

Debt Overhang and Secular Stagnation

Adair Turner

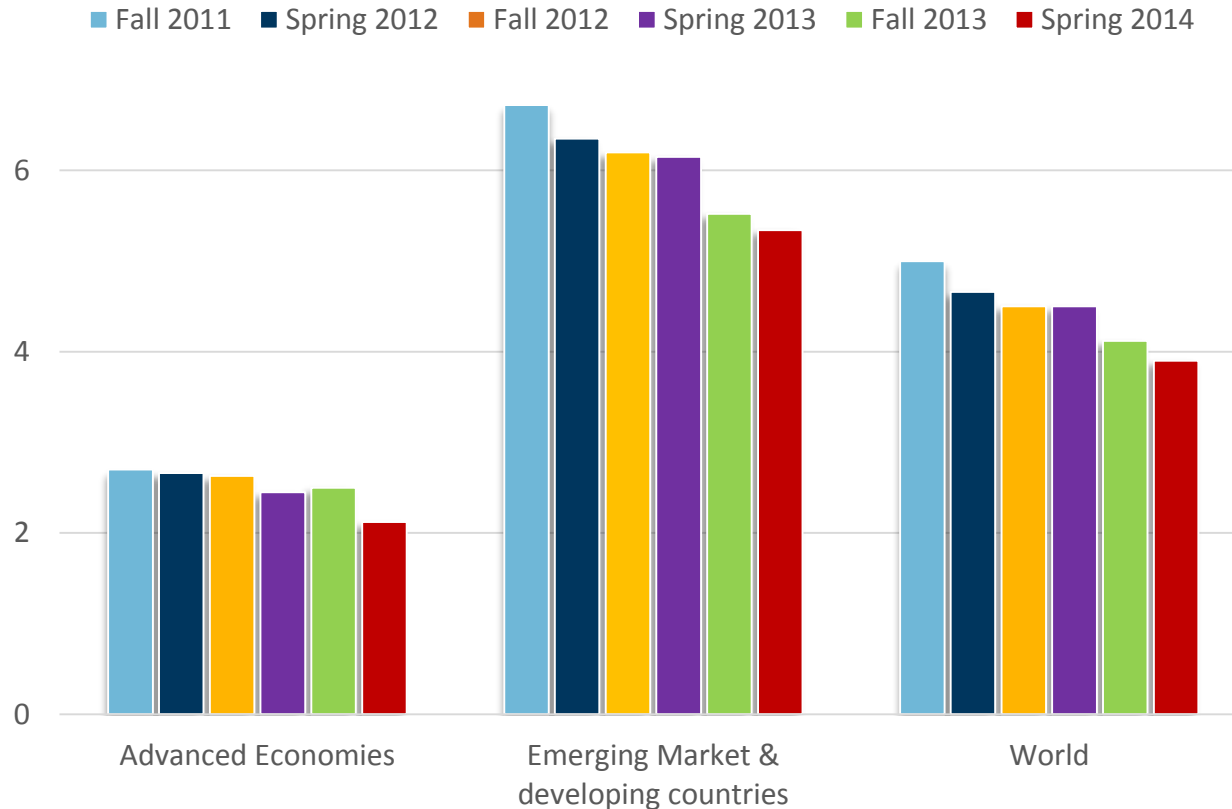
Senior Fellow

Institute for New Economic Thinking

Cass Business School

London, 25th March 2015

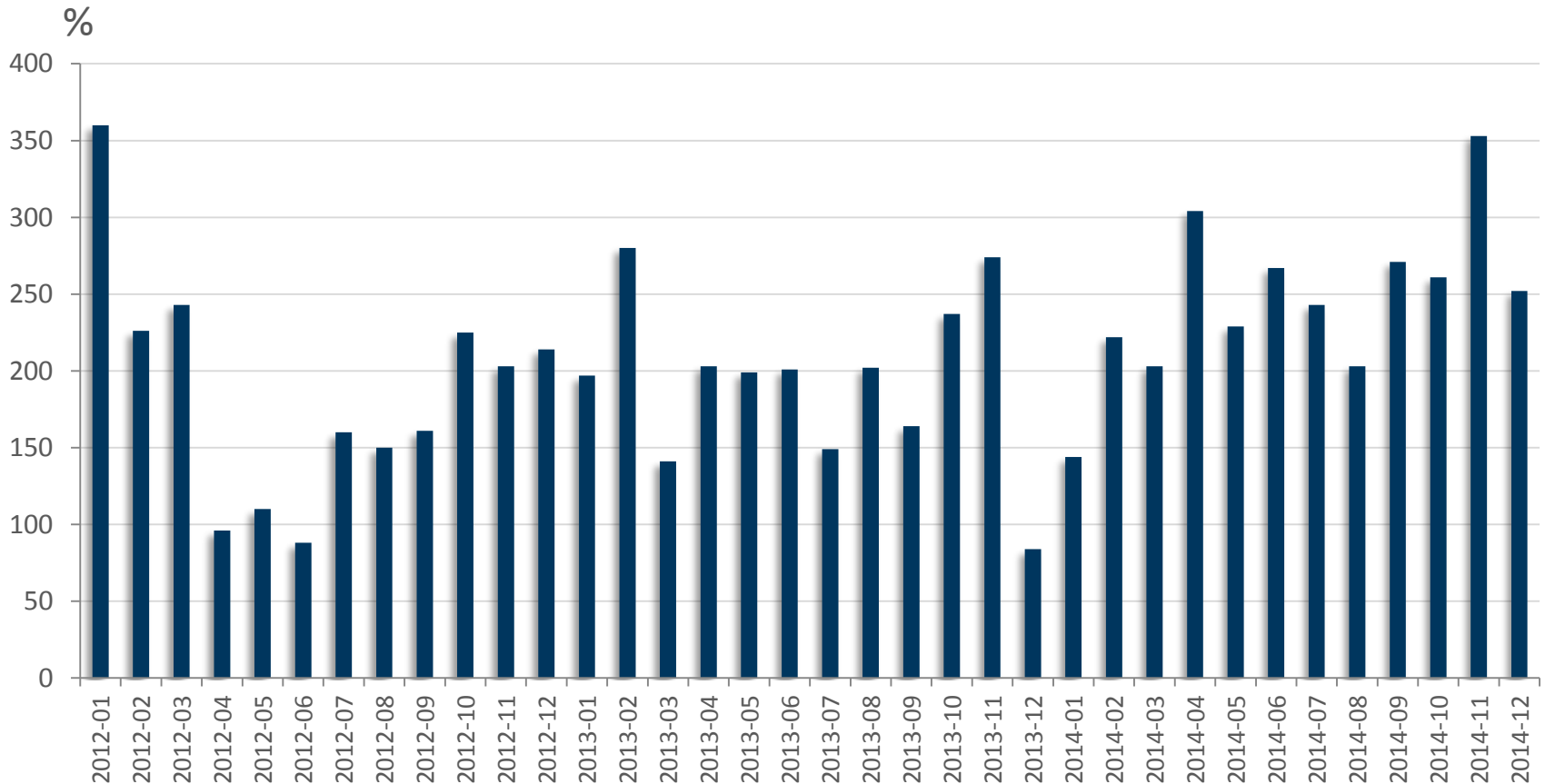
IMF Medium term growth projections



Source: IMF World Economic Outlook, October 2014

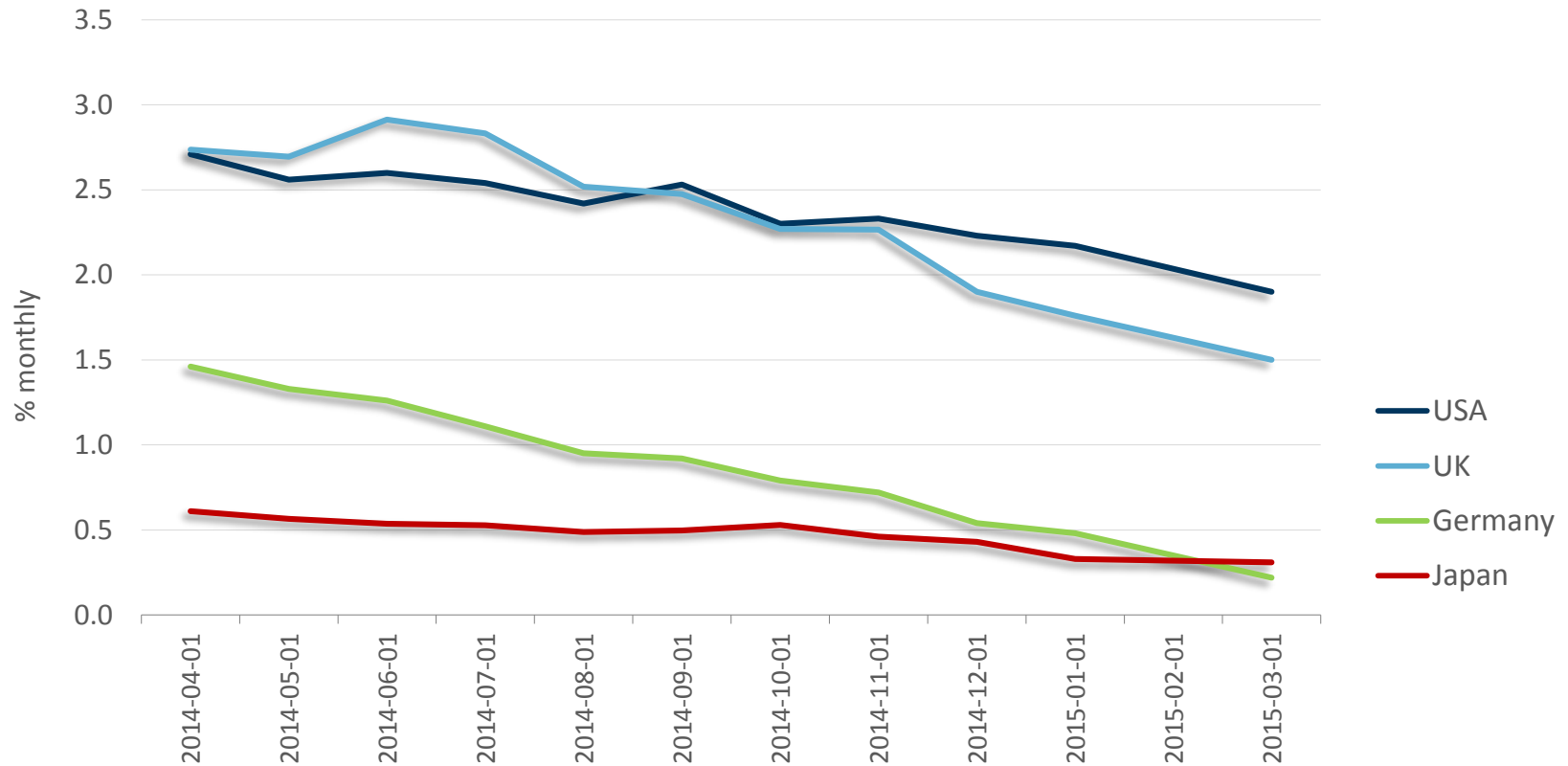
US Payroll employment monthly increases

December 2012 – December 2014



Source: US Bureau of Labor Statistics

Nominal yield on 10-year Government Bonds



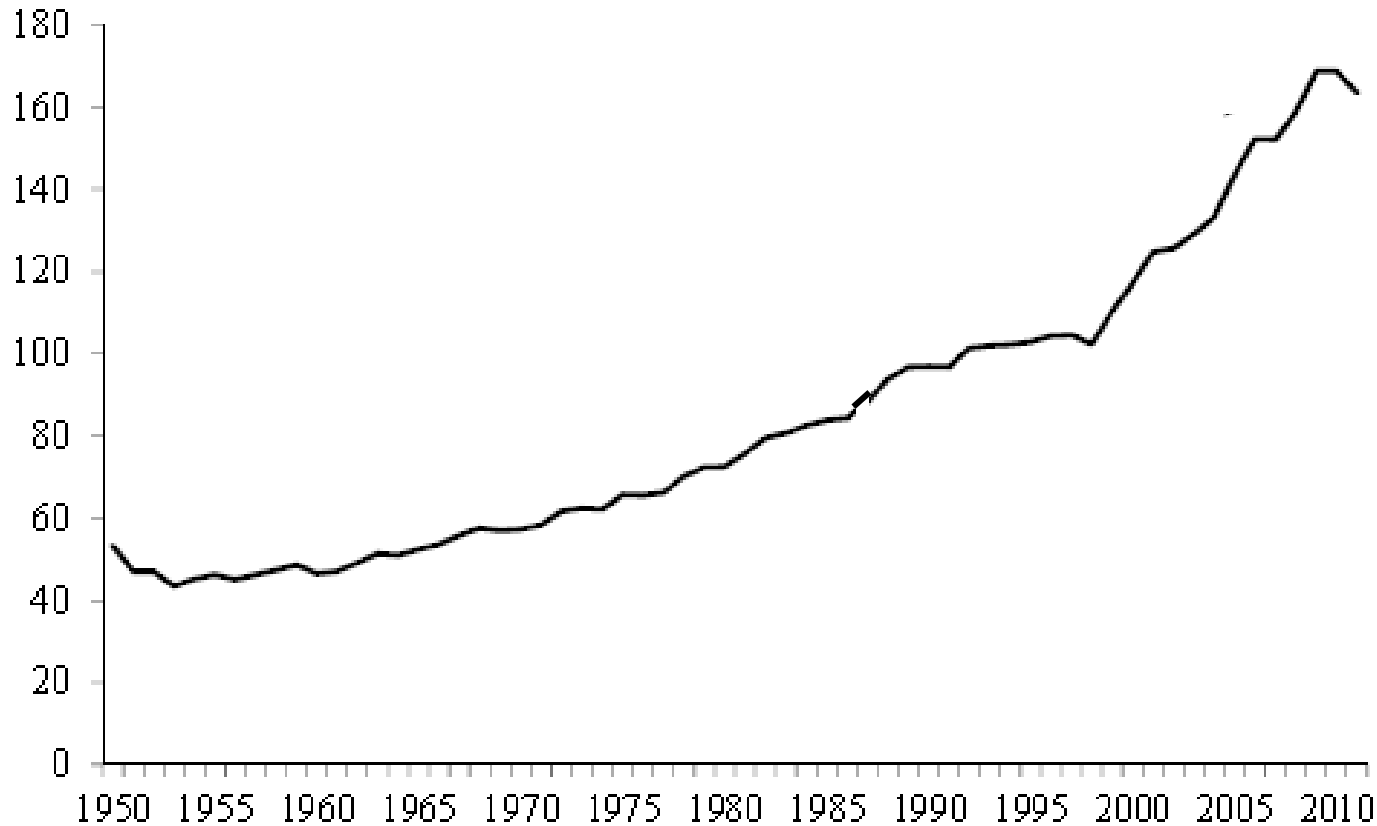
Source: Federal Reserve Bank of St. Louis and IMF data

Consensus commentary still fails to reflect how deep are the deflationary pressures created by

