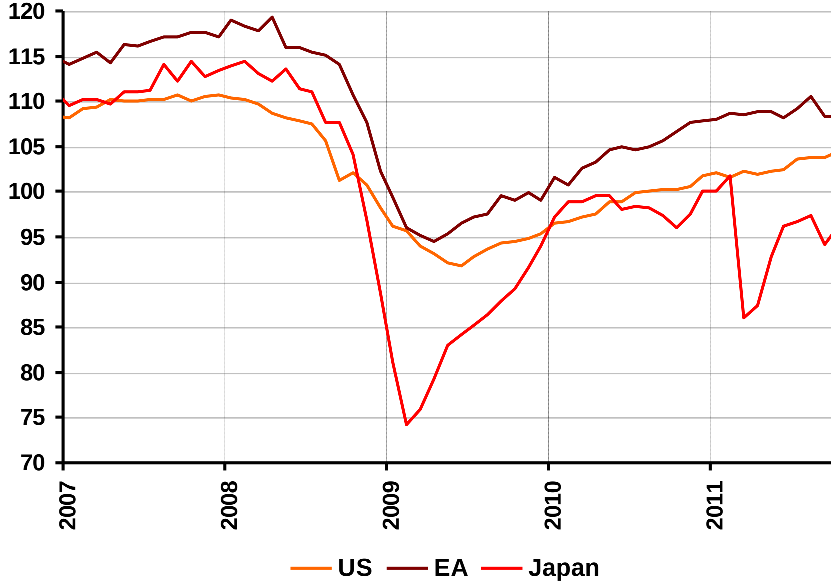
Global saving deficit and financing infrastructure in BRIC economies

1. The World Economy 2012: New Cycle Means New Risks?

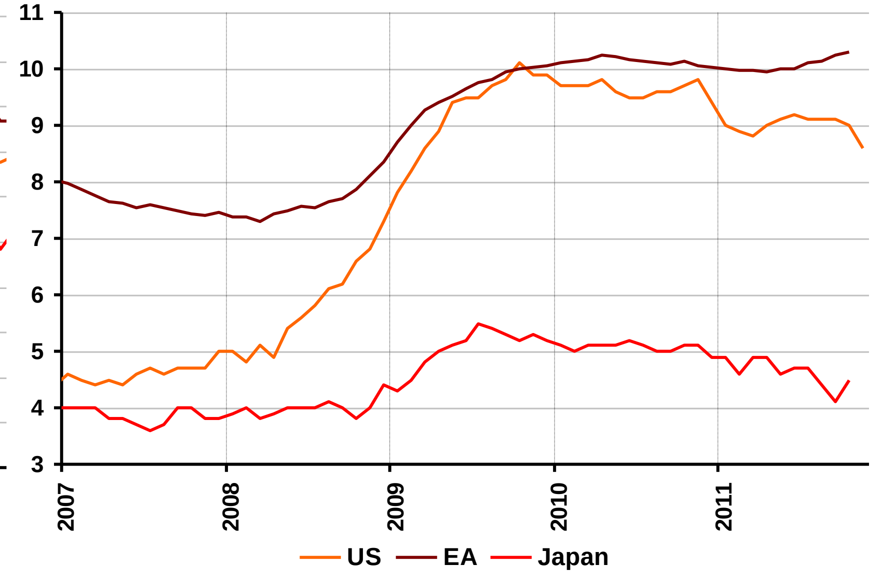
- ✓ Developed economies for a year stand on the brink of new economic cycle
- ✓ But the progress falters under the burden of government and financial sector problems, provoking risk aversion for investors
- ✓ Most likely, the cycle will proceed as new, and these problems will stay unresolved, bound to turn up later

1.1. Industrial production, 01/01/2000=100



Source: IMF International financial statistics

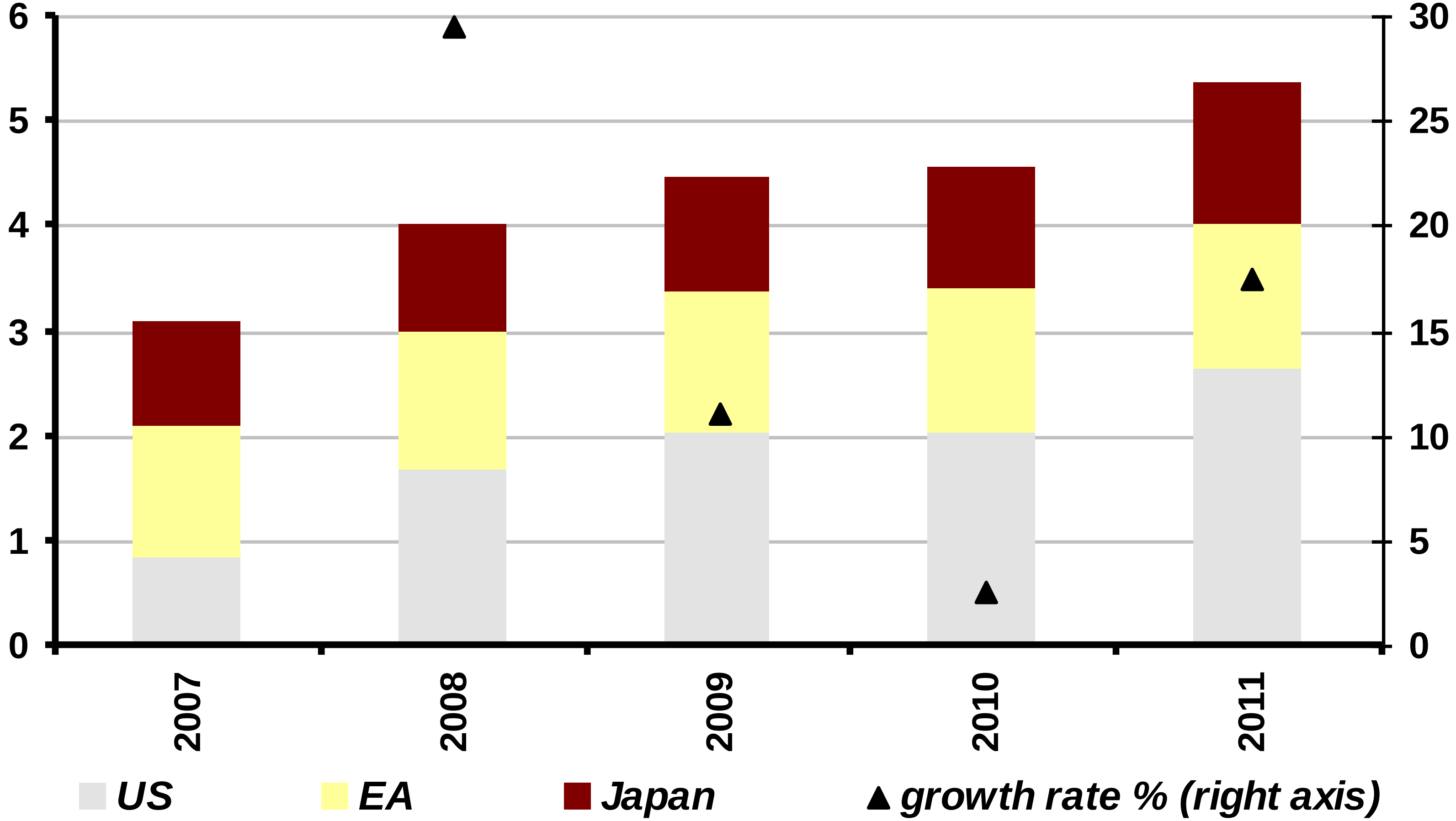
1.2. Unemployment rate, %



Source: IMF International financial statistics

While unsure, the recovery in developed countries is slowly proceeding, the US heading headfirst and both Japan and EA lagging

1.6. Total money base of largest developed countries, US$ tn



Source: IMF

The money base central banks issued most likely would stay even as the credit multiplier increases

