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CRISIS: WHAT CRISIS?
REFLECTIONS ON RECENT AND CURRENT EVENTS.

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What I seek to do.

- Entertain (no equations): little of the economics will be beyond econ 100.

- Describe and relate 3 different "crises" : different perspectives on the same big crisis.

  - Crisis 1 2007-8 Banking/financial crisis (New York London)
  - Crisis 2 2008- Unsustainable Deficits.
  - Crisis 3 2009- Eurogeddon: Eurozone crisis.

- After the crisis: Quantitative easing and the merging of fiscal and monetary policy

- 2016: Return to Normal, or Beginning of the End?

Start at the beginning (Econ 100).

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Banks are a financial intermediary. People deposit money in Banks. Banks lend out money (goldsmiths etc).

Fundamental problem of Banks: loans are long term (years), but deposits are mainly short term and can be withdrawn at any time or with short notice. Fragility: only works if people behave predictably and do not make sudden demands for cash. Confidence: bank-runs. Banks make profit by lending out money (interest rate differential), want to keep as little in reserve as possible.

Walter Bagehot 1873**: lender of last resort** – Bank of England. Bagehot's doctrine: provide liquidity to solvent banks at penal interest rate. Worked (Bank held large gold reserves). 1907 San Francisco earthquake led to financial crisis in US: runs on banks, gold shipped over from Britain, JP Morgan sorted it out. 1913 Federal Reserve set up.

Banks' Balance sheet.

- Liabilities: what the banks owe to people (depositors).

- Assets: what other people owe to banks (loans, mortgages etc).

UK retail Banks 2005:

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Balance sheet of UK banks: January 2005

terling liabilities	£bn	%	Sterling assets	£bn	%
ight deposits		(35.7)	Notes and coin	5.3	(0.2)
UK banks, etc.	120.3		Balances with Bank of England		(0.1)
UK public sector	9.9		Operational deposits	0.9	
UK private sector	567.2		Cash ratio deposits	1.8	
Non-residents	71.6				
ime deposits		(34.6)	Market loans		(24.8)
UK banks, etc.	234.9		UK banks, etc	362.1	
UK public sector	10.8		CDs, etc.	62.6	
UK private sector	320.9		Non-residents	110.9	
Non-residents	178.1		Bills of exchange	15.4	(0.7)
ertificates of deposit (CDs)	163.3	(7.6)	Reverse repos	148.2	(6.9)
epos	157.7	(7.3)	Investments	158.9	(7.4)
ther	318.6	(14.8)	Advances	1213.2	(56.2)
			Miscellaneous	79.1	(3.7)
otal sterling liabilities	2153.3	(100.0)	Total sterling assets	2158.4	(100.0)
ther currency liabilities	2791.8		Other currency assets	2786.7	
otal liabilities	4945.1		Total assets	4945.1	

- Most Liabilities are “UK Private sector” and “other banks”.

- Most Assets are Advances and loans to banks.

Balance sheet: Assets = Liabilities. (**Solvency**)

CRISIS 1: FINANCIAL CRISIS.

- Value of assets falls (Bubble burst). Systemic – affected many banks in Europe and US.

The bank becomes in a strict sense insolvent: its current assets worth less than its liabilities. However, timing matters (usually not all liabilities are owed at once). Bank has time to “rebuild balance sheet”. It has to get money from somewhere without creating a liability: profits .

Sell off parts of its operation (in effect what it gets is a payment now for all the expected future profits of what it sells off). Selling assets in itself does not solve the imbalance: it merely converts the asset sold (e.g. land, party of business) into another liquid asset (money). Can improve liquidity, but not solve the imbalance. Only works quickly if the asset sold off was not on the original balance sheet.

Retain profits: cut costs (close down branches etc). Takes time….Japan 20 years. In UK 8 years after the crash and Banks still not lending much.

Also affects Households and firms.

The Bubble. Well covered elsewhere.

We leave the Banks in their state of balance sheet recovery, and move onto the next crisis.

Start with crisis 2: the western deficit problem (part 1)

Then Eurozone crisis 3

Finally return to crisis 2 (focus on the UK and US).

CRISIS 2. The unsustainable deficit crisis.

Post financial crisis, output in most western countries fell. This caused large budget deficits to occur (primarily due to fall in tax revenue).

Let's look at UK first:

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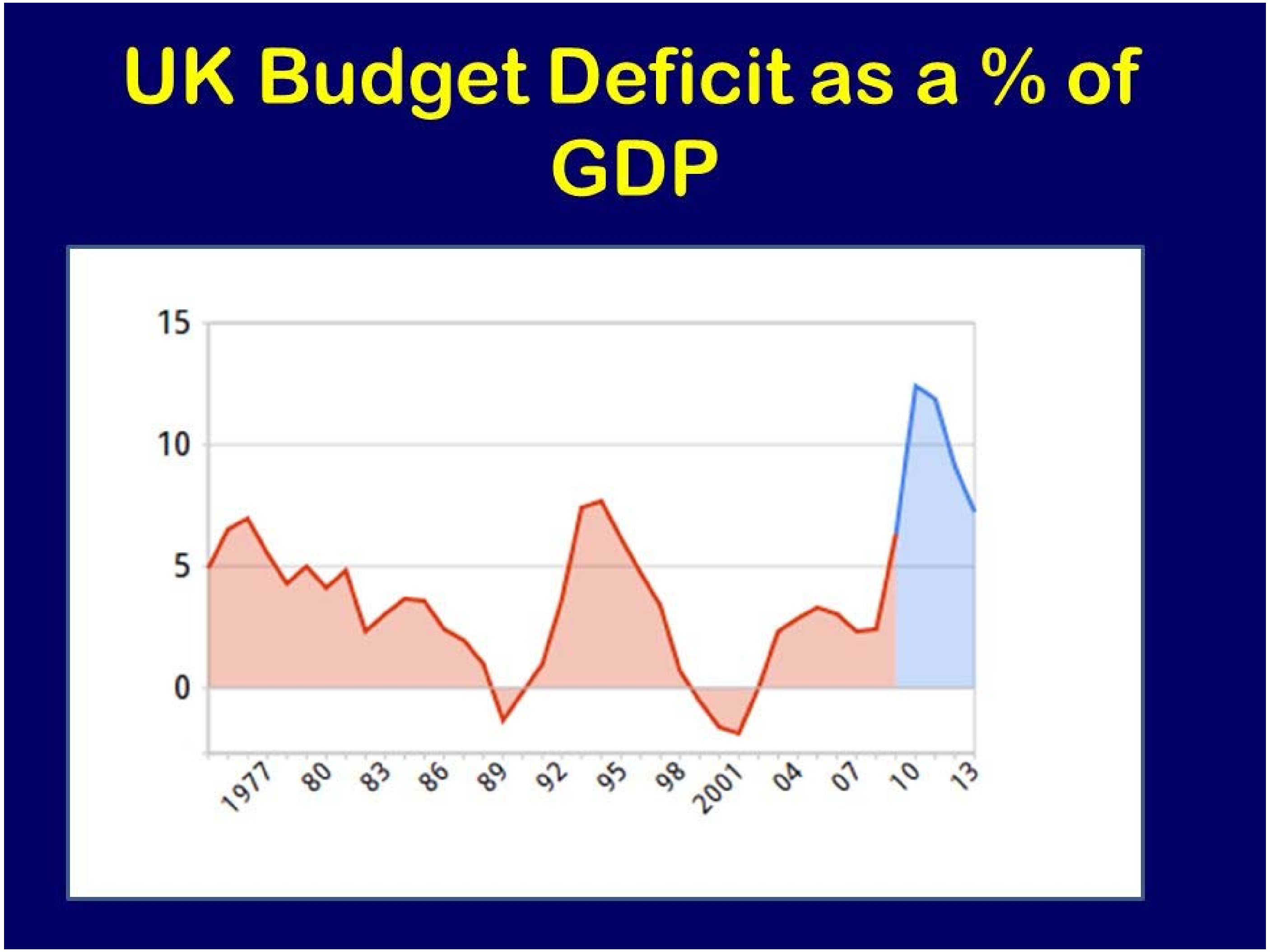

