Currency Wars or Peaceful Coexistence:
What Future for the International Monetary System?

Barry Eichengreen

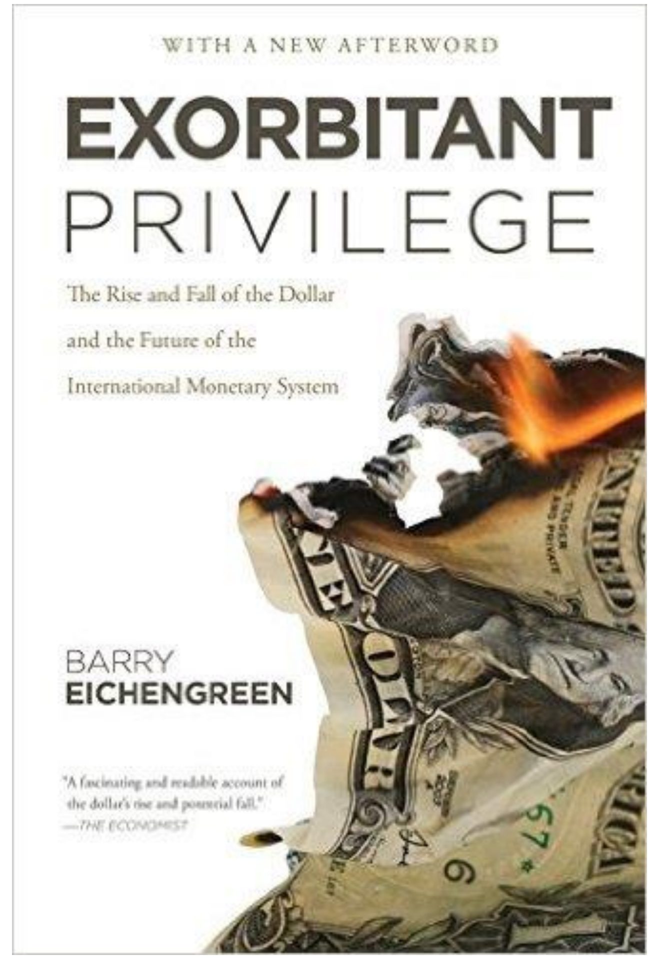
Santiago

March 22, 2016

Centro UC
CLAPES UC
Centro Latinoamericano de Políticas Económicas y Sociales

It is almost 5 years to the day that I published a book on today's topic

- I argued that the days of our dollar-based international monetary system were numbered.
- And that we would have to move to a more multipolar system, characterized by multiple international and reserve currencies.
- And I argued that this would be, on balance, a good thing.



I would argue that the basis for that forecast is intact

- The logic of convergence is sound: there is reason to think that the US will account for a shrinking share of the world economy over time.
- This means that it can't provide safe and liquid assets that are widely accepted for cross-border transactions on the scale required by an expanding global economy on its own, indefinitely.
- Other sources of liquidity will have to step up.

What other sources?

- Answering this question first requires identifying the functions of an international currency.
- It then requires identifying the countries/issuers with the characteristics that are prerequisites for their currencies carrying out these functions.

Functions of an international currency

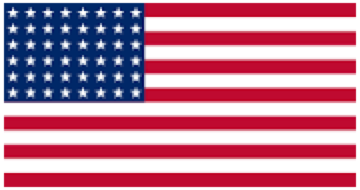
- Unit of account for cross-border transactions.
- Means of payment in cross-border transactions.
- Store of value for future cross-border transactions.
  - For both private-sector entities and governments/central banks.

Characteristics of the issuer

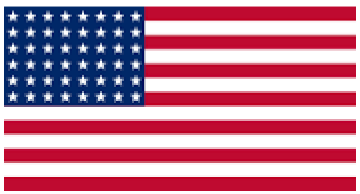
- Size
- Stability
- Liquidity

At the moment, only 3 economies possess the requisite size

At the moment, only 3 economics possess the requisite size

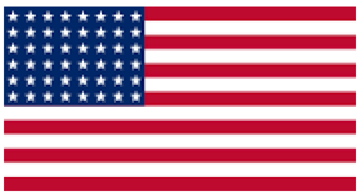


At the moment, only 3 economics possess the requisite size



I am consciously eliminating some other possibilities

At the moment, only 3 economics possess the requisite size



- We also need to explore whether the three obvious candidates possess the other prerequisites besides size (stability and liquidity) required for their currencies to provide this function.
- But even before doing that, there is an important prior question...

Is international currency status a natural monopoly?

- Having defined what an international currency is, we also have to make a judgment about how many there can be.
  - Old view and new view; I'm a believer, perhaps predictably, in the new view…

Two views from economic theory

- Old view: network effects
  - It pays to do what everyone else is doing.
  - Once a standard is widely adopted, it becomes locked in.
  - First-mover advantage is strong.
  - Because of increasing returns, only one global currency can exist at a point in time.
  - The dollar’s dominance for the last 50 years is evidence of this.
  - The old view suggests that dollar dominance will continue.
    - Currency war view.

- New view: open systems
  - Interchangeability costs are not that high.
  - Hence increasing returns are not that strong.
  - First-mover advantage can be overcome relatively quickly.
  - Multiple international currencies can coexist at a point in time.
  - The new view suggests that the dollar will have rivals sooner rather than later.
    - Peaceful coexistence view

The old view is supported by theory

- Network externalities are powerful.
- First-mover advantage is strong.
- It follows that international currency status is a natural monopoly.
  - There is room in the global economy for only one consequential global currency (first it was sterling, now it is the dollar, in the future it will be the RMB).
- It also follows that persistence is strong.
  - And that an international currency can retain its dominance long after the issuer has since lost its economic, fiscal and political capacity to provide international currency services on the scale required by an expanding global economy, reflecting the hold of network effects.
    - Resulting in liquidity shortages in the 1920s and 1930s?
    - Resulting in global imbalances and doubts about the dollar after the turn of the century?
- This perhaps helps us understand the chronic fragility of the international monetary system, something that has long intrigued economic historians (and troubled policy makers).

This view is supported by a considerable theoretical literature

- Krugman, Paul (1980), “Vehicle Currencies and the Structure of International Exchange,” *Journal of Money, Credit and Banking* 12, pp. 513-526.
- Matsuyama, Kiminori, Nobuhiro Kiyotaki and Akihiko Matsui (1993), “Toward a Theory of International Currency,” *Review of Economic Studies* 60, pp. 283-307.
- Rey, Hélène (2001), “International Trade and Currency Exchange,” *Review of Economic Studies* 68, pp. 443-464.

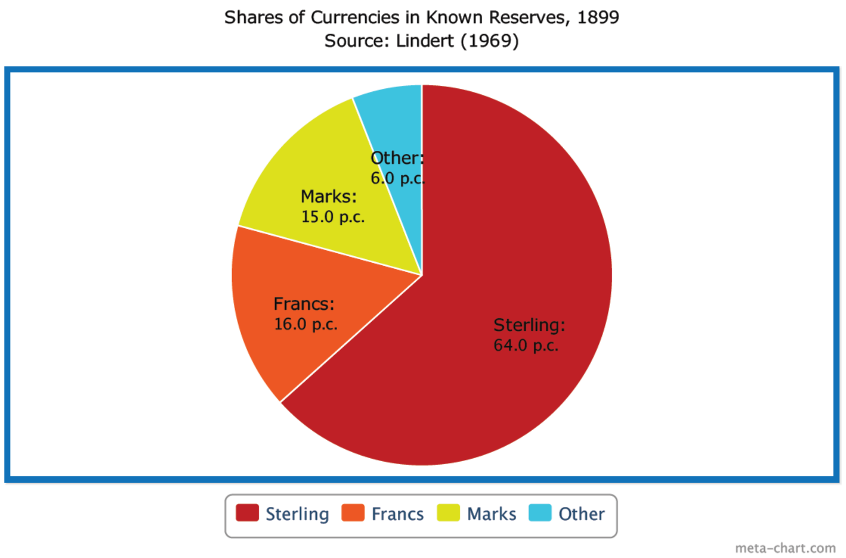
But there is also theoretical support for the new view

- Paul David and Julie Bunn, "The Economics of Gateway Technologies and Network Evolution: Lessons from Electricity Supply History," *Information Economics and Policy* (1988).
- Joe Farrell and Paul Klemperer, "Coordination and Lock-In: Competition with Switching Costs and Network Effects," *Handbook of Industrial Organization* (2007).
- David Clark, "The Design of Open Systems" (2003).