- ▶ Debt overhang and deleveraging
- ▶ Long-term secular trends

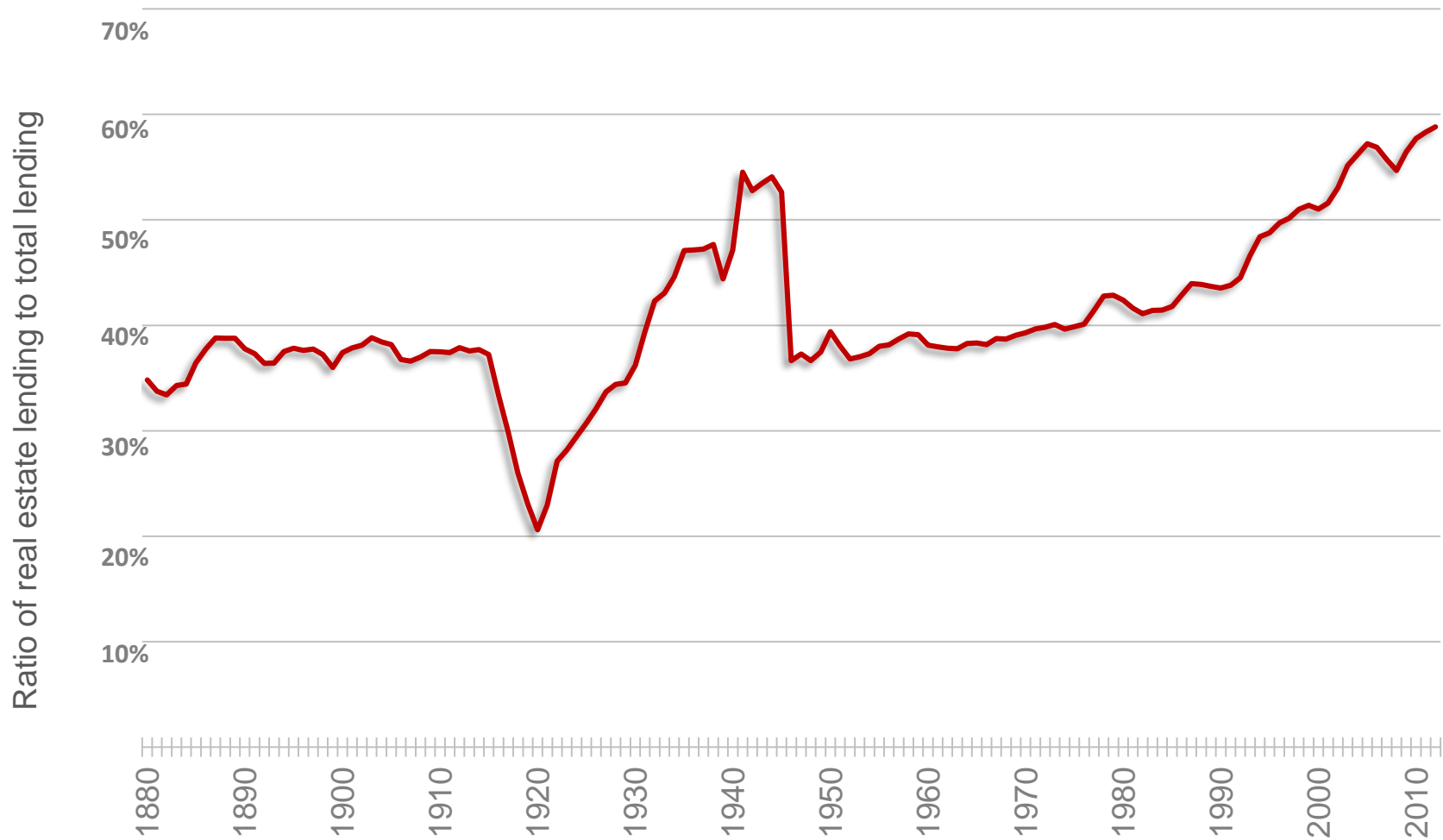
Private domestic credit as a % of GDP

Advanced economies 1950 – 2011



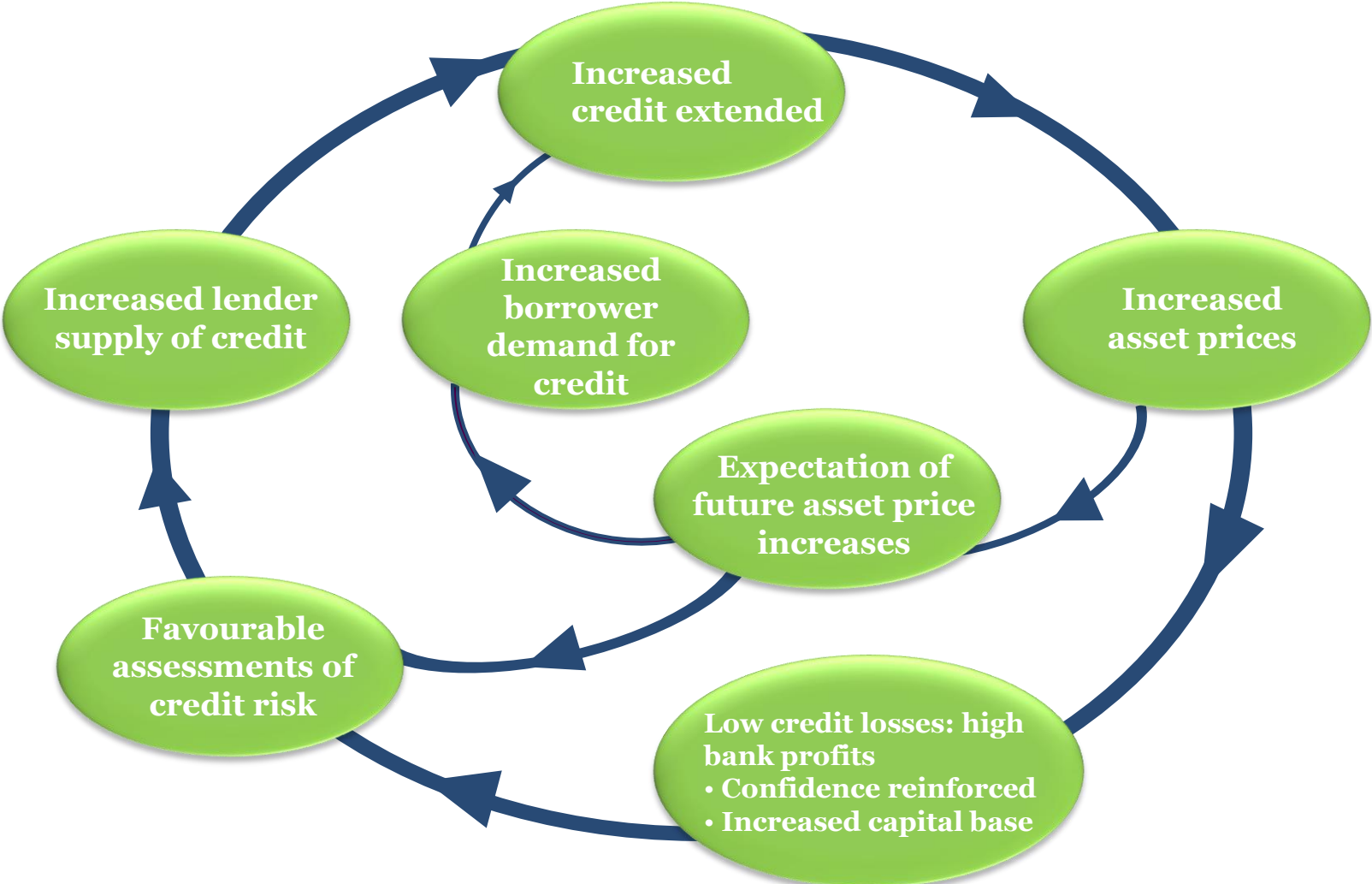
Source: *Financial and Sovereign Debt Crises: Some Lessons Learned and Those Forgotten*, C. Reinhart & K. Rogoff, 2013

Share of real estate lending in total bank lending



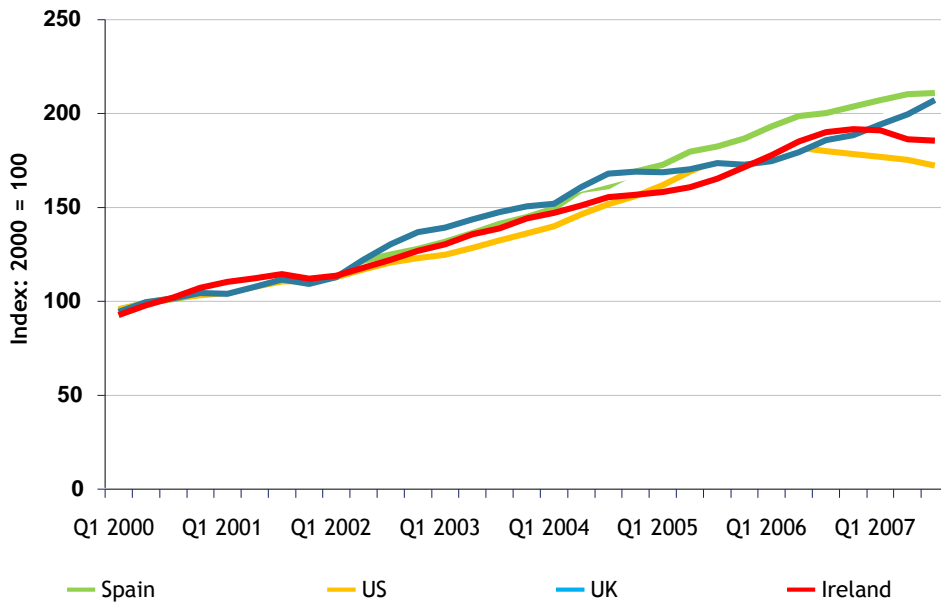
Source: The Great Mortgaging, Professor Alan Taylor, University of California, Davis

Credit and asset price cycles: upswing



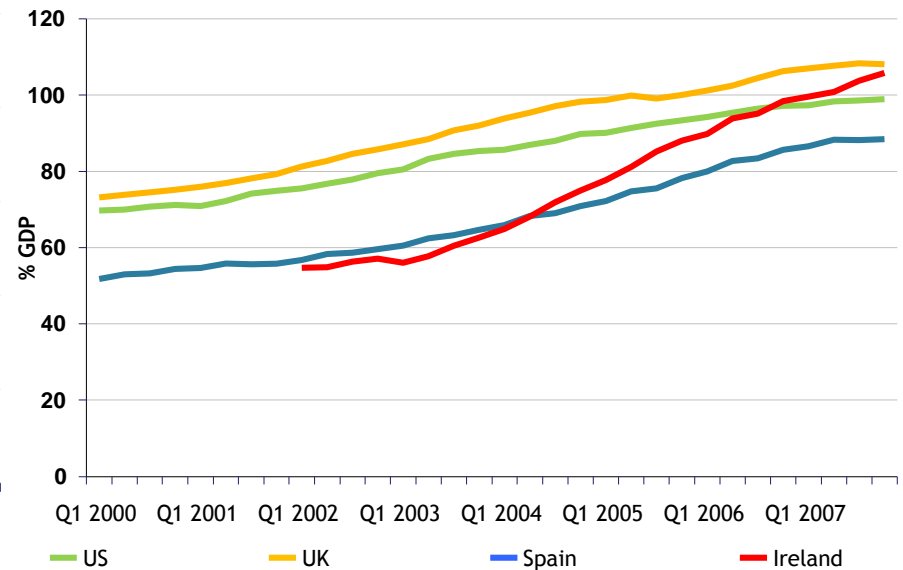
Credit extension and house prices

House prices 2000 – 2007



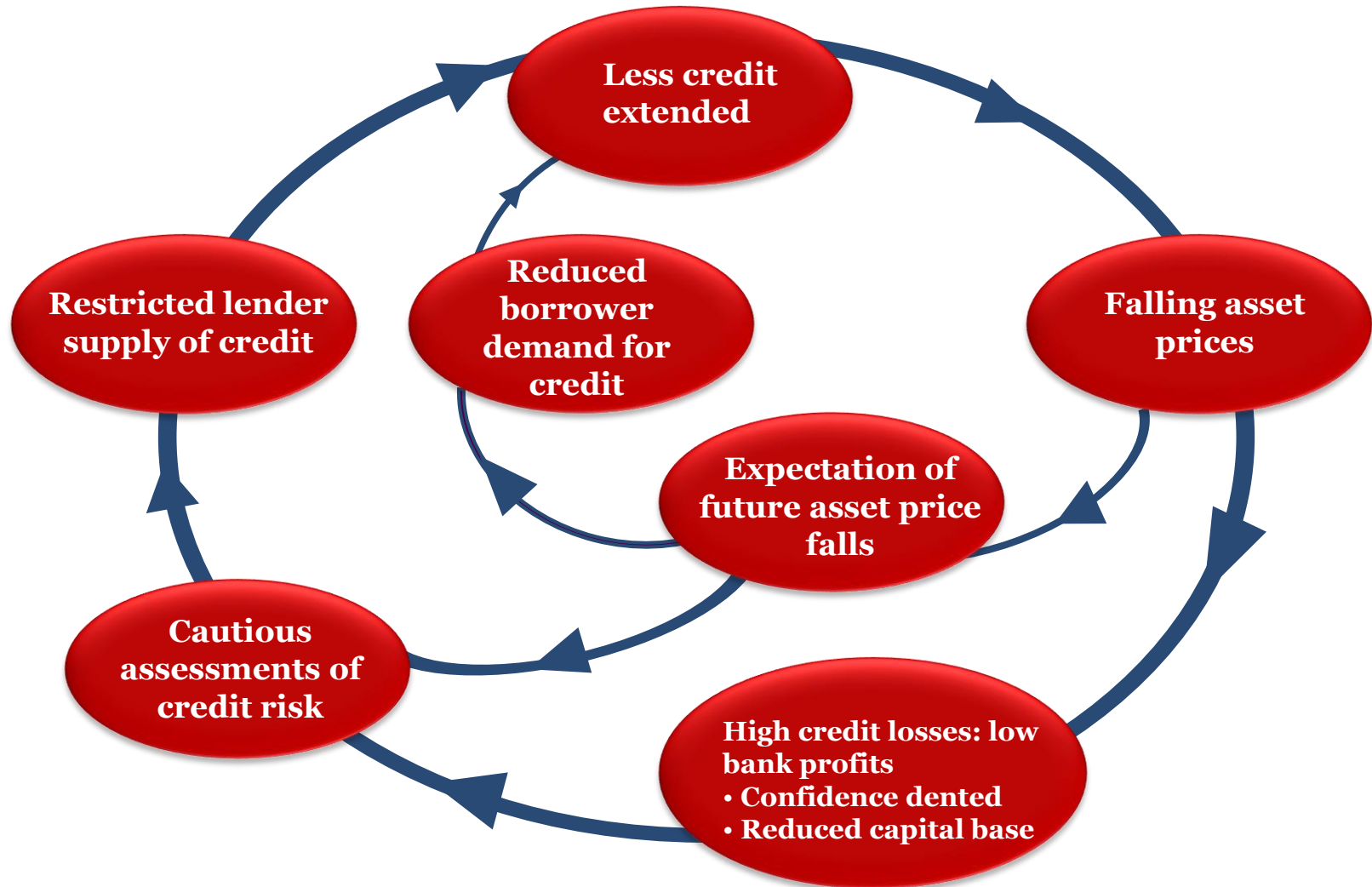
Source: Ministry of Housing (Spain), S&P (US), DCLG