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	1999-2007	2008-2010	2011	2012	2013	2014	2015
UK	-1.4	-8.9	-7.7	-7.7	-5.6	-5.6	-4.4
US	-3.1	-10.9	-9.6	-7.9	-4.4	-4.1	-3.7
Euro area.	-1.9	-4.9	-4.2	-3.7	-3.0	-2.6	-2.0
Germany	-2.2	-2.4	-0.8	+0.1	+0.1	+0.3	+0.6
France	-2.7	-6.0	-5.2	-4.8	-4.1	-3.9	-3.6

First Column: pre-crisis (normal). In range of 0-3%.

Second column: crisis. Big increase in budget deficits in UK and US, smaller increase in Euro area (Germany and France).

Next columns the reduction in deficits post crisis: in 2015 still high, but not exceptional.

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These deficits in 2008-9 seen as “unsustainable”: could not be sustained in long-run.

For example in UK the IMF definition was 11.4% in 2009: completely unprecedented in peacetime (in 1976 when the IMF were called in it was 6%).

Formal definitions…it will cause debt GDP ratio to go above a certain critical level. But historically, what is a “critical level”? Econ 100: (Rinehart and Rogoff….91% ☺).

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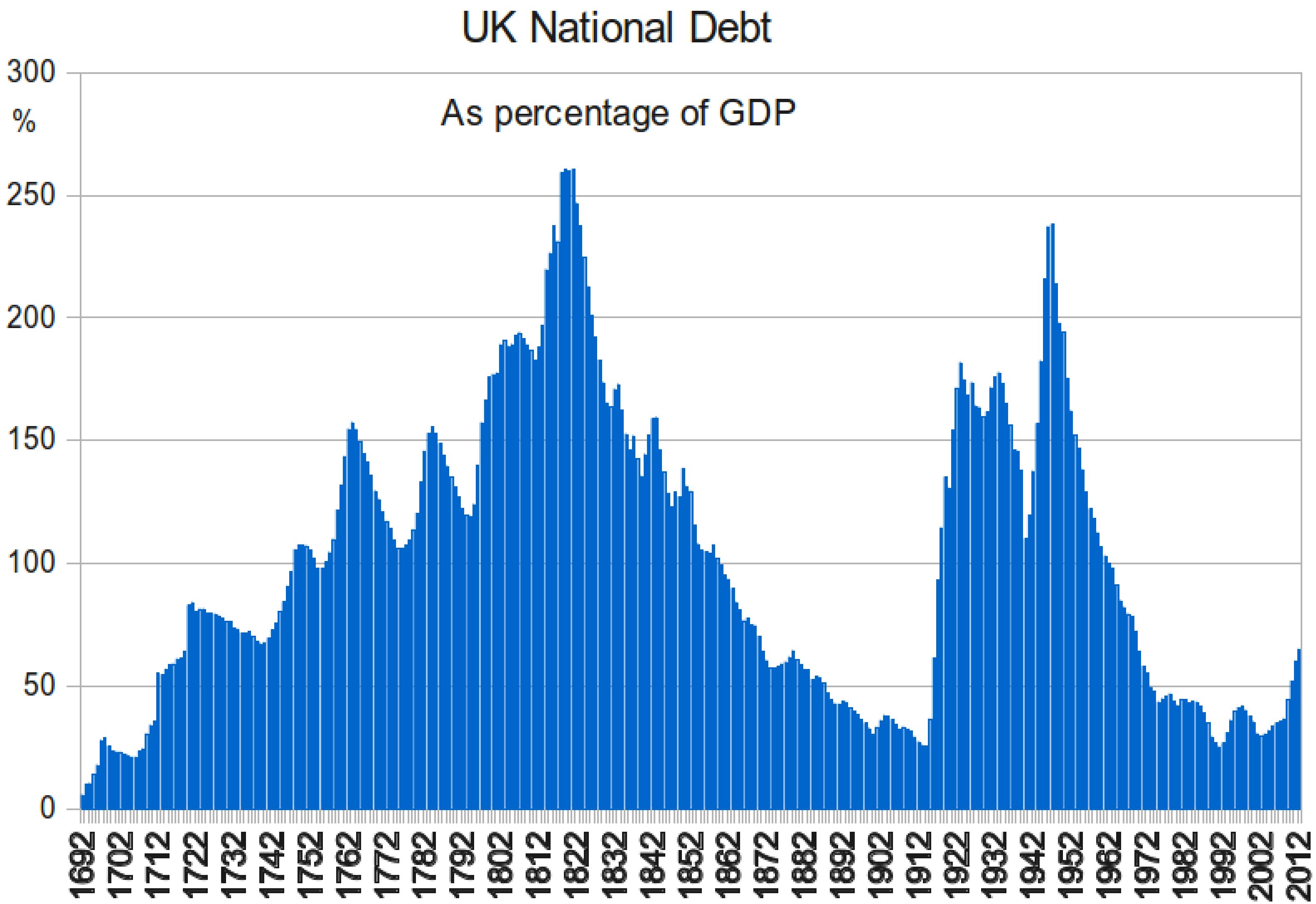