Ceci n'est pas un smartphone

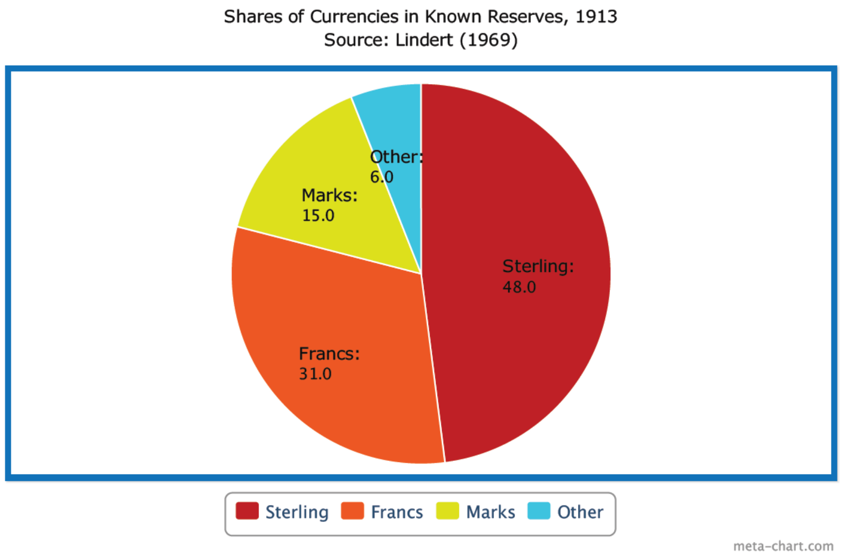
More important, there is support from history

- Before 1913, the practice of holding foreign exchange reserves was largely ad hoc.
- But courtesy of Peter Lindert, we know something about their composition.
- Lindert had to make strong assumptions, admittedly, when constructing these estimates.
- But the result, for what it is worth, is not obviously consistent with the "old" or "natural monopoly" view.



More important, there is support from history

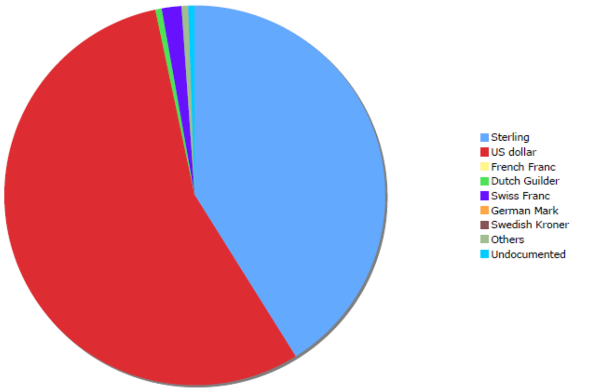
- Before 1913, the practice of holding foreign exchange reserves was largely ad hoc.
- But courtesy of Peter Lindert, we know something about their composition.
- Lindert had to make strong assumptions, admittedly, when constructing these estimates.
- But the result, for what it is worth, is not obviously consistent with the "old" or "natural monopoly" view.



And similarly for the interwar period

Global forex reserves, 1929

- Here is my own reconstruction of the global picture circa 1929.
  - Note also how the franc and the mark, after having been important before 1914, now all but disappear from the picture.



Source: See Text.

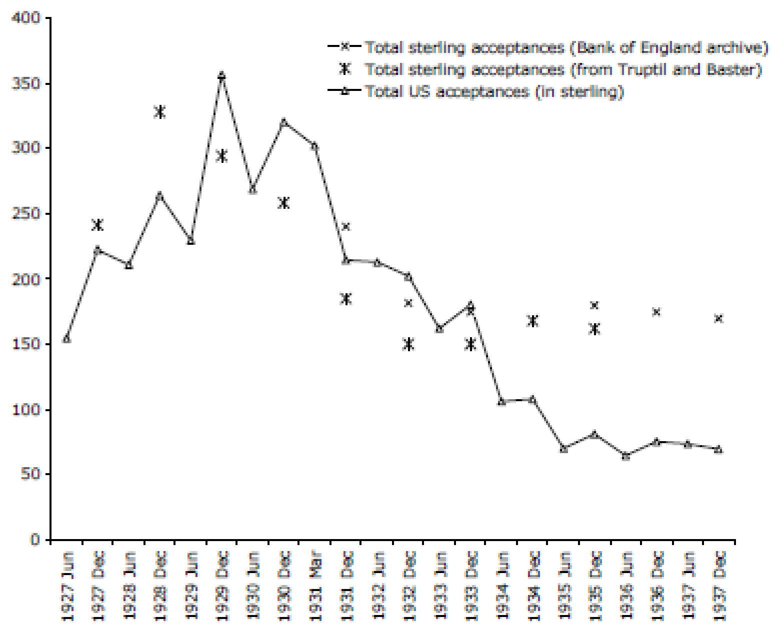
- We can buttress this view by considering also the other role of an international currency (international unit of account, means of payment, private store of value).

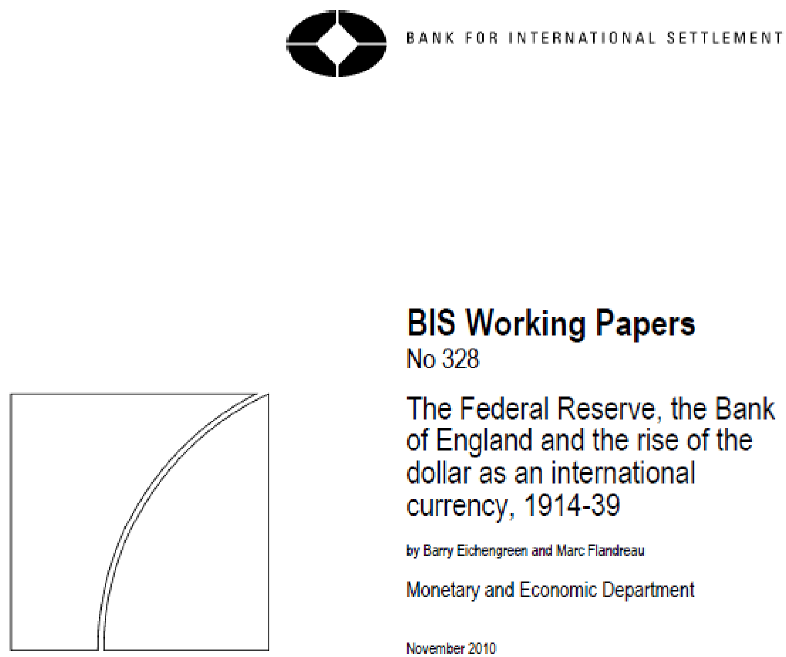
Evidence on currency denomination of trade credit

Figure 5

Dollar and sterling acceptances 1927–37

In millions of pounds sterling





BANK FOR INTERNATIONAL SETTLEMENTS

BIS Working Papers

No 328

The Federal Reserve, the Bank of England and the rise of the dollar as an international currency, 1914-39