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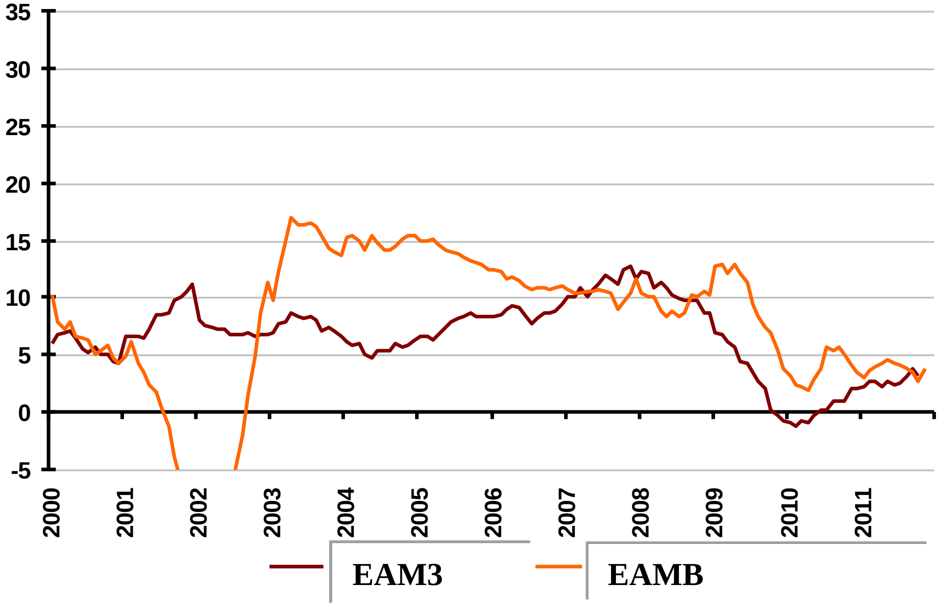
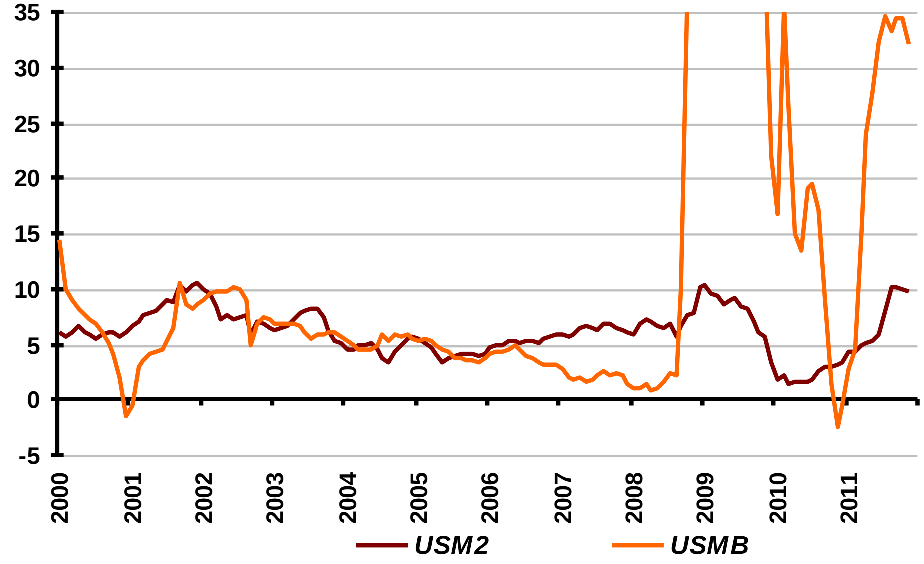
1.3. EA MB and M3 growth rates, % yoy



Source: ECB

1.4. MB and M2 growth rates, % yoy

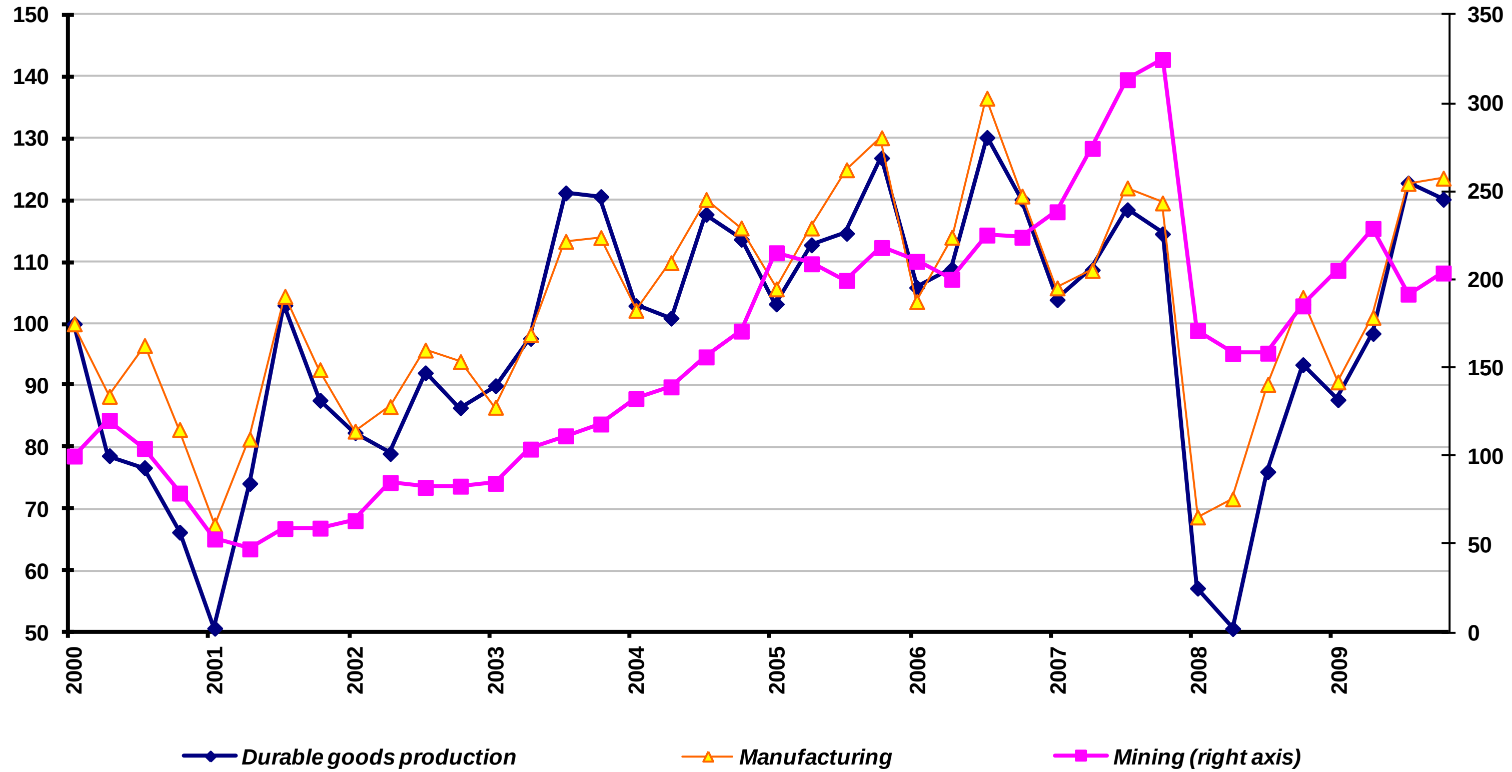


Source: Fed

So far, the multiplier stays very low, though some increase in US is visible

- ✓ Corporate debt ratios for both US and EA are at 10-15-year lows
- ✓ Trade balance stabilization and strong personal consumption in the US in 2011 suggest grounds for new growth cycle
- ✓ Rates of growth in China won’t skyrocket as the government finishes deflating bubble, there are problems with shifting to consumption-based growth, but “low” still means 8+% for China (and not to forget expected US growth)