Household debt as a % of GDP 2000 – 2007

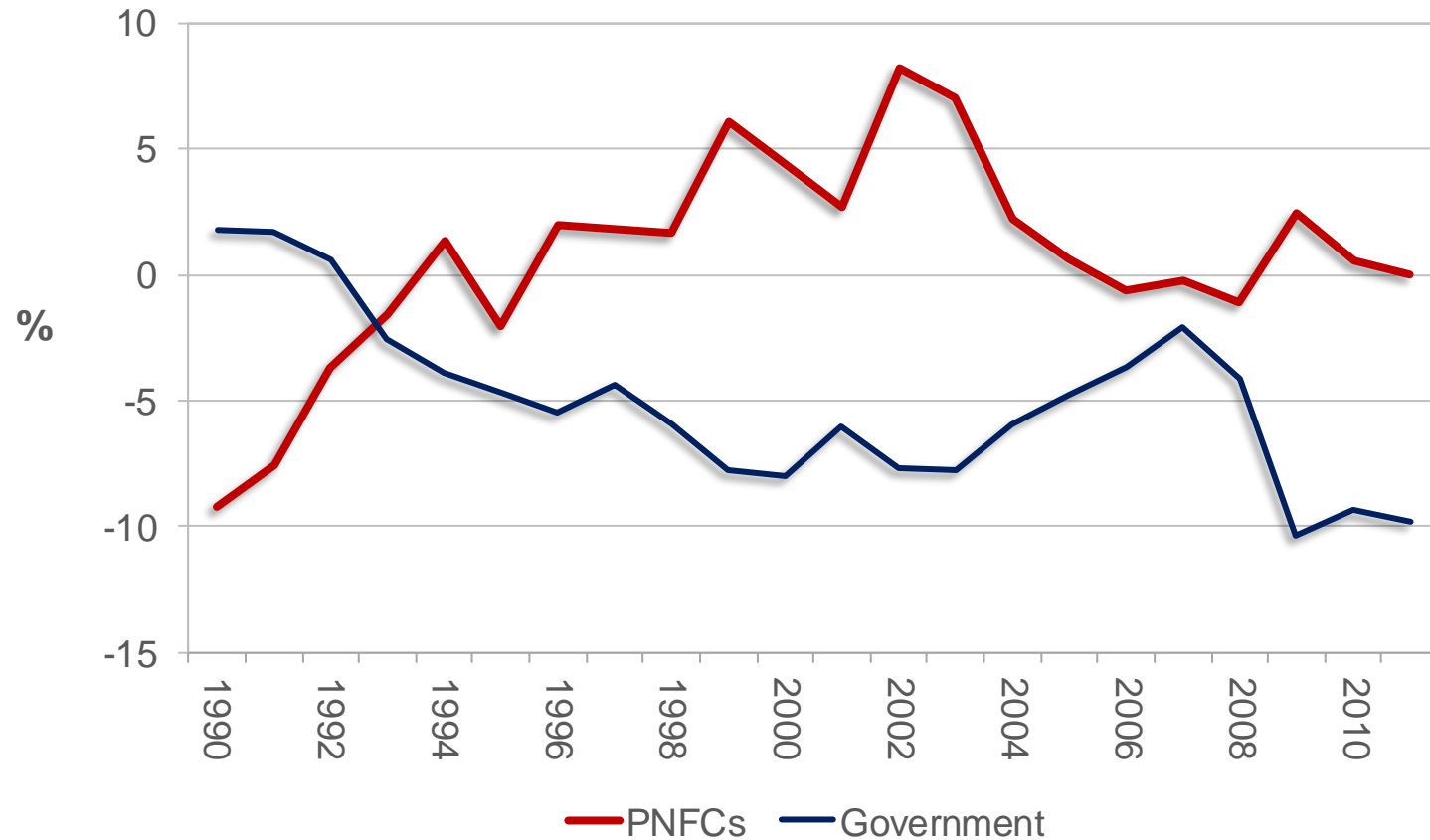


Source: BEA; ONS; ECB

Credit and asset price cycles: downswing

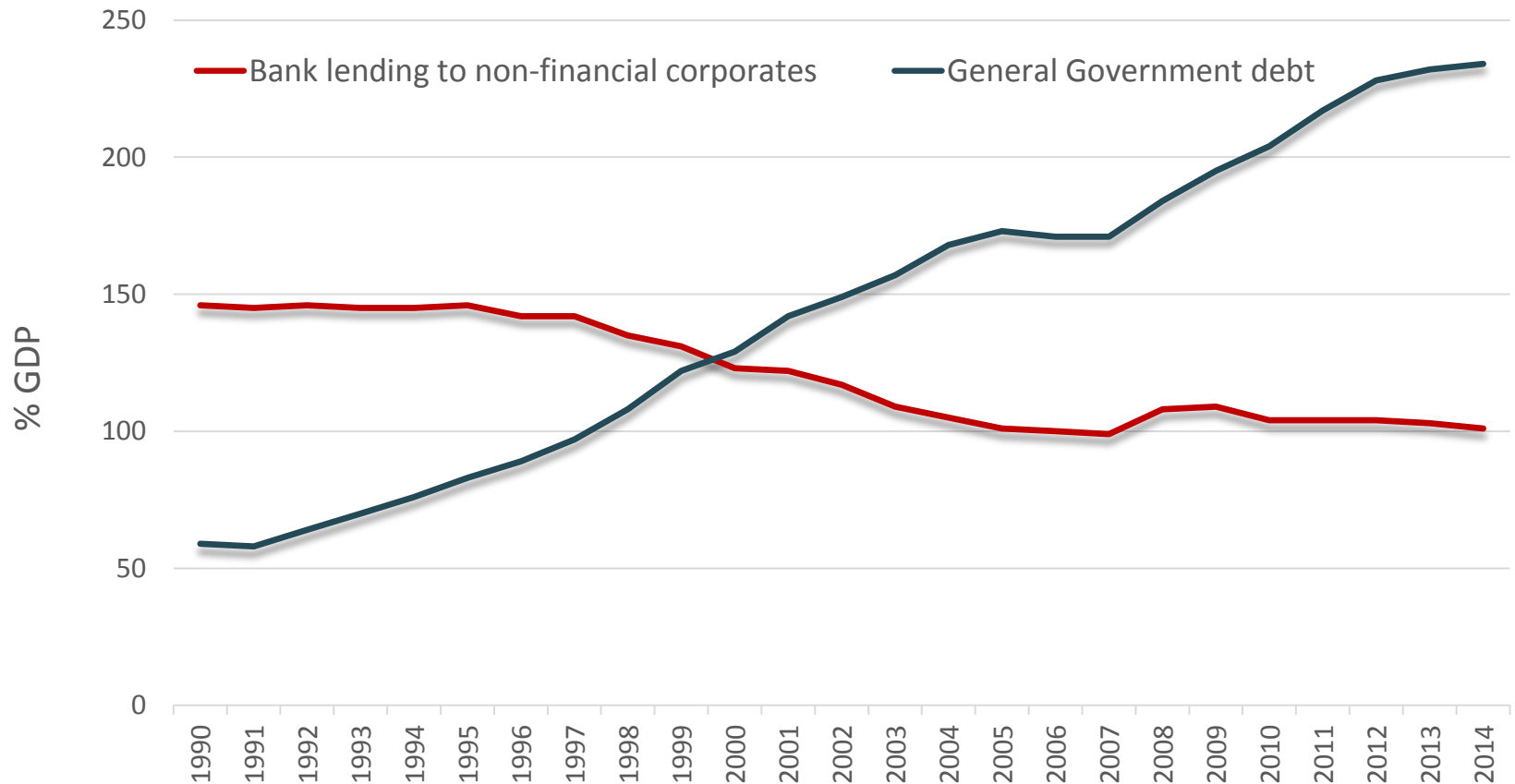


Sectoral financial surpluses/deficits as % of GDP: Japan 1990 – 2012



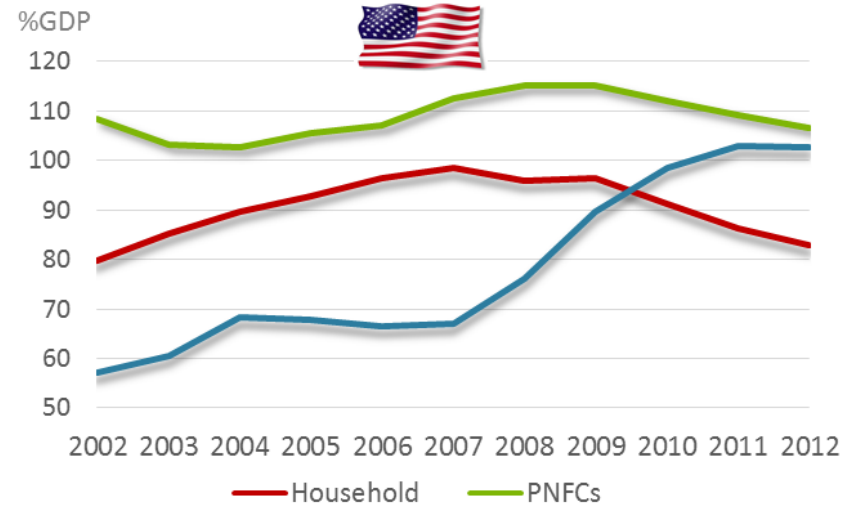
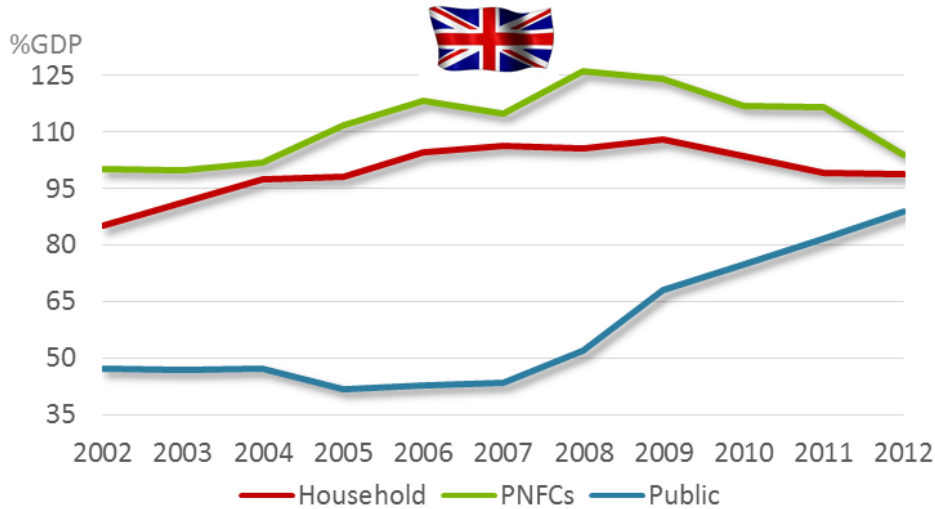
Source: IMF, Bank of Japan Flow of Funds Accounts

Japanese government and corporate debt: 1990 – 2010



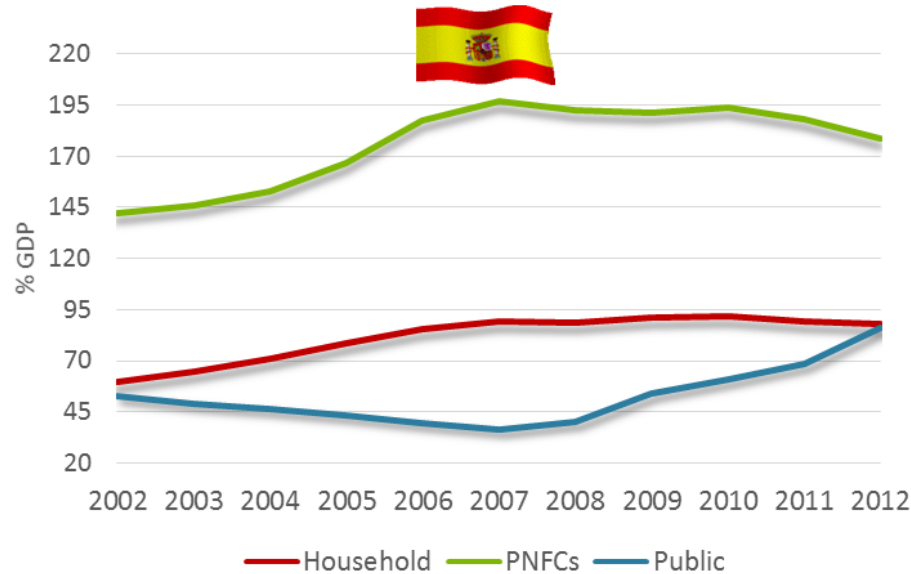
Source: BoJ Flow of Funds Accounts, IMF WEO database (April 2011), FSA calculations

Shifting leverage: Private and public debt-to-GDP

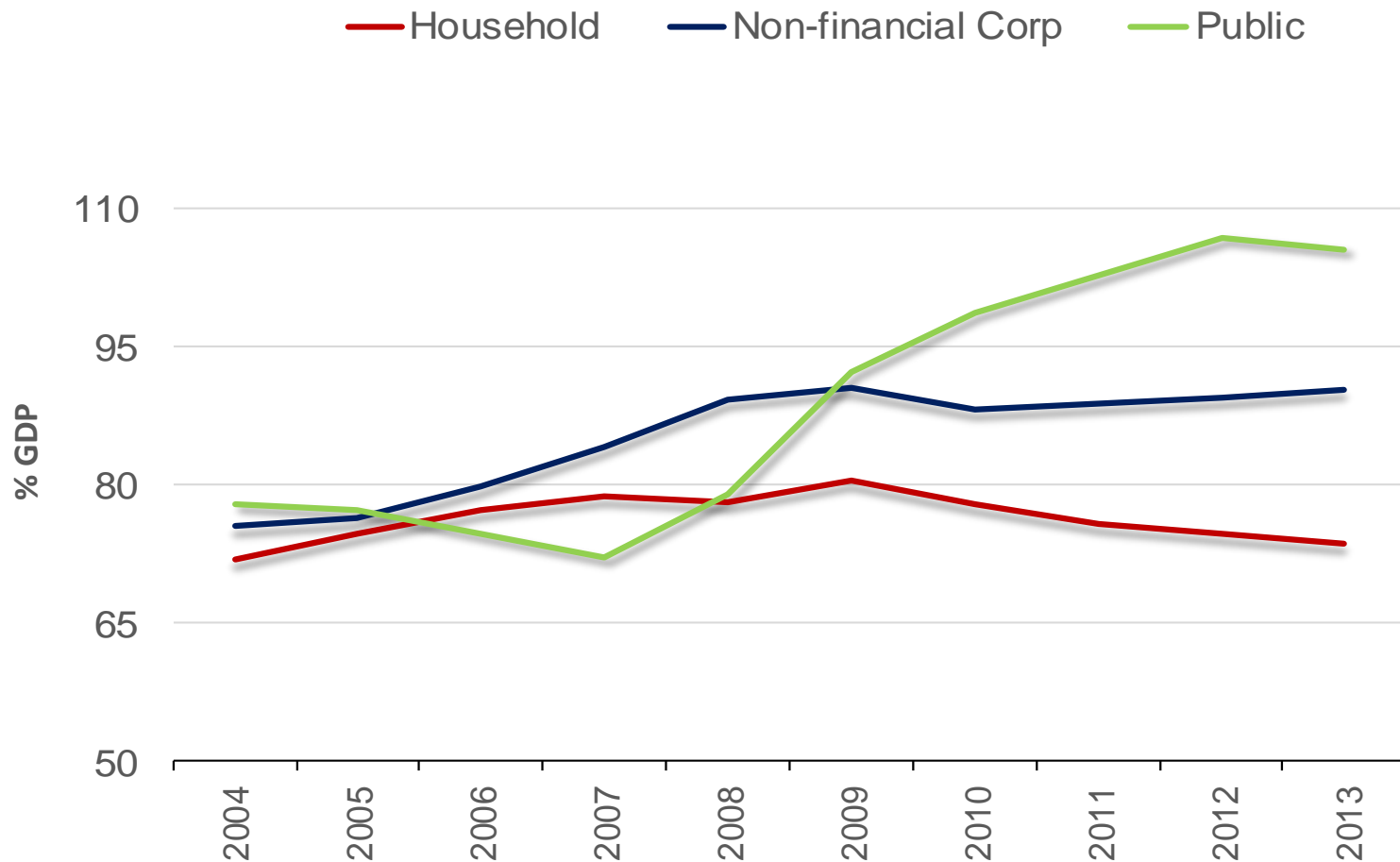


Source: OECD National Accounts

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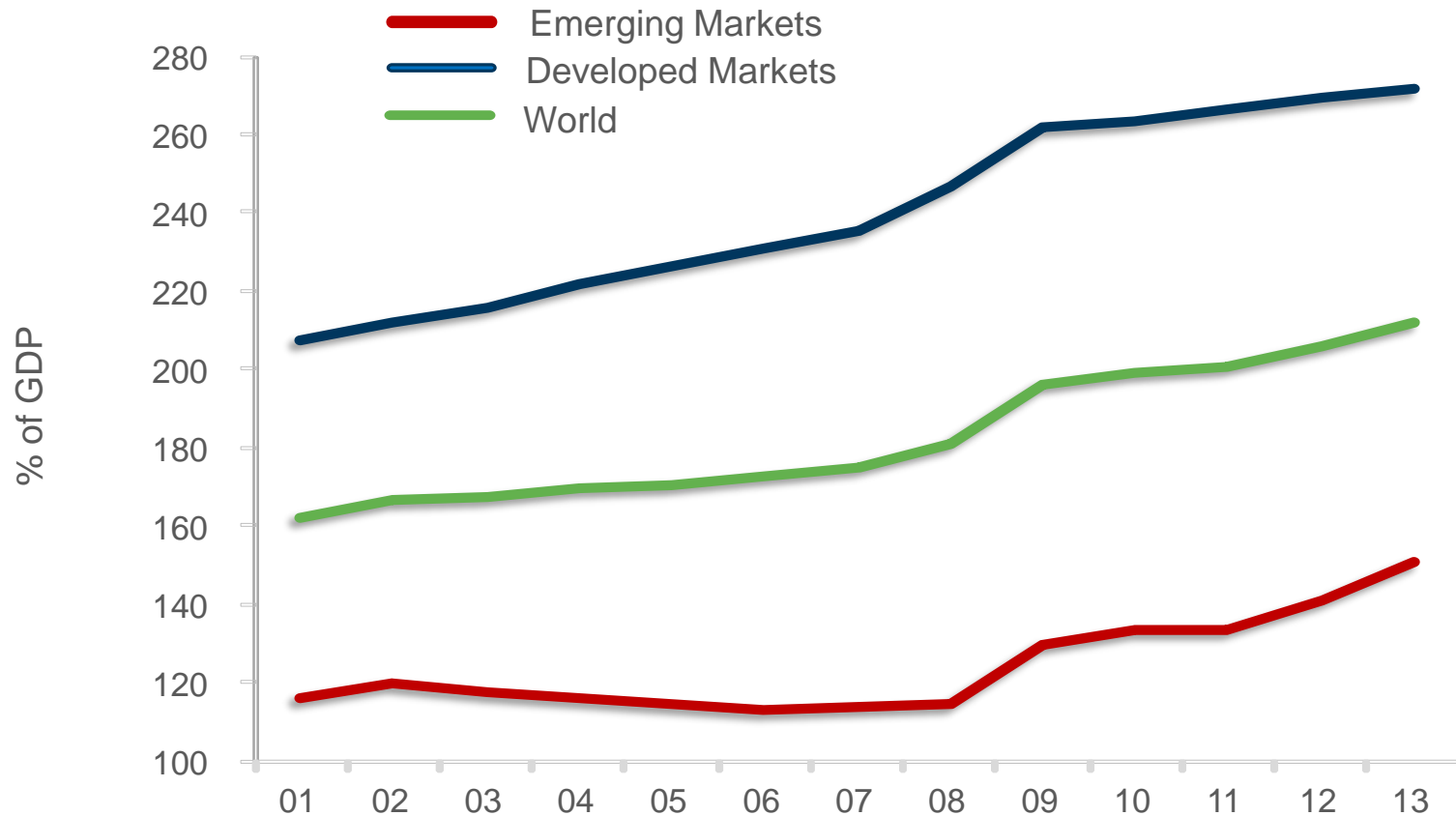