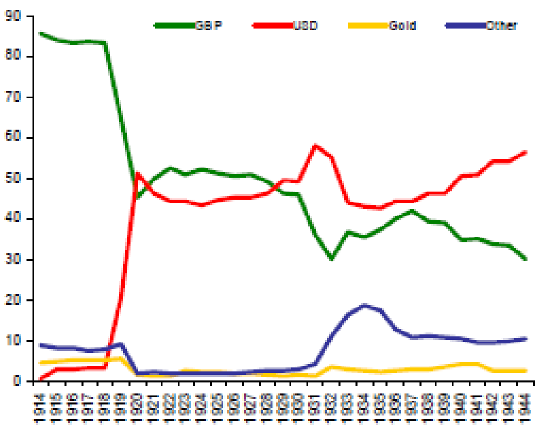
by Barry Eichengreen and Marc Flandreau

Monetary and Economic Department

November 2010

Evidence on currency denomination of international bonds

Figure 5b: Global foreign public debt (excl. Commonwealth countries) – Selected currency shares
(As a % of total; at current exchange rates)



EUROPEAN CENTRAL BANK
EUROSYSTEM

WORKING PAPER SERIES
NO 1433 / MAY 2012

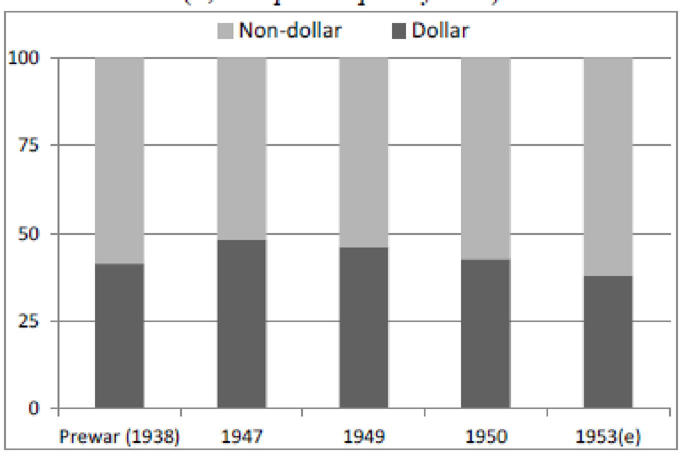
WHEN DID THE DOLLAR OVERTAKE STERLING AS THE LEADING INTERNATIONAL CURRENCY?

EVIDENCE FROM THE BOND MARKETS

by Livia Chitu, Barry Eichengreen and Arnaud Mehl

Evidence on the currency denomination of international oil market transactions

Figure 1a: Currency denomination of total European oil imports
(%, oil imports in quantity terms)



EUROPEAN CENTRAL BANK

EUROSYSTEM

WORKING PAPER SERIES

NO 1651 / MARCH 2014

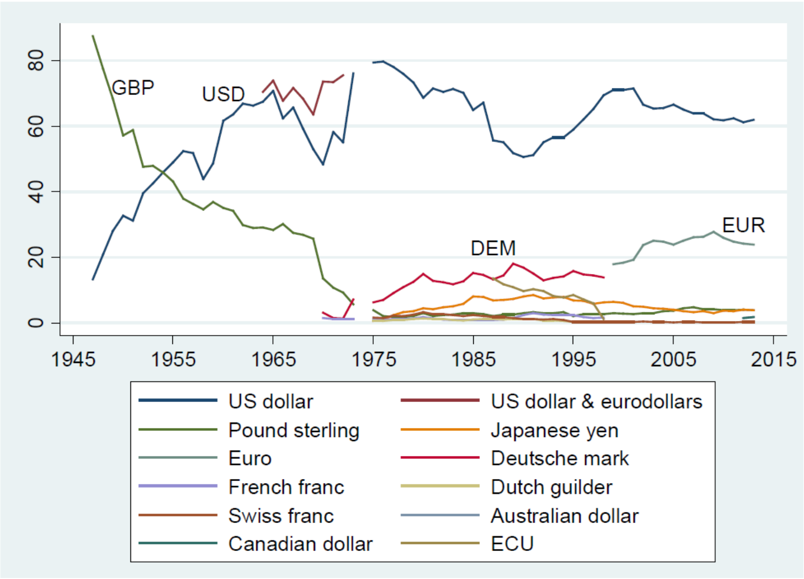
NETWORK EFFECTS, HOMOGENEOUS GOODS AND INTERNATIONAL CURRENCY CHOICE

NEW EVIDENCE ON OIL MARKETS FROM AN OLDER ERA

Barry Eichengreen, Livia Chiţu and Arnaud Mehl

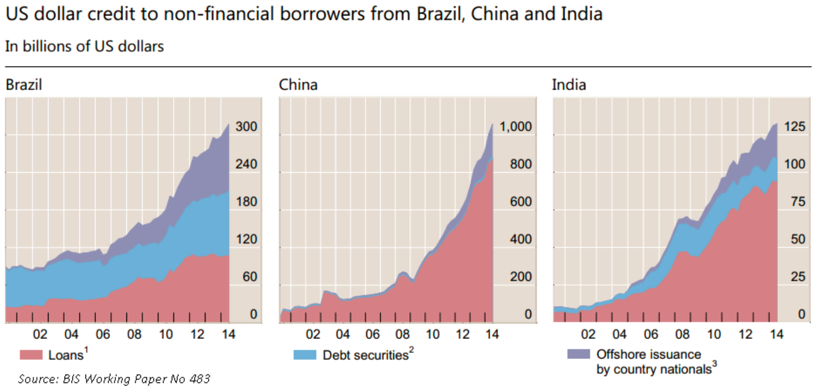
What then happened after World War II?

- The dollar dominated.
- But it never dominated completely.
- And a longer historical perspective suggests that the second half of the 20th century was anomalous.
  - It was an exceptional period when the U.S. accounted for a disproportionate share of global transactions.
  - The U.S. was the only country with deep and liquid financial markets open to the rest of the world.
  - There were no alternatives to the dollar, in other words.
- But if that was the past, I would still argue that the future will be different.
- Bring me now to the prospects for the dollar, euro and renminbi.



For the moment, the dollar still reigns

- The global banking system runs on dollars.
- The dollar accounts for 80% of global trade finance.
- It is on one side of 85% of foreign exchange transactions worldwide.
- It accounts for 42% of all transactions through SWIFT.



Risks

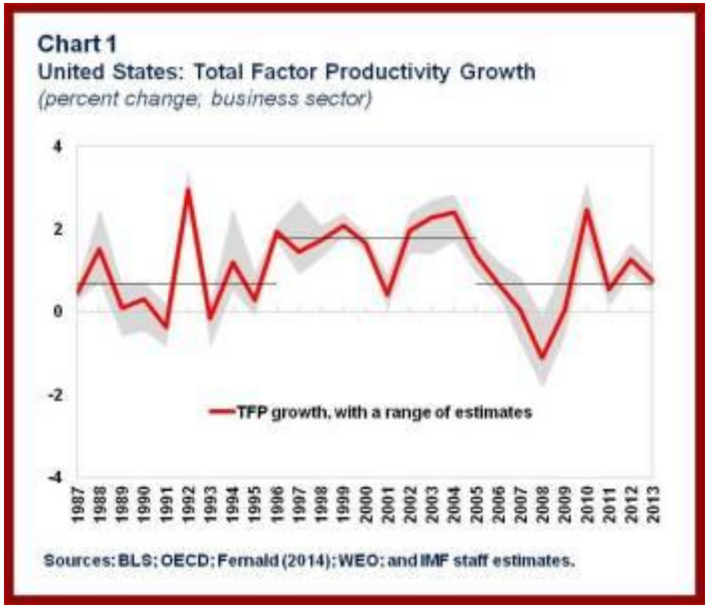
- Liquidity
- Stability
- Size

Risks

- Liquidity
  - Significantly reduced by Dodd-Frank and other post-crisis reforms?
- Stability
  - Still in doubt after the global financial crisis?
- Size
  - Bringing us to the secular stagnation debate.