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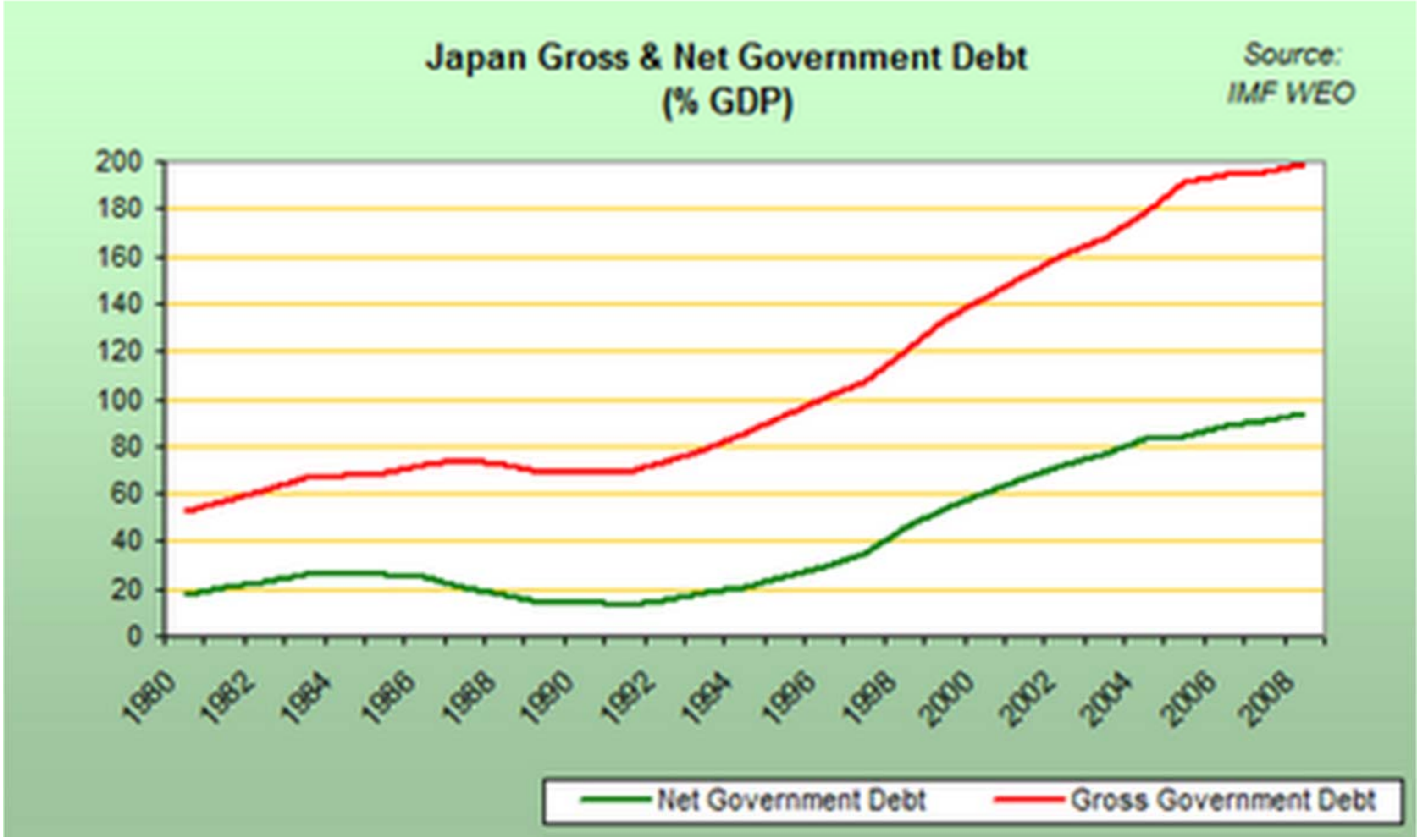
Japan:


Japan Gross & Net Government Debt
(% GDP)
Source:
IMF WEO
200
180
160
140
120
100
80
60
40
20
0
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Net Government Debt
Gross Government Debt

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b

(Gross debt)

Theoretical Maximum:

What is the most the country could afford to pay in interest? What is the long-run rate of interest?

10% GDP, interest rate of 5%: implies ceiling of 200%

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5% of GDP, interest rate 2.5%: same.

Political constraints: limits to taxation. In British history, the attempt to recover costs of seven years war led eventually to American Revolution. Riots and sedition in post-Waterloo austerity.

Peterloo Massacre 1819. (500 killed out of 60,000 in Manchester).

What is current situation?

Debt GDP ratios have increased dramatically in some countries: *IMF Fiscal Monitor* Gross Debt (Net Debt).

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	2008	2010	2011	2012	2013	2014	2015	2016
US	75.5 (54.0)	96.2	99.0	102.5	104.8 (80.9)	105.0	105.8	107.6 (82.2)
UK	52.2 (48.1)	76.6	81.8	85.3	86.2 (77.8)	88.2	89.3	89.1 (80.6)
Germany	66.8 (50.1)	81.0	78.4	79.7	77.4 (53.4)	74.9	71.0	68.2 (46.7)
France	68.2 (62.3)	81.5	85.0	89.4	92.3 (84.6)	95.6	96.8	98.2 (90.5)
Euro area	70.3 (54.0)	84.0	86.6	91.3	93.4 (69.3)	94.5	93.2	92.5 (69.3)
Japan.	191.8 (95.3)	215.8	231.6	238.0	244.4 (124.2)	249.1	248.1	249.2 (129.6)

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In a period of just 5 years, the large budget deficits caused the debt-GDP ratios to increase significantly post 2008. Since 2013 have stabilized (growth and lower deficits).

Germany has the lowest forecast for 2016 68%: every other large advanced economy has a forecast ratio above 90%.

The issue of "Unsustainability" has to do more with the rapid rise the national debt due to large deficits, not the level of debt per se (at the moment).

China	2010	2011	2012	2013	2014	2015	2016
Gross Debt	35.1	35.3	36.9	39.5	41.1	43.9	46.8
Defecit.	0.6	-0.1	-0.7	-0.8	-0.9	-2.7	-3.1

Chinese debt largely unaffected by crisis, but slowdown in growth leading to bigger deficit and Debt/GDP

INTERMISSION.

CRISIS 3: EUROGEDDON.

Euroland in pretty good shape in 2011. Defecit: near to 4%, about half of US and UK. Debt: OK. Balance of payments: surplus (c.f. UK and US deficit).

Defecit/GDP	1999-2007	2008-2010	2011	2012	2013	2014	2015
UK	-1.4	-8.9	-7.7	-7.7	-5.6	-5.6	-4.4
US	-3.1	-10.9	-9.6	-7.9	-4.4	-4.1	-3.7
Euro area.	-1.9	-4.9	-4.2	-3.7	-3.0	-2.6	-2.0

BUT: two factors different…

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1. ECB
2. INTERNAL IMBALANCES.

1: ECB: NOT A CENTRAL BANK.

Two Main features define a modern central bank:

1. Manages national debt (Bank of England 1694)

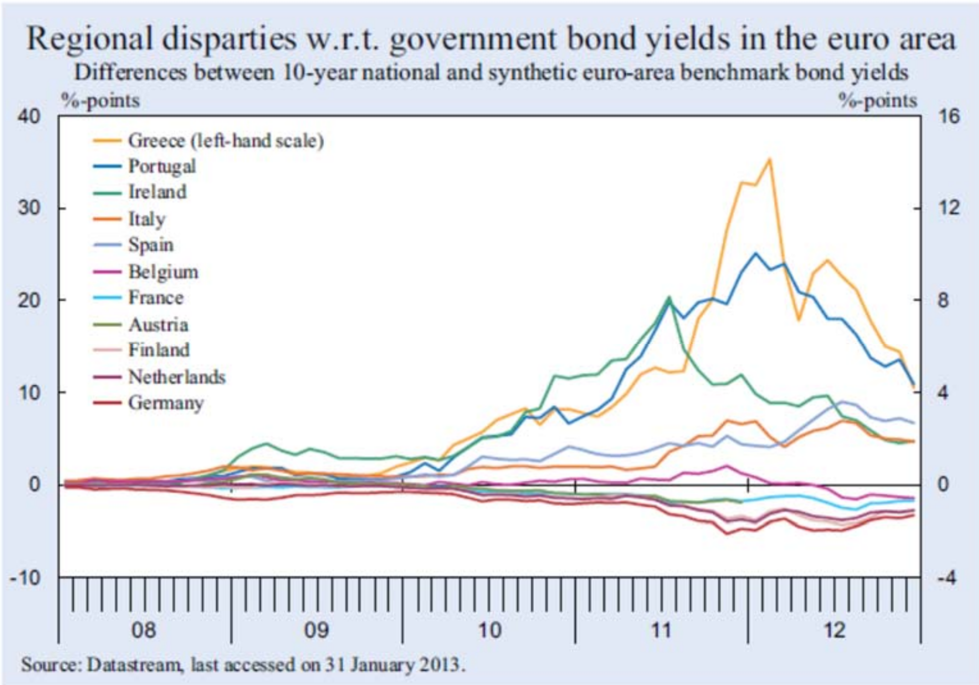
2. Lender of last resort (Bank of England 1873)

ECB was supposed to do neither of these (Maastricht treaty). Just sets interest rates. Eurozone set up to limit responsibility for national debts: each country responsible for its own national debt. ECB no role in managing national debt.