Developed economies – Debt to GDP



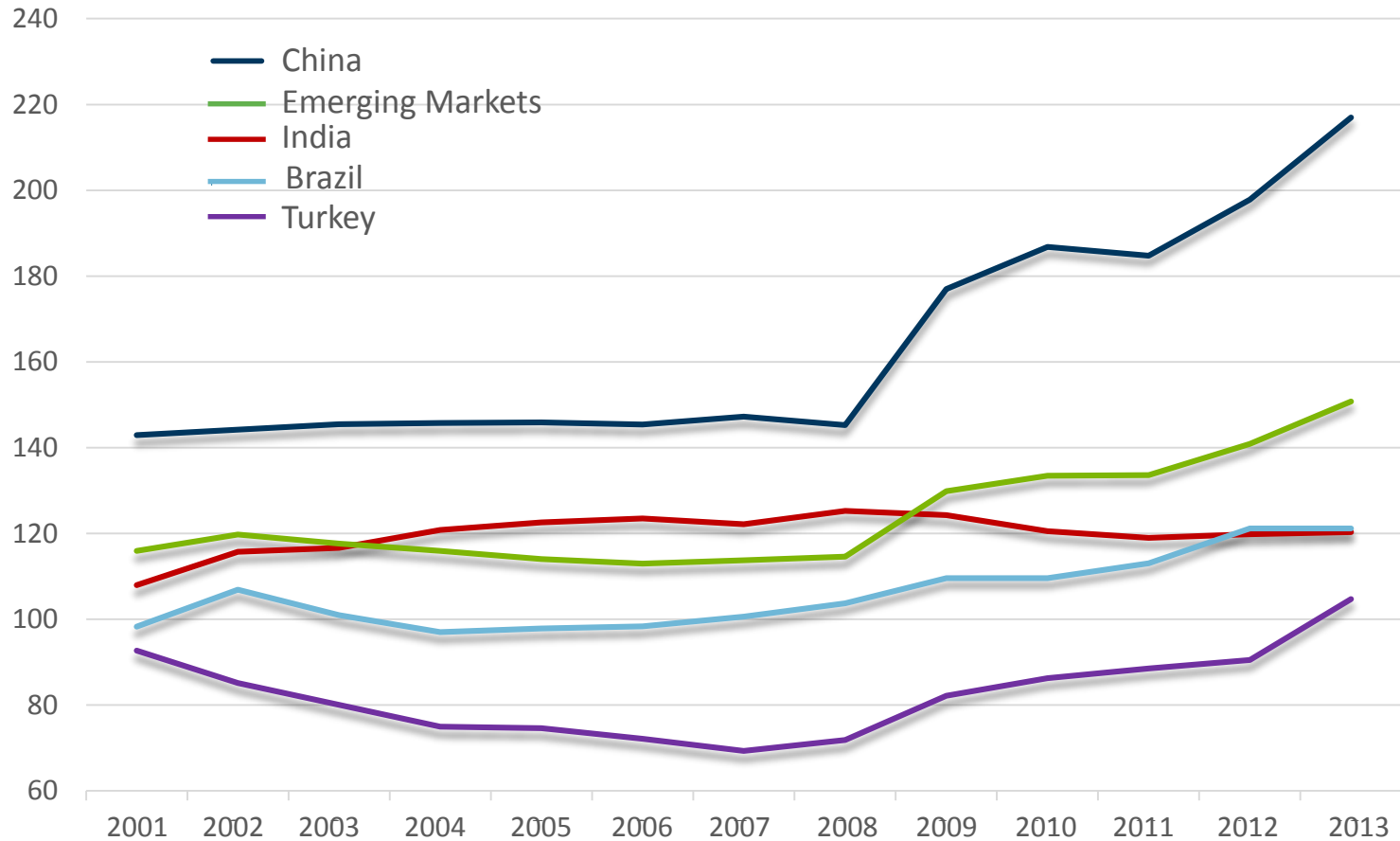
Source: Geneva Report No 16 *Deleveraging, What Deleveraging?* ICMB / CEPR September 2014

Global debt excluding financials



Source: Geneva Report No 16 *Deleveraging, What Deleveraging?* ICMB / CEPR September 2014

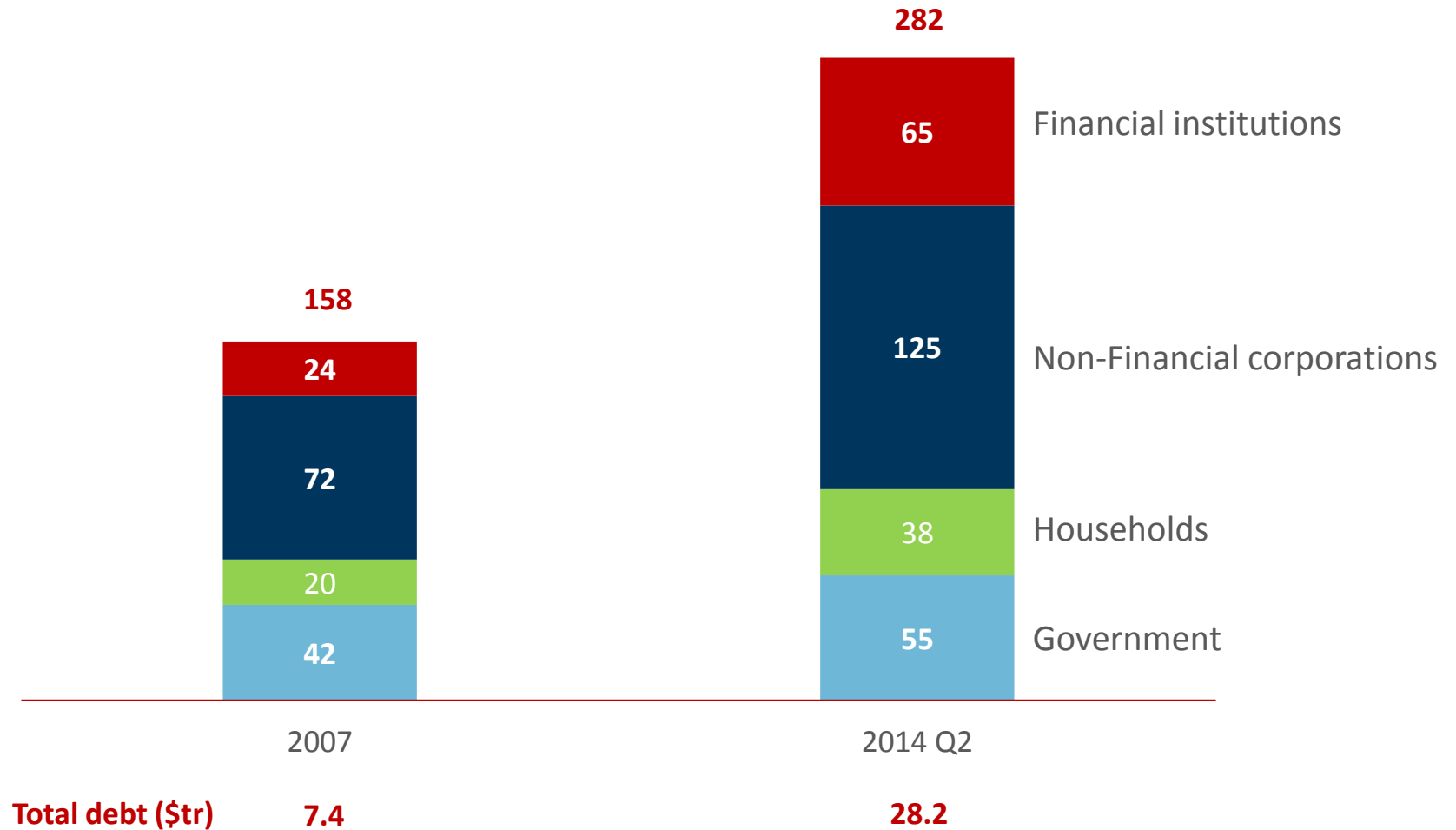
Emerging markets: total debt as % of GDP (excluding financial sector debt)



Source: *Deleveraging, What deleveraging*, The Geneva Report, 2014



China: debt as % of GDP

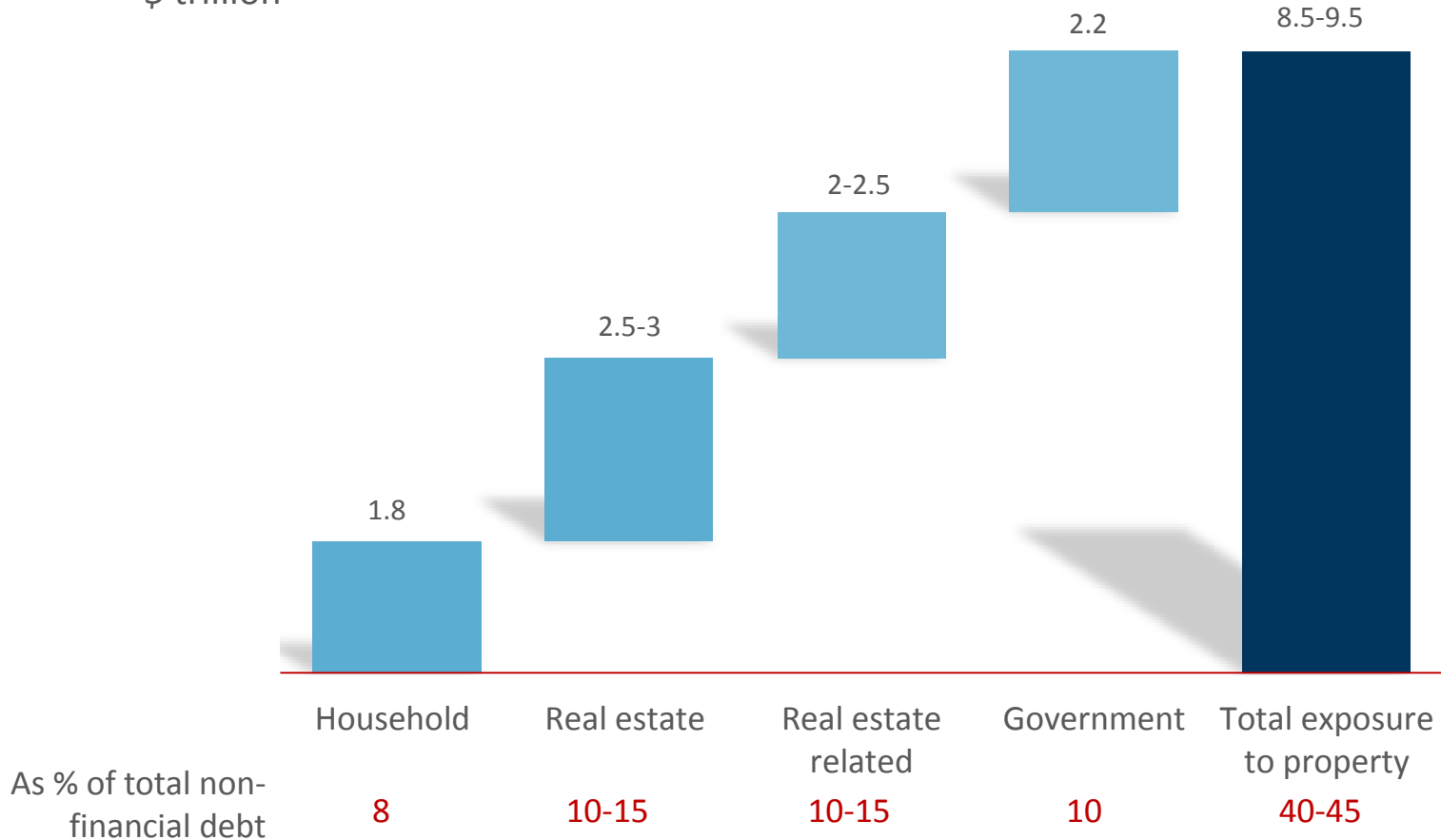


Source: McKinsey Global Institute



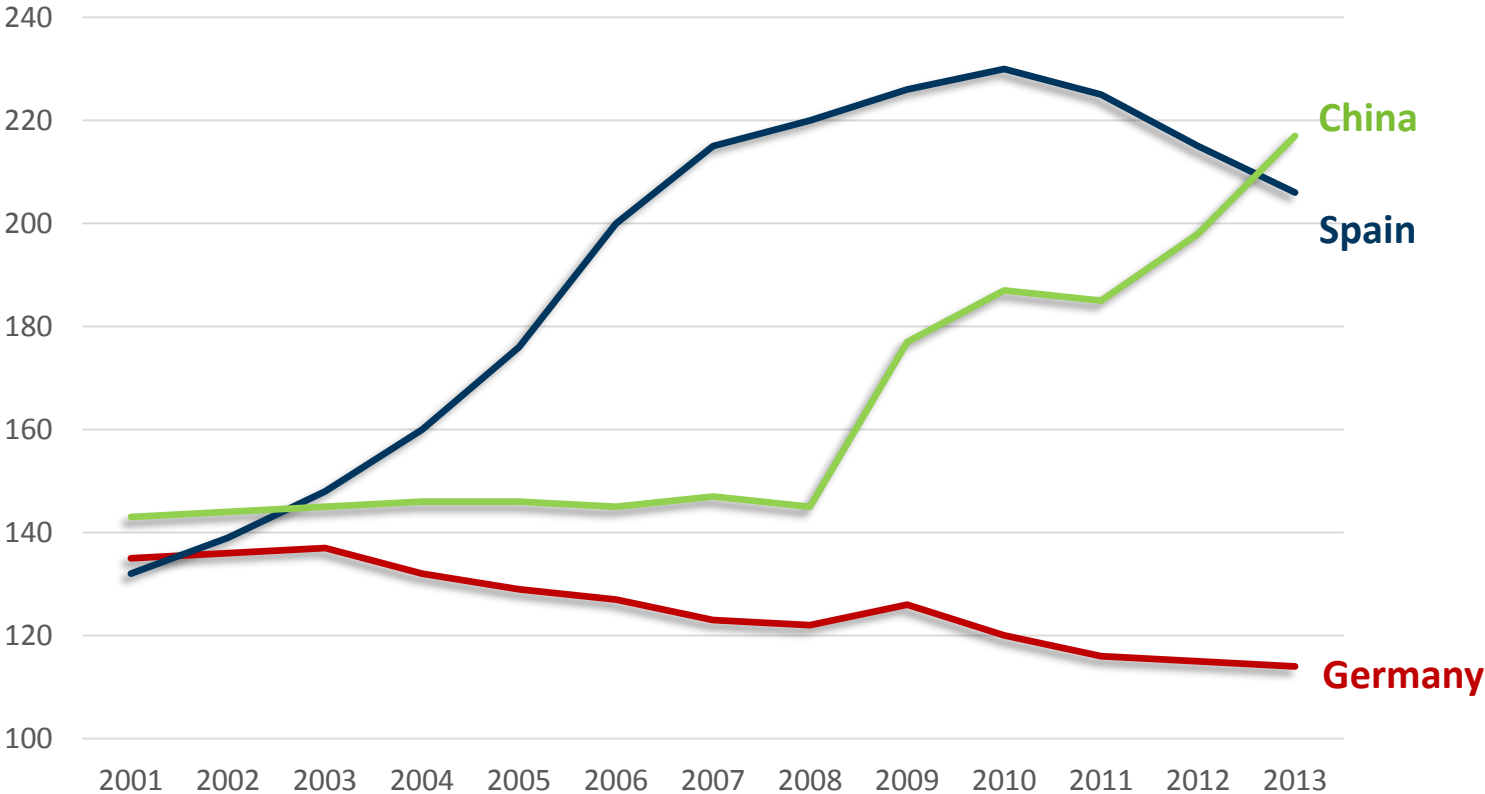
China's debt exposure to property

\$ trillion



Source: McKinsey Global Institute

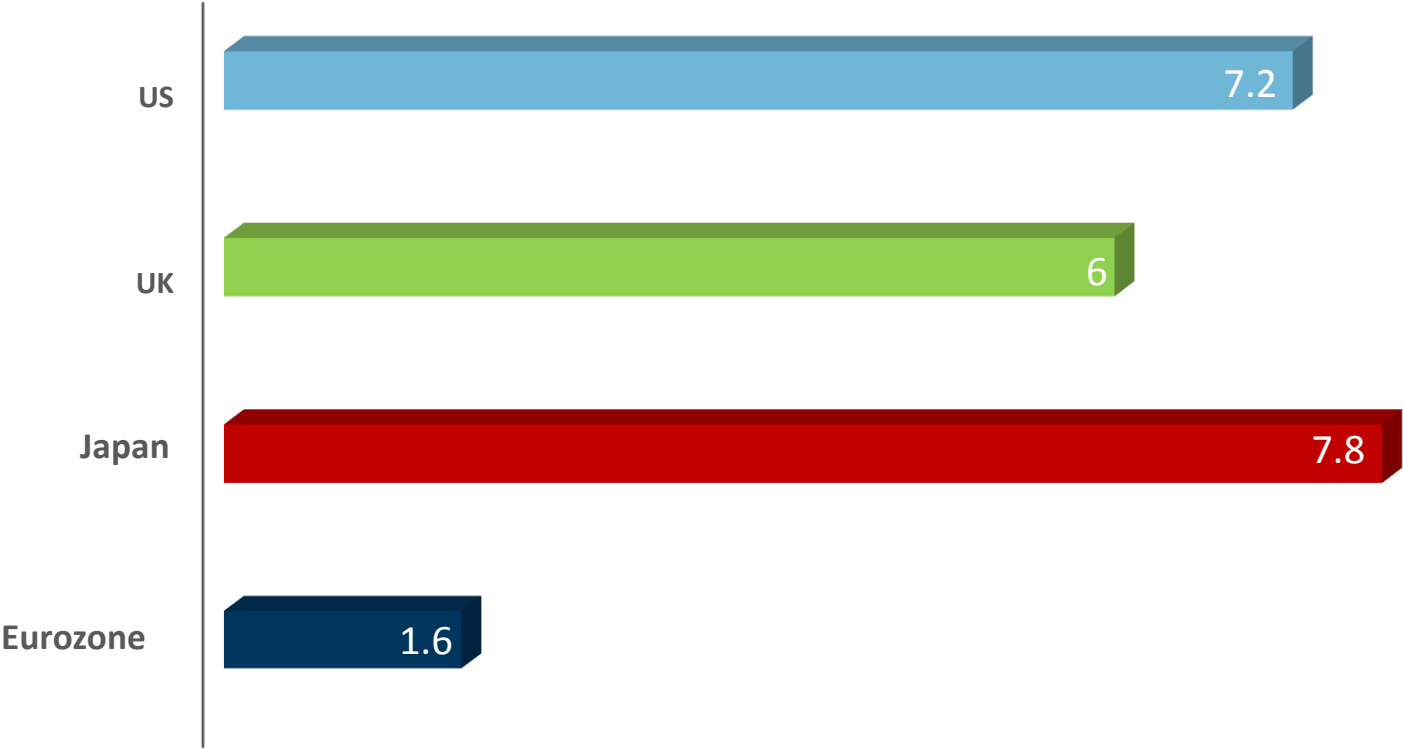
Shifting leverage: Germany credit-driven growth