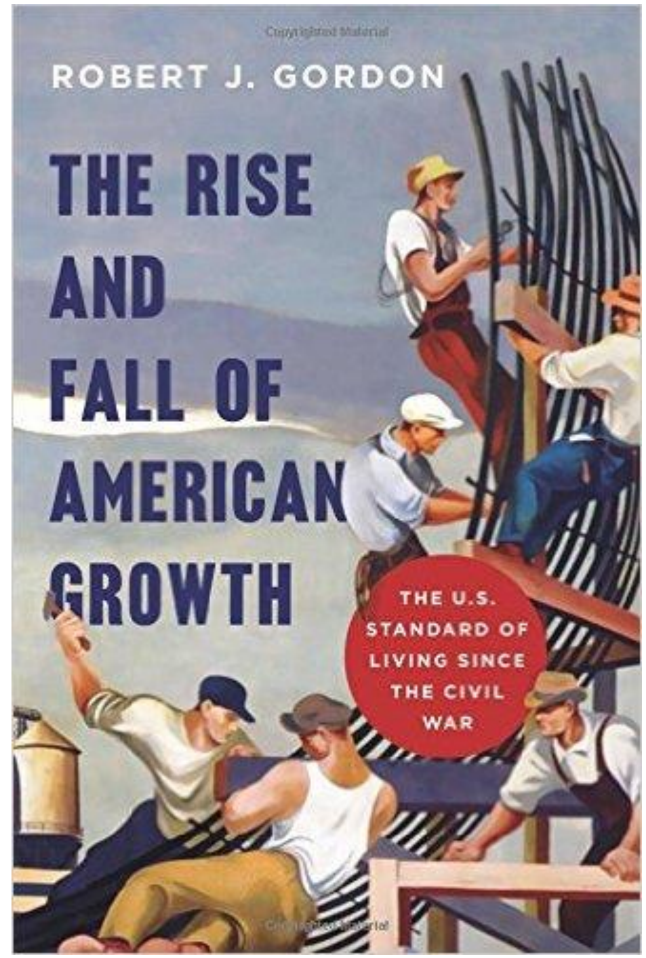
A productivity pickup would make a big difference for the United States

- Higher profitability for corporates.
- Ability to pass through higher wages.
- Good on both the demand and supply sides.
  - The problem of course being that recent productivity performance has been dismal, as you can see here.



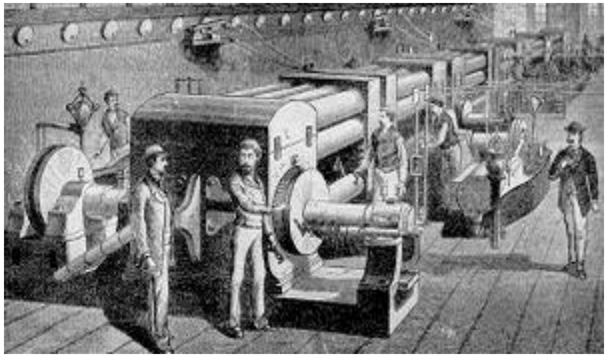
So what's next?

- The pessimistic view, a la Robert Gordon, is that the great inventions have all been made.
- In addition, the US faces headwinds from ageing, stagnating education attainment, high debt, and political disfunction.



In contrast…

- The positive view is that tighter labor markets and higher minimum wages will compel firms to invest more in labor-saving technology.
- It is that the current wave of innovations, like electricity and the internal combustion engine before them, will take time to manifest their productivity-enhancing effects.



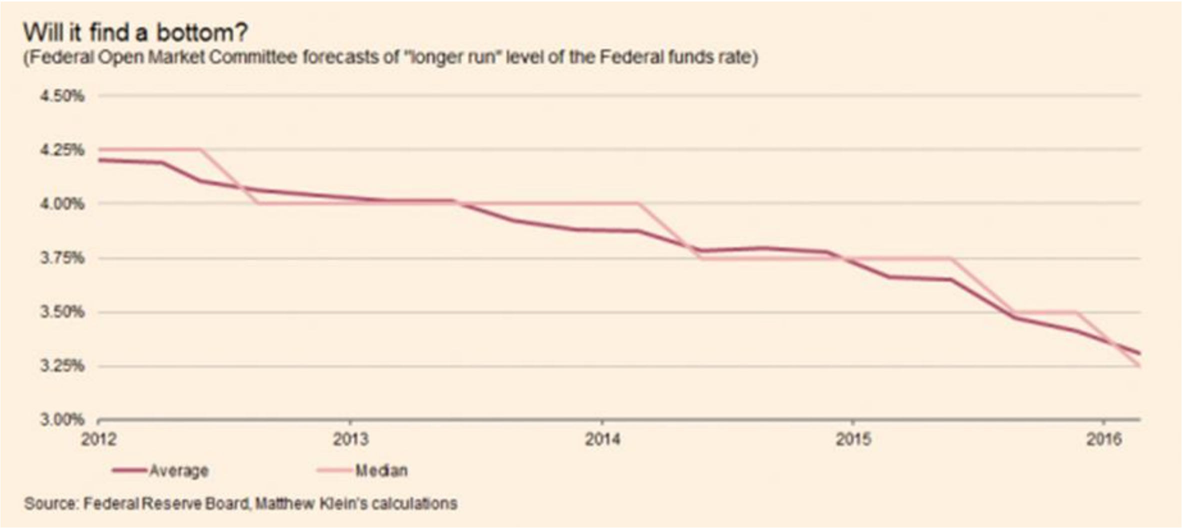
“Forecasting is difficult, especially when it involves the future”

- My crystal ball is not clear enough for me to know with conviction which view is correct.
- As an economic historian, I am a techo-optimist: I tend to subscribe to the optimistic camp (wait and be patient).

This is not a talk about the Fed, but since I will be asked

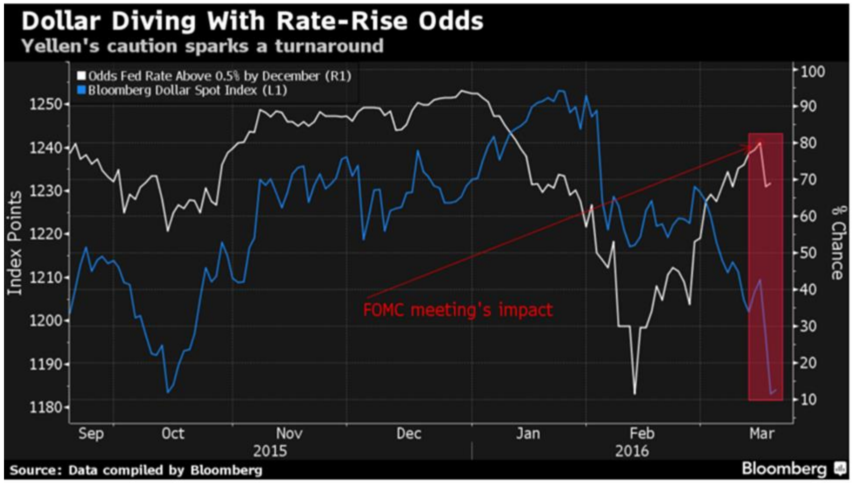
It is not clear that the Fed shares my optimism