ECB: no direct role as lender of last resort. National central banks fulfil this role, although ECB can support them when they require liquidity. No banking union.

ECB: not able to print Euros. The capital of the ECB is provided by member states and central banks. ECB not a central bank: more of a "European monetary fund" like IMF.

Germans set it up to avoid mutualisation of debt (sovereign or Banks). Historical experiment: return to past. Result:



Because ECB cannot print money, Euro sovereign debt is prone to *liquidity crisis*.

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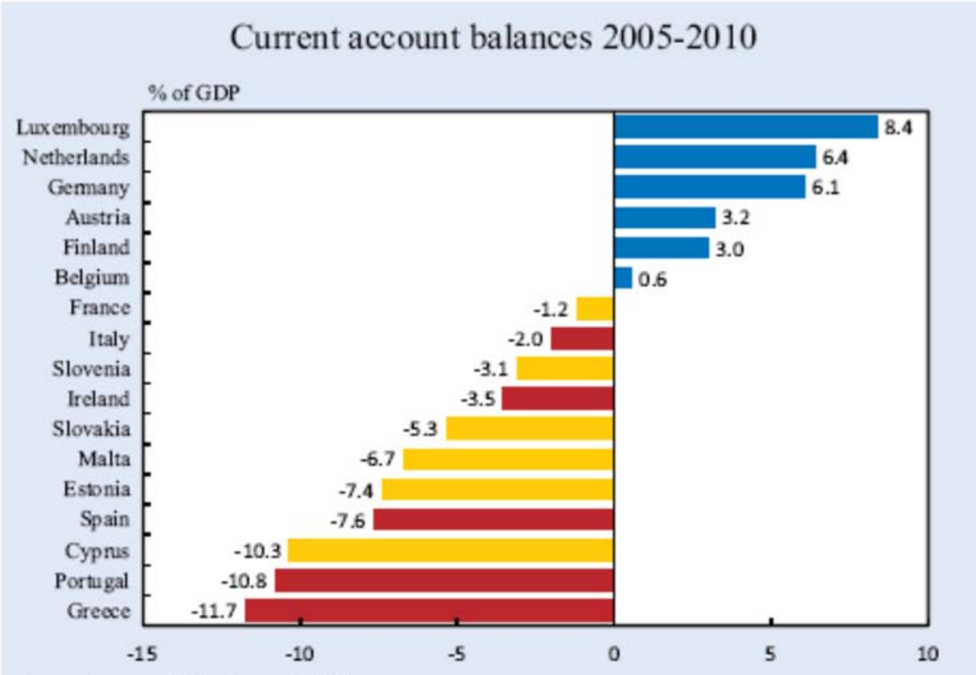
Whilst UK and US can just print money to meet lack of demand for bonds, in Eurozone Italy etc cannot.

Default risk is real (haircuts etc.) and causes interest rate differential (pre-1999 exchange rate risk: post 2008 default risk).

Internal Balance of payments problem.

Figure 2.5



Source: Eurostat, Ifo Institute calculations.

Whilst Euro area in balance as a whole, big internal imbalances. Germany World's second largest exporter: 6.1% NX/GDP. Huge surplus. Spain, Portugal and Greece big deficits.

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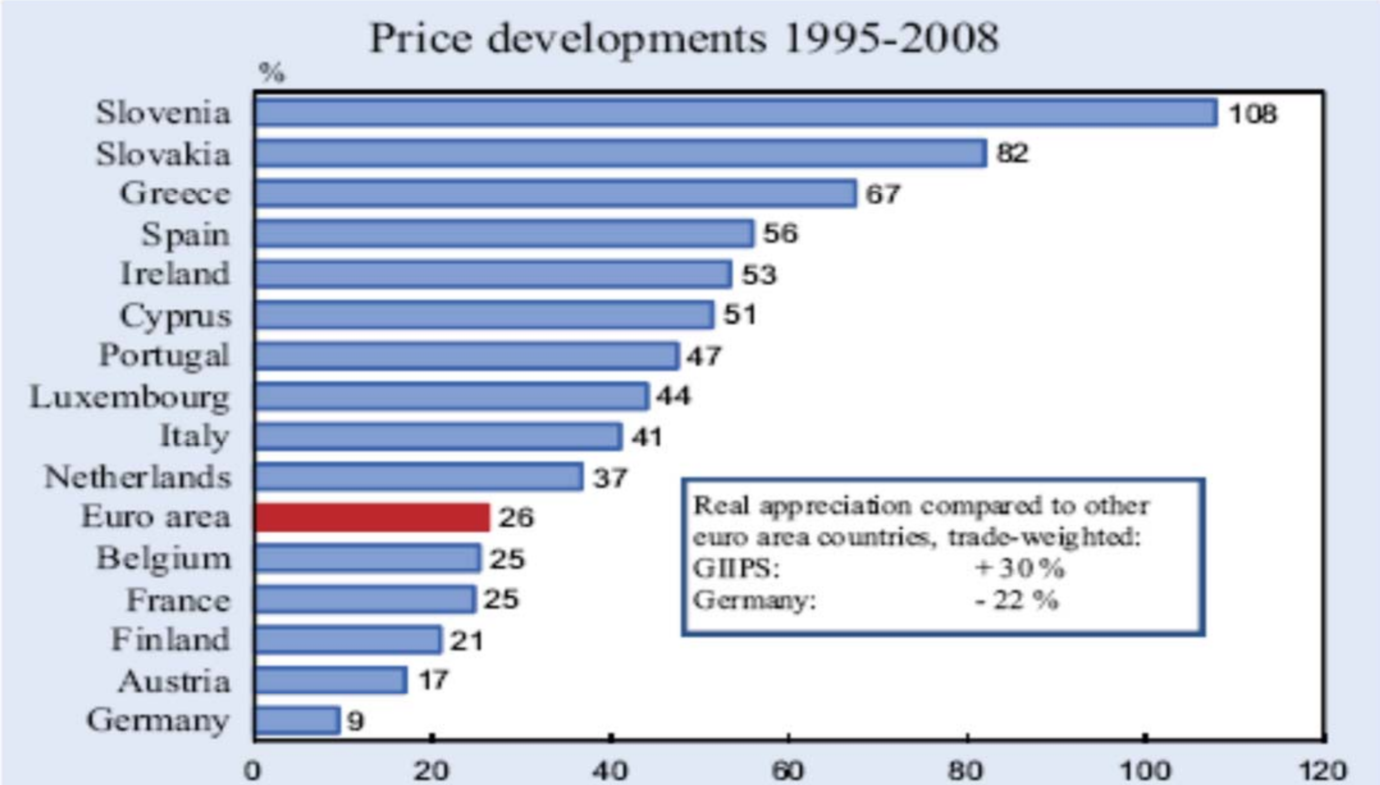
Cause of imbalance: decline in competitiveness of "South" relative to "North".