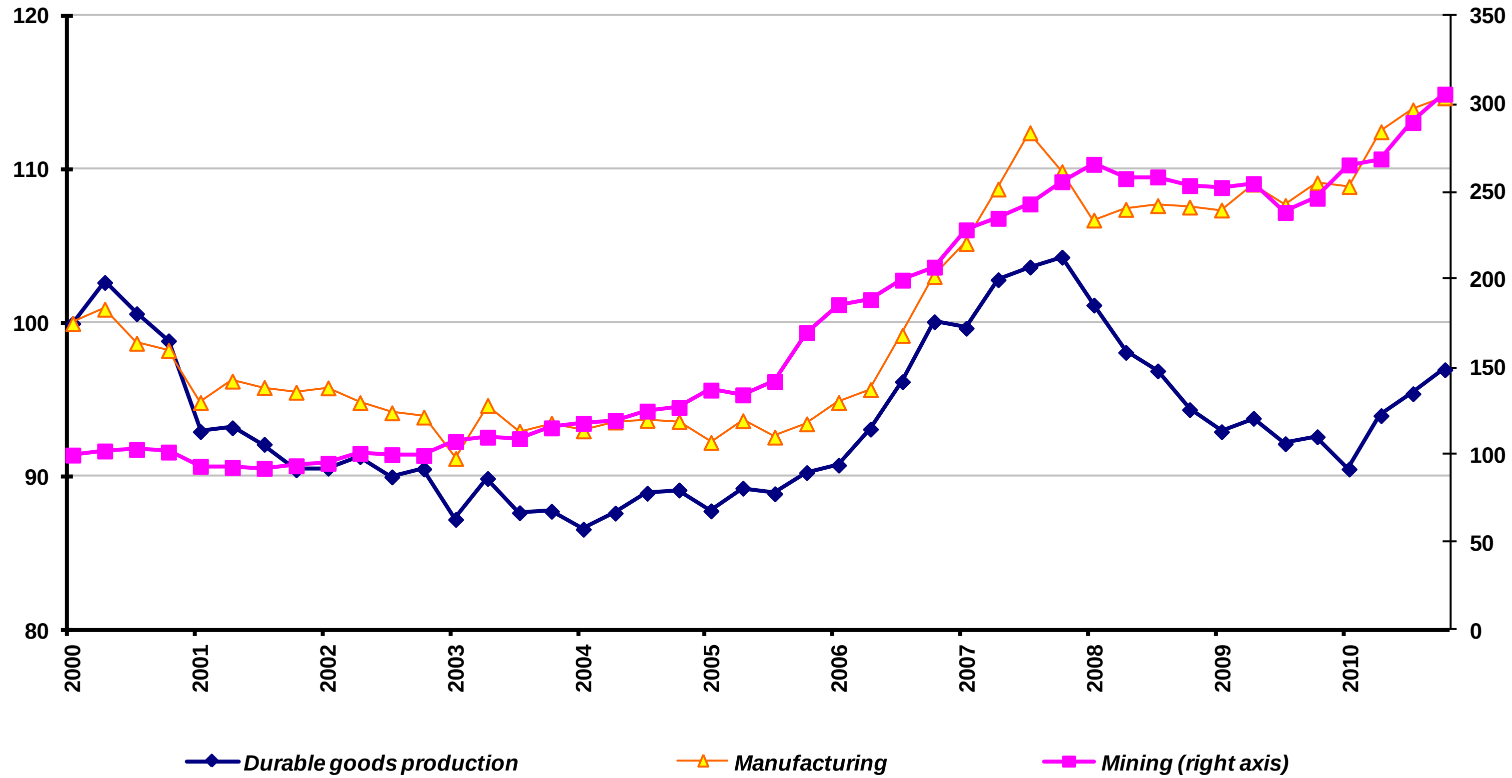
1.6. EBITDA for main US industries, 2000 prices, 31/03/00=100



Source: US Census Bureau

EBITDA for US has recovered, for EA lags behind but not totally subdued

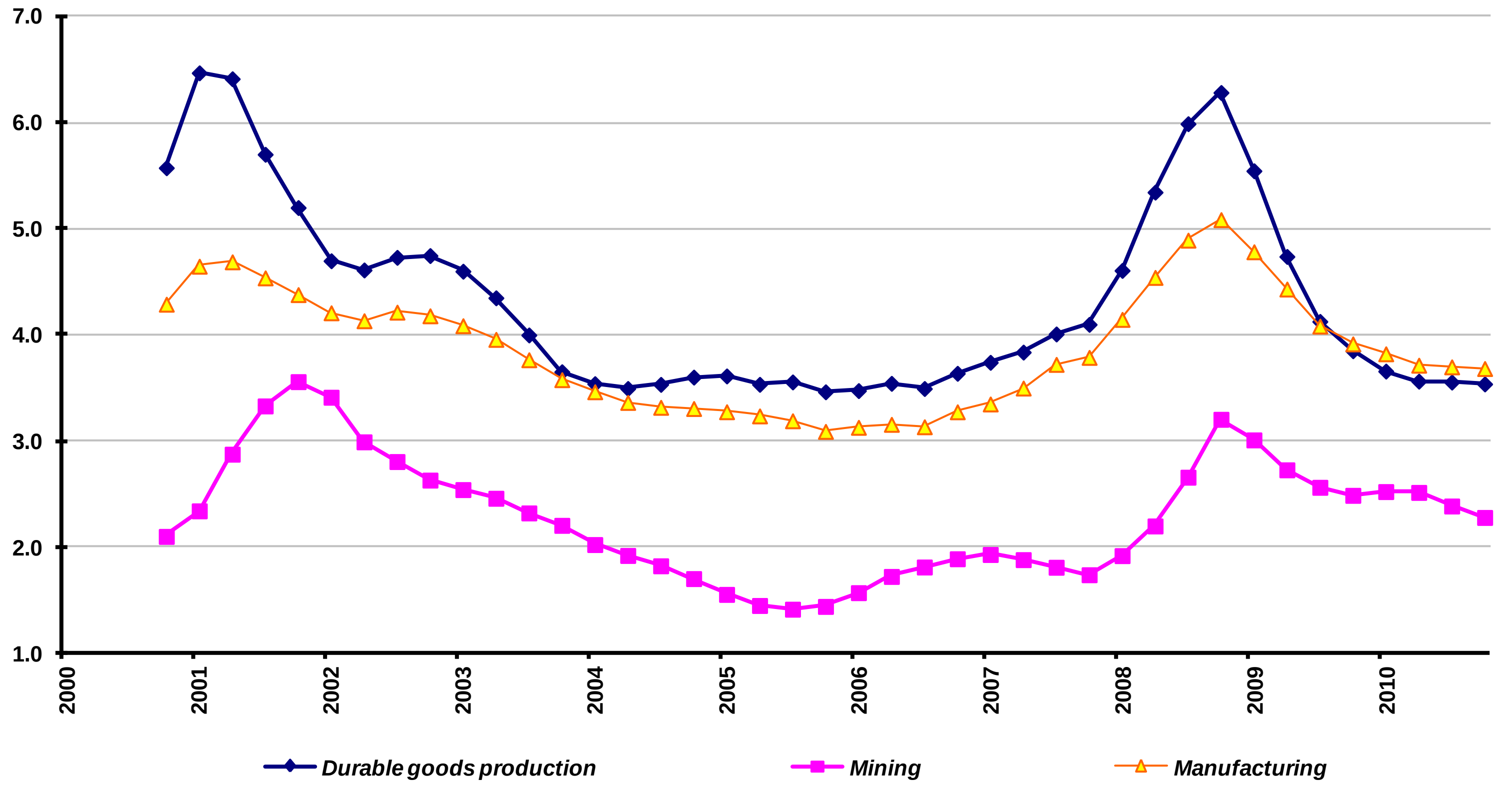
1.7. US corporate debt, 2000 prices, 31/03/00=100



