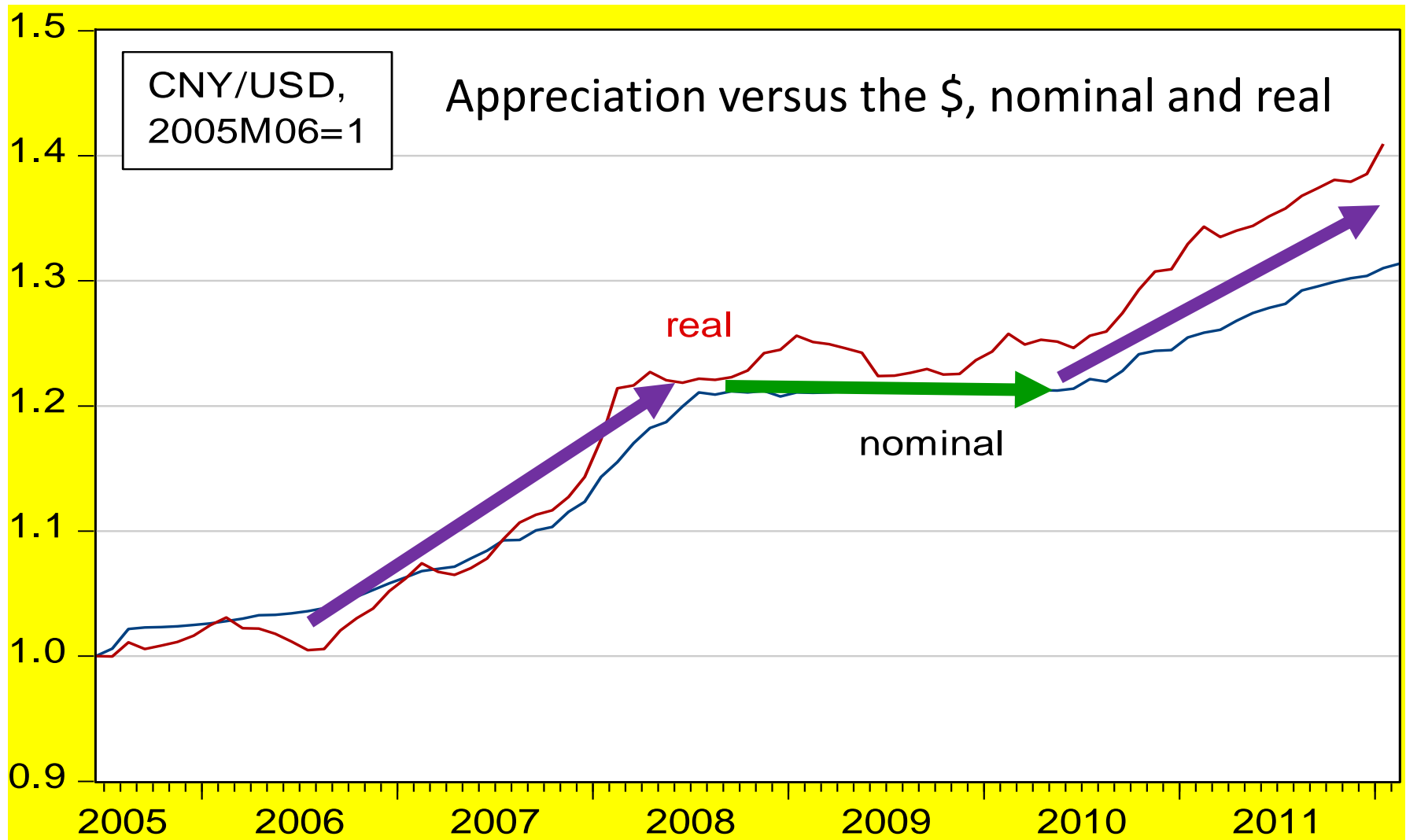


coef = .23367193, (robust) se = .01978263, t = 11.81

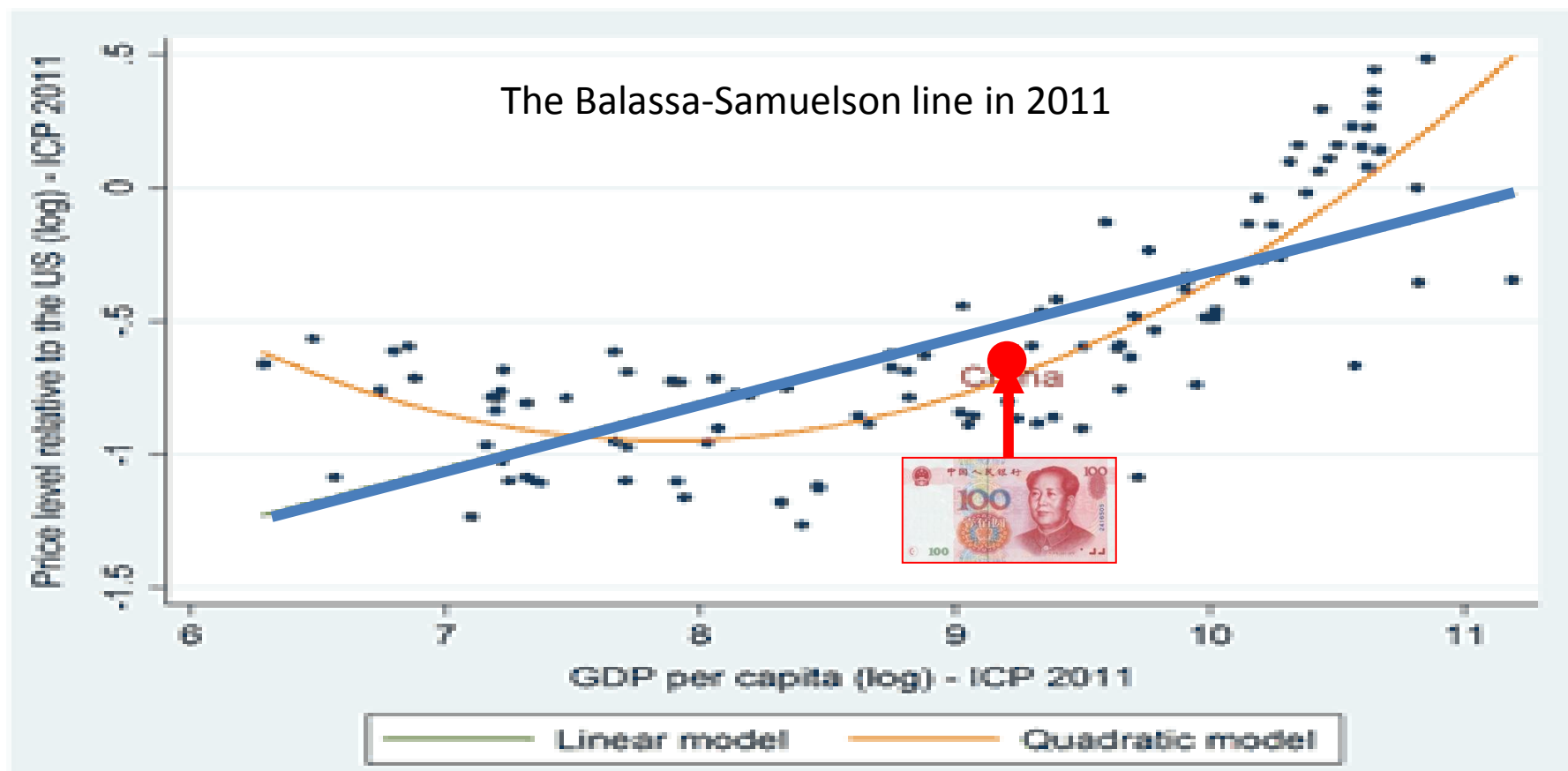
Arvind Subramanian, PB10-08, PIIE, 2010

Undervaluation of RMB estimated in the regression = 26% in 2005.

But the RMB underwent real appreciation during 2005-11,
by 25% against the \$.



By 2011, China's relative prices were roughly in line with the normal relationship (Balassa-Samuelson).

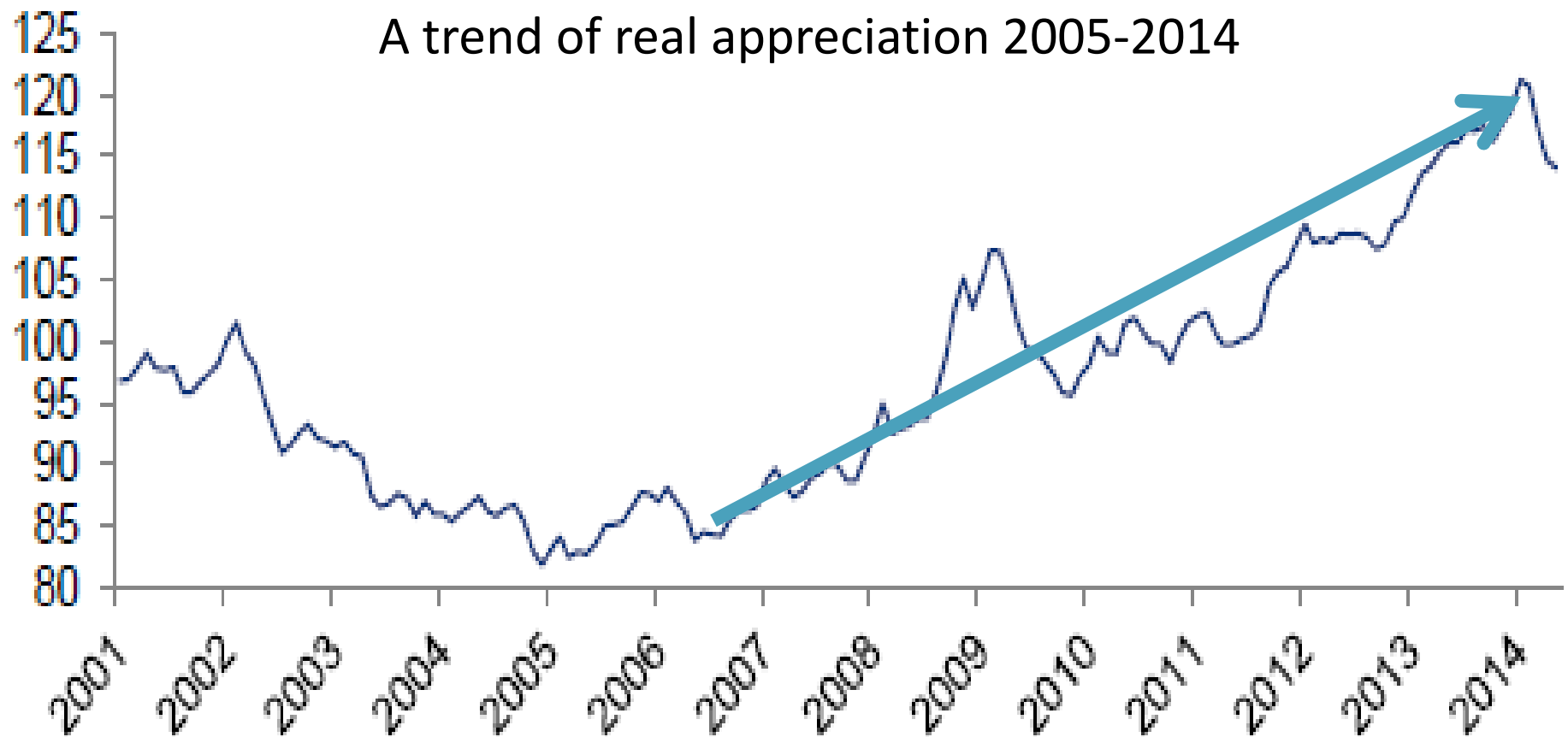


Kessler & Subramanian, PIIE, May 2014 “Is the Renminbi Still Undervalued? Not According to New PPP Estimates”

Benchmark years	GDP per capita (in PPP dollars)	RMB undervaluation (percent)
2005	4,802	-34.5
2011	10,057	-9.7

With another 10% appreciation by January 2014, the RMB was, if anything, a little overvalued.