Figure 2.4



Note: Price change and exchange rate realignments (before May 1998).
Source: Eurostat, Database, *Economy and Finance, National accounts,GDP and main components - Price indices*; Ifo Institute calculations.

What has happened….ECB taking up role, but limits to what it can do without political union.

1. ECB stepped in! "Super Mario" Dhragi. Whilst governments dithered, ECB forced to do something. 6 September 2012 introduced the *big bazooka*:

   Outright Monetary Transactions (OMT): the ECB acts as lender of last resort to governments and buys up sovereign bonds with 1-3 years maturity. Reports of "***plans to buy unlimited quantities of government debt from troubled members of the single currency*.**"

   Not QE: the ECB "sterilizes" bond purchases by mopping up liquidity elsewhere (to mollify Germans. Germans opposed OMT, but did not veto it.

2. ESM agreed: **European Structural Mechanism**. 27 September 2012, started 8th October.

   European Stability Mechanism

   Funded at 90% by governments. A bit like IMF. Euro 500bn.

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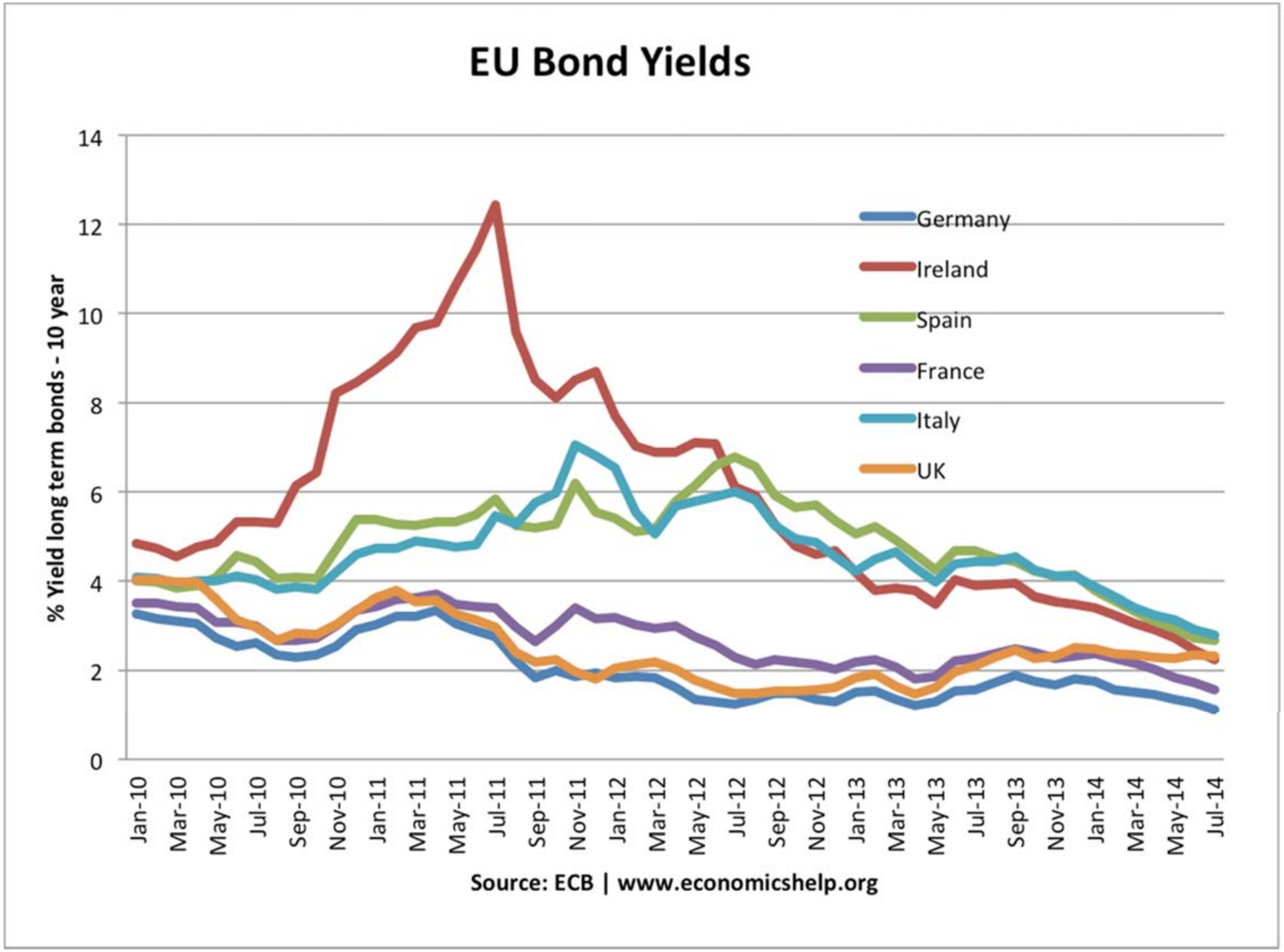
EU Bond Yields
% Yield long term bonds - 10 year
14
12
10
8
6
4
2
0
Germany
Ireland
Spain
France
Italy
UK
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Jan-13
Mar-13
May-13
Jul-13
Sep-13
Nov-13
Jan-14
Mar-14
May-14
Jul-14
Source: ECB | www.economicshelp.org

Euro Conclusion :

Eurogeddon: not caused so much by high debt or overall condition of Eurozone.

Caused by gradual build-up of internal imbalances, coupled with institutional luddism – abolition of central bank and the fact that no institutions set up to deal with internal imbalnces.

All laid bare by increases in deficits, but there already like a ticking time bomb, an accident waiting to happen.

Solution: get ECB to act like a central Bank (Super Mario)

Back to UK and US:

UK Strong *Nominal* GDP growth: 2007Q1 to 2012 Q4 13%. Real GDP: 0%.

UK Inflation (20% devaluation against $ and Euro).

Magic of inflation: debt GDP ratio rises by less…If interest rates kept low.

Effect of inflation: UK debt GDP ratio is about 12% lower due to inflation (2013). Since 2013, effect has not been strong (inflation died away). But may re-emerge?