Source: *Deleveraging, What deleveraging*, The Geneva Report, 2014

General Government primary deficit

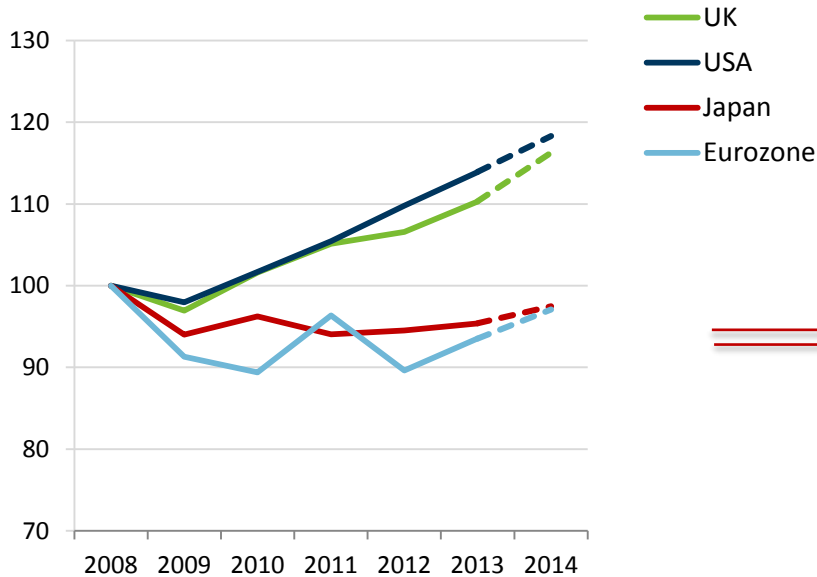
% of GDP, average 2008- 2013



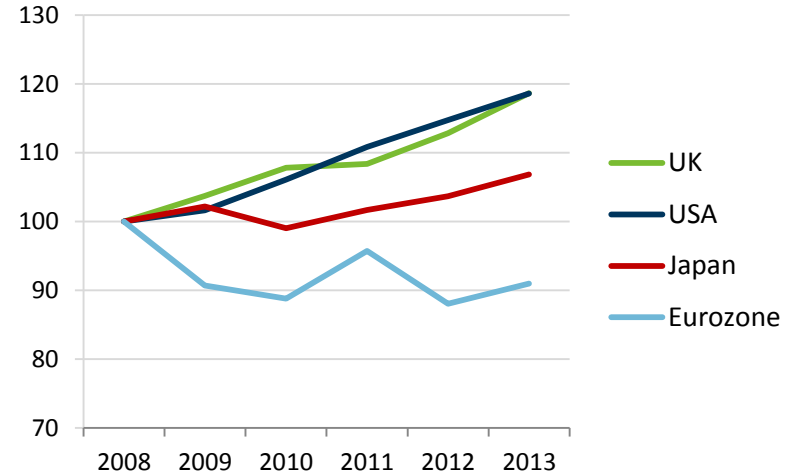
Source: International Monetary Fund Fiscal Monitor, October 2014

Nominal demand growth 2008 – 2014

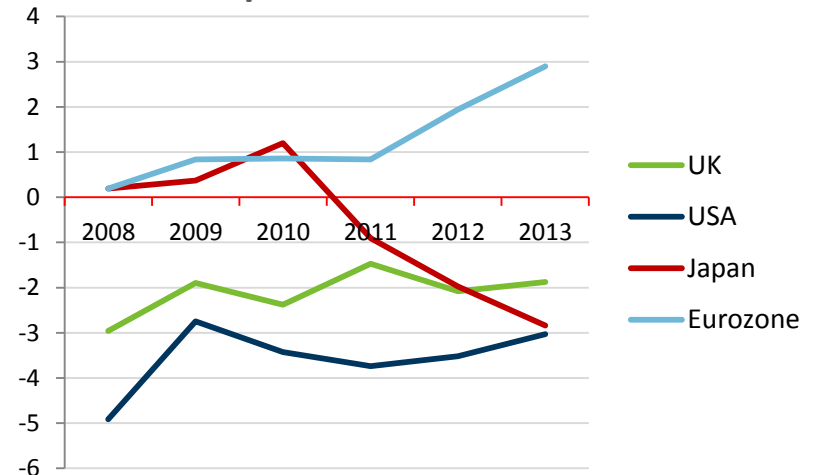
Nominal GDP, 2008=100



Domestic Demand (GDP - Net Exports)
2008=100



Net Exports as % of GDP



Sources: (IMF WEO, WB WDI)

Raising actual and potential growth must remain a priority. In advanced economies, this will require continued support from monetary policy

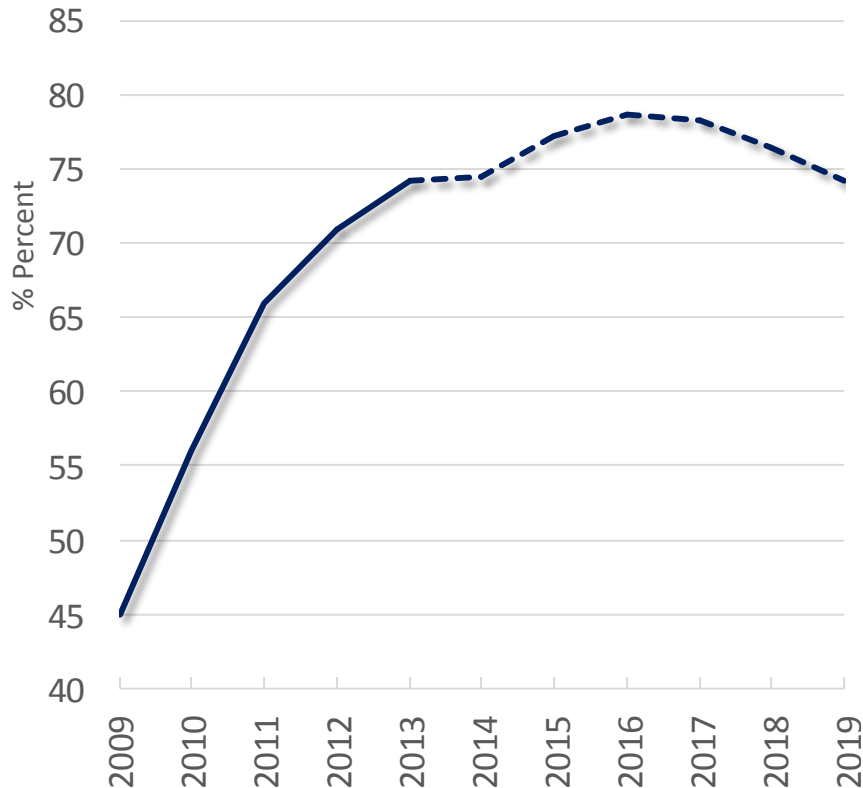
IMF
*World Economic Outlook
October 2014*

IMF
*Global Financial Stability Review
October 2014*

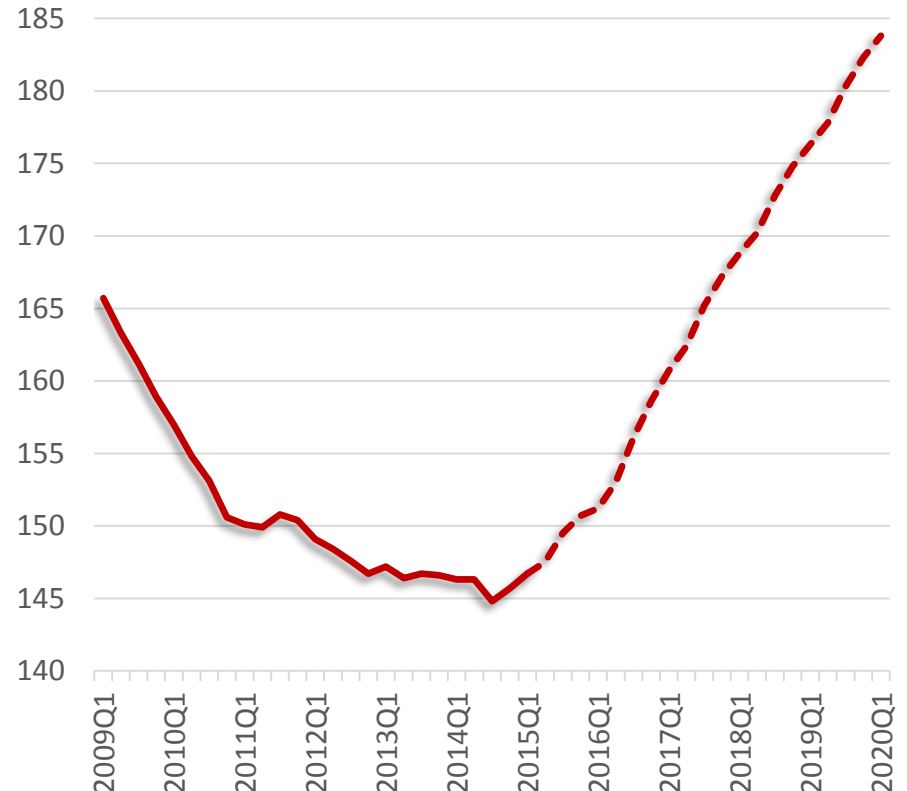
The extended period of monetary accommodation and the accompanying search for yields are leading to credit mispricing and asset price pressures, and increasing the chance that financial stability risks could derail the recovery.

Shifting leverage: back to private again

UK Public net debt as % of GDP: 2009 - 2019



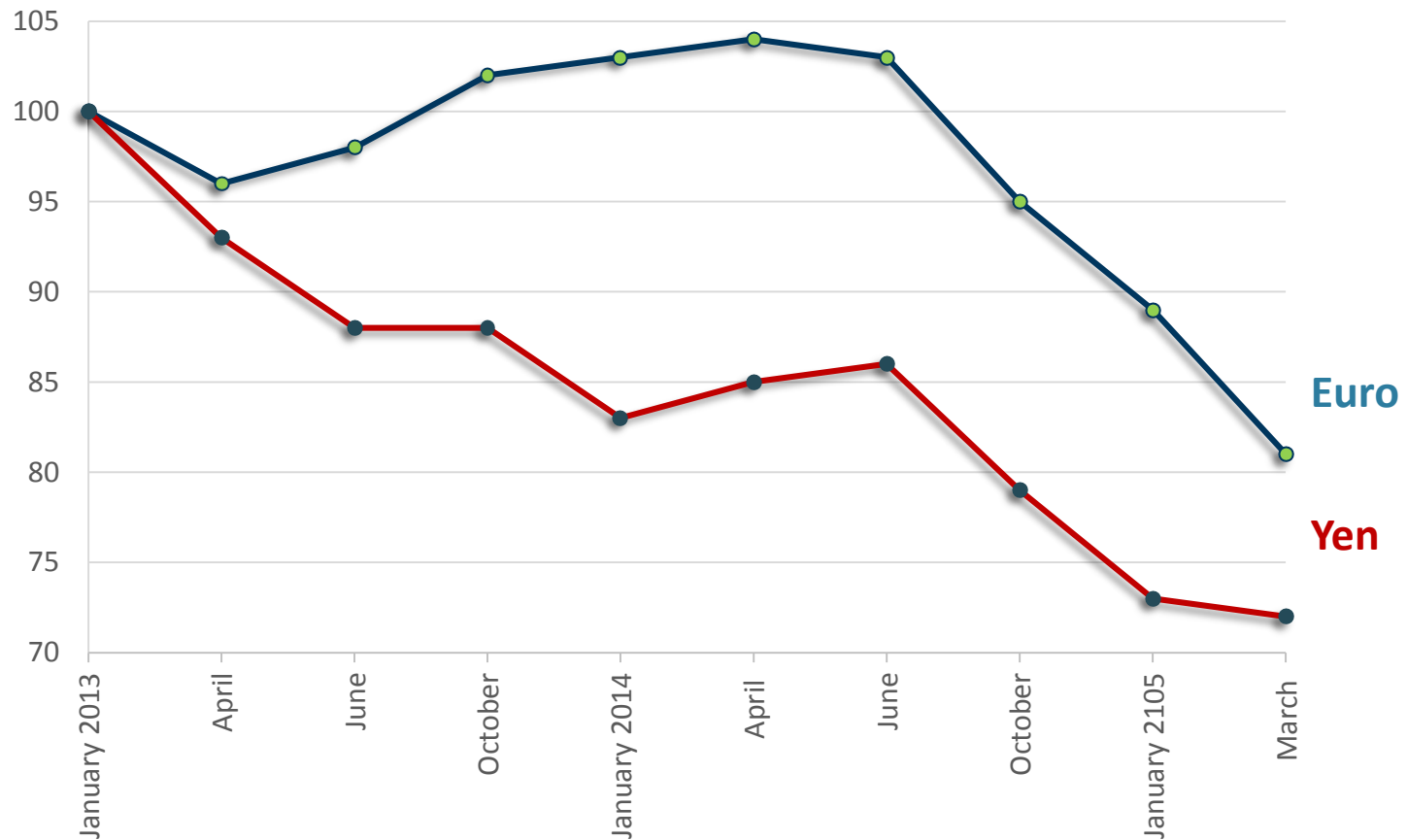
UK Household gross debt as % of income: 2009 - 2020



Source: Office of Budget Responsibility, Economic and Fiscal Outlook, December 2014