A trend of real appreciation 2005-2014



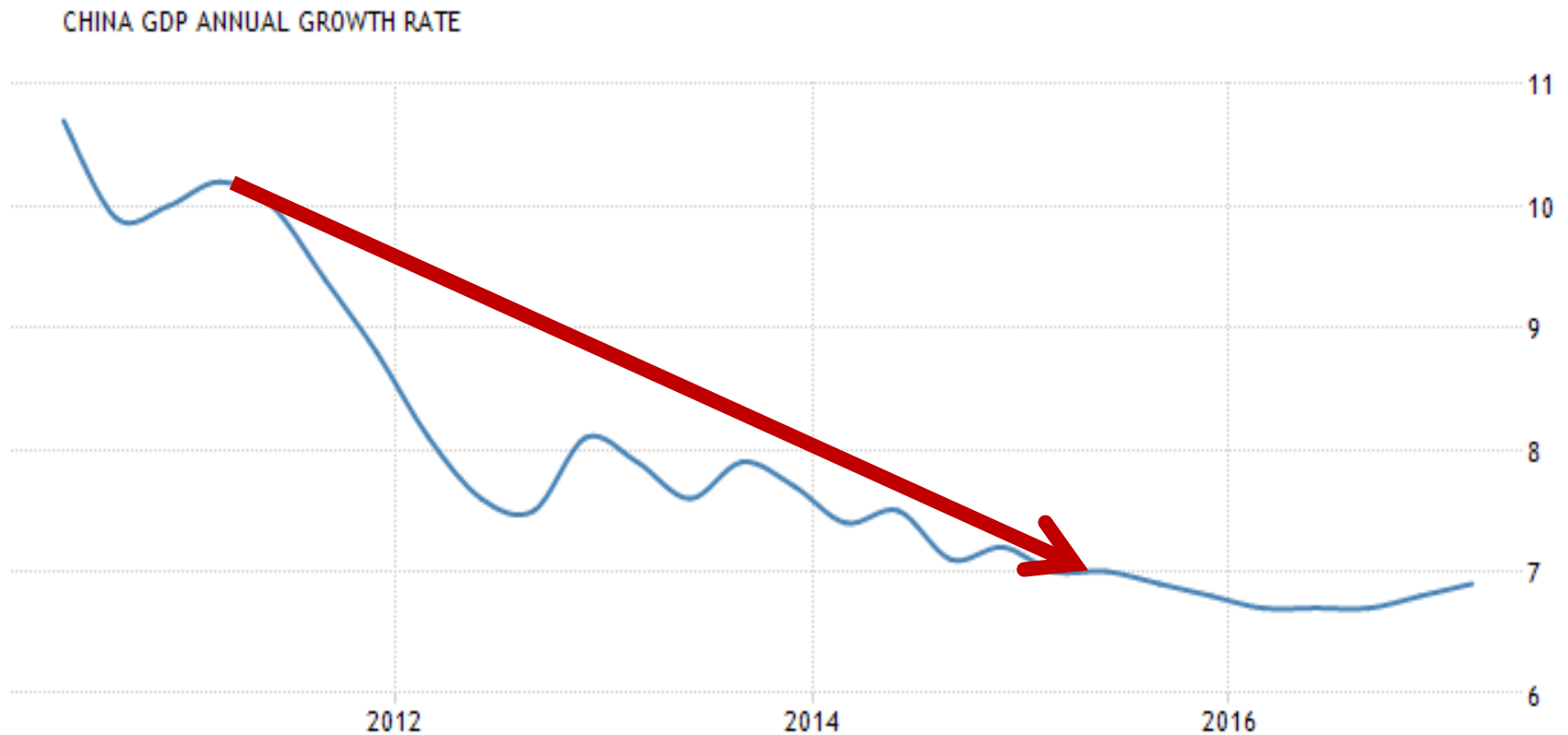
Why has the RMB depreciated since 2014?
Could China have been using other means
to push it down?

- No.
- Liberalization of controls on capital outflow was slowed, to try to reduce the downward pressure.
 - Appropriate, even if it means delaying the project to internationalize the RMB.
- The post-2014 depreciation was due to economic fundamentals.

The FX fundamentals had turned negative,

- China's economy began to slow down in 2011-14
 - after 3 decades averaging 10% growth.
 - The PBoC began to cut interest rates November 2014.
- High currency, slowed growth, interest rates cuts...
- Thus it is no surprise that China started to experience capital outflows and payments deficits after June 2014,
 - and that the currency started to depreciate.

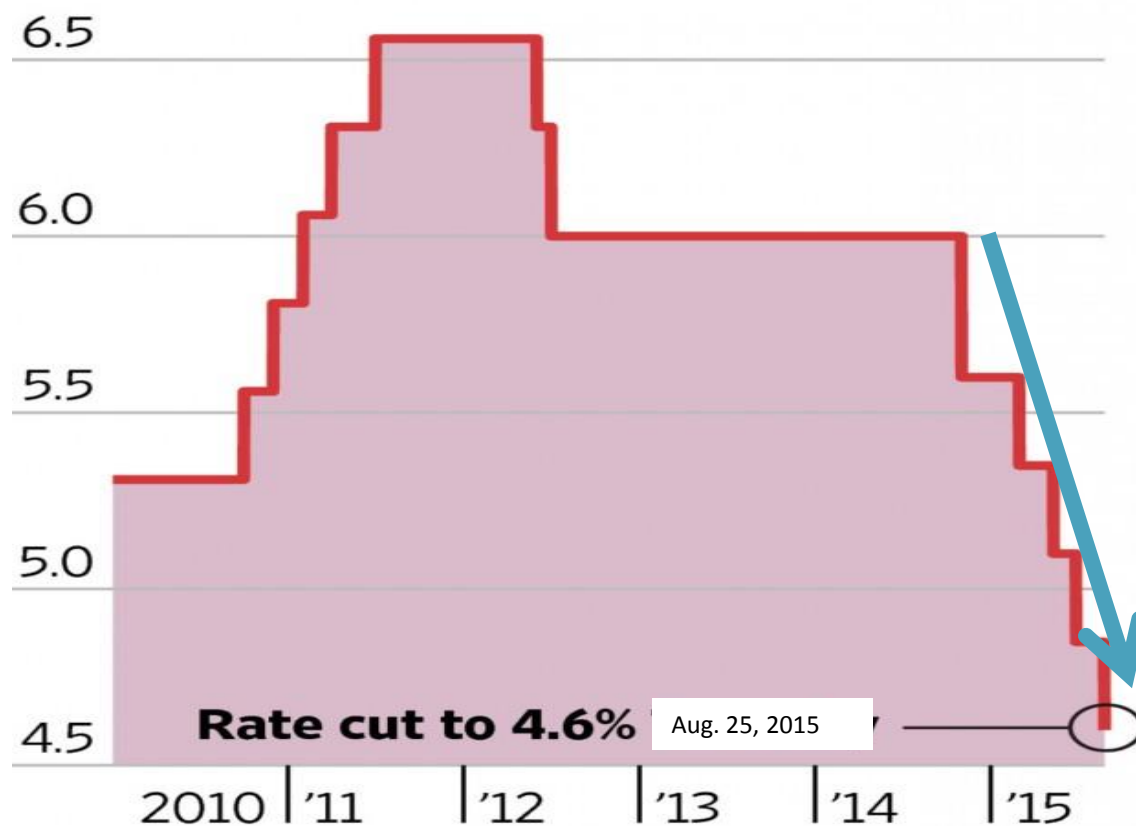
The economy slowed down,
from $\approx 10\%$ in the 30 years up to 2010,
to $\approx 7\%$ by 2015.



SOURCE: WWW.TRADINGECONOMICS.COM | NATIONAL BUREAU OF STATISTICS OF CHINA

The PBoC responded to the slowdown by cutting interest rates, Nov. 2014-Aug. 2015.

One-year benchmark lending rate



Source: People's Bank of China

THE WALL STREET JOURNAL

=> Depreciation of RMB, 2014-16

FRED 

— RMB/\$ exchange rate



Source: Board of Governors of the Federal Reserve System (US)

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2) So, then, was the financial turmoil of 2015 evidence that China's slowdown was likely to take the form of a hard landing?

- I would say, again, “no.”
- (i) The GDP slowdown had already been well underway since 2012.
- (iii) The stock market plunge of June 2015-Jan. 2016 merely reversed part of the preceding bubble.
 - Stock prices did not fall as far as 2013 levels.

Slowdown

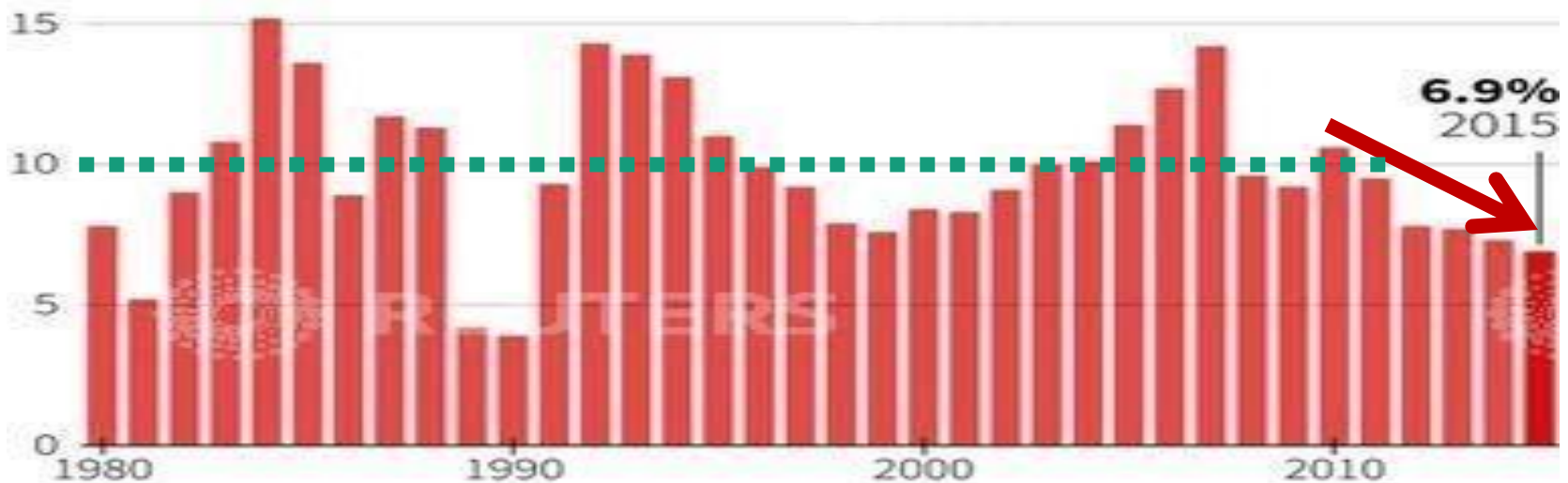
-- from 10% average of 1980-2010, to below 7% in 2015 – began well before the fall in the stock market & RMB.

China GDP 30 years of strong Chinese growth

China's economy grew 6.9 percent in 2015, the slowest expansion in 25 years. Quarterly growth slowed to 6.8 percent, the slowest since the global financial crisis.

ANNUAL GROSS DOMESTIC PRODUCT

Year-on-year percentage change



Source: Reuters

<https://www.weforum.org/agenda/2016/04/5-charts-explain-imf-global-growth-forecast/>

The stock market plunge merely reversed (part of) the preceding bubble.