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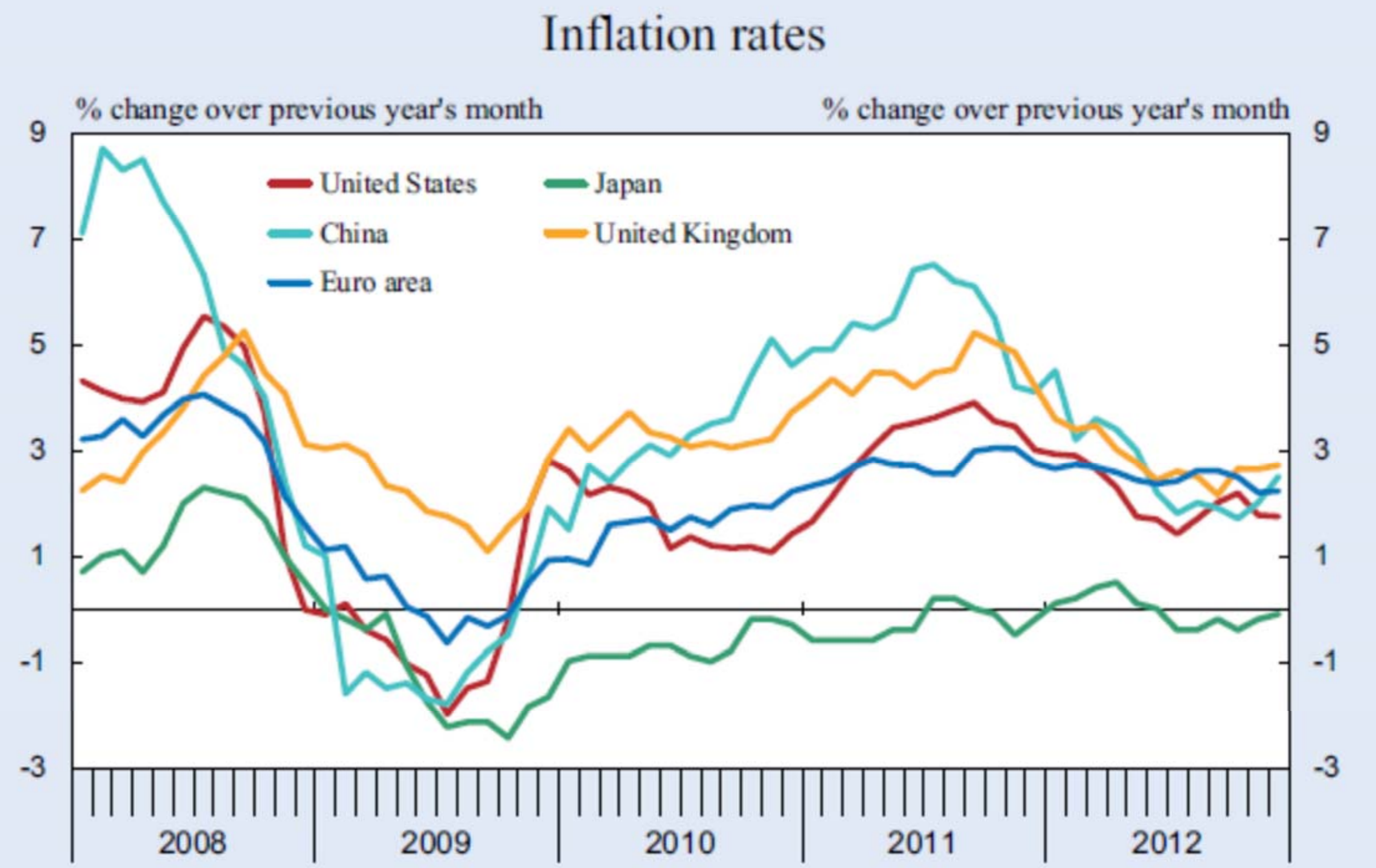
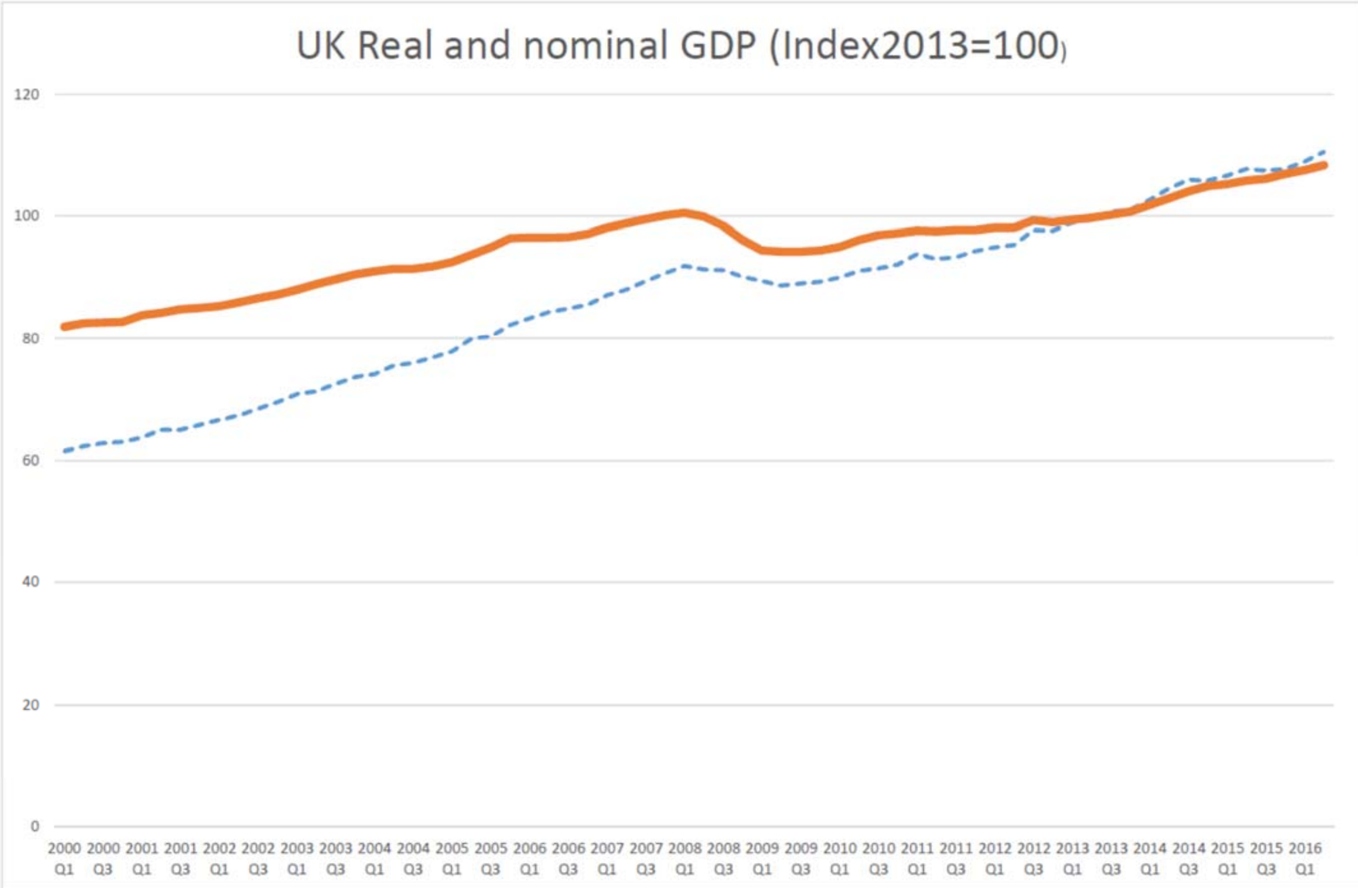


Source: US Bureau of Labor Statistics, Statistics Bureau of Japan, National Bureau of Statistics of China, Eurostat; last accessed on 31 January 2013.