Source : US Census Bureau

…as the debt levels grow steadily…

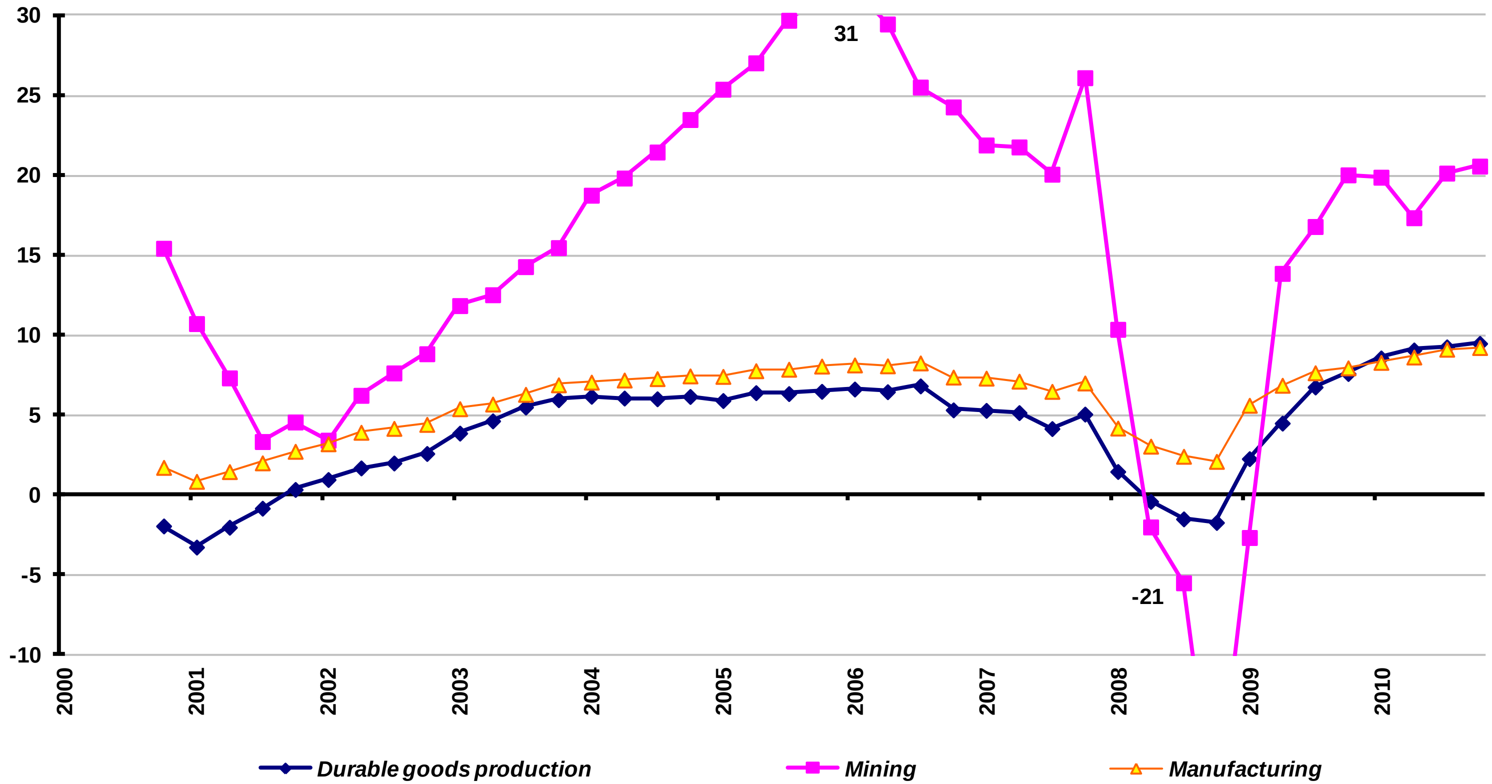
1.8. Debt to EBITDA, main US industries



Source : US Census Bureau

Debt/EBITDA stays at 2000 lows.

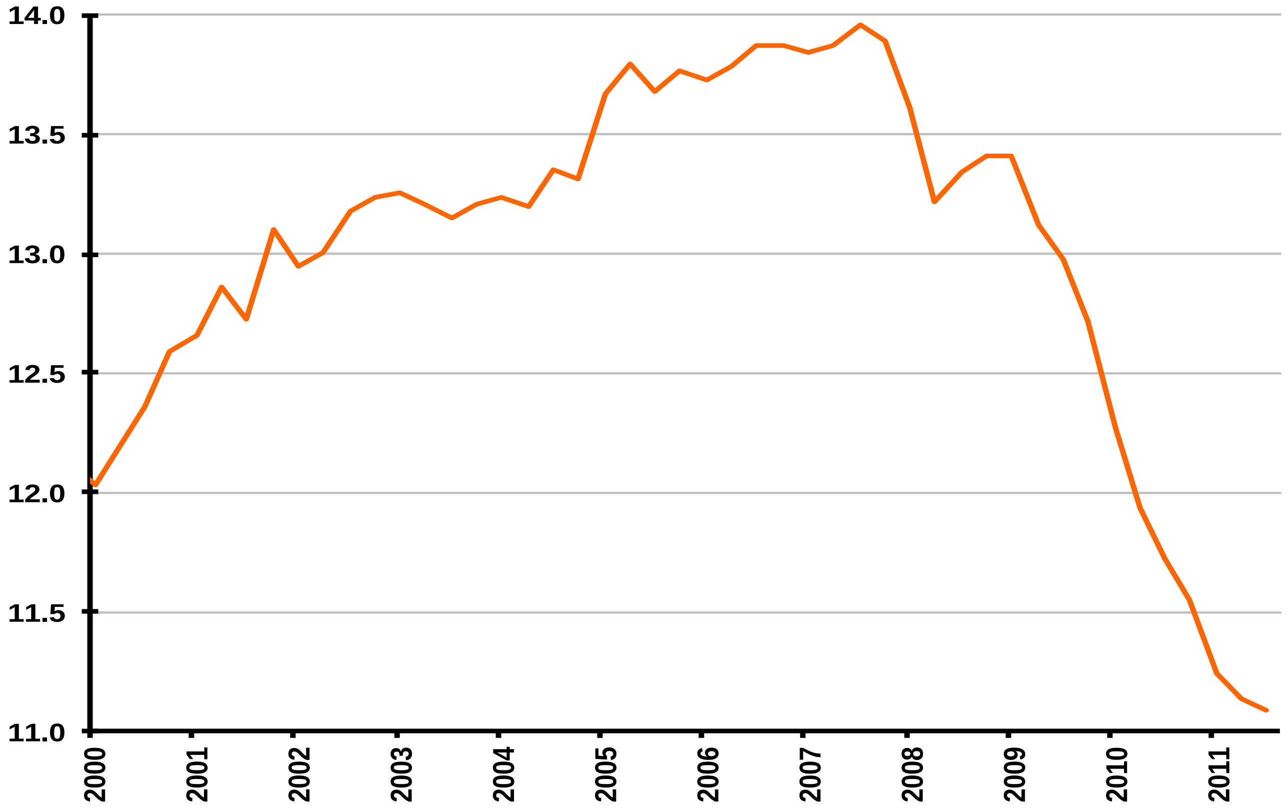
1.10. Profit/Sales in US industries



Source : US Census Bureau

While profitability is already at expansion phase levels….