FRED

— Total share prices for all shares in China



Source: Organization for Economic Co-operation and Development

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Macro management

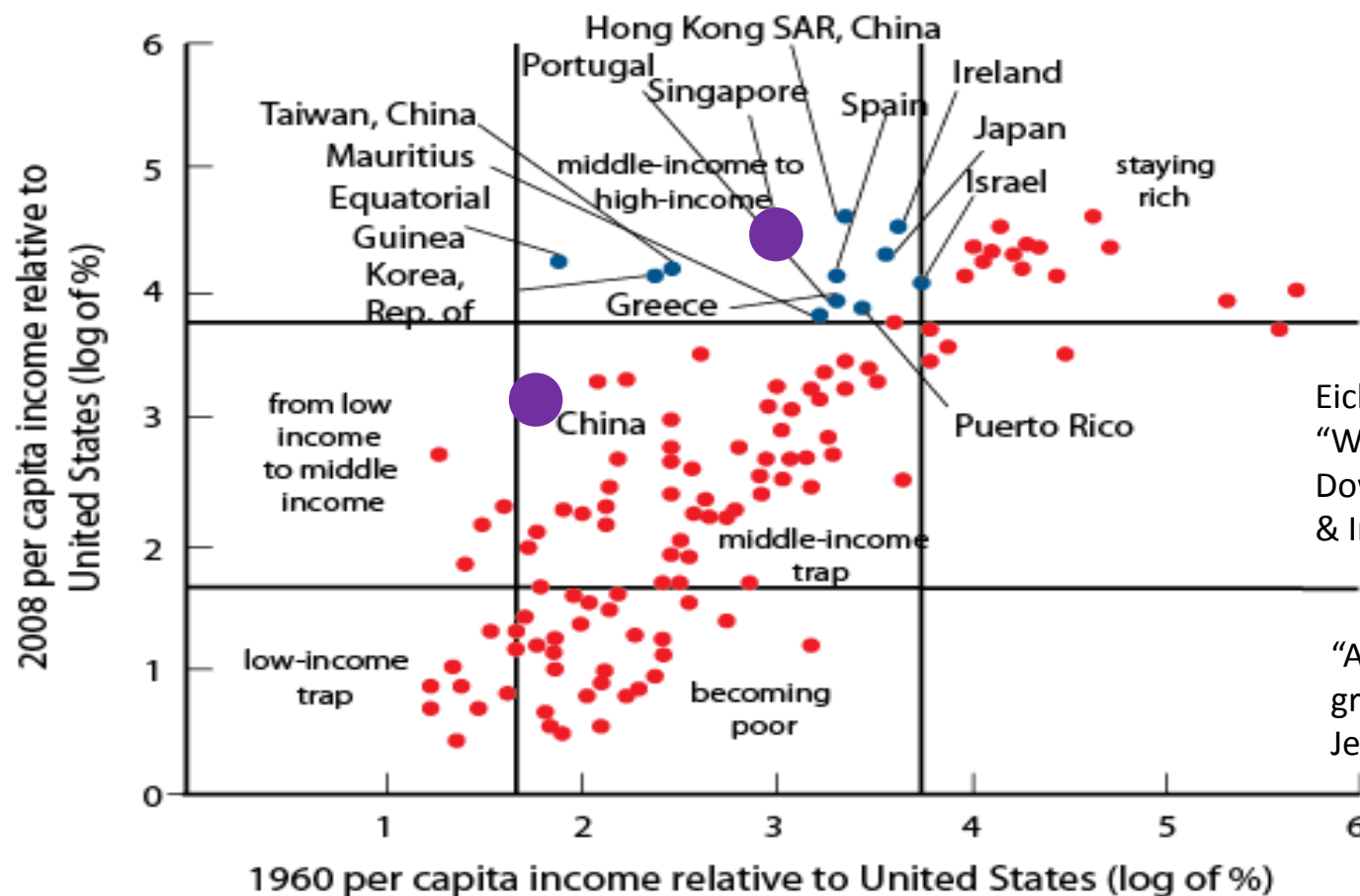
- True, government efforts to prop up the stock market in 2015 were clumsy.
- But turning to the larger question of China's macroeconomic management, it has arguably made fewer mistakes than other major countries.
 - E.g., ECB's delay in easing after the 2008 crisis,
 - Premature end of US fiscal expansion in 2011,
 - Japan's consumption tax rise in April 2014.
- China's macro policy has been mostly counter-cyclical.

Slower long-term growth path

Growth in 2014-17 has slowed down to about 6-7%. Why?

- Convergence
 - K/L ratio,
 - technical catch-up,
 - rural-urban migration
 - Lewis (1954) turning point reached in 2010?
 - Zhang, Yang & Wang (2011)..
- Middle-income trap?
 - e.g., Eichengreen, Park & Shin (2012)
- Regression to the mean:
 - Pritchett & Summers (2014)

Is there a middle-income growth trap?

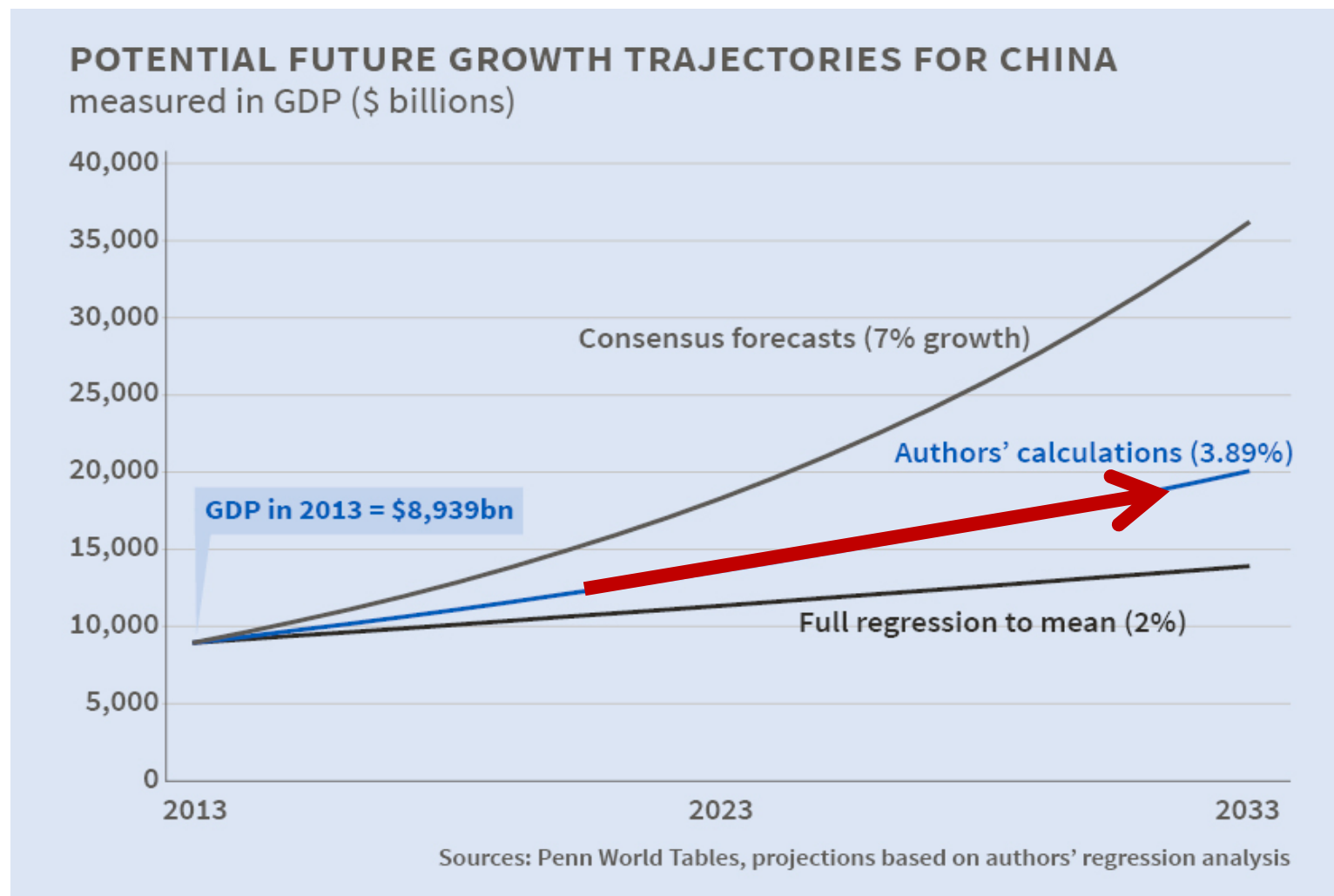


Eichengreen, Park & Shin 2011,
 “When Fast Economies Slow
 Down: International Evidence
 & Implications for China”
 NBER WP 16919.

“Avoiding middle-income
 growth traps,” Agénor, Canuto,
 Jelenic, *VoxEU*, Dec. 2012

“...at per capita incomes of about US\$16,700 in 2005 constant international prices, the growth rate of per capita GDP typically slows from 5.6 to 2.1%.”
 Eichengreen, Park & Shin(2011): growth slowdowns are essentially productivity growth slowdowns.”

Pritchett & Summers (2014): “Regression to the mean” fits the data better than middle-income trap



Transition to slower growth path

- The fear a year ago was that China's transition would come with a hard-landing.
 - GDP would fall more than potential GDP.
 - Debt has been a particular source of concern.
 - Leverage becomes unsustainable when growth slows.
 - Bad loans in the shadow banking system.
 - Moral hazard from the routine of bailing out failed debtors, especially SOEs.
- But it looks like the hard landing has been averted, at least for now.

Needed reforms

- Recognized by Chinese government,
 - e.g., at the Third Plenum of 2013
- Some have been pursued:
 - Anti-corruption drive.
 - Shifting composition of GDP
 - From Investment and Net Exports, to Consumption
 - From Manufacturing to Services.
- But some have seen insufficient progress:
 - Reform of State Owned Enterprises
 - Market orientation
 - Hukou system
 - Rural land rights
 - Environment

Conclusions

- It was probably inevitable, after 3 decades of 10% growth, that the rate of growth of China's potential output would slow down to a more sustainable rate, say 6%.
- The open question was whether the transition would take the form of a hard landing (crisis + growth less than potential) or soft landing.
- The financial turmoil of summer 2015 was noise;
 - it did not convey useful information.
- So far, China seems to be escaping the hard landing.

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Appendices

- (I) Exchange rate policy,
leaning against the wind:
 - 2005-11: resisting appreciation
 - 2014-17: resisting depreciation
- (II) Macroeconomic policy,
mostly counter-cyclical
 - (1) 2007-08 overheating
 - (2) 2009 downturn
 - (3) 2010: overheating resumed

(I) Exchange Rate Policy, 2005-11

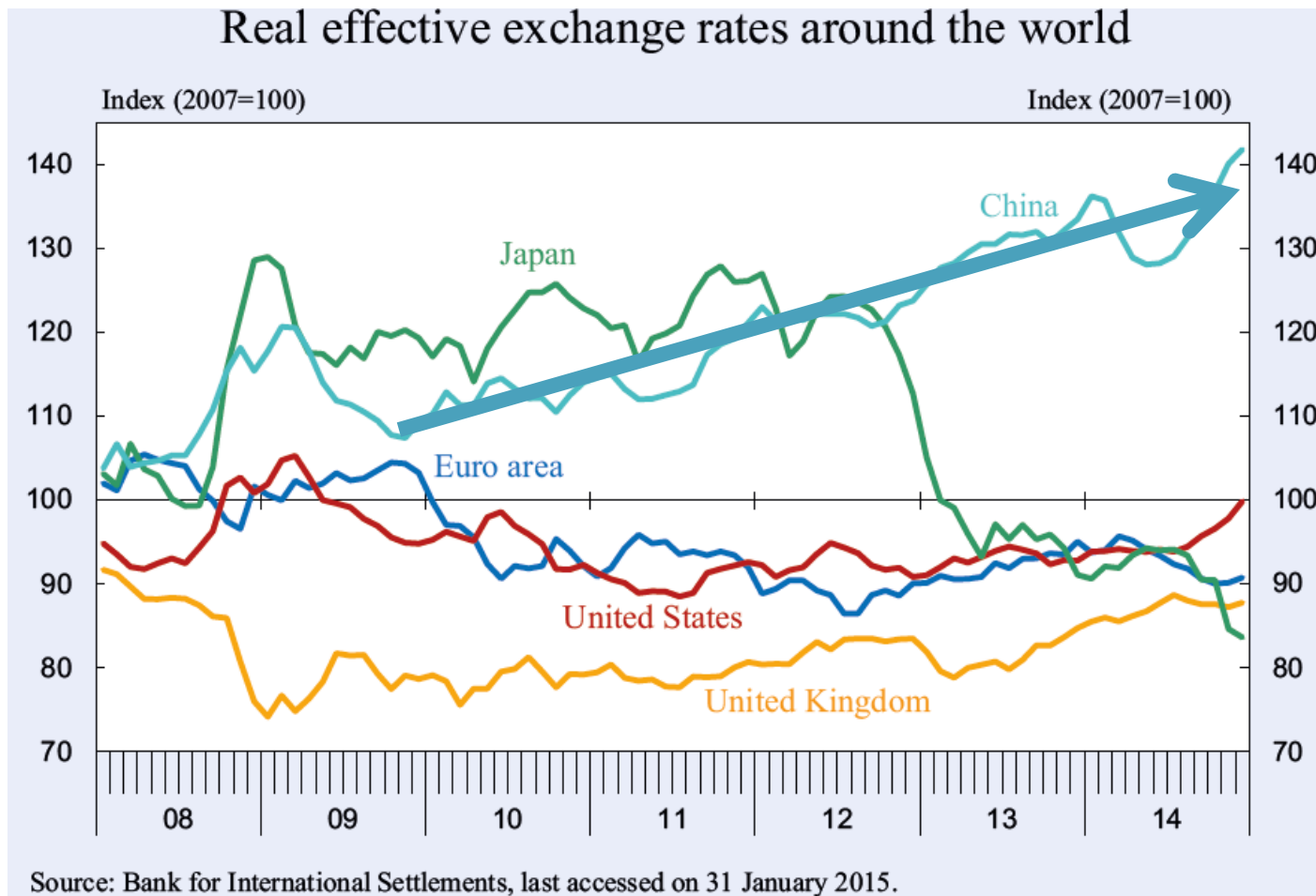
As of 2005-2008, there were several good reasons to allow RMB appreciation, leaving aside US pressure.