UK Real and nominal GDP (Index2013=100)
120
100
80
60
40
20
0
2000 Q1
2000 Q3
2001 Q1
2001 Q3
2002 Q1
2002 Q3
2003 Q1
2003 Q3
2004 Q1
2004 Q3
2005 Q1
2005 Q3
2006 Q1
2006 Q3
2007 Q1
2007 Q3
2008 Q1
2008 Q3
2009 Q1
2009 Q3
2010 Q1
2010 Q3
2011 Q1
2011 Q3
2012 Q1
2012 Q3
2013 Q1
2013 Q3
2014 Q1
2014 Q3
2015 Q1
2015 Q3
2016 Q1

Less inflation in US, but better growth: also reduces debt GDP

UK real GDP has recovered less than US.

Tale of two policies?

UK Austerity – Cut expenditure

US less cuts.

Where we are now: **refinancing needs. Why Italy is one of biggest sovereign debt markets.**

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Table 1.3. Selected Advanced Economies: Gross Financing Need, 2016–18
(Percent of GDP)

	2016			2017			2018		
	Maturing Debt	Budget Deficit	Total Financing Need	Maturing Debt[1]	Budget Deficit	Total Financing Need	Maturing Debt[1]	Budget Deficit	Total Financing Need
Australia	1.3	2.4	3.7	2.6	1.5	4.1	2.6	0.5	3.2
Austria	4.6	1.8	6.4	5.9	1.4	7.3	5.8	1.3	7.1
Belgium	15.1	2.8	17.9	15.7	2.2	17.9	14.1	1.9	16.0
Canada	9.1	2.4	11.6	11.3	1.8	13.1	9.1	1.3	10.4
Czech Republic	6.1	1.6	7.7	7.6	1.5	9.1	6.9	1.2	8.1
Denmark	4.5	2.8	7.3	4.1	2.0	6.1	2.5	1.8	4.3
Finland	5.3	2.8	8.1	8.6	2.6	11.2	5.8	2.2	8.0
France	10.6	3.4	14.0	12.7	2.9	15.6	11.9	2.3	14.2
Germany	4.3	−0.1	4.2	5.1	−0.1	5.0	4.0	−0.3	3.7
Iceland	6.5	−14.3	−7.8	1.1	0.5	1.6	8.0	−0.5	7.5
Ireland	6.2	0.4	6.6	5.2	−0.3	4.8	6.2	−0.4	5.8
Italy	16.0	2.7	18.7	18.4	1.6	20.0	14.1	0.5	14.6
Japan	36.5	4.9	41.4	41.7	3.9	45.6	36.2	3.4	39.6
Korea	2.7	−0.3	2.4	3.5	−0.5	3.0	3.8	−1.1	2.6
Lithuania	6.1	1.2	7.3	5.1	1.0	6.1	5.3	0.8	6.1
Malta	7.7	1.2	8.9	7.6	1.0	8.5	7.5	0.9	8.4
Netherlands	6.6	1.7	8.3	8.2	1.2	9.4	8.6	1.1	9.8
New Zealand	1.4	0.1	1.5	5.9	−0.1	5.8	1.2	−0.4	0.8
Portugal	15.5	2.9	18.4	12.3	2.9	15.2	11.8	2.8	14.6
Slovak Republic	5.8	2.2	8.0	6.2	2.0	8.2	2.7	1.7	4.4
Slovenia	6.1	2.7	8.9	8.2	2.5	10.8	6.9	2.7	9.5
Spain[2]	14.7	3.4	18.1	14.8	2.5	17.2	14.7	2.0	16.7
Sweden	5.1	0.9	6.0	5.4	0.8	6.2	4.7	0.4	5.1
Switzerland	1.7	0.3	1.9	2.2	0.2	2.4	2.2	0.1	2.3
United Kingdom	6.2	3.2	9.4	7.9	2.2	10.1	6.9	1.3	8.2
United States[3]	16.0	3.8	19.8	17.0	3.7	20.6	14.7	3.5	18.2
Average	14.2	3.1	17.2	15.7	2.6	18.3	13.6	2.3	15.8

Italy	16.0	2.7	18.7	18.4	1.6	20.0	14.1	0.5	14.6
Japan	36.5	4.9	41.4	41.7	3.9	45.6	36.2	3.4	39.6
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Lithuania	6.1	1.2	7.3	5.1	1.0	6.1	5.3	0.8	6.1
Malta	7.7	1.2	8.9	7.6	1.0	8.5	7.5	0.9	8.4
Netherlands	6.6	1.7	8.3	8.2	1.2	9.4	8.6	1.1	9.8
New Zealand	1.4	0.1	1.5	5.9	−0.1	5.8	1.2	−0.4	0.8
Portugal	15.5	2.9	18.4	12.3	2.9	15.2	11.8	2.8	14.6
Slovak Republic	5.8	2.2	8.0	6.2	2.0	8.2	2.7	1.7	4.4
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Spain[2]	14.7	3.4	18.1	14.8	2.5	17.2	14.7	2.0	16.7
Sweden	5.1	0.9	6.0	5.4	0.8	6.2	4.7	0.4	5.1
Switzerland	1.7	0.3	1.9	2.2	0.2	2.4	2.2	0.1	2.3
United Kingdom	6.2	3.2	9.4	7.9	2.2	10.1	6.9	1.3	8.2
United States[3]	16.0	3.8	19.8	17.0	3.7	20.6	14.7	3.5	18.2

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What will future look like?

- **Real Interest rates.** Historically 2-3%. May have fallen (secular stagnation), 1% or even less?

- **Nominal Interest rates.** Real plus inflation target. So, UK
  - Back to Normal: 4-5%
  - Stagnation: 2-3%.

Nominal interest rates of 4% imply that interest payments will make up a significant part of government expenditures and will slow growth (distortionary taxes).

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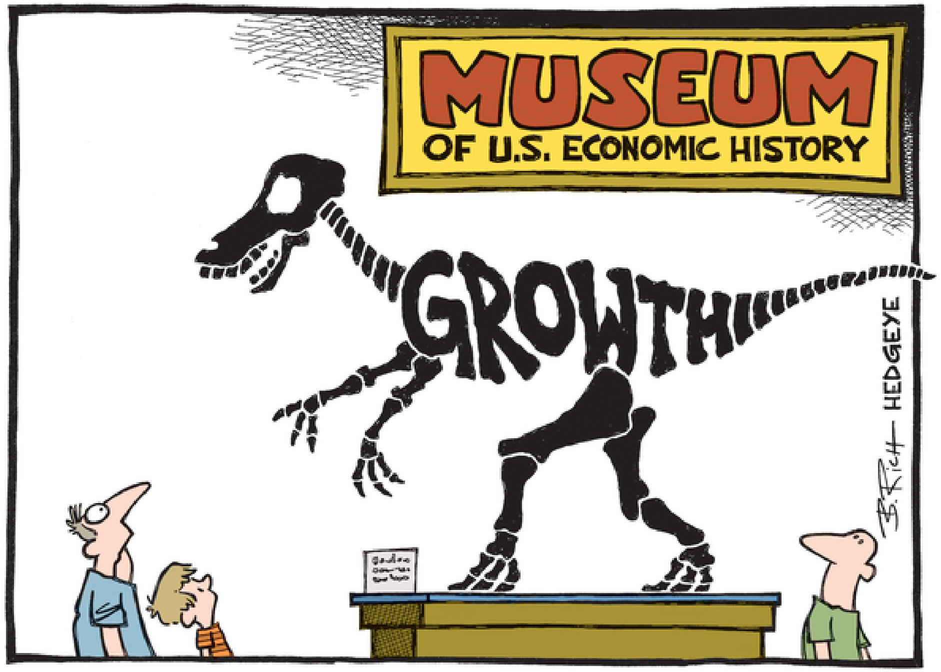
- **Growth**. Back to what? Depends on time scale. Was period 1800-2000 an exception? Some suggest growth may be back at pre-1800 levels (0-1%)? Secular stagnation: new technologies do not have the across the board…..