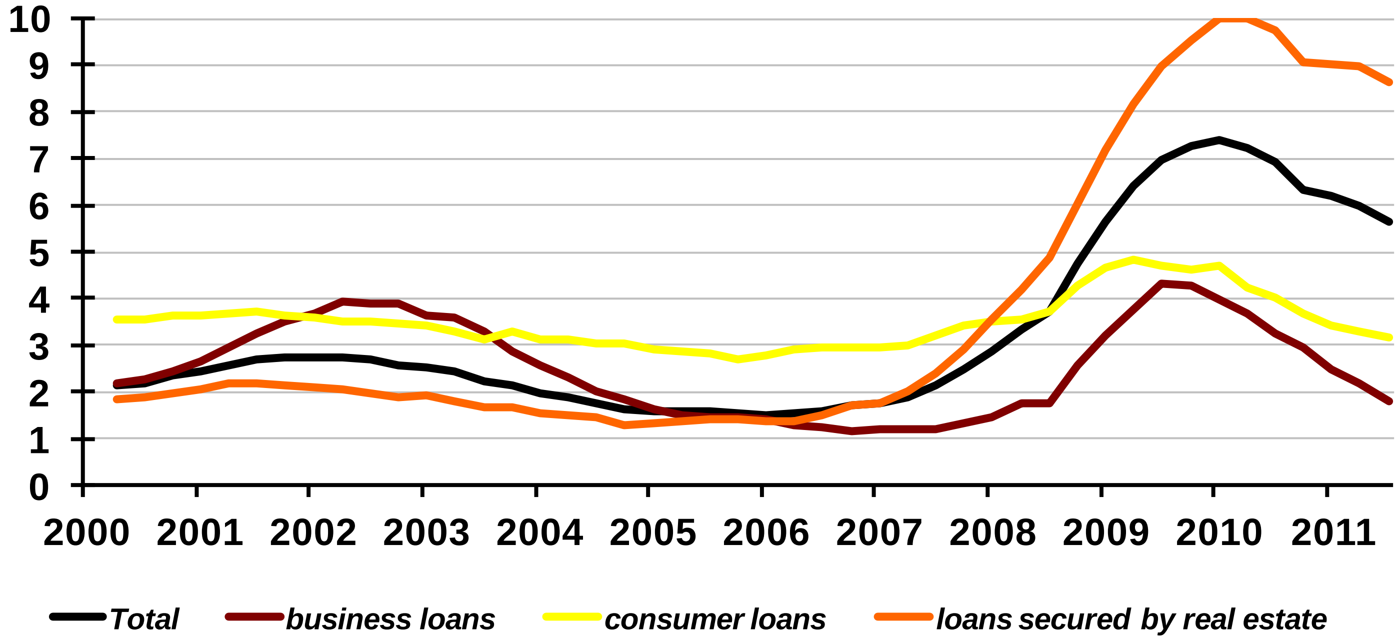
1.9. US household debt service ratios, % of income



Source: Fed

…household DSR has not reached the bottom

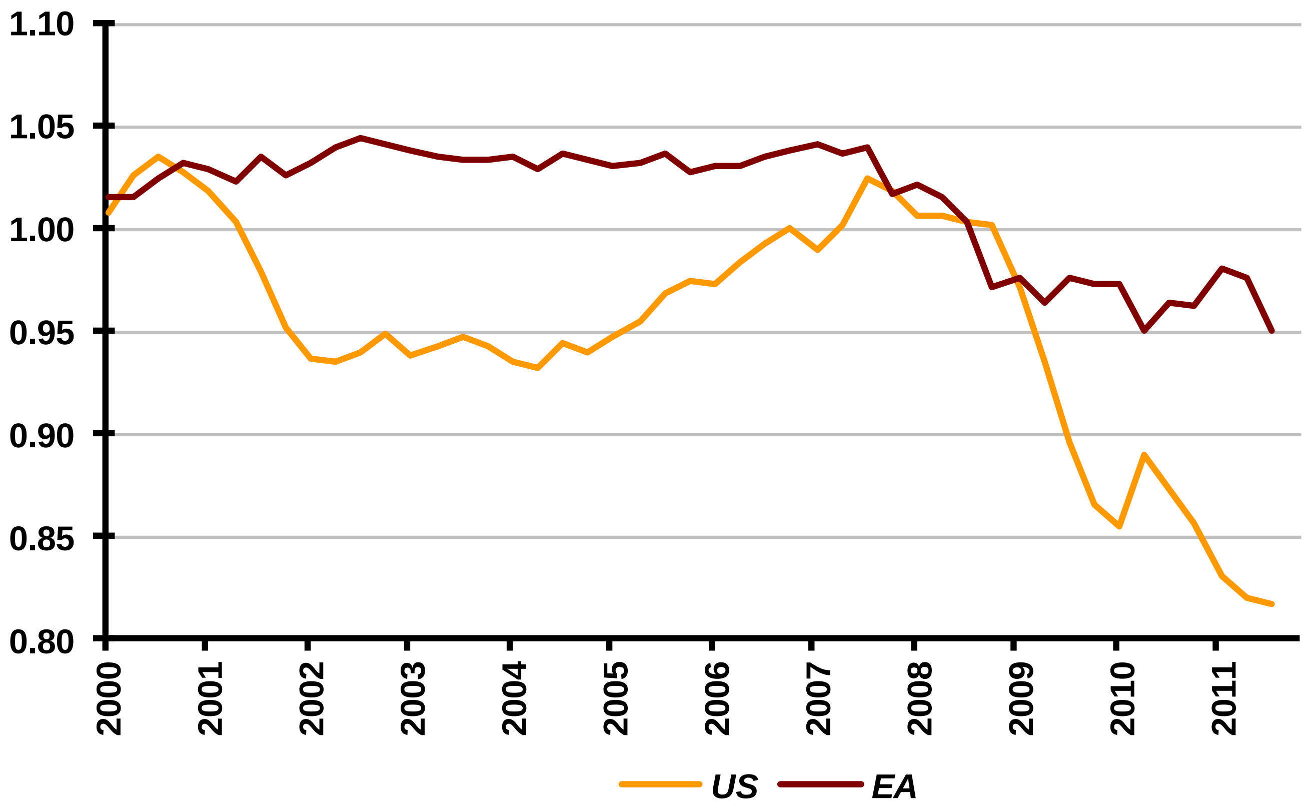
1.10. Delinquent credit in US banks, % of assets