- i. External balance: Reserves were increasing rapidly
 - to levels high enough for precautionary purposes.
 - Sterilization was becoming more difficult.
- ii. Internal balance: The economy was overheating.
- iii. Currency regime: A country as large as China should have a flexible exchange rate.
 - Better to exit the peg in good times than in crisis.
- iv. PPP: The RMB was “undervalued” by the price criterion
 - even taking into account China’s GDP/cap (see graph).

The end of undervaluation: 2011-14

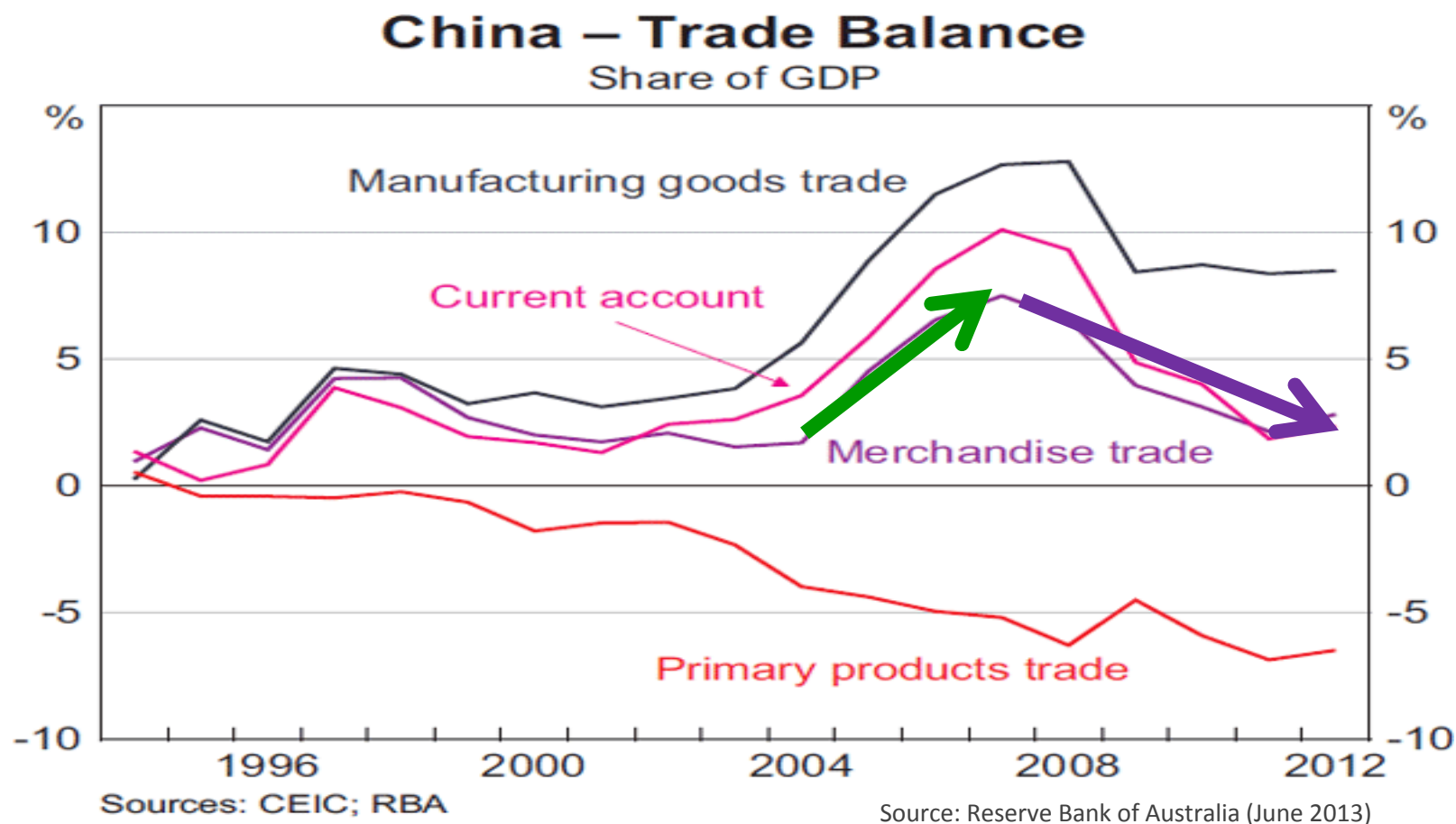
- Various key measures suggest that China achieved much of the needed trade adjustment between 2009 and 2013:
- Substantial real appreciation of the RMB brought it close to equilibrium.
 - Some nominal appreciation and
 - some price inflation &, especially, wage increases.
- Its external surplus peaked in 2008 --
 - current account > 10% of GDP --
 - and then narrowed sharply by 2013.

Against an average of currencies,
rather than just the \$, the RMB hit a record high in 2014.



EEAG (2015), *The EEAG Report on the European Economy*, “Macroeconomic Outlook,” CESifo, Munich 2015, pp. 13–50.

China's trade surplus peaked in 2007, and then fell.



China runs a deficit in primary products, offset by a surplus in manufactures.

China's trade balance

The bilateral surplus with the United States is as big as ever – which has no economic importance, but is politically sensitive.



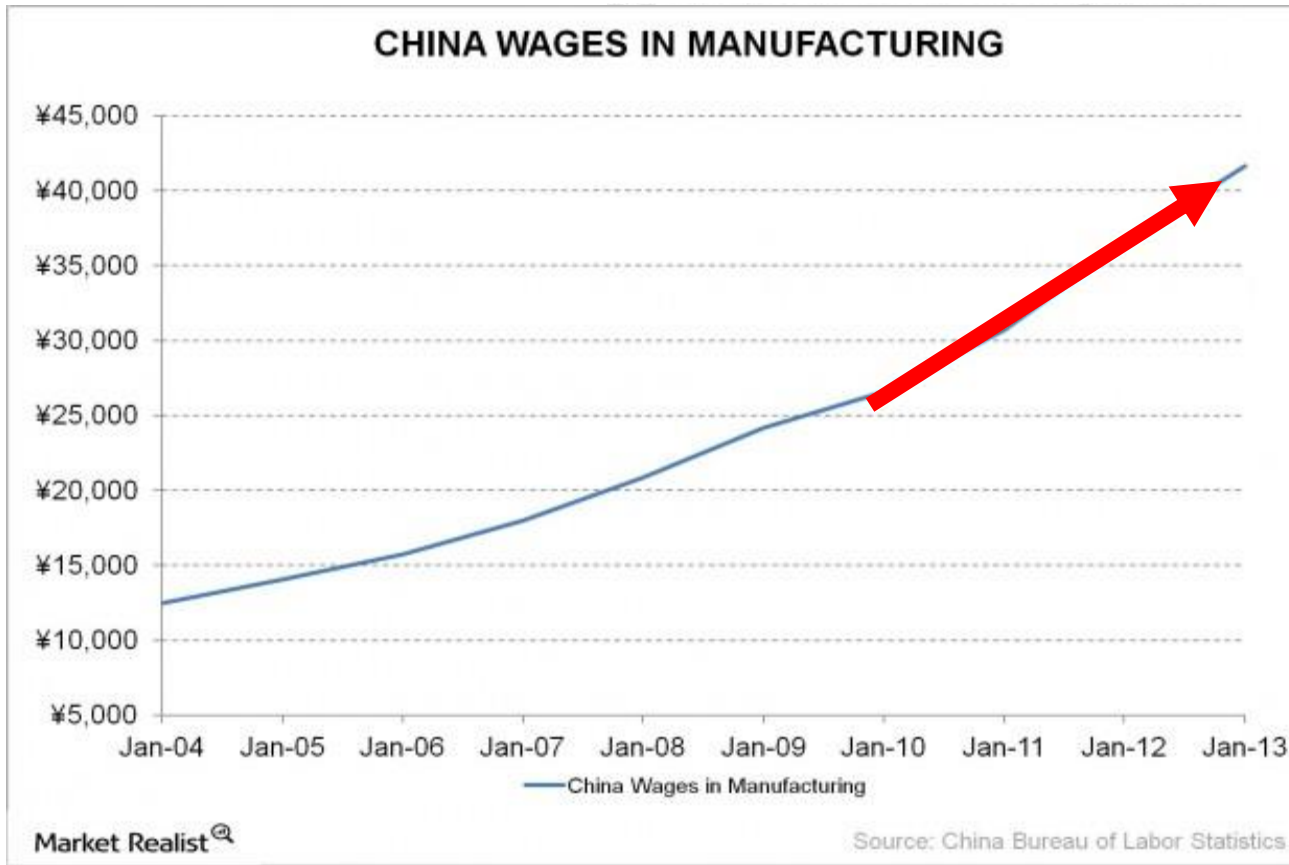
The natural adjustment process was delayed.

- 1st, because the authorities intervened to keep the exchange virtually fixed against the dollar, in the years 1995-2005 and 2008-2010.
- 2nd, wages had not fully adjusted to (rising) marginal product of labor in coastal factories
 - surplus labor in countryside (A.Lewis, 1954)
 - impediments to migration (hukou system).
- China continued to undersell the world.

But prices eventually adjusted.

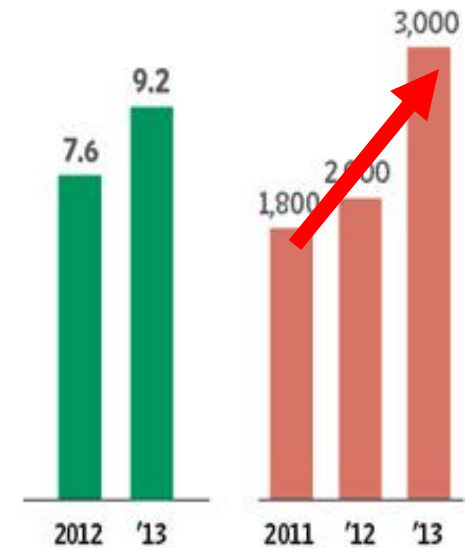
- Labor shortages began to appear => China's urban workers won rapid wage hikes.
- Meanwhile another cost of business, land prices, rose even more rapidly.
- The yuan was finally allowed to appreciate against the \$ during 2005-08 & 2010-11, by 25% cumulatively
 - =17% + 8%,
 - though less against other currencies.

Chinese wages rose



Factory wages,
change from a
year earlier

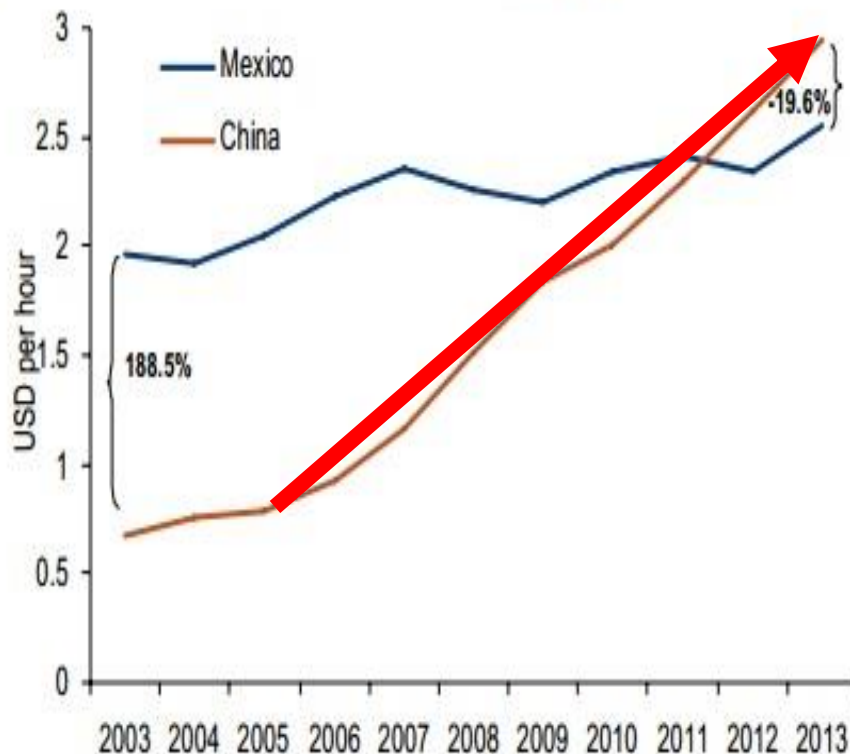
Waitress salary
in Beijing, yuan
per month