Exchange rate depreciation

Yen and Euro versus US\$



Source: IMF data and statistics

Debt and demand in the debt overhang trap

Debt does not go away: it simply shifts

From private to public, and then back

From one country to another

Currency devaluations do not stimulate global demand: they shift demand

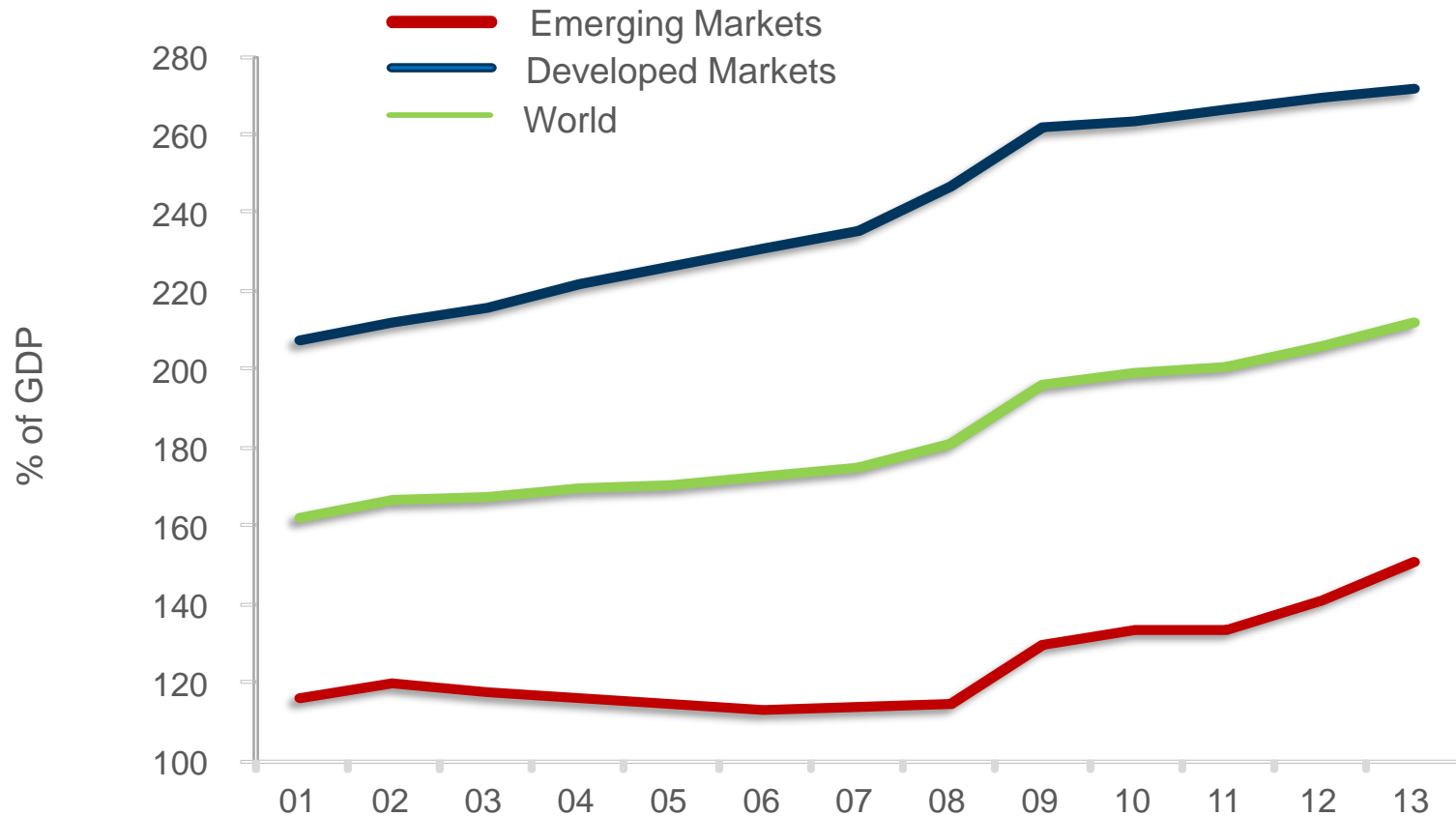
From one country to another

Demand can only be stimulated (rather than shifted) by:

Fiscal deficits → more public debt

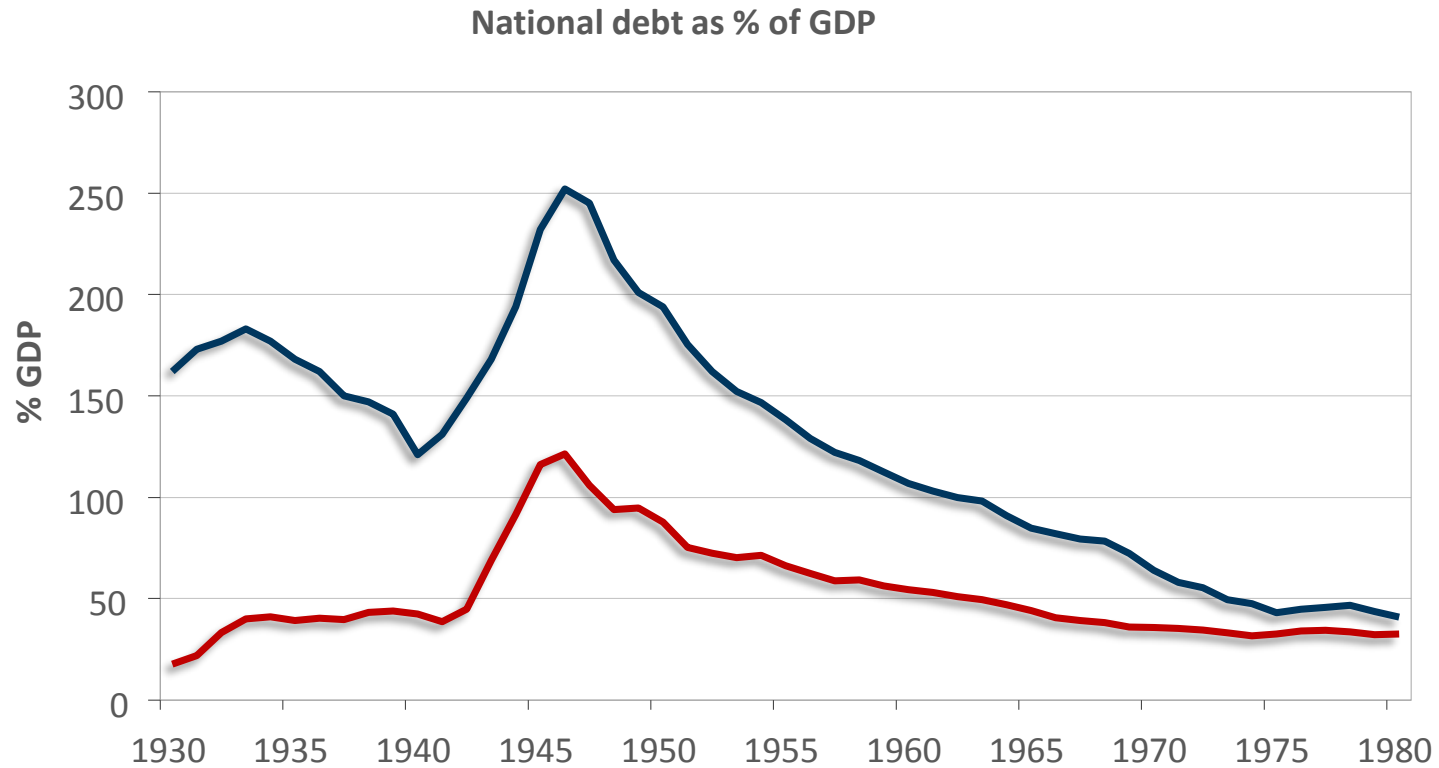
Domestic impact of ultra loose monetary policy → more private debt

Global debt excluding financials



Source: Geneva Report No 16 *Deleveraging, What Deleveraging?* ICMB / CEPR September 2014

Public debt to GDP: US and UK

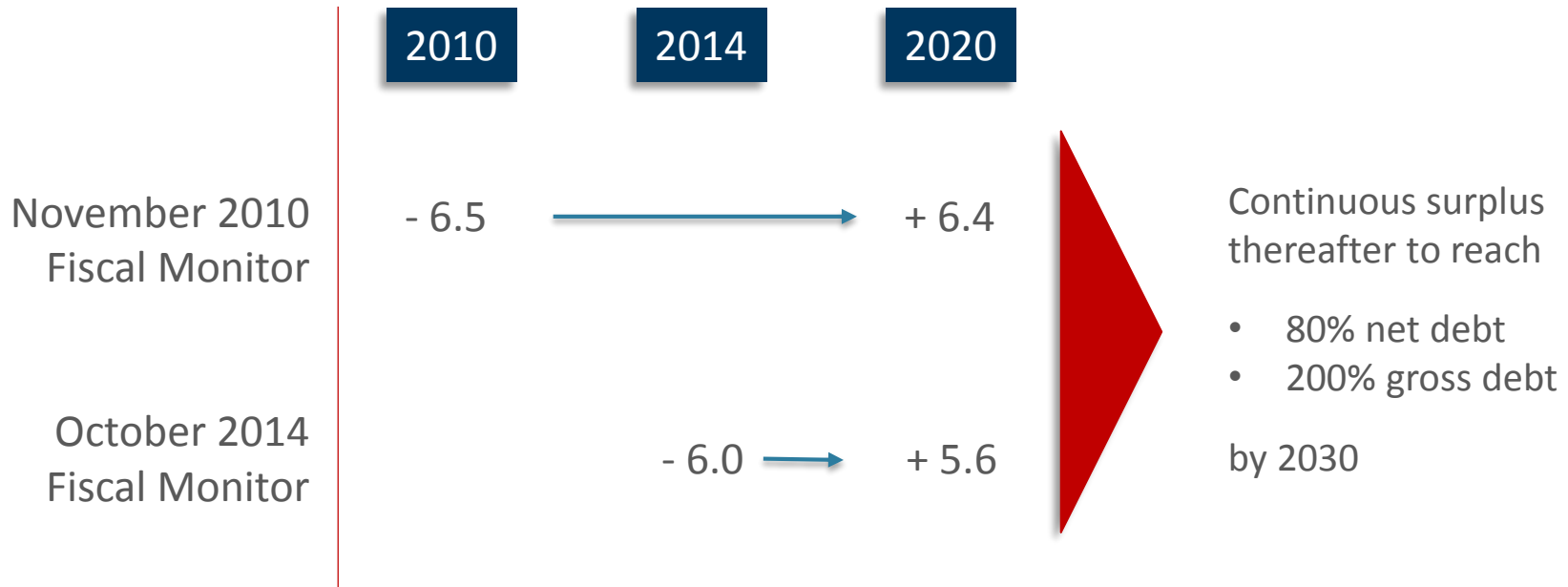


Source: DMO, ONS



Ensuring long-term Japan debt sustainability: IMF scenarios

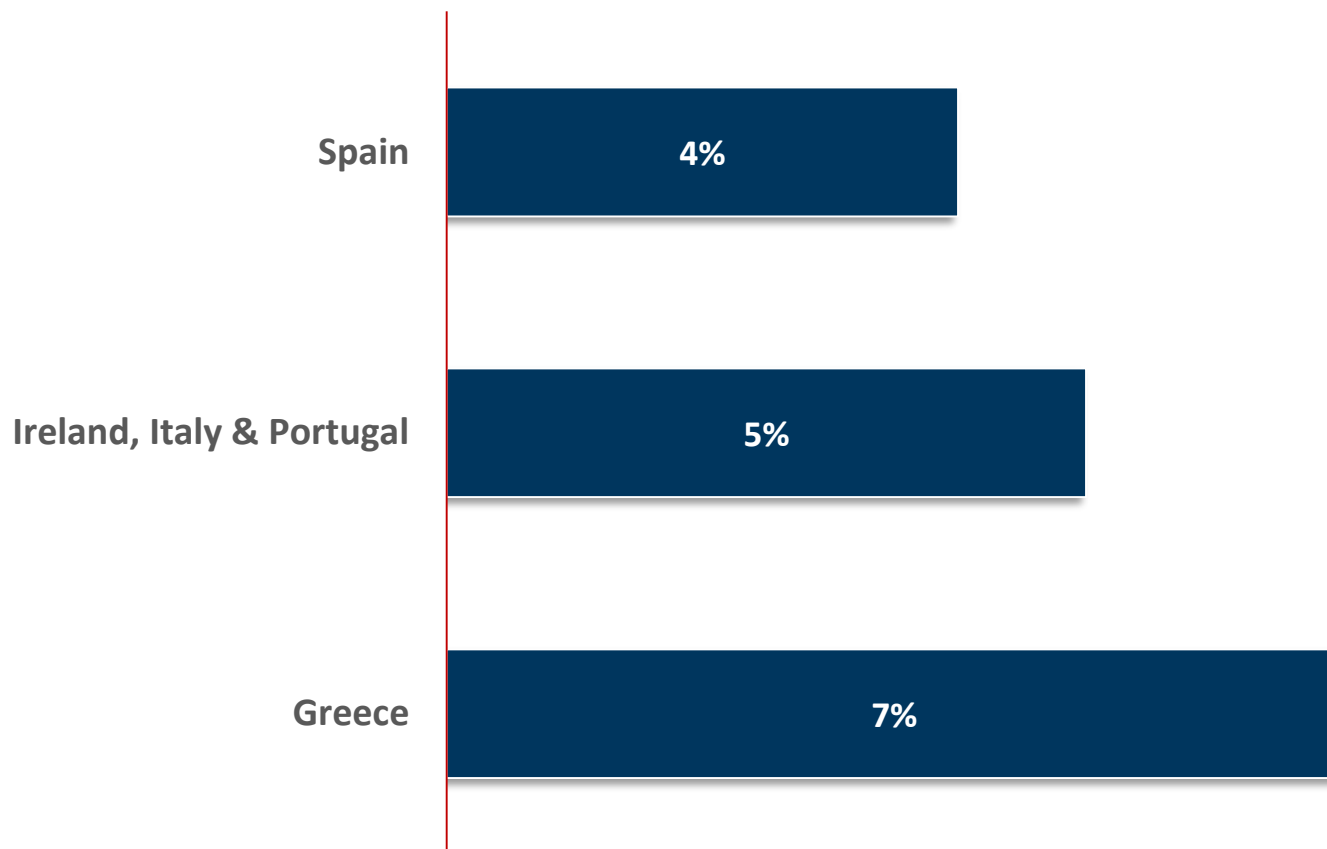
Required cyclical changes in adjusted primary balance
% of GDP



Eurozone debt brake implications

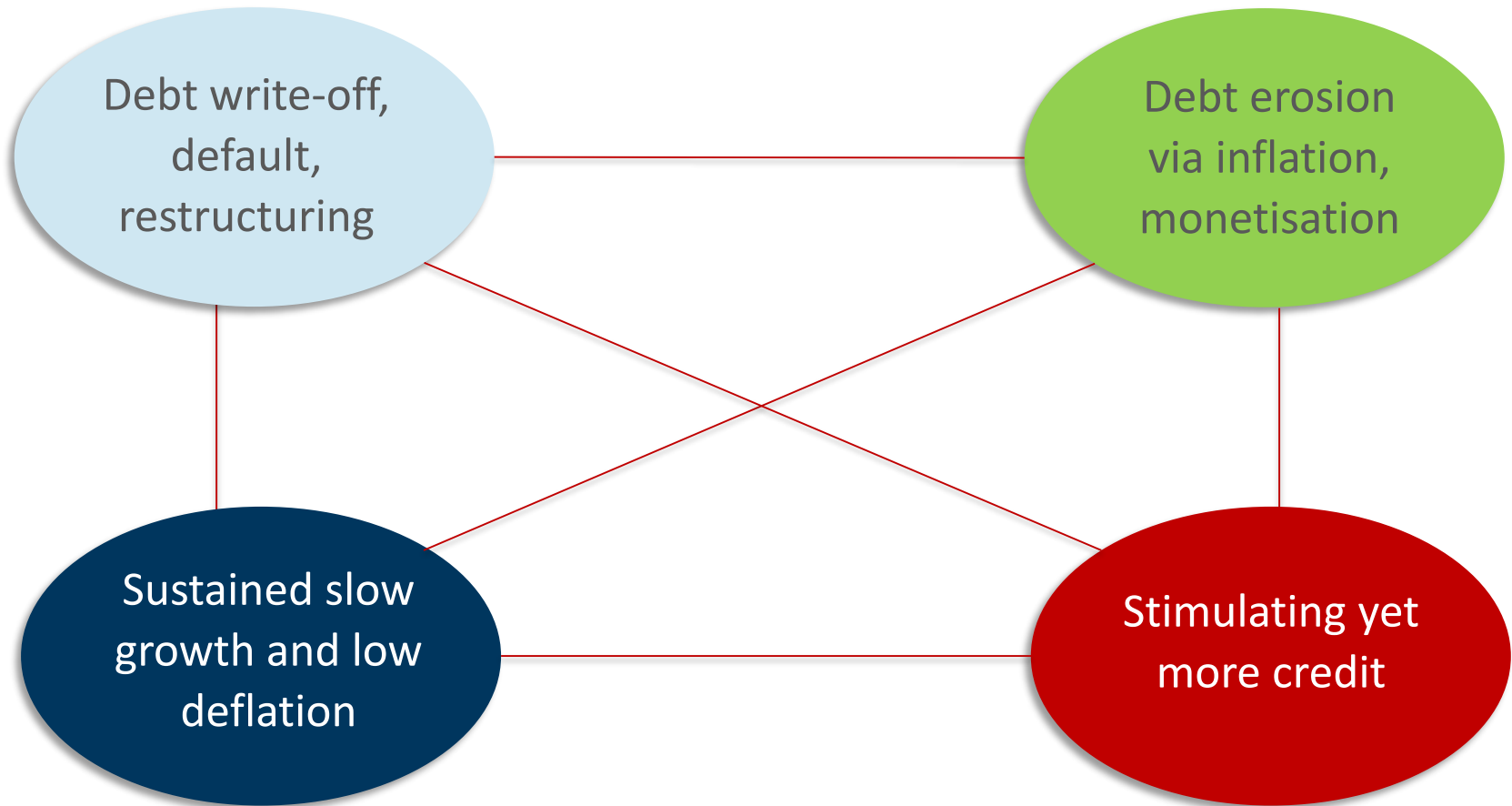
Requirement: reduce debt to GDP each year by $1/20^{\text{th}}$ of the excess over 60% of GDP

Requires primary budget surpluses for 10+ years of:



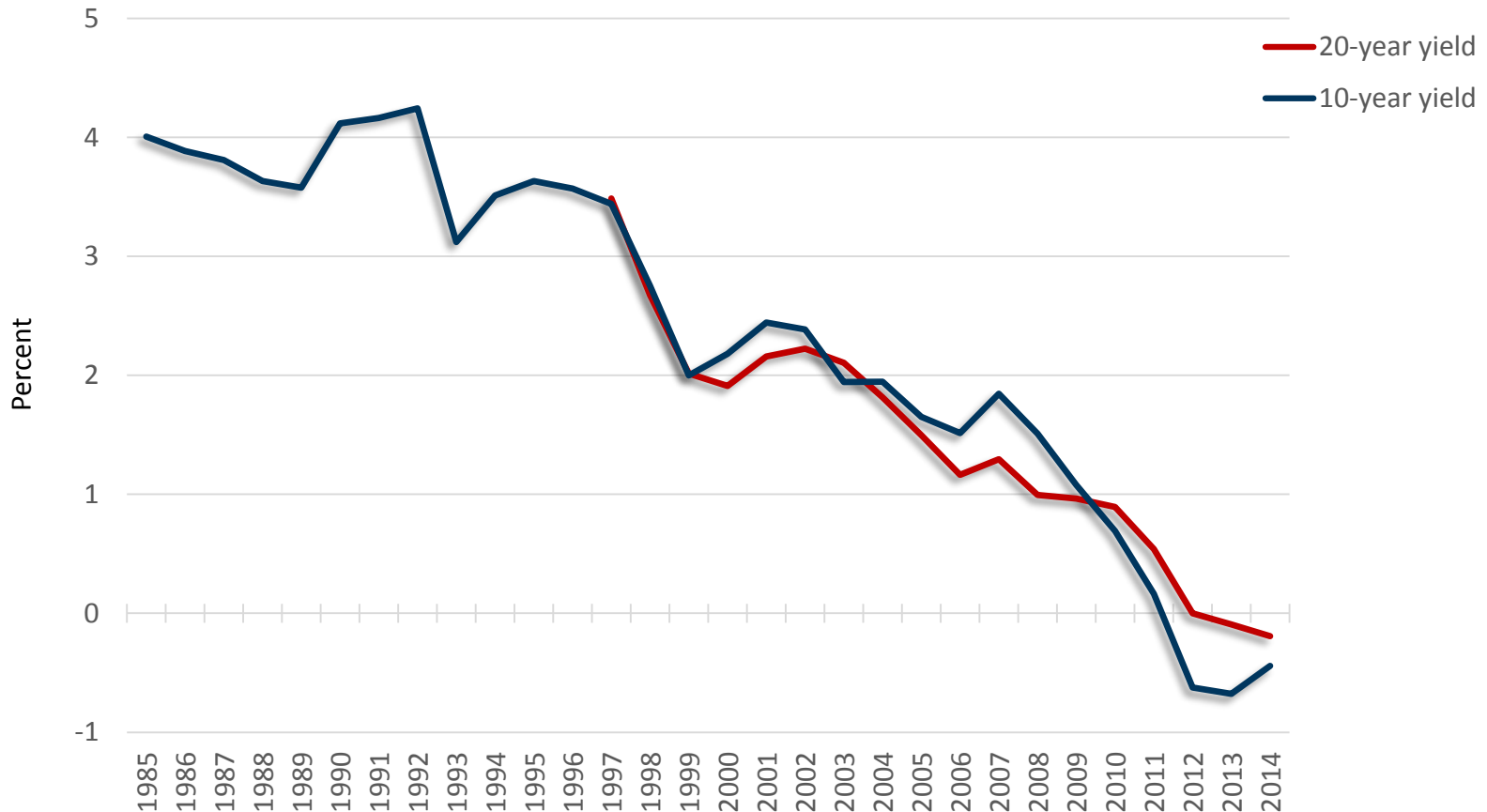
Source: Barry Eichengreen: *The Bond Markets' Dance*, FT.com, 17 November 2014

Debt overhang: the unavoidable choice



- ▶ Debt overhang and deleveraging
- ▶ Long-term secular trends

Real yields to maturity on UK indexed linked gilts



Source: Bank of England Statistics, Zero coupon real yields

Why did real rates fall so much even before the crisis?

Ex-ante savings

Global imbalances?

Inequality?

Demographic effects?

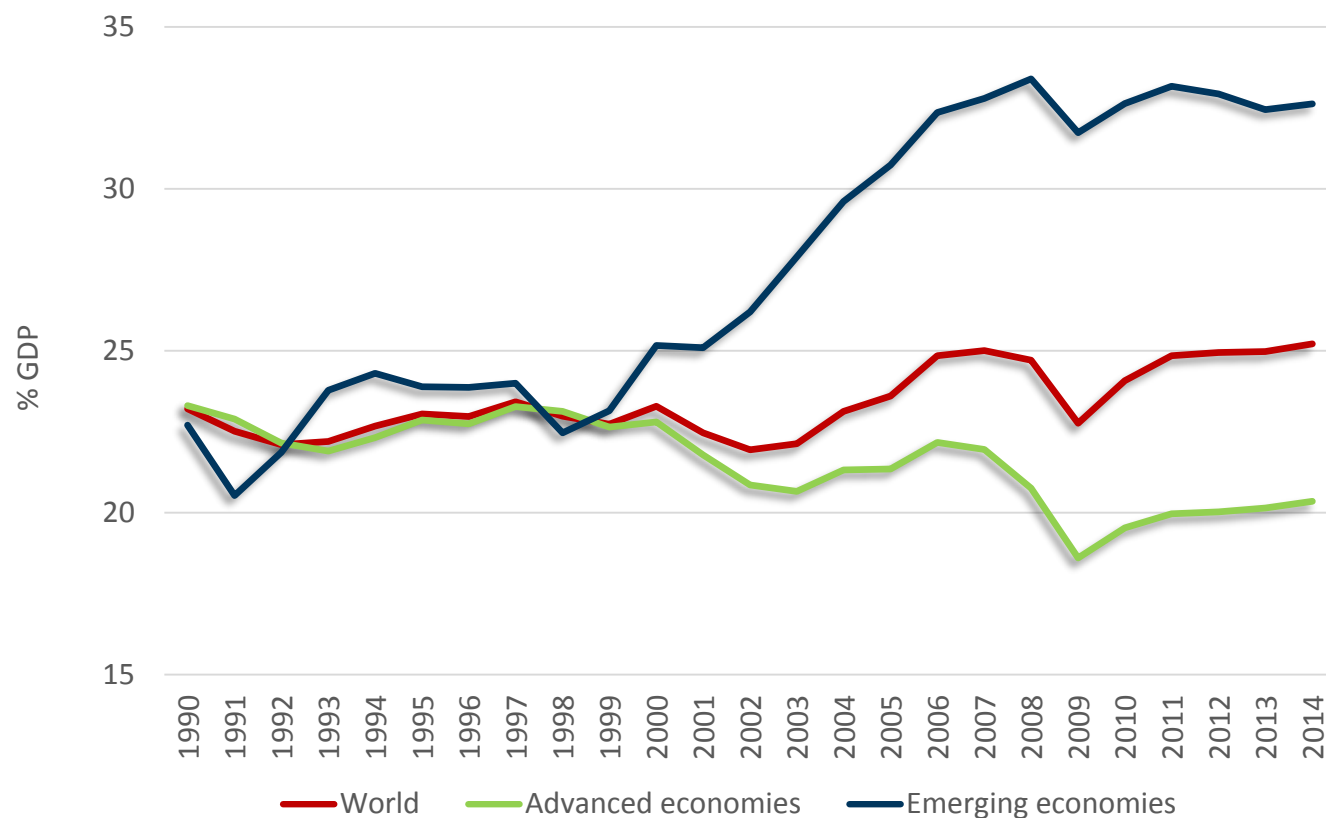
Ex-ante investment

Reduced investment needs?

- In plant and machinery?
- In advanced economy property and infrastructure?

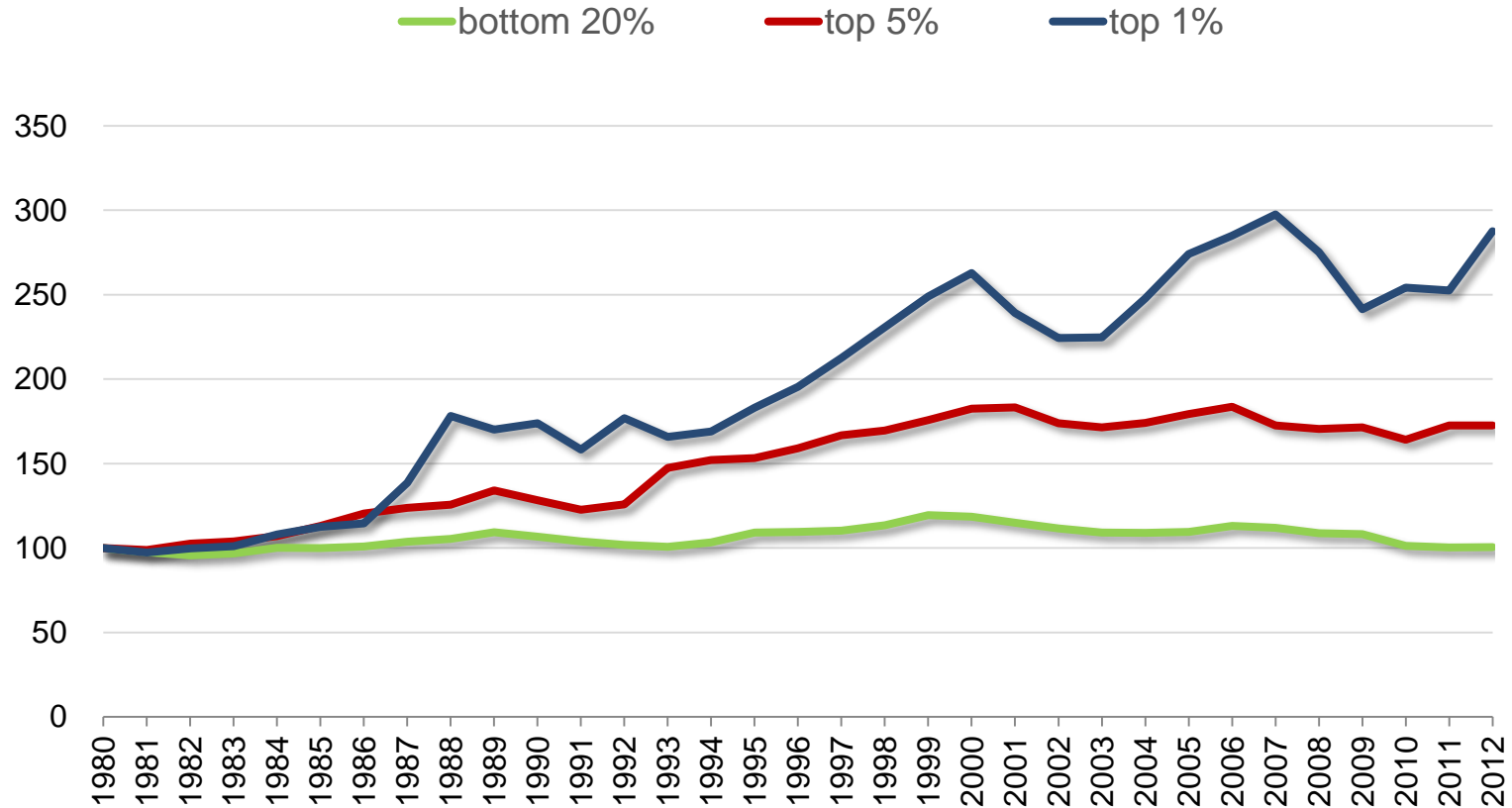


Global savings rates: 1990 – 2014



Source: International Monetary Fund, World Economic Outlook Database, October 2014

Average income increases US (1980=100)



Source: US Census Bureau; World Top Incomes Database

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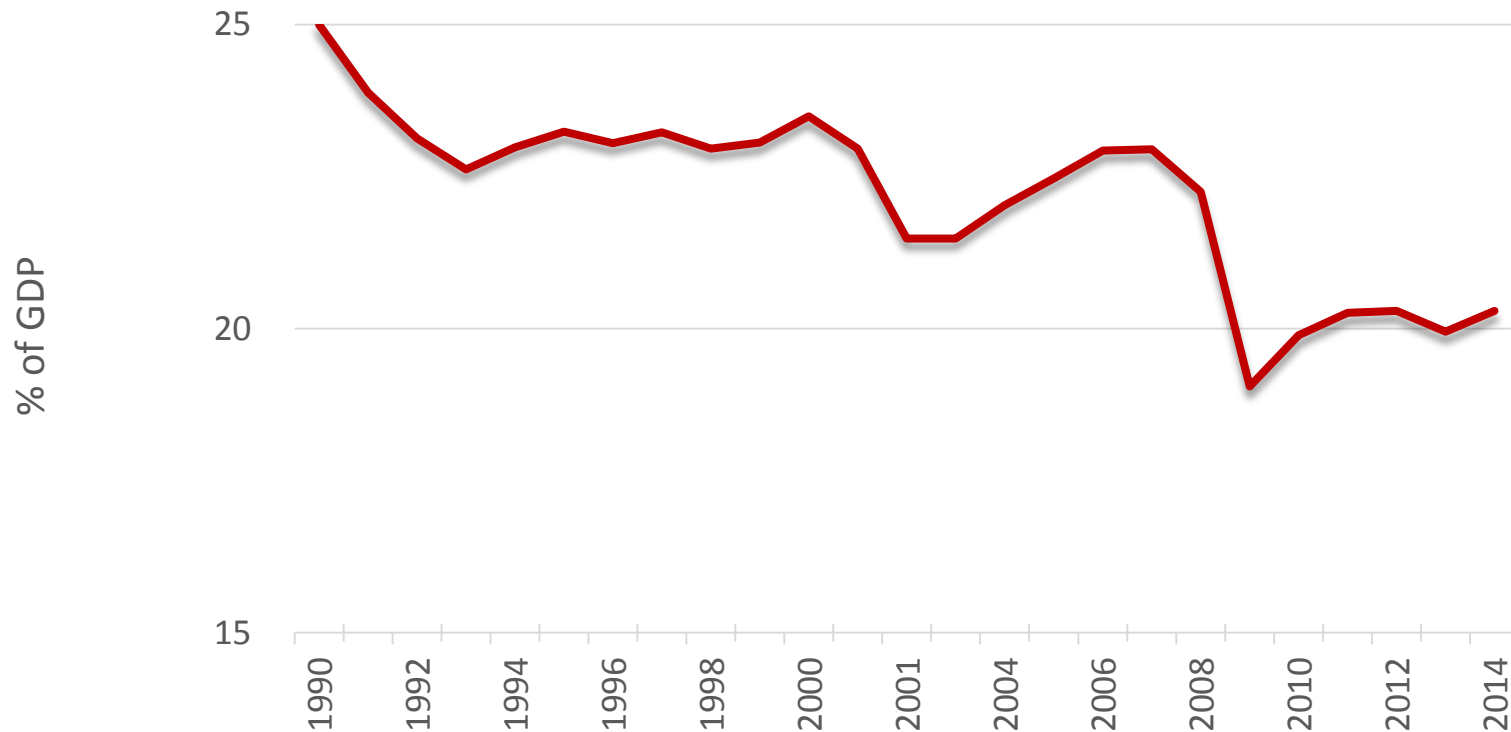
Ex-ante investment

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Advanced economy investment as % of GDP



Source: International Monetary Fund, World Economic Outlook Database

Wealth and employment in ICT businesses

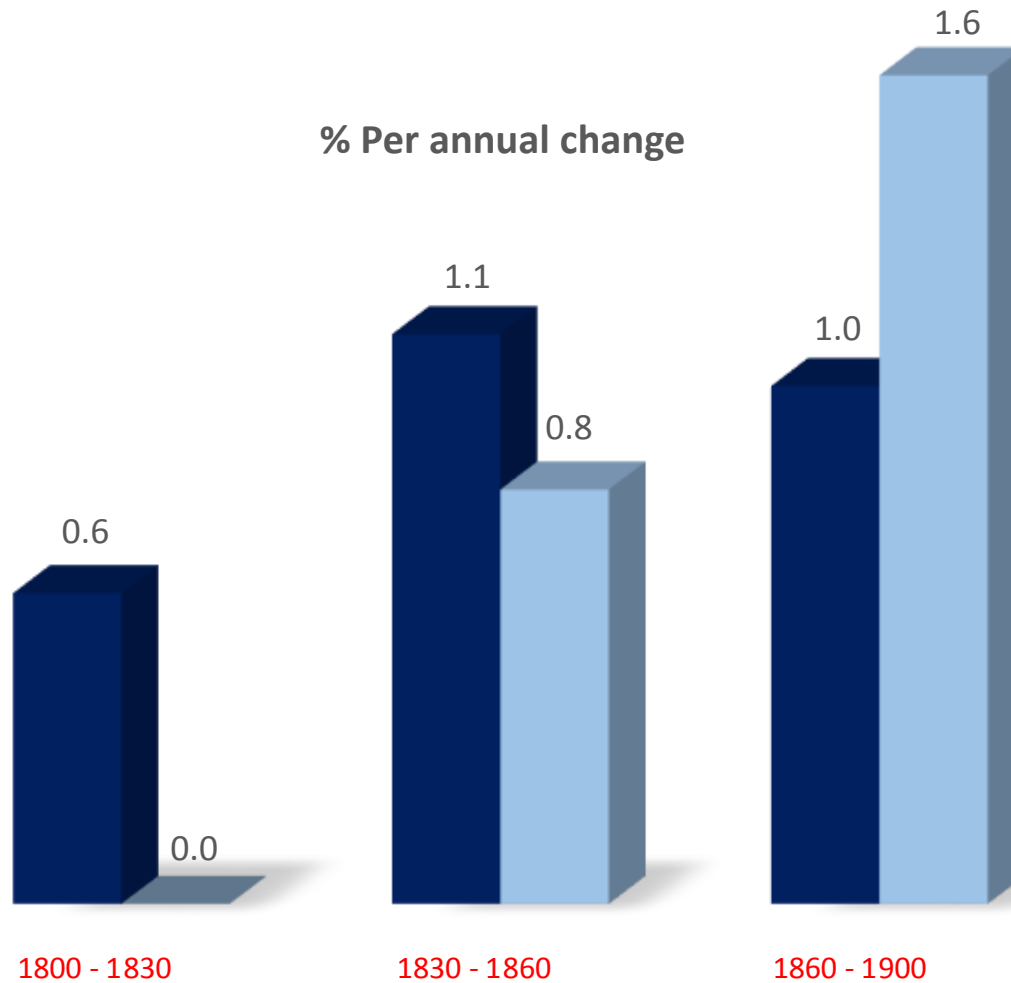
	Market Value (\$bn)	Employees (000s)
	330	~ 99,000
	404	~ 50,000
	170	~ 6,000
 Instagram	1*	~ 12
 WhatsApp	19*	55