Source: Fed

And the 2008 wall of delinquencies is basically overcome

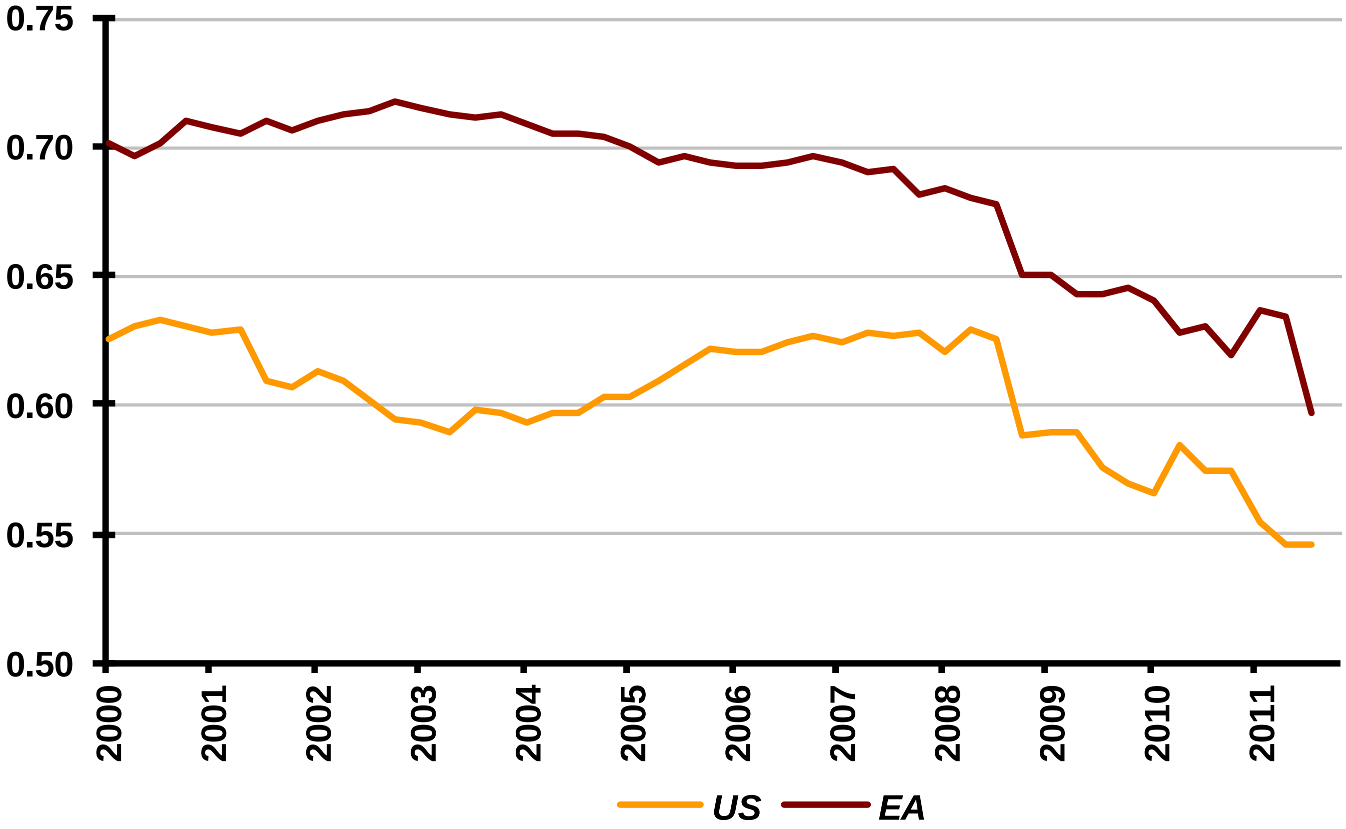
1.11. Loan to deposit ratio



Source: Fed, ECB

At the same time, credit activity at US and EA banks is clearly subdued

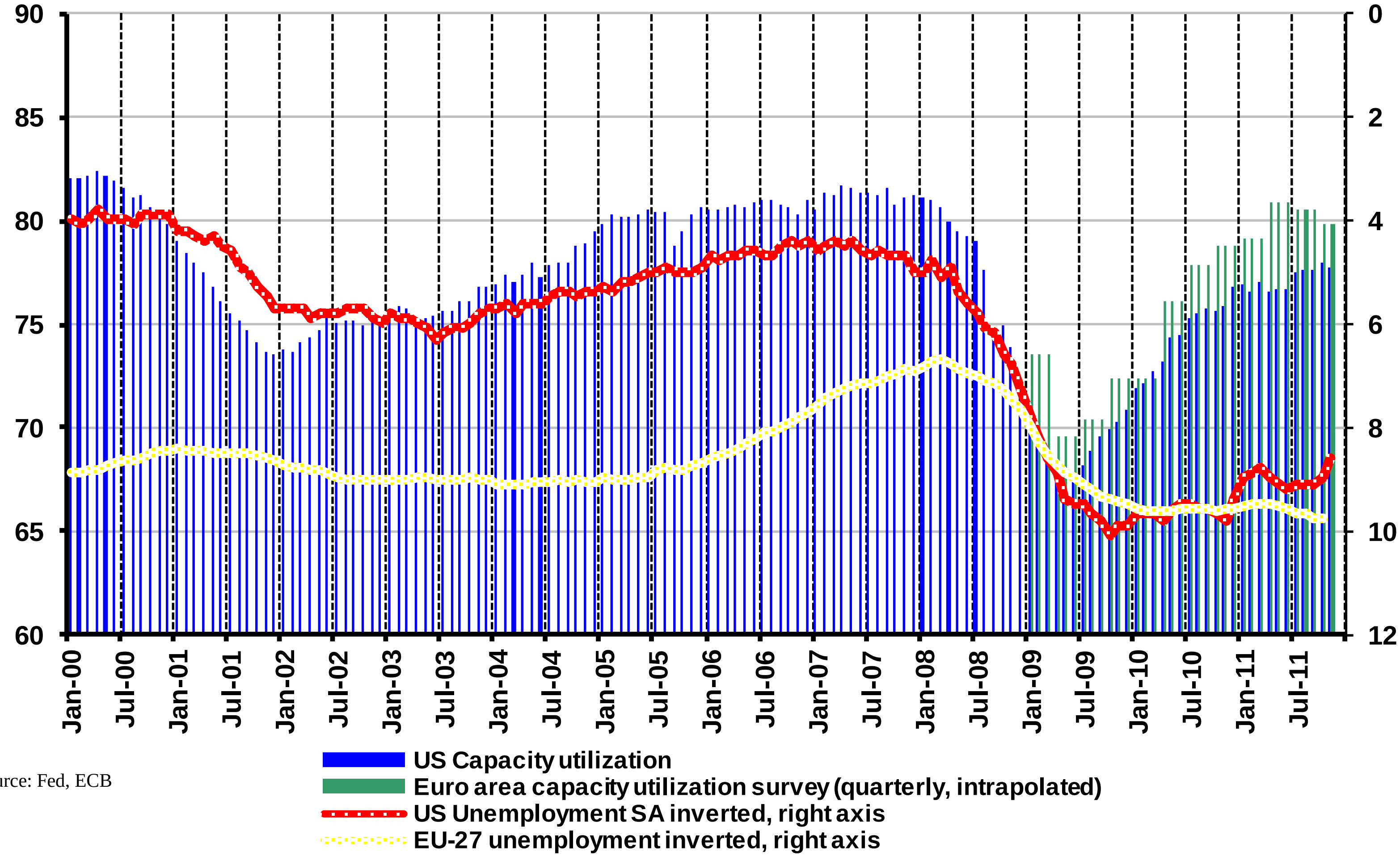
1.12. Credit portfolio as a share of total assets



Source: Fed, ECB

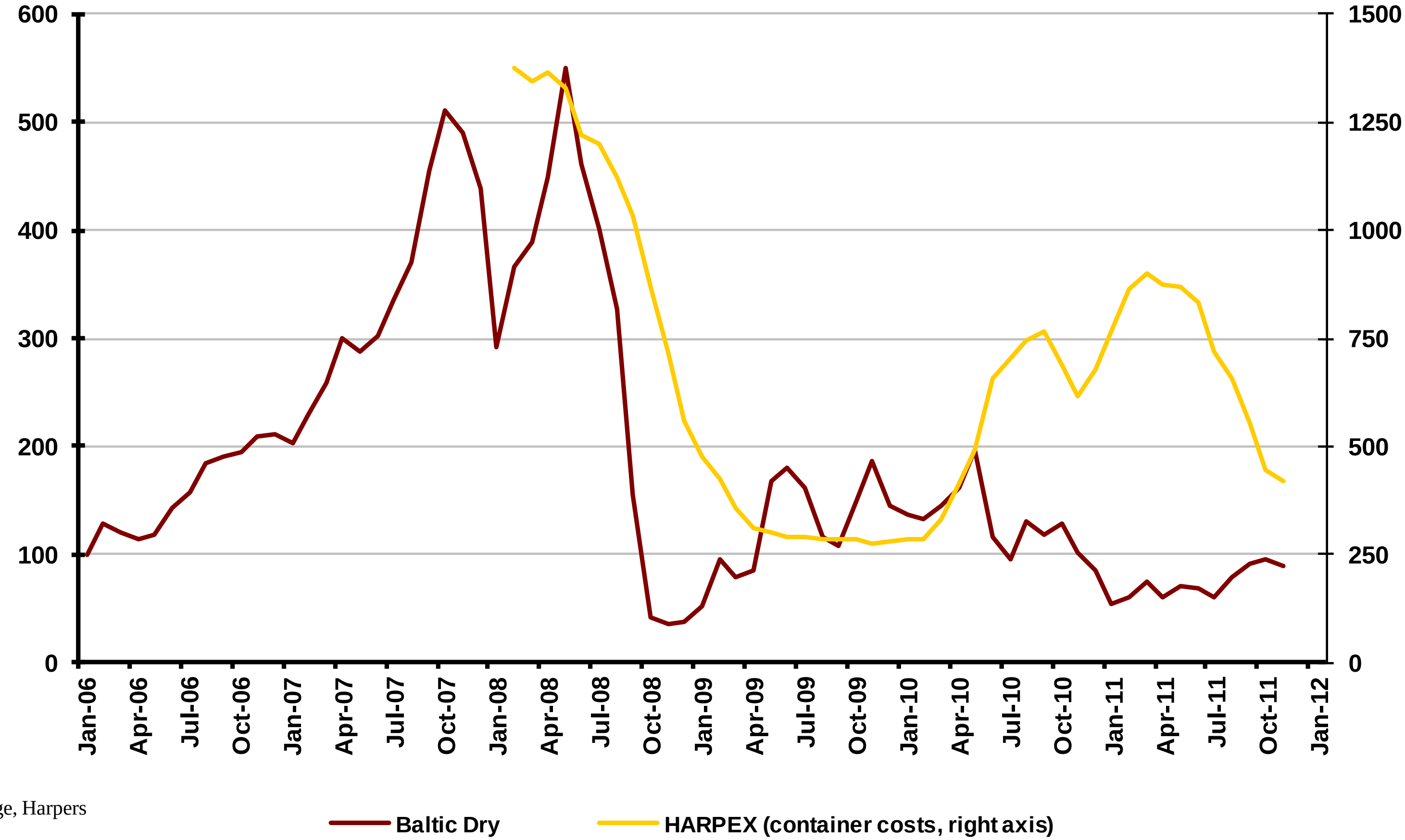
Liquid assets are preferred to credits as risk aversion is strong