CEIC, Standard Chartered, 58.com

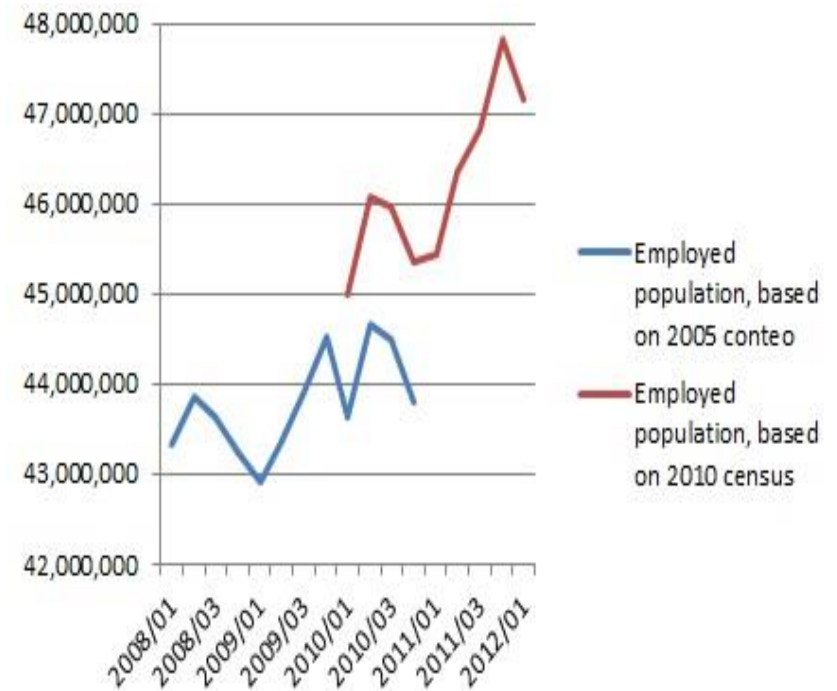
In response to rising wages, some labor-intensive manufacturing has moved out of China

Chart 1: Mexico has overturned China's hourly wages



Source: BofA Merrill Lynch Global Research, Banxico, INEGI, International Labor Organization, China NBS
Own estimates for China since 2009 and for Mexico in 2013

Mexican employment is rising



Source: [Noel Maurer, April 2013](#)

5 types of adjustment are gradually reallocating resources
in response to the new high level of costs
in the factories of China's coastal provinces:

- **1st, some manufacturing has been migrating inland,**
 - where wages & land prices are still relatively low.
- **2nd, export operations are shifting** to Vietnam or Bangla Desh
 - where wages are lower still.
- **3rd, Chinese companies are beginning to automate,**
 - substituting capital for labor.
- **4th, they are moving into more sophisticated products,**
 - following the path blazed earlier by Japan, Korea, & other Asian tigers
 - in the “flying geese” formation.
- **5th, multinational companies** that had in the past moved some stages of their production process to China, out of the US or other high-wage countries, **are now moving back.**

- American politicians find it hard to let go of the syllogism that seemed so unassailable just a decade ago:
 - (1) The Chinese have joined the world economy;
 - (2) their wages are \$0.50 an hour;
 - (3) there are a billion of them, and so
 - (4) their exports will rise without limit:
“Chinese wages will never be bid up in line with the usual textbook laws of economics because the supply labor is infinitely elastic.”
- But it turns out that the laws of economics do eventually apply after all -- even in China.

Expansion of the services sector.

This 6th dimension of adjustment still lags behind,

- despite the consensus in favor of it (3rd plenum, 2014).
- China has had great success in manufacturing
 - especially via exports.
- Now it needs to help the other side of the economy catch up: services, via domestic demand
 - Retail, education, environmental quality,
 - health care, pensions, social safety net.
- With the economy in slowdown in 2014-16,
 - some of this could be done via government spending
 - as China did in 2009. But that was heavy investment.
 - Better to allow households to consume more.

(II) Countercyclical macro policy

- (1) 2007-08 overheating
 - => monetary tightening.



- (2) 2009 downturn
 - => fiscal expansion.



- (3) 2010: overheating resumed
 - => monetary tightening



(1) 2007-08 overheating



(a) Real growth $> 10\%$ in 2007-08.

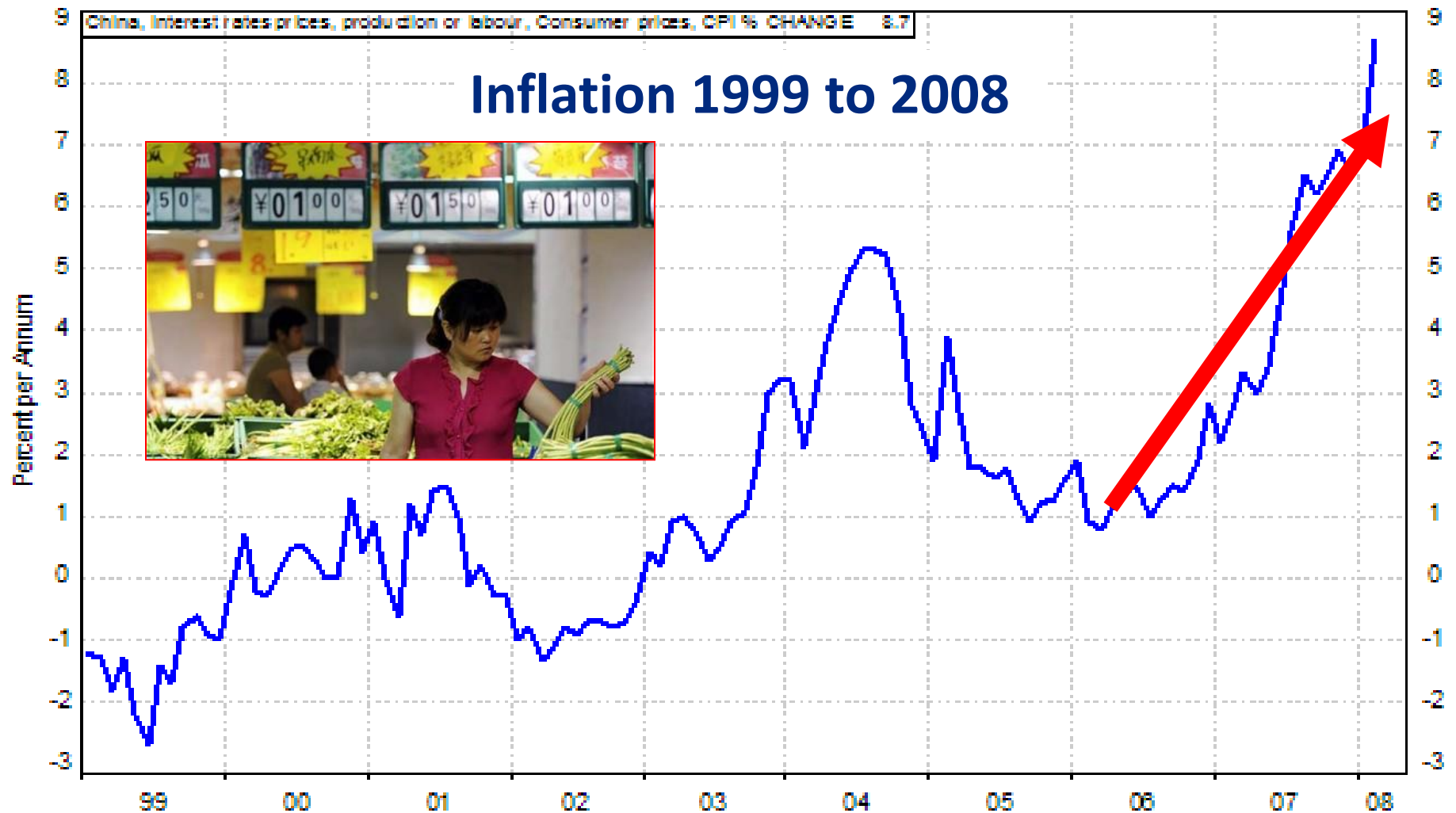




(b) China's CPI accelerated in 2007-08.

China Consumer Price Inflation

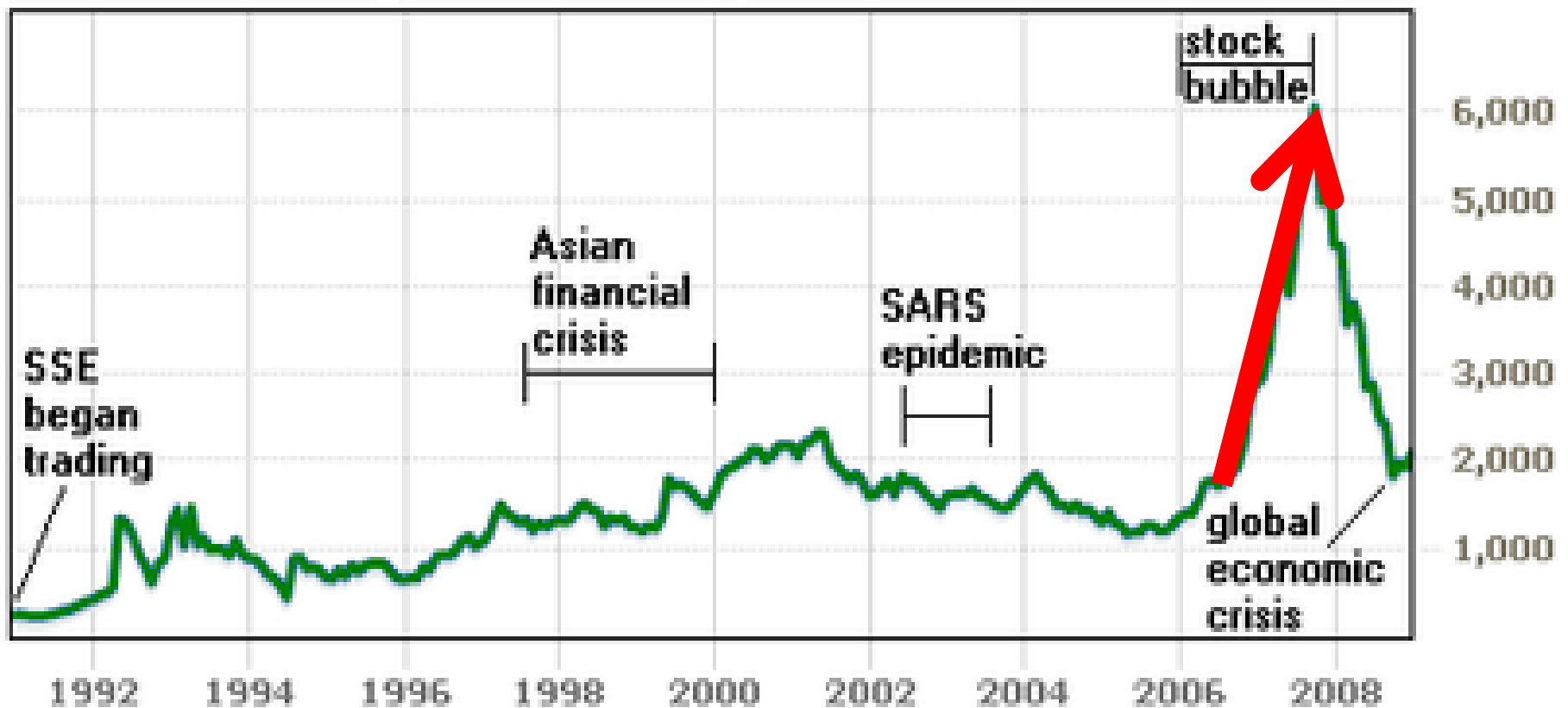
Annual % change in prices, source: IMF





(c) Apparent 2007-08 bubble in stock market

Shanghai (SSE) Composite Index



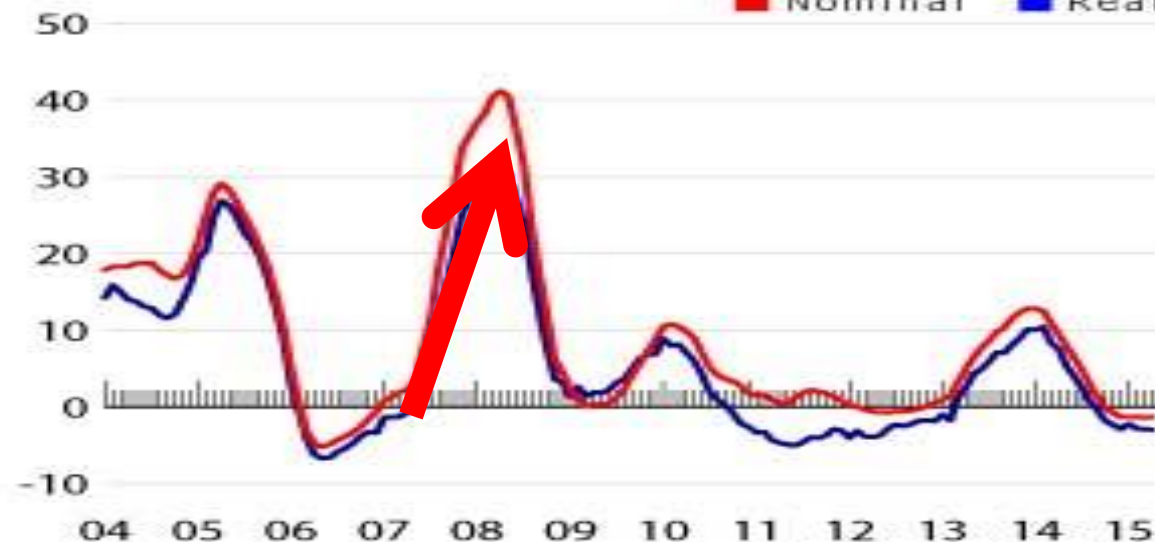


(d) Apparent 2008 bubble in housing market.