Increasingly it is on the negative side of the Secular Stagnation debate



This is another reason I think the Fed was right to pause

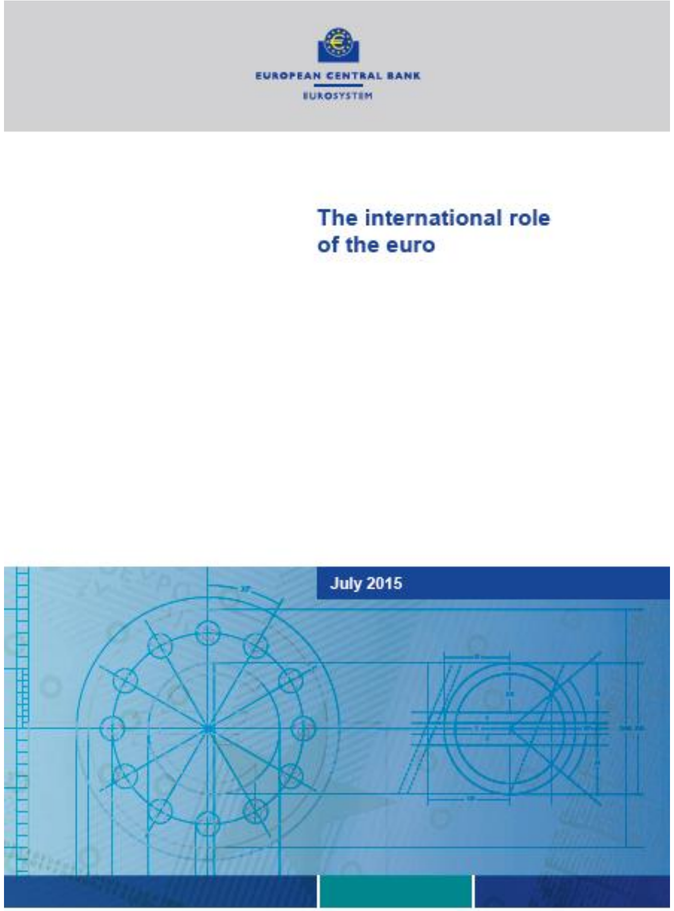
- It was right to pause because of the weakness of net exports and because a higher dollar already subtracted 0.6% from GDP growth last year.
- The Fed's unexpectedly dovish statement reversed the rise of the dollar, which had been predicated on expectations of higher US rates.
- That's good for the US economy, but potentially bad for other countries.
- This is the currency-war problem that brought you all out this morning.



Prospects for the euro

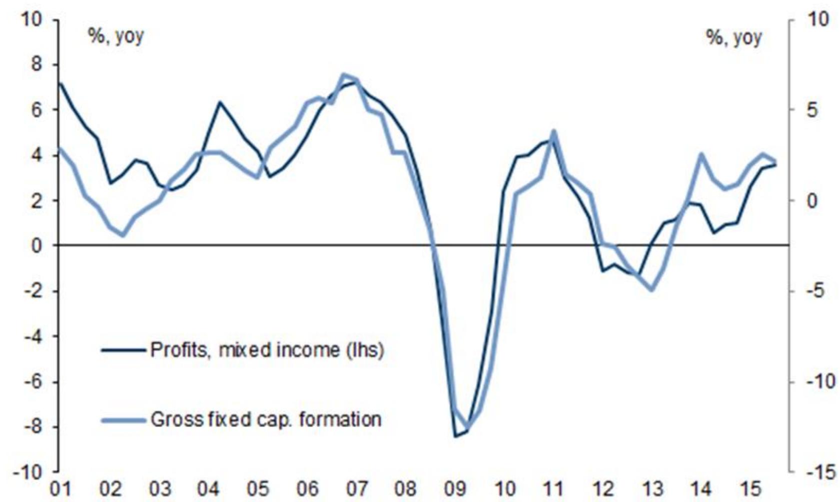
The euro has had its ups and downs (mainly downs)

- The euro's share in world currency reserves declined from 28% at its peak in 2009 to 22% 2014, less than half that of the dollar.
- Share of forex market turnover its 19%, less than half that of the dollar.
- It accounts for 29% of international debt securities, up slightly (reflecting low funding costs), but still less than half that of the dollar.
- Why is not hard to see:
  - Europe has had trouble growing the platform.
  - And it hasn't succeeded in drawing a line under its crisis and proving to skeptical investors that the euro is here to stay.



On the growth front, Europe is doing better

- On the supply side, Europe has actually done a lot of structural reform.
  - Of labor markets in particular.
- On the demand side, monetary and fiscal policy are now modestly expansionary.
- As a result of this supply and demand side progress, corporate profits are picking up, and with them business investment.
  - Rendering Europe less dependent on uncertain external conditions.
- And we learned in February that the Eurozone continued to grow reasonably rapidly, by 1.5%, in 2015 Q4.



Though Europe still has 5 big problems

- Imbalances.
- Deflation.
  - Prices fell 0.2% in the year ending in February)
- Banks.
  - Deutsche's derivatives book is enormous. And the ECB's negative rates won't exactly help bank profitability.
- Refugees.
- And…

Figure 3: Euro area manufacturing output

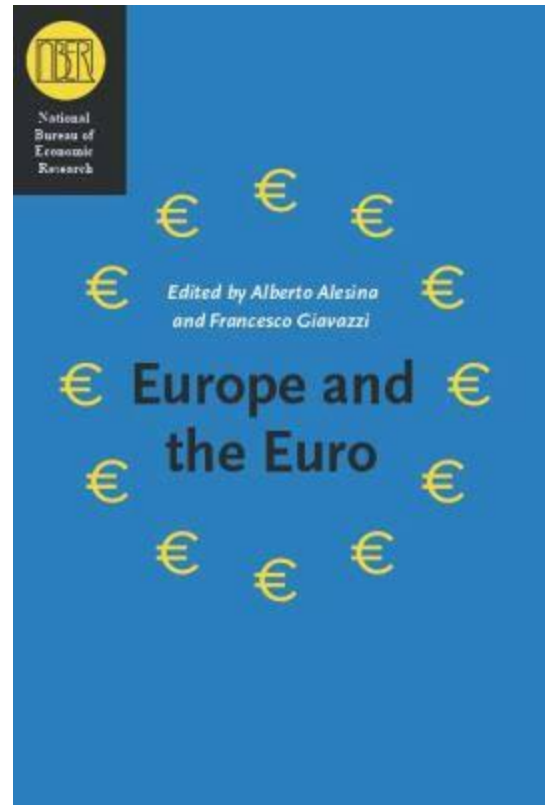
Jan-14 = 100, bullet shows forecast

Europe still hasn't fixed the flaws in its monetary union

- If monetary union without banking union, fiscal union and political union won't work, then it is troubling that:
  - The banking union is incomplete and unproven.
  - No agreement on fiscal union.
  - And certainly no agreement on political union.
- In addition, little progress in creating a more symmetrical adjustment mechanism.
- And no Eurozone debt restructuring regime.

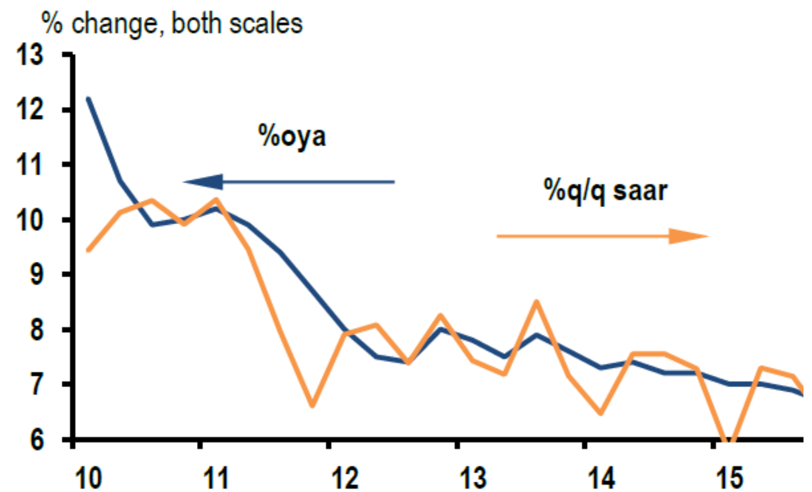
To be clear, I am strongly of the view that the euro is here to stay

- But that is separate from arguing that it will be an attractive international unit of account, means of payment and store of value anytime soon.