1.13. Capacity utilization vs unemployment, %



Source: Fed, ECB

1.14. Baltic Dry and Harpex indices



Source: Baltic Exchange, Harpers

While dry bulk costs were untouched by the slowdown of 2011, container costs were sharply down

1.15. Main economic forecasts for 2012

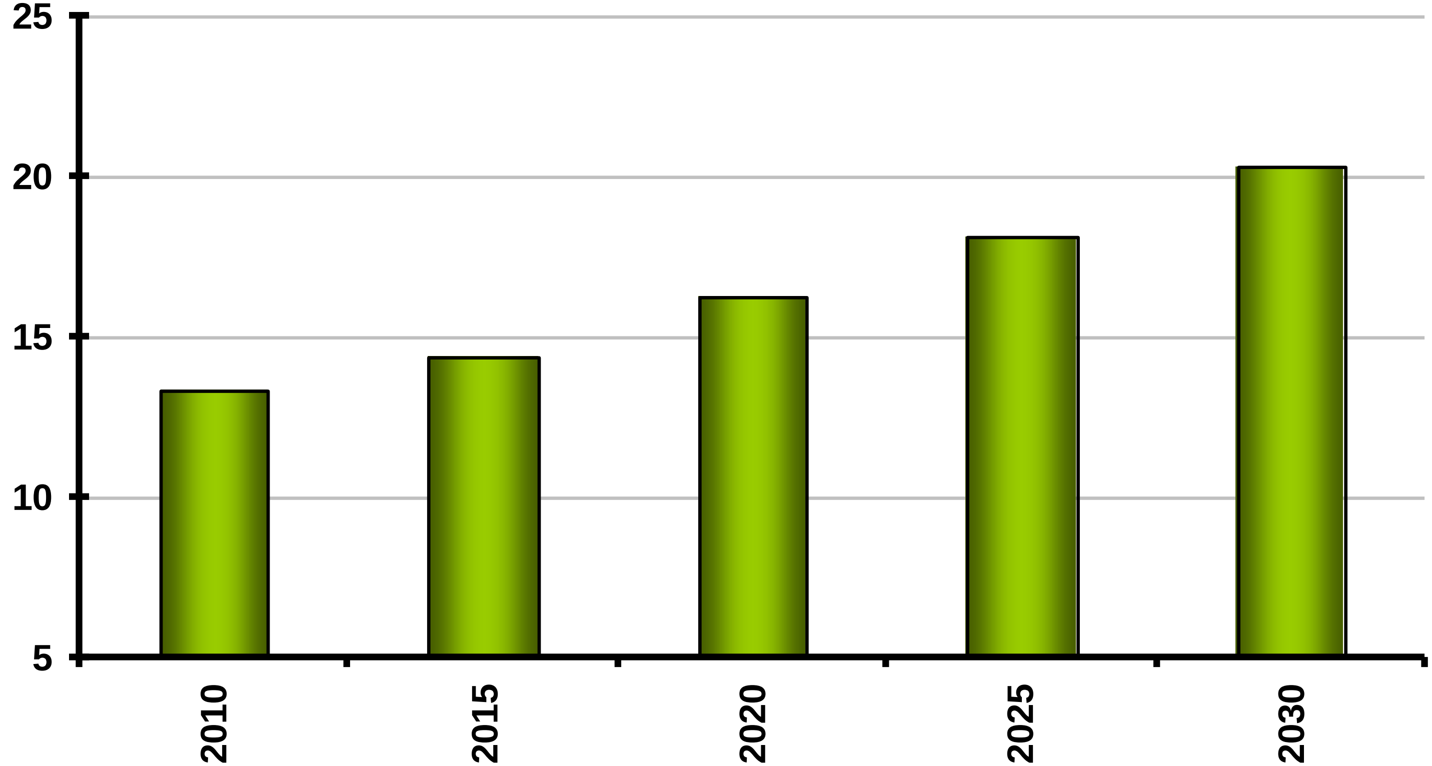
GDP yoy, %	UN	IMF	WB	2011
World (PPP)	3.6	3.3	3.4	3.8
US	1.5	1.8	2.2	1.7
EA	0.4	-0.5	-0.3	1.6
Japan	2.0	1.7	1.9	-0.9
China	8.7	8.2	8.4	9.2
India	7.7	7.0	6.5	7.5
Brazil	2.7	3.0	3.4	2.9
Russia	3.9	3.3	3.5	4.1
Oil, $/b	100.0	99.1	98.2	104.2

Source: UN, IMF, WB

2. Global savings: from “glut” to deficit?

- ✓ Three arguments for less saving in the long-term:
  - ✓ world population ageing, esp. in developed countries, increases retired-to-workers ratio;
  - ✓ losses the pension savings took after the financial crisis of 2008 and probable sovereign debt crises of 2008-2011
  - ✓ forgone investment gains, e.g. negative real rates as a consequence of ZIRP+QE in reserve currencies
- ✓ One argument for less money going to emerging markets:
  - ✓ developed world needs more money to refinance growing public debt and restart new credit cycle

2.1. Retired-to-working ratio, world, %



Source: UN

World population ageing, esp. in developed countries, increases retired-to-workers ratio

2.2. Global liquid financial asset structure, %

	2006		2010	
	$ tn	%	$ tn	%
Equity market cap	55	30.7	54	25.6
Sovereign debt	28	15.6	41	19.4
Financial institutions debt	35	19.6	42	19.9
Nonfinancial institutions debt	7	3.9	10	4.7
Securitised credit	14	7.8	15	7.1
Nonsecuritised credit	40	22.3	49	23.2
Total	179	100.0	211	100.0

Source: MGI.

Losses the pension savings took after the financial crisis of 2008 and probable sovereign debt crises of 2008-2011

“What incentive does a US bank have to extend maturity to a two- or three-year term when Treasury rates at that level of the curve are below the 25 basis points available to them overnight from the Fed?

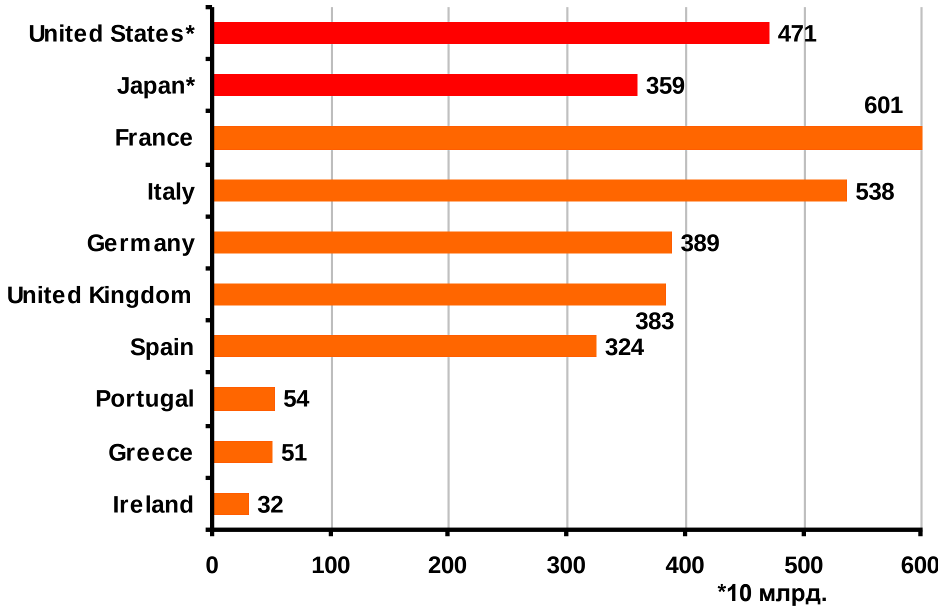
What incentive does PIMCO or banks have to buy five-year Treasuries at 75bp when the maximum upside capital gain is 2 per cent of par and the downside substantially more?”