Second-hand
House Price
Index,
Shanghai
(2003=1000)

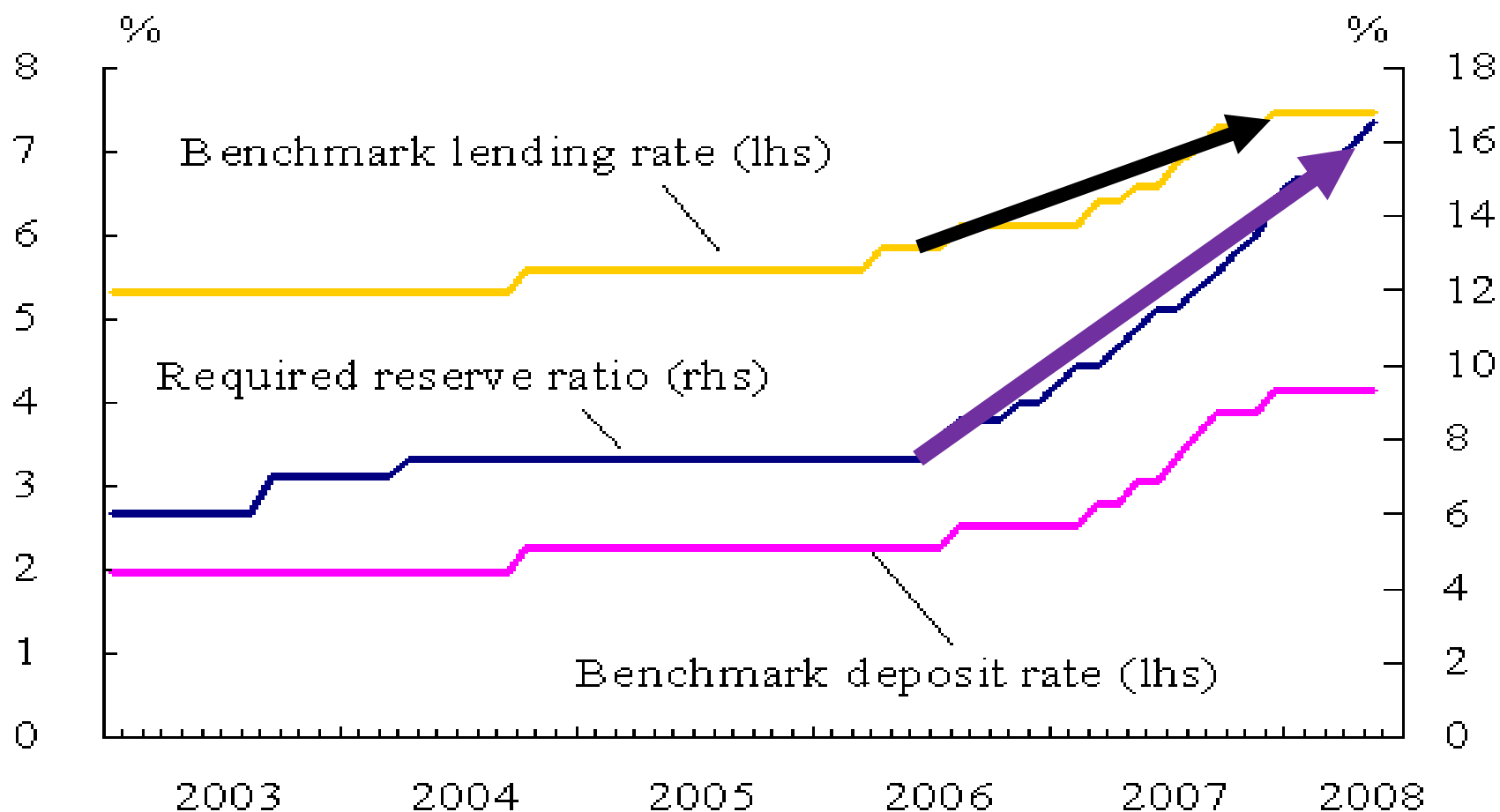


House price
change, Shanghai
(% change over
a year earlier)



The PBoC tightened money by raising reserve ratios

and also raising lending interest rates



(2) Global recession & response: 2009

- The global recession hit in 2008, 4th quarter,
 - It cut China's exports by 1/4.
- Growth and inflation fell sharply.
- The government responded with a big counter-cyclical fiscal stimulus in 2009.
- The economy returned to rapid growth in 2010,
 - even excess demand in 2011.



China was hit by the 2009 global recession.



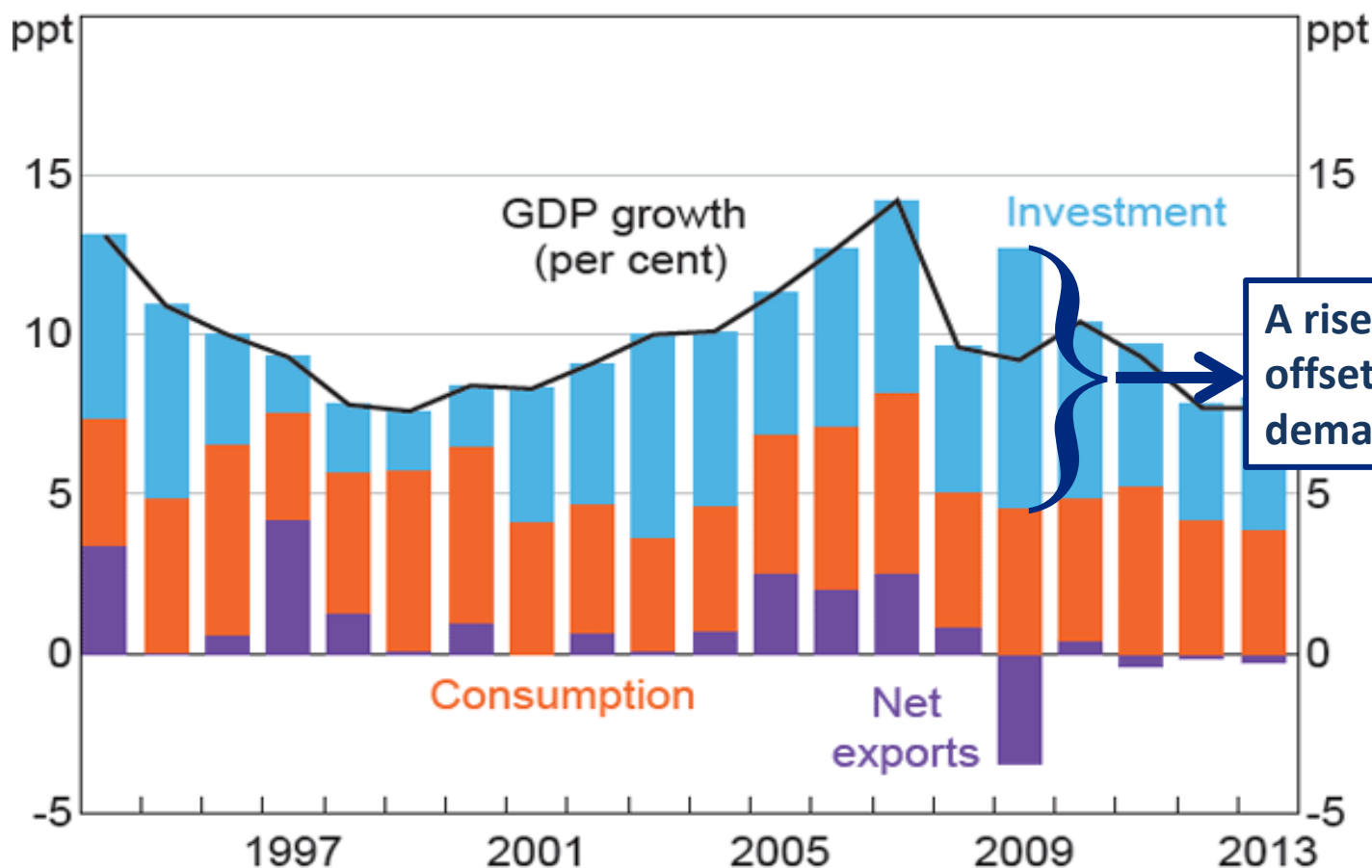
SOURCE: WWW.TRADINGECONOMICS.COM | NATIONAL BUREAU OF STATISTICS OF CHINA

2005-July 2015

Chinese government investment spending in 2009 counteracted the recession.



China – Contributions to GDP Growth



A rise in public investment offset the loss of export demand in 2009.

China's inflation broke sharply in 2009,
But took off again in 2010-11.

**China's Inflation Rate
(annual change of Consumer Price Index)**

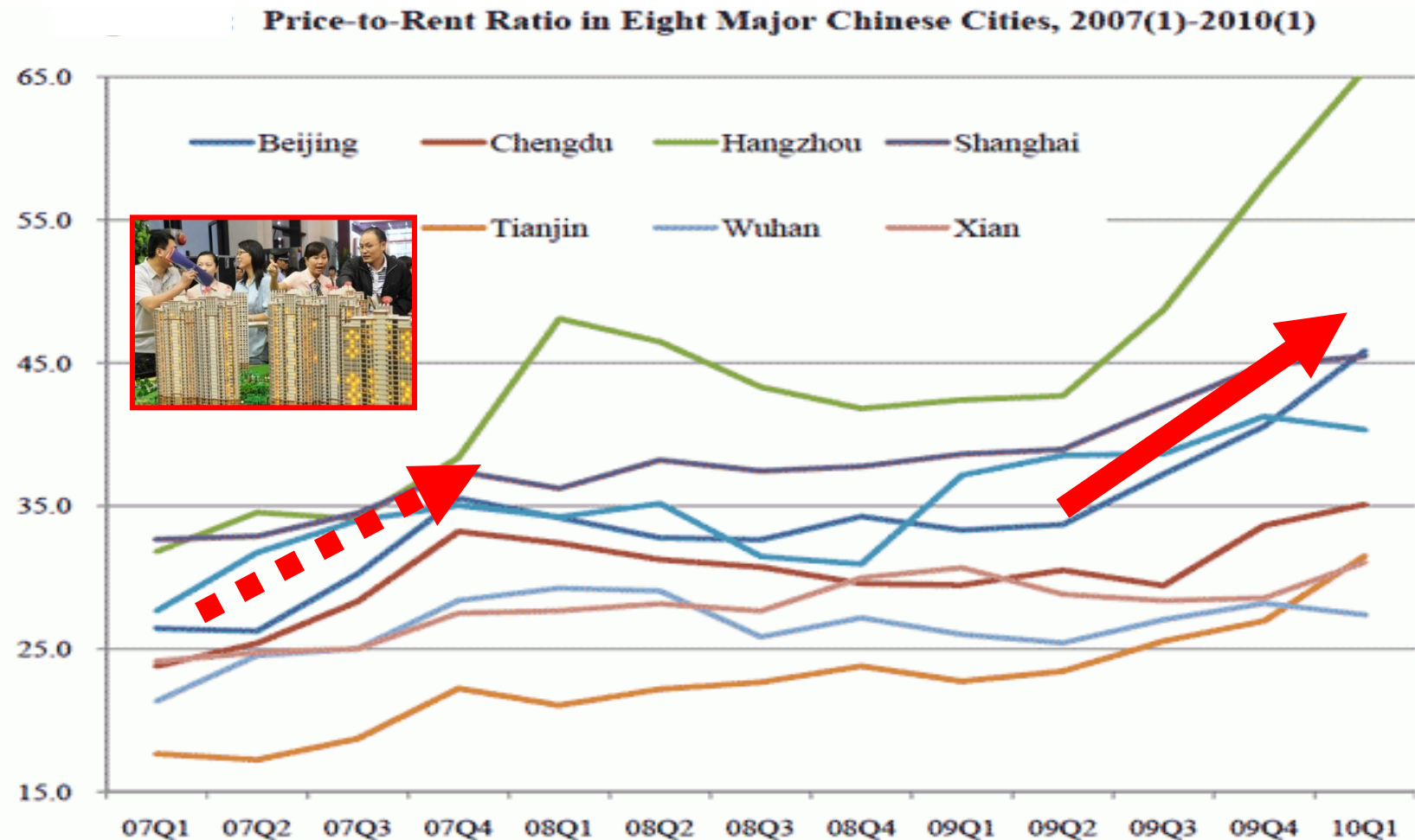
Inflation 2001 to 2011



(3) Overheating resumed in 2010-11.