As for China

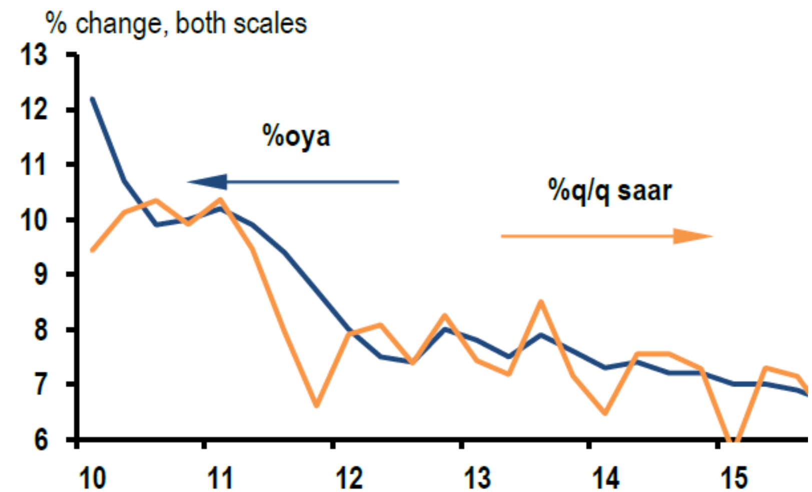
- Size, stability and liquidity?
  - Starting with size (growing the platform).
- Here are the official numbers, for what they are worth.
- They show that GDP growth slowed to slightly less than 7% in 2015.
- It will slow by perhaps another 1/4 per cent in 2016 on official projections.



So how alarmed should we be?

- Not so alarmed on the basis of what we've seen so far, in my view.
- A slowdown from 9-10% growth in the decade prior to 2010 to 6-7% growth now is exactly what we should expect on the basis of the experience of other countries.

.



So how alarmed should we be?

- Not so alarmed on the basis of what we've seen so far, in my view.
- A slowdown from 9-10% growth in the decade prior to 2010 to 6-7% growth now is exactly what we should expect on the basis of the experience of other countries.
- And given China's characteristics.

As I argued here (5 years ago)

When Fast-Growing Economies Slow Down: International Evidence and Implications for China*

Barry Eichengreen
Department of Economics
University of California
Berkeley, CA 94720, USA
eichengr@econ.berkeley.edu

Donghyun Park
Economics and Research Department
Asian Development Bank
6 ADB Avenue,
Mandaluyong City 1550
Metro Manila, Philippines
dpark@adb.org

Kwanho Shin
Department of Economics
Korea University
5-1 Anam-Dong, Sungbuk-Ku
Seoul, Korea 136-701
khshin@korea.ac.kr

Abstract
Using international data starting in 1957, we construct a sample of cases where fast-growing economies slow down. The evidence suggests that rapidly growing economies slow down significantly, in the sense that the growth rate downshifts by at least 2 percentage points, when their per capita incomes reach around US$ 17,000 in year-2005 constant international prices, a level that China should achieve by or soon after 2015. Among our more provocative findings is that growth slowdowns are more likely in countries that maintain undervalued real exchange rates.

1. Introduction

One of the most important developments affecting humankind in the late 20th and early 21st centuries has been the rapid economic growth of large emerging markets, starting with China, extending now through much of Asia, and experienced increasingly in other parts of the developing world. As Lawrence Summers, former Director of the White House National Economic Council, said, "The dramatic modernization of the Asian economies ranks alongside the Renaissance and the Industrial Revolution as one of the most important developments in economic history." Rapid economic growth, on the order of 10 per-

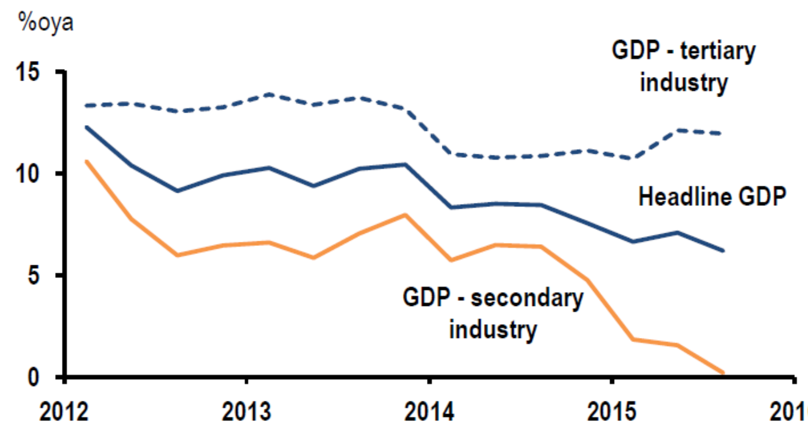
* This paper, prepared for the March 2011 meeting of the Asian Economic Panel at the Earth Institute in New York, draws on joint work with Dwight Perkins, whose input we acknowledge with thanks. We thank Hiro Ito for help with data, and the ADB for financial support. We also thank Jeffrey Sachs, Wing Thye Woo, Louis Kuijs, Myoung-Jae Lee, and Arvind Subramanian for helpful comments and Gayoung Ko and Ji-Soo Kim for their excellent research assistance.

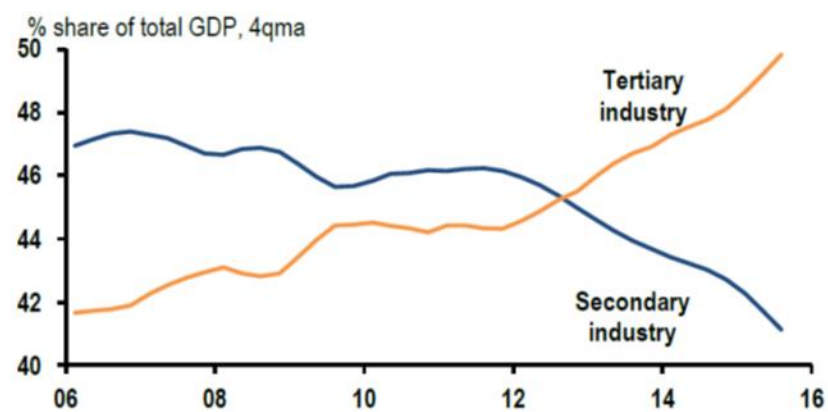
Asian Economic Papers 11:1

- That’s the picture from 30,000 feet.
- But the landscape – and prospects – look more varied if we examine them more closely.

Bad and good news

- The bad news is that the manufacturing sector is in the tank.
- The good news on the other hand is that manufacturing is no longer all, or for that matter even the main, thing that matters.





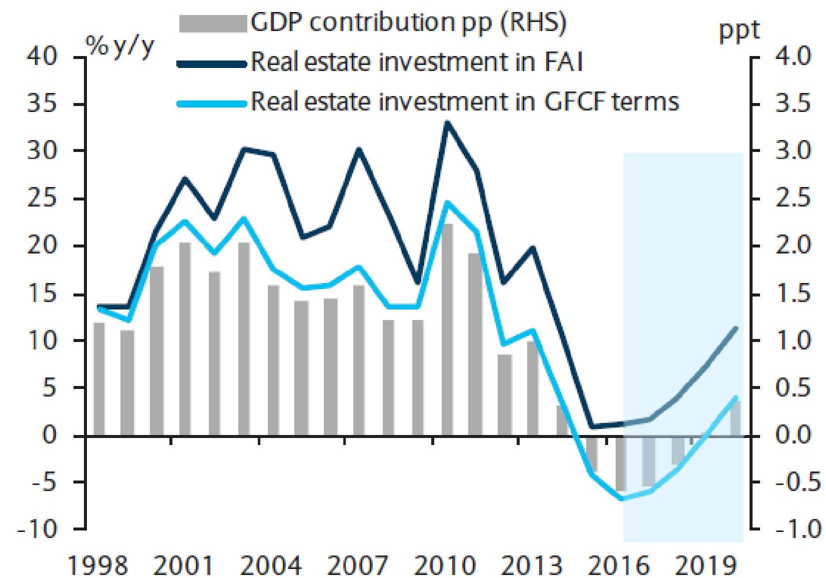
So everyone wants to know: will the bad or good news dominate?