- Bill Gross, PIMCO

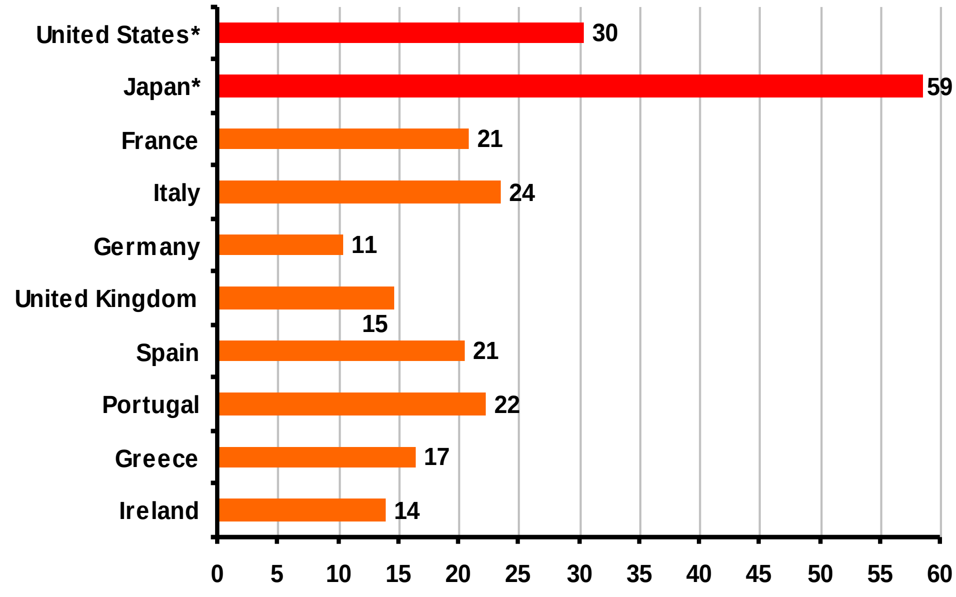
- ✓ As more and more sovereign debt in developed countries needs refinancing, emerging markets will experience outflow of capital sourced in developed markets, i.e. “home bias” for the debt will strengthen
- ✓ This means governments should concentrate on stimulating the potential of internal savings rather than seeking overseas financing, especially financing for the emerging markets

2. Global savings: from “glut” to deficit?

2.3. Financing needs of developed countries in 2012, $ bn



2.4. Financing needs of developed countries in 2012, % GDP



Source: IMF, Fiscal Monitor 2011

2.5. Saving and investment rates avg. 2006-2010, % GDP

	Gross national saving	Gross fixed capital formation	Compare to: FDI*
Brazil	19.3	18.1	2.2
Russia	28.0	20.6	3.5
India	34.2	31.7	2.3
China	52.0	41.9	3.7
Compare to: EU	21.3	20.4	4.1

Not all BRIC countries have internal resources for investment, thus more investment in infrastructure may mean less investment elsewhere except for the FDI increase

*not directly comparable as FDI is part of balance of payments, not national accounts data

- ✓ Can FDI help? Many studies suggest FDI are the source of quality governance and tech transfer, not so much a financing tool
- ✓ For 2006-2010, average yearly FDI inflow into BRIC countries was less than 3% GDP or less than 10% of investment
- ✓ Two differing systems of attracting the funds to long-term investment (including infrastructure) are widespread (e.g. *Walsh*, *Park and Yu 2011*), so-called centralized and decentralized

- ✓ Centralized system is either government investment or its advanced version, directed loan-based:
  - ✓ used in China with public banks+PBC, in Brazil with BNDES (esp.after PAC)+pensions
- ✓ Centralized form reqs:
  - ✓ healthy budget (little evidence of investment in infrastructure to create short-term budget net gains)
  - ✓ concentrated banking system
    - ✓ + creating off-budget development institutions not tied by system-wide banking regulations, like BNDES or VEB
  - ✓ some insulation from external shocks as banking system becomes distorted and vulnerable as it takes on risks connected to directed long-term loans (infrastructure)

- ✓ Decentralized is based on a mature market for long-term debt and equity instruments
  - ✓ Increasingly used in China (highway SPV), much less for Brazil, in the debt part – basic for Chile and Korea
- ✓ Decentralized long-term financing reqs:
  - ✓ Large long-term internal funds (i.e. fully-funded pension scheme or the like) Institutional environment for long-term open market financing
    - ✓ (i.e. market-makers + risk management regulatory practices)
  - ✓ Institutional environment for long-term open market financing
    - ✓ (i.e. market-makers + risk management regulatory practices)
  - ✓ Framework for private involvement (PPP, concessions etc.)

3. The case of Russia – a path to decentralized financing model

- ✓ Gross fixed capital formation rate is relatively low (20+% GDP) for an emerging economy
- ✓ Significant difference (8% GDP) between gross savings and investment
- ✓ Banking system has very small share of long-term deposits, almost all are redeemable at notice
- ✓ Bond market has plenty of long-term bonds, but most long-term have embedded call after 2 years, making them de facto lower-medium-term instead of long-term

- Currently, the system is highly centralized:
  - main infrastructure investment is budget-sourced
  - development institution (VEB) is the primary non-budget financing source
  - almost no long-term debt market
  - most pension savings are legislatively locked into low-yield government bonds
  - banking system is deconcentrated (CR5=50%) while syndication market is underdeveloped
  - rates are unstable due to exchange-rate targeting policy

- ✓ The way to decentralized system is unlocking pension savings and the funds dispersed inside banking system to engage in financing of large long-term projects
- ✓ Market for long-term lending needs to be created:
  - ✓ VEB (DI) should co-finance market-makers both for the long-term bond market and standardised syndicated loan market
  - ✓ The industry standards (lex mercatoria) need to be developed:
    - ✓ Self-regulating organizations (like LMA/LSTA/ APLMA), debt covenants
    - ✓ Market makers are instrumental in creating the market

- ✓ As the market makers emerge and long-term bond and credit syndication secondary markets (e.g. by using credit mutuals) are made liquid:
  - – money managers (including VEB) may be allowed to use mandatory pension savings to ramp up the markets for syndication and long-term bonds
- ✓ The experience is based on case studies of financial market developments by EBRD (in CEE), KfW (in Germany), BNDES (in Brazil), NAFIN (in Mexico)
- ✓ Solntsev et al. (2011) estimate this will lead to 100% credit syndication market growth in Russia to $25 bn a year in 3 years, at the cost of $15 bn (0.2% GDP a year) in credits, LT bond stimulus is comparable

Conclusions

- ✓ The economy in 2012 looks to the upside and ZIRP is on the side of long-term international investment in emerging markets
- ✓ However, the long-term prospects are more gloomy:
    - ✓ the global savings glut could turn into deficit in 10-15 years
    - ✓ developed markets will consistently need more long-term funds to fix sovereign debt problems than today, ergo home bias for the debt markets
- ✓ Thus, perspectives of international capital going into the infrastructure are not impressive

Conclusions

- ✓ However important, FDI flows and international financing are insufficient to finance long-term investment in developing countries
- ✓ Thus, developing countries should finance long-term development, including infrastructure, out of internal sources
- ✓ The potential for increase in investment is present almost in all BRIC countries

- Most investment in long-term investment projects in BRIC is centralized via development institutions, government funds or pet banking systems
  - pension savings are utilized in China and Brazil, much less in India and Russia
  - elements of decentralized model are present in all BRIC countries, but all of them lack a complete set of elements
  - the decentralized model is an infrastructure in itself, and thus is a long-term prospect to build