Besides general inflation, it showed up in rapidly rising land prices.

House prices rose relative even to rents in 2010, as in 2007



China in 2010 resumed raising reserve requirements in a renewed attempt to rein in M1 growth.



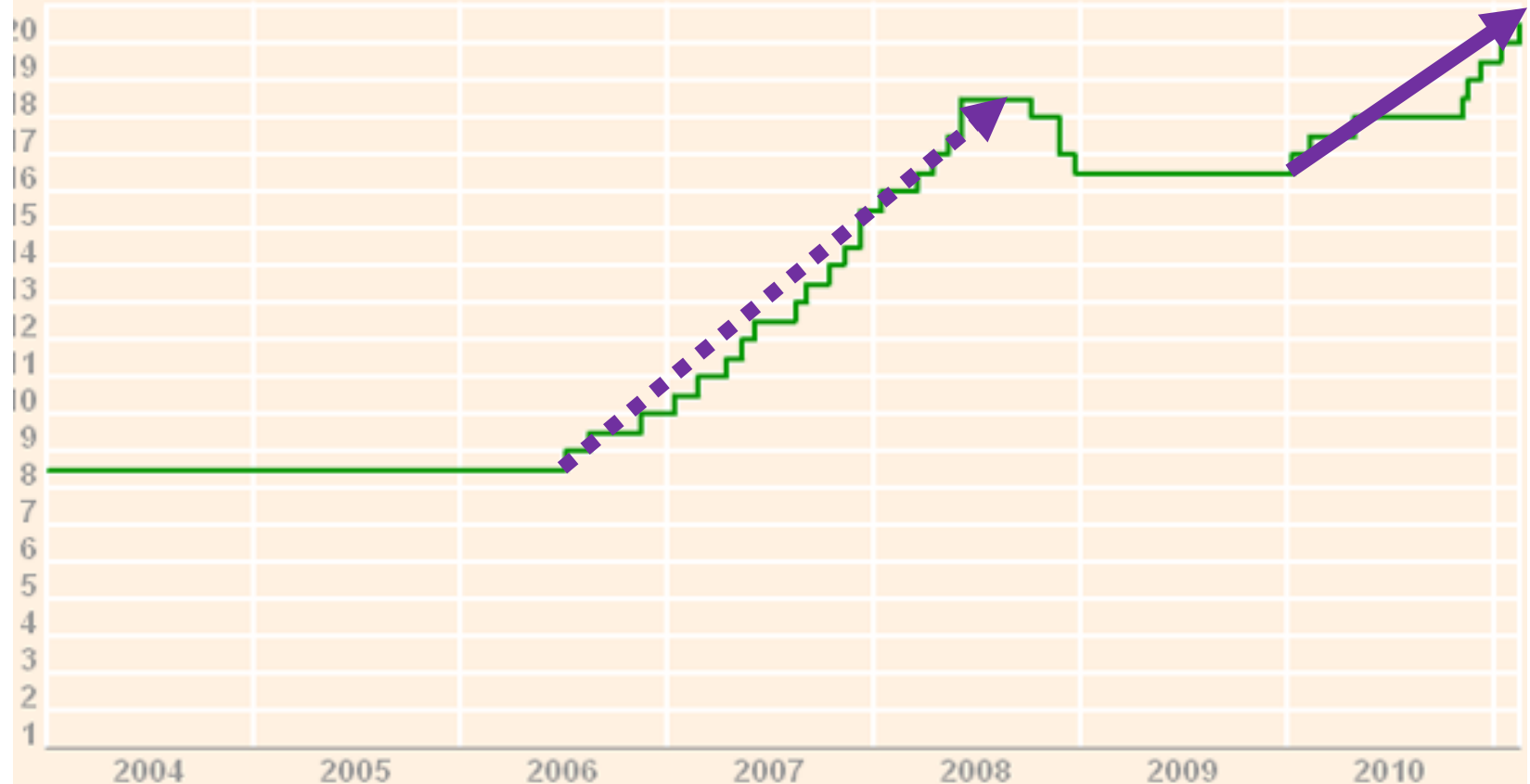
Historical large banks' reserve requirement for China

Source: Reuters

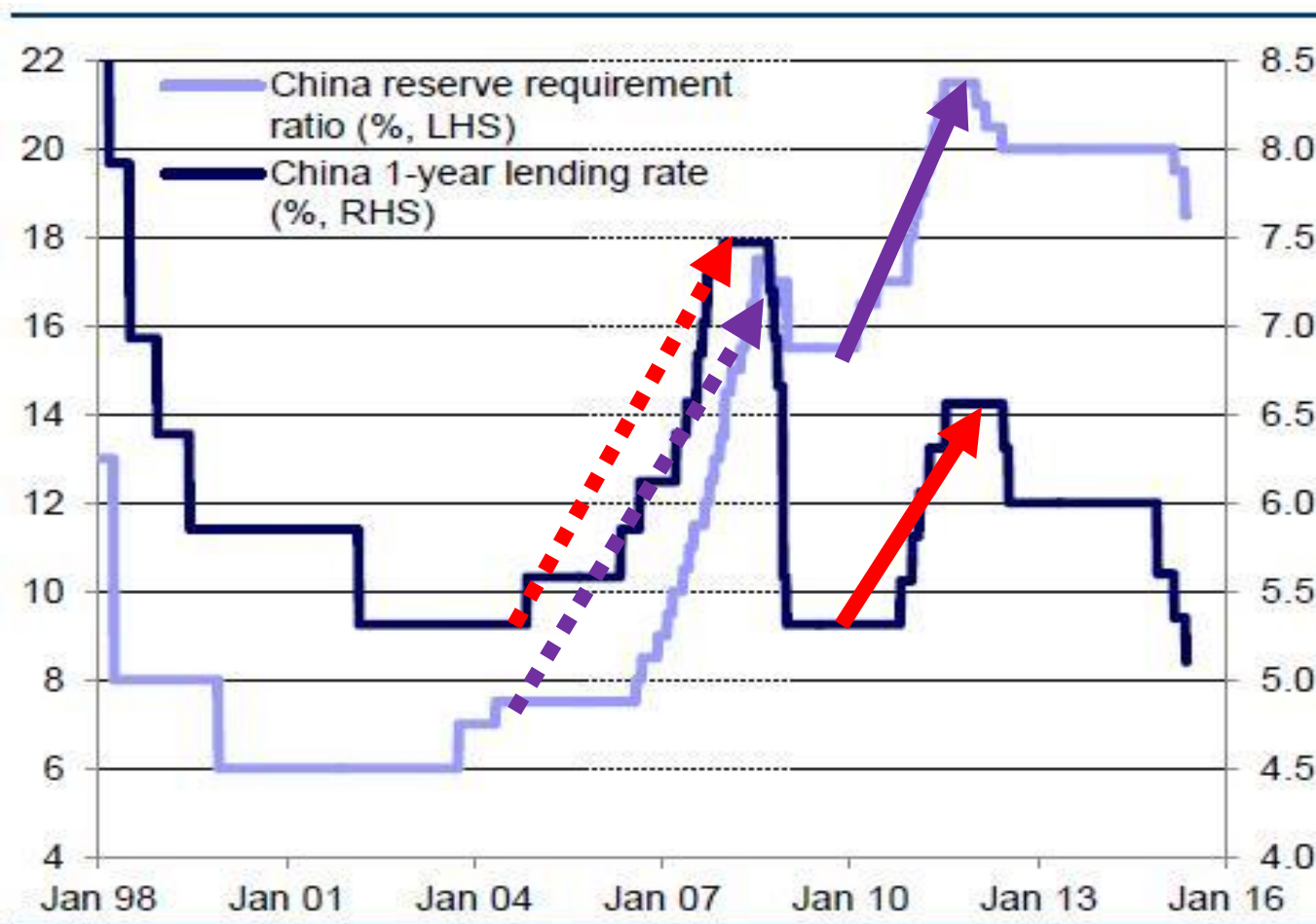
China



FT Money Supply blog



China tightened monetary policy in 2011, as it had in 2007: raising interest rates & reserve requirements.



Source: Thomson Reuters, Credit Suisse research

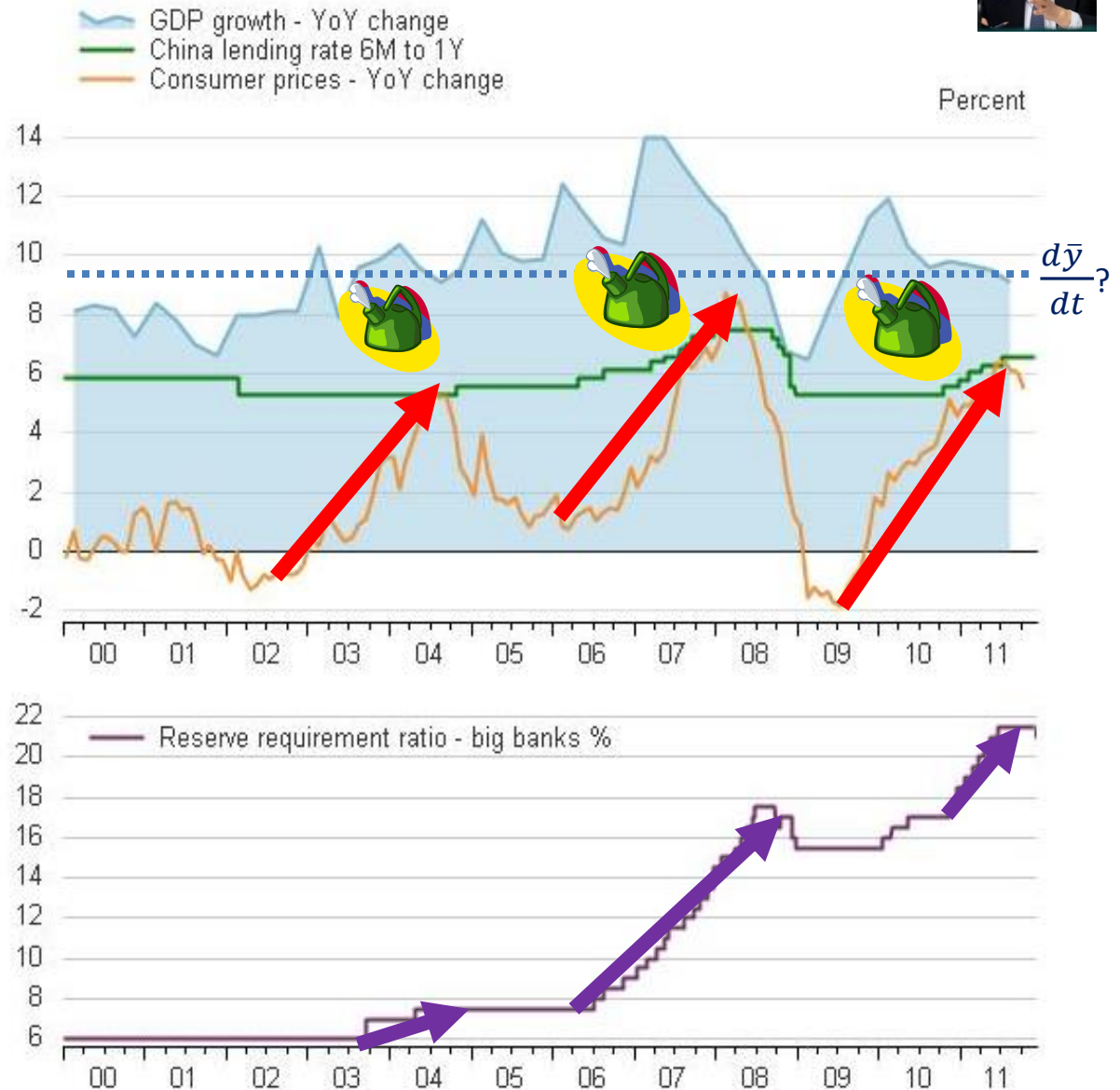
June 1, 2015, *Fiscal Times*,

<http://www.thefiscaltimes.com/Columns/2015/06/01/Why-China-s-Stock-Bubble-Isn-t-Ready-Burst>