- Hard landing?
- Soft landing?

Soft landing scenario

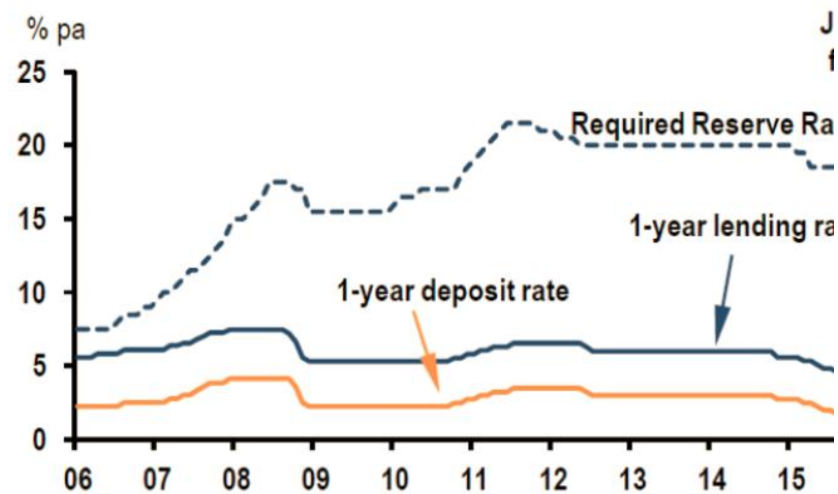
- Slowdown in 2015 was heavily a real-estate-related phenomenon.
- 25% of economic activity is related to construction and real estate.
- Real estate investment fell from 12% of GDP in 2014 to 2% in 2015.
- Basic arithmetic suggests that this can take 2.5 percentage points off of GDP growth by itself
- This slowdown reflected admirable efforts by the authorities to eliminate excesses in the property market.
- Now that this has been done, forecasters see 2016 as a better year than 2015 for construction.

Real estate investment and estimated contribution to growth



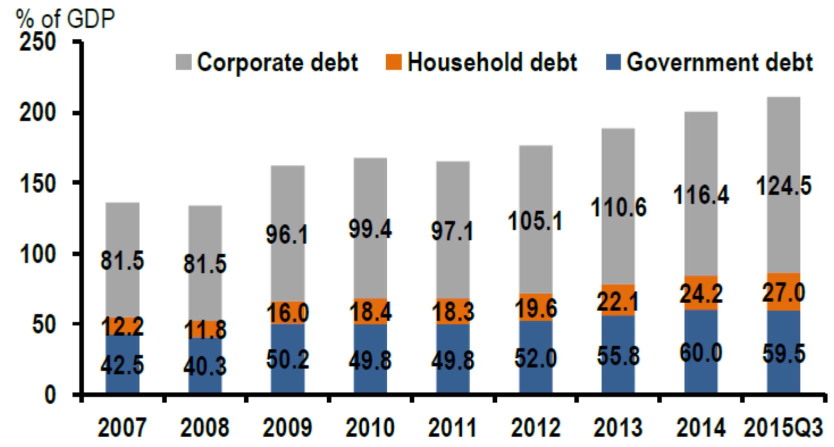
Soft landing scenario

- The Chinese authorities still have considerable policy space.
- Total deficit (on and off budget) shrank in 2015, as authorities clamped down on deficit financing through special vehicles by local governments.
- Now that this has been done, fiscal thrust in 2016 will be broadly neutral.
- On the monetary front, China has room to cut required reserve ratio, and everyone expects it to do so again
  - As it did most recently at the end of February.
- More generally, it can instruct banks to lend.



Hard landing scenario

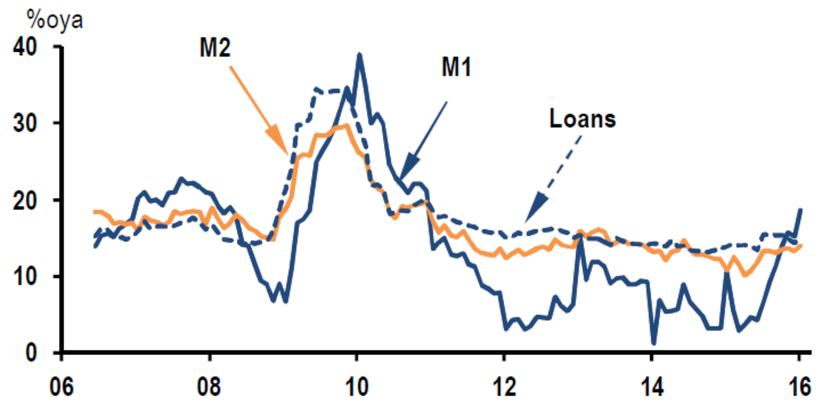
- Corporate debt is a huge problem.
- At more than 150% of GDP, China's is one of the highest ratios of corporate debt to GDP in the world.
- Lots of excess capacity in heavy industry. Eliminating it will force much of this debt to be restructured, causing major financial problems.



Hard landing scenario

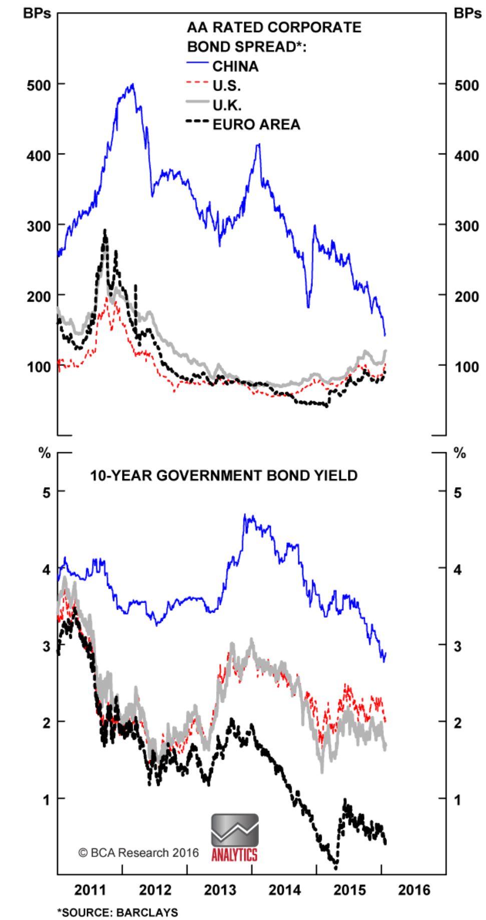
- For the moment, moreover, credit creation remains on an unsustainable trajectory.
  - We learned a couple of weeks ago that credit growth surged to a 17 month high in January, presumably reflecting official fears that growth was slowing too fast.
- With nominal GDP rising by 7-8% and credit growing at twice that rate, it not clear how the debt/GDP ratio will be stabilized, at least on the current trajectory.
- The result will be a financial crisis sooner or later.

Figure 1: China money supply and loan growth



But there is no sign of this hard-landing scenario yet

- So far, slower revenue growth has produced only limited defaults – and limited fear of defaults among investors.
- Spreads on corporate bonds (over governments) have always been higher in China than in the advanced countries.
- Bond yields have barely ticked up.
- Investors evidently remain confident that the authorities have room to help and that they will use it.
- But this also fans worries that in doing so they will store up additional problems for the future.