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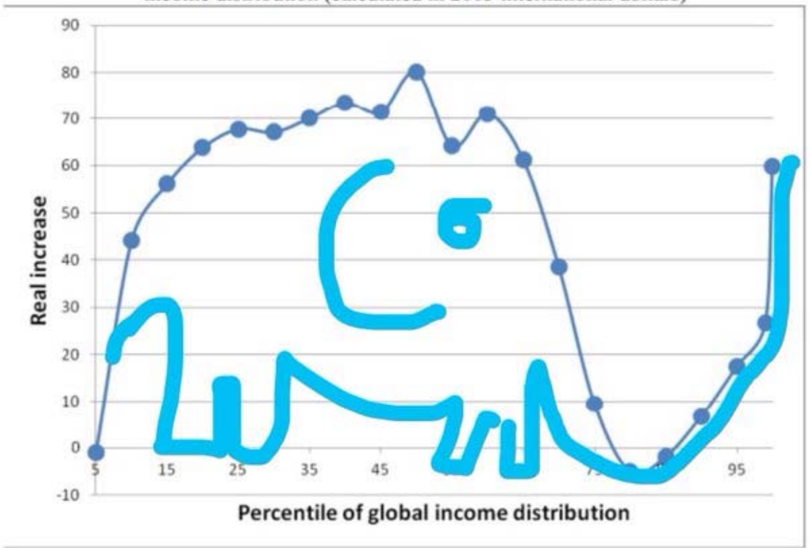
Income distribution. For me much more important – Utilitarian perspective, inequality inefficient (Billionaire Black Holes).

Figure 4. Change in real income between 1988 and 2008 at various percentiles of global income distribution (calculated in 2005 international dollars)



Since 1988, Globalisation has not benefited the middle class in developed world. Research by Branco Milanovic. Benefits to very rich and developing world (except the very poorest).

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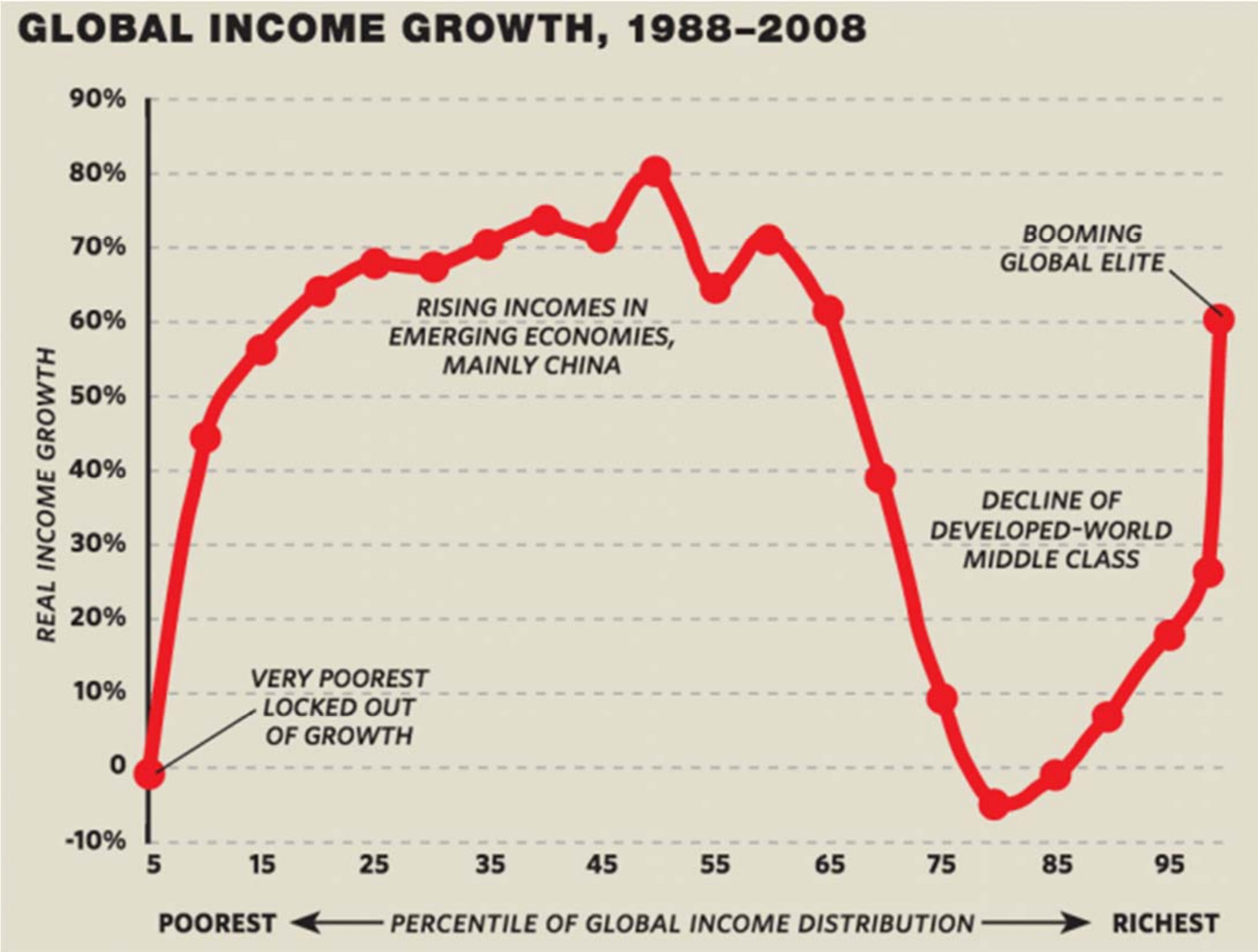

This has given us new Populist politics in West: Brexit and Trump.

Final comments.

Three crises: all set off by financial crisis.

- One has to do with post-bubble recovery of banks, trying to rebuild asset side of balance sheet (and cope with increased capital requirements from regulation).
- The Big deficits caused by resulting recession: two crises, same cause but different crises.
- Eurogeddon: the Euro is unable to respond effectively to deficits – countries face liquidity risks and default risk. ECB recently trying to cope….Super Mario. This is added onto existing imbalances building up pre-crisis. Not clear how much more the electorates will take (politics).

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- Now we live in a world where rich western economies mostly have large debts. This has happened before: UK 1815, 1918 and 1945. US 1945. But will mean government finances tighter for s few decades.
- Shift in policy focus from growth to distribution? Will new populist politics help the middle classes in US and Europe?

MAY YOU LIVE IN INTERESTING TIMES.