China monetary policy



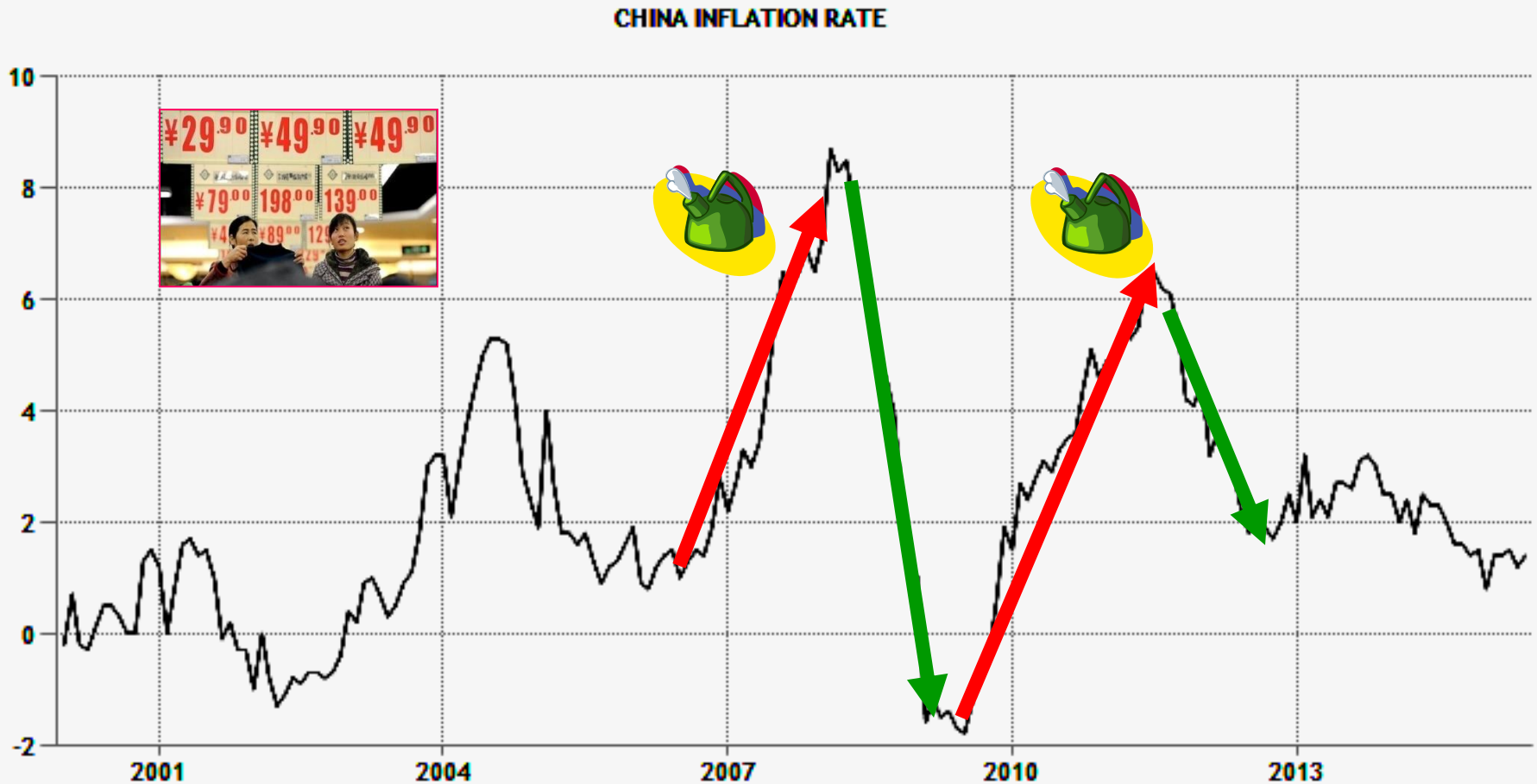
China's tightened money in 2010-11 to help head off rising inflation, as it had in 2004 & 2008.



Source: Thomson Reuters Datastream

Reuters graphic/Scott Barber 11/30/2011

Chinese inflation fell in 2012, as it had in 2008-09.



Annual change in CPI, through August 2015

SOURCE: WWW.TRADINGECONOMICS.COM | NATIONAL BUREAU OF STATISTICS OF CHINA

Besides tightening monetary policy in 2011, China also tightened macroprudential policies, particularly in housing finance:
Loan-to-Value and Debt-Service-to-Income limits

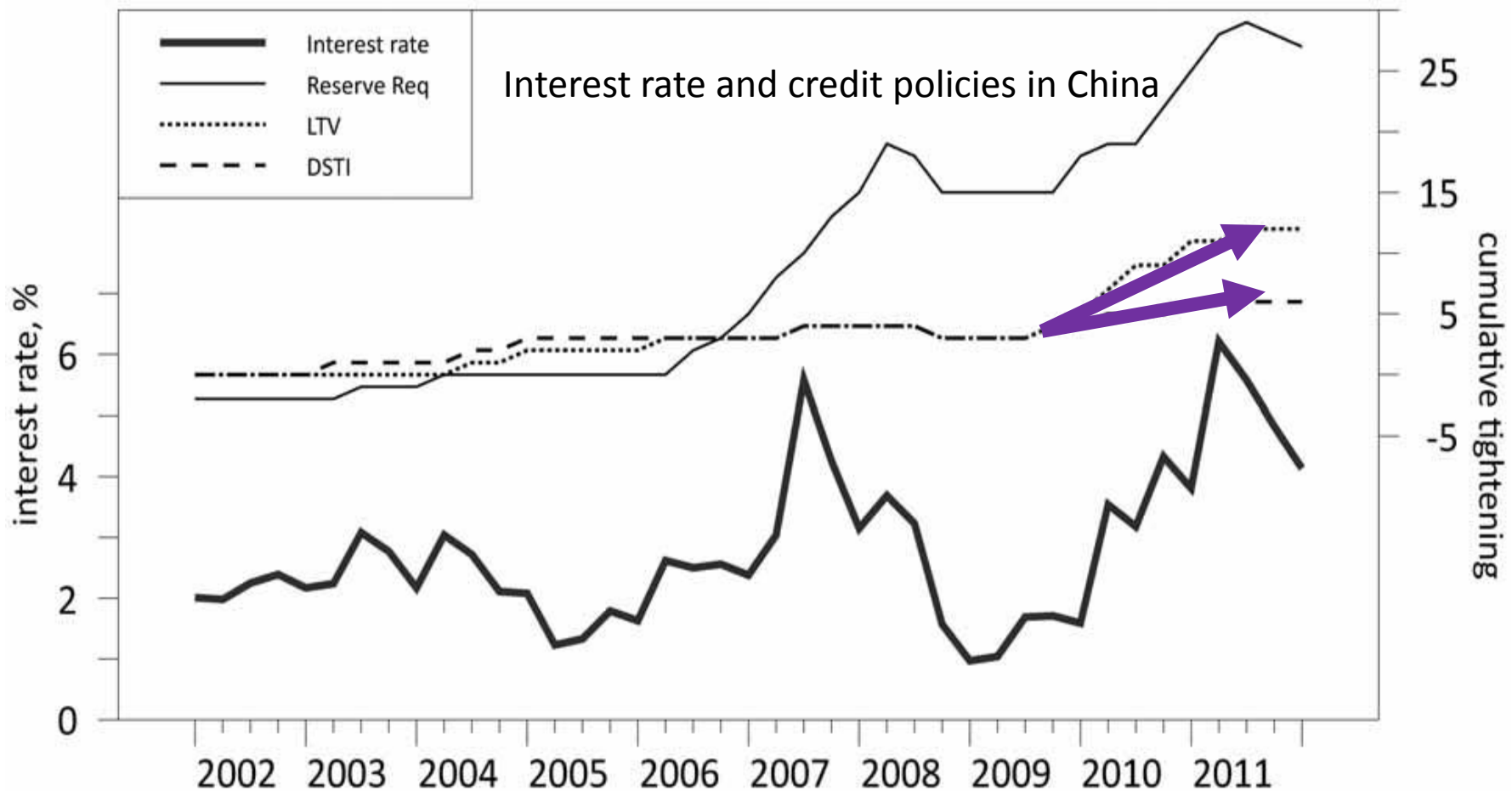
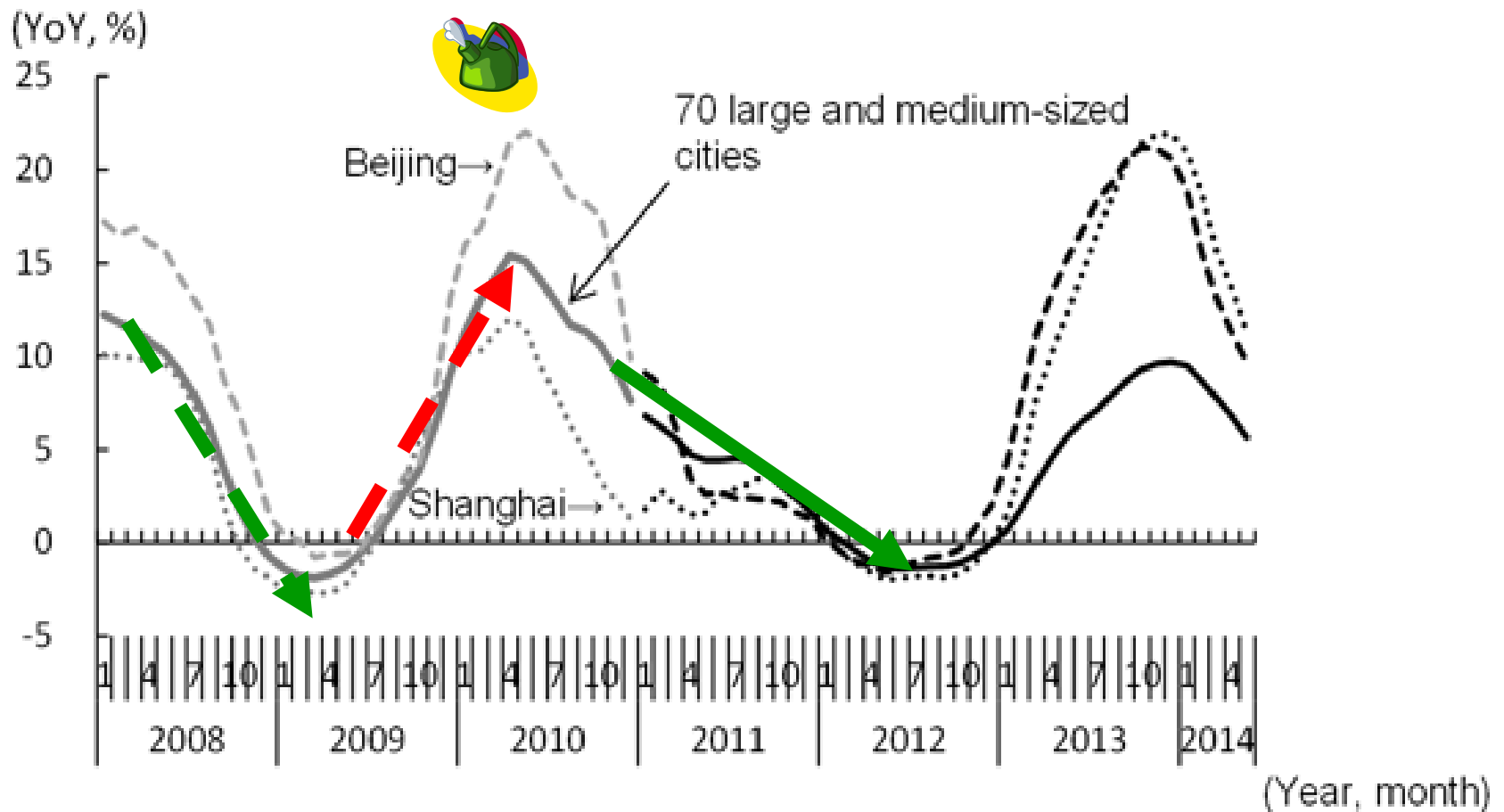


Fig.3, Kenneth Kuttner & Ilhyock Shim, "Can non-interest rate policies stabilize housing markets? Evidence from a panel of 57 economies," NBER WP 19723, 2013.

Housing prices came down in 2012,



Relevant publications by the speaker

- "On the Yuan: The Choice Between Adjustment Under a Fixed Exchange Rate and Adjustment under a Flexible Rate," in *Understanding the Chinese Economy*, edited by Gerhard Illing, (Oxford University Press), 2006, 246-275.
- "The Renminbi Since 2005," in *The US-Sino Currency Dispute: New Insights from Economics, Politics and Law*, edited by S. Evenett (CEPR) 2010, 51-60.
- "Misinterpreting Chinese Intervention in Financial Markets," *China-US Focus*, September, 2015
- "Congress, China, and Currency Manipulation," *China-US Focus*, vol. 6, April-May 2015, 36-38.
- "Globalization and Chinese Growth: Ends of Trends?" 2017, *Il Grande Sconvolgimento*, edited by Paolo Onofri (Il Mulino). HKS RWP 16-029.