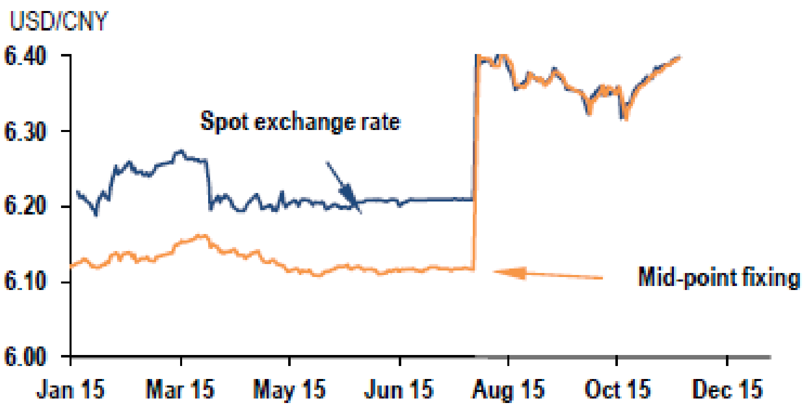


So I find myself betwixt and between

- I am more inclined toward the soft landing camp in the short run.
- I am more inclined toward the hard landing camp in the long run.
- This means that policy makers in the US (and Chile) still have some time to prepare for the eventual hard landing in China.
- But they had better use it.

Then there is that exchange rate problem

- Botched August 11th devaluation/reorganization.
- 3% December/January depreciation against the dollar.
- Both sent tremors through world markets.
- The question being why…

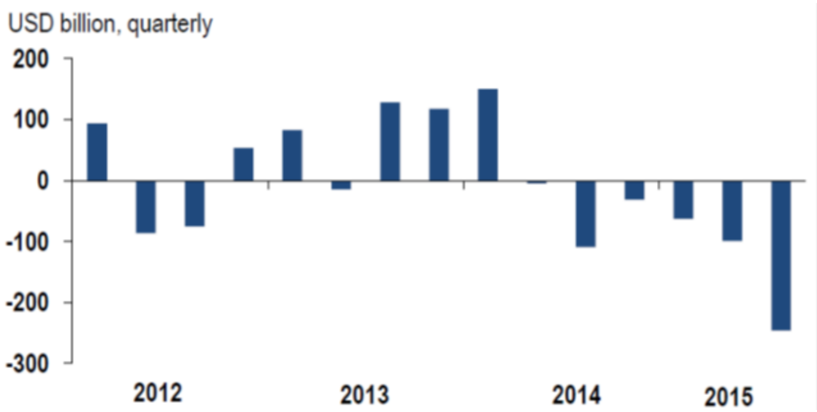


Alternative interpretations

1. This was just a poorly communicated shift from a dollar peg to a basket peg and from a relatively rigid peg to a slightly more flexible peg (somethings euphemistically called a ‘dirty float’), all of which was sensible.
2. Growth was slowing much more rapidly than the authorities had let on, rendering them anxious (read ‘desperate’) to boost exports.
3. The policy shift was driven by capital outflows, which made supporting the old regime prohibitively costly (in terms of reserves).

My view

- As I explained earlier, my guess is that the Chinese economy is not crashing. So I don't buy the idea that the depreciation signals that the authorities are covering up a hard landing.
- But RMB appreciation is no longer a sure bet. Nor is the competence of Chinese financial policy makers.
- Residents will continue to want to get money out of the country. Capital outflows (at right) remain a problem.
- This will make for RMB weakness. But RMB weakness will encourage residents to want to get more of their money out of the country.
- Capital outflows and currency depreciation can then feed on one another in a vicious spiral.
- Large capital outflows will undermine confidence in China. And a sharply weaker RMB will not be good for other countries.
  - Currency wars once again.



What, then, to do?
China really has only three options

1. Use foreign exchange reserves to finance large scale intervention (likely > $100 b. per month), stabilizing the exchange rate.
   Though you can burn thru $3 tr. of reserves pretty quickly.

2. Opt for a mega-devaluation (> 20% against the dollar), moving the RMB back to very competitive levels and creating the expectation that it can only strengthen.
   Though no guarantee of creating that favorable expectation.
   And this option is not good for the rest of the world.

3. Tighten capital controls.
   And put relevant domestic reforms in place in the meantime.
   (Though this would be a significant setback for RMB internationalization.)

My guess?

- They will opt for #3 (controls).
  - Indeed, they have already imposed a 20% reserve requirement on financial institutions trading foreign exchange forwards, and ordered banks and financial institutions to monitor the practice of over invoicing imports. They have cracked down on individuals using other people's RMB 50,000 quota for foreign exchange quotations, and on purchases of insurance products in Hong Kong using renminbi.
  - Governor Zhou expressed his skepticism about controls in an interview a couple of weeks ago. But should be believe him?
- Is this a disaster? Not in my view. There are more important objectives than RMBI. But it does raise the question of whether China can be counted on as a source of global liquidity anytime soon.

But what if neither the euro nor the renminbi steps up?

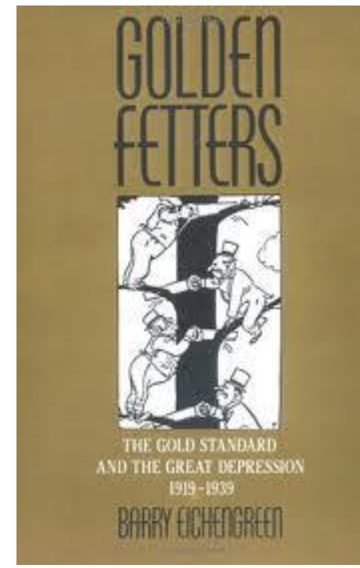
- In this case the world will have no choice but to rely on dollars for international liquidity.
- But, eventually, the capacity of the United States to supply them will be cast into doubt.
- Or it could shoot itself in the foot as early as February, causing confidence in the dollar to be lost.
- This would be the worst of all worlds, where investors lose confidence in the dollar before alternatives have time to emerge.

The world economy would be starved of liquidity

- Trade credit becomes harder to obtain.
- Cross border lending and borrowing become more costly and difficult.
- Central banks unable to find an attractive form in which to hold reserves tighten controls on cross-border transactions.
  - In short, 21^{st} century globalization would be placed at risk.

This is what happened in the 1930s

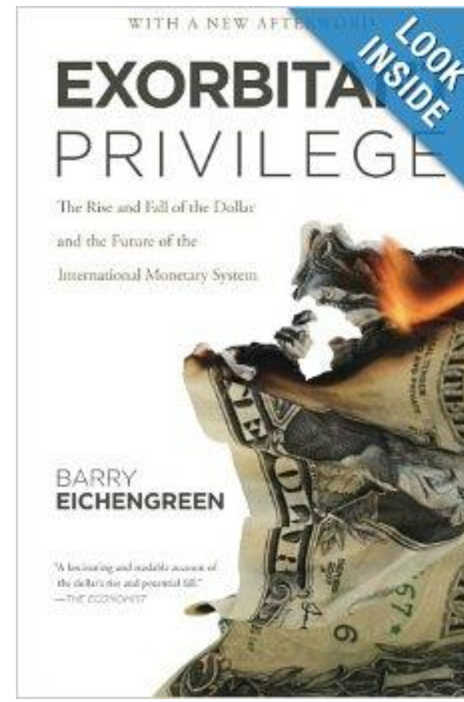
- There were two international currencies: sterling and the dollar.
- But in 1931 there was first a sterling crisis and then a dollar crisis.
- By the end of 1931 central banks had liquidated fully half of the foreign exchange reserves that they had held at the end of 1930.
- They all attempted to flee into gold.
- But there was only so much gold to go around. They raised interest rates in a desperate effort to attract it.



The result was a deflationary crisis

- International lending collapsed.
- International trade collapsed.
- The first era of globalization came to an abrupt end.
- And, of course, the deflation and financial distress that followed was made the Great Depression so great.

- So we have to hope that this worst-case scenario is avoided and the more positive conclusion to which I came in my book proves to be correct…



- Thank you very much.