* Paid by Facebook

We have over 1 million users per engineer and this number has been steadily increasing

With only 32 engineers, one WhatsApp developer supports 14 million active users

Output per capita and real wages in 19th century Britain



Source: *Engel's Pause: Technical Change, Capital accumulation and Inequality in the British Industrial Revolution*, R. C. Allen (2009)

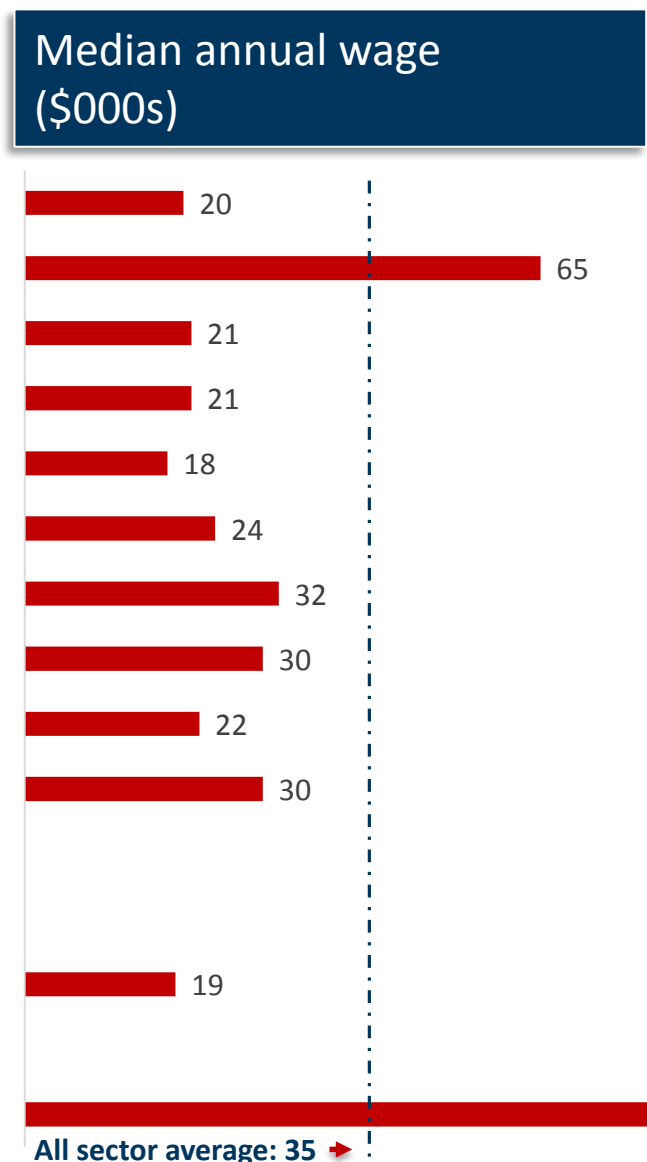
Probability that computerisation will lead to job losses 2010 – 2030

OCCUPATION	PROBABILITY (1=certain)
Recreational Therapists	0.003
Personal Trainers	0.007
Firefighters	0.17
Economists	0.43
Machinists	0.65
Retail salesperson	0.92
Accountants & auditors	0.94
Telemarketers	0.99

Source: *The Future of Employment: How Susceptible are Jobs to Computerisation?* C. Frey and M. Osborne (2013)

US Jobs growth forecast, 2012 – 2022

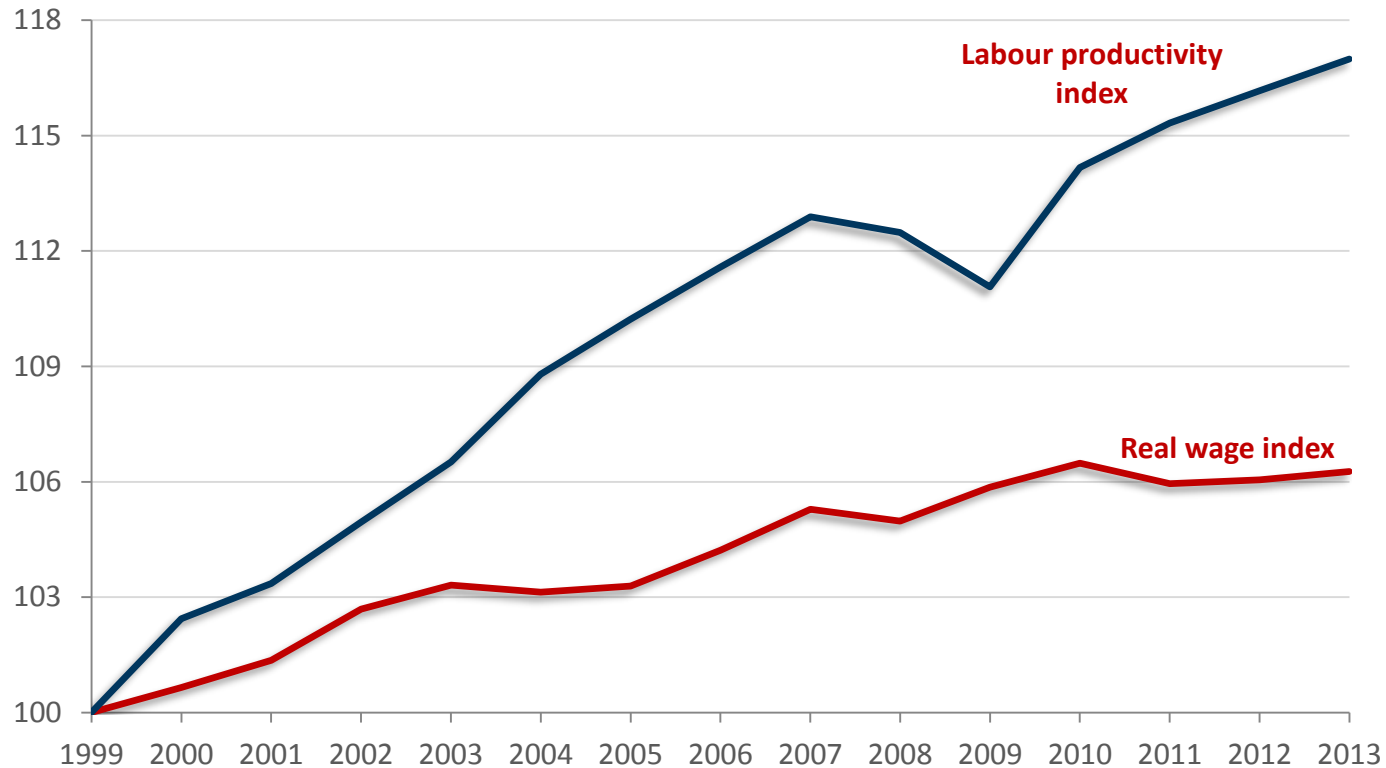
Occupational categories by speed of job growth		Forecast job growth (000s)
1	Personal care aides	580
2	Registered nurses	527
3	Retail sales persons	435
4	Home health aides	424
5	Food preparation and serving aides	422
6	Nursing aides	312
7	Secretaries and administrative assistants	308
8	Customer services reps	299
9	Janitors and cleaners	280
10	Construction labourers	260
19	Maids and house keeping cleaners	183
26	Software developers, applications	140



Source: Bureau of Labor Statistics, www.bls.gov

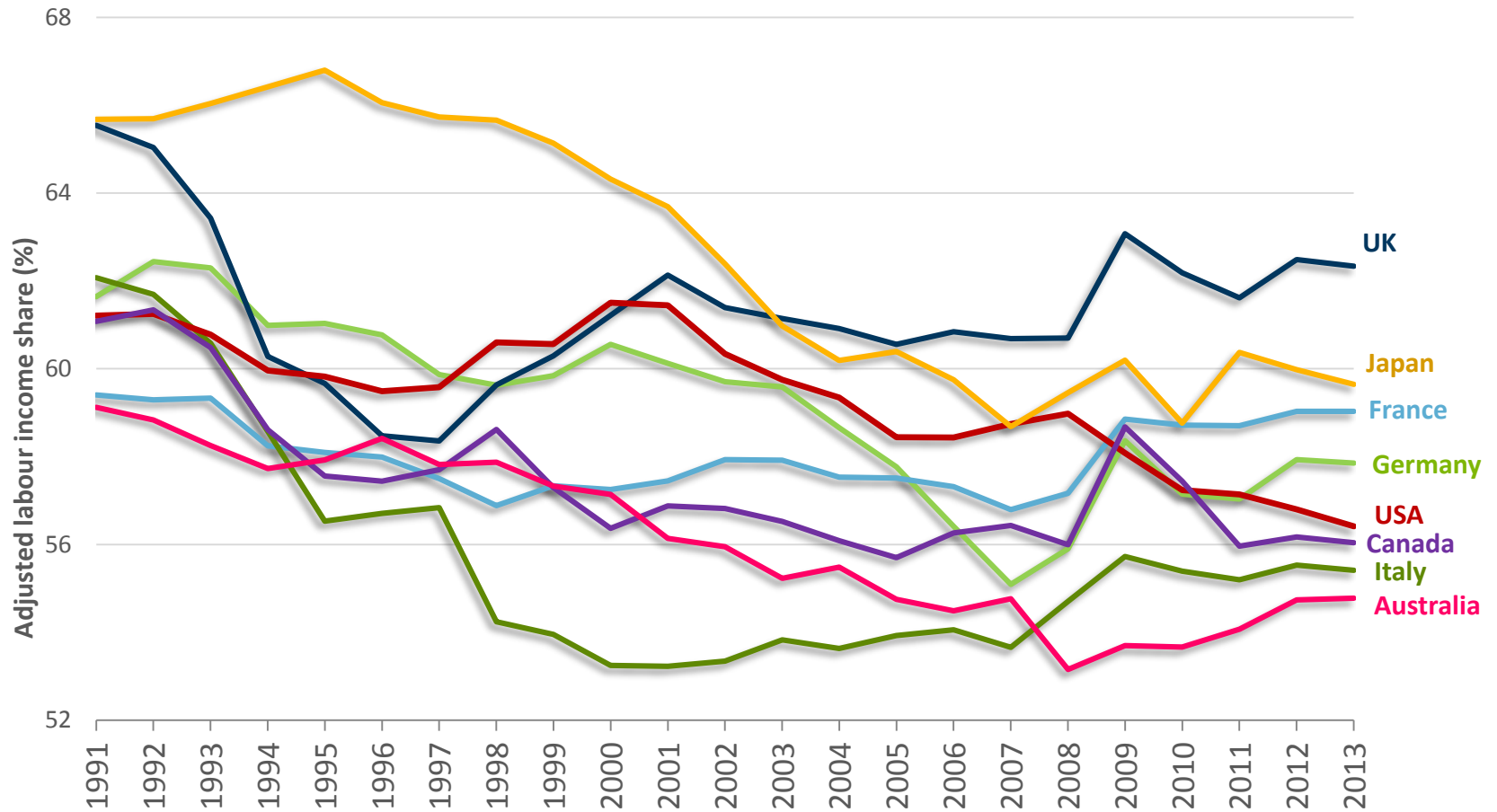
Growth in average wages and labour productivity

Developed economies, 1999 – 2013



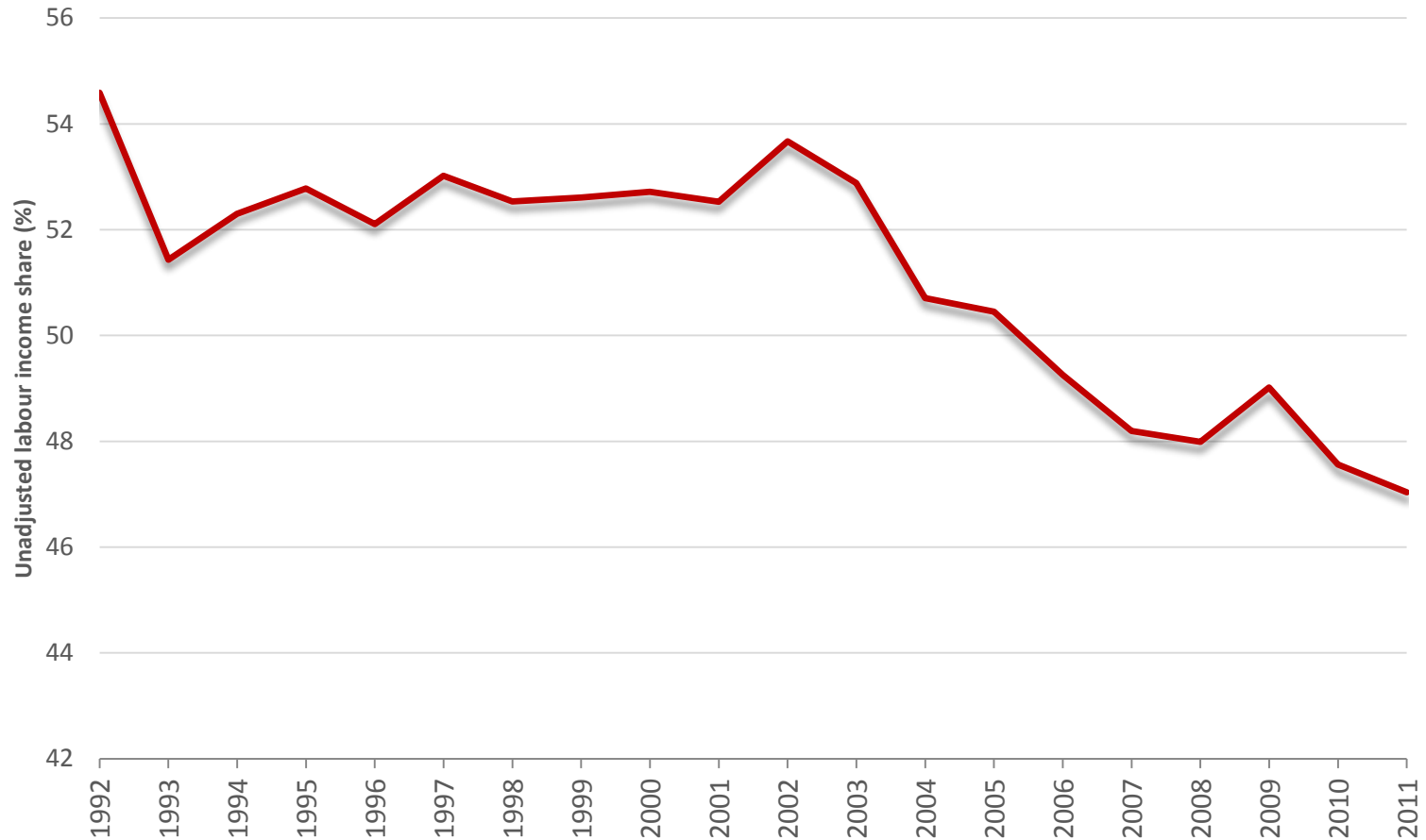
Source: Global Wage Report 2014/15, International Labour Organisation

Labour income share in developed G20



Source: Global Wage Report 2014/15, International Labour Organisation

Labour income share in China



Source: Global Wage Report 2014/15, International Labour Organisation



US population growth and job creation

	2000	2005	2010	2015	2020
Population aged 20-69 (Millions)	178	189	200	209	214
Total in employment (Millions)	137	142	139	~ 148	
Employment rate	77.8%	75.1%	69.5%	70.8%	

Source: UN Population Database (www.un.org); Bureau of Labor Statistics (www.bls.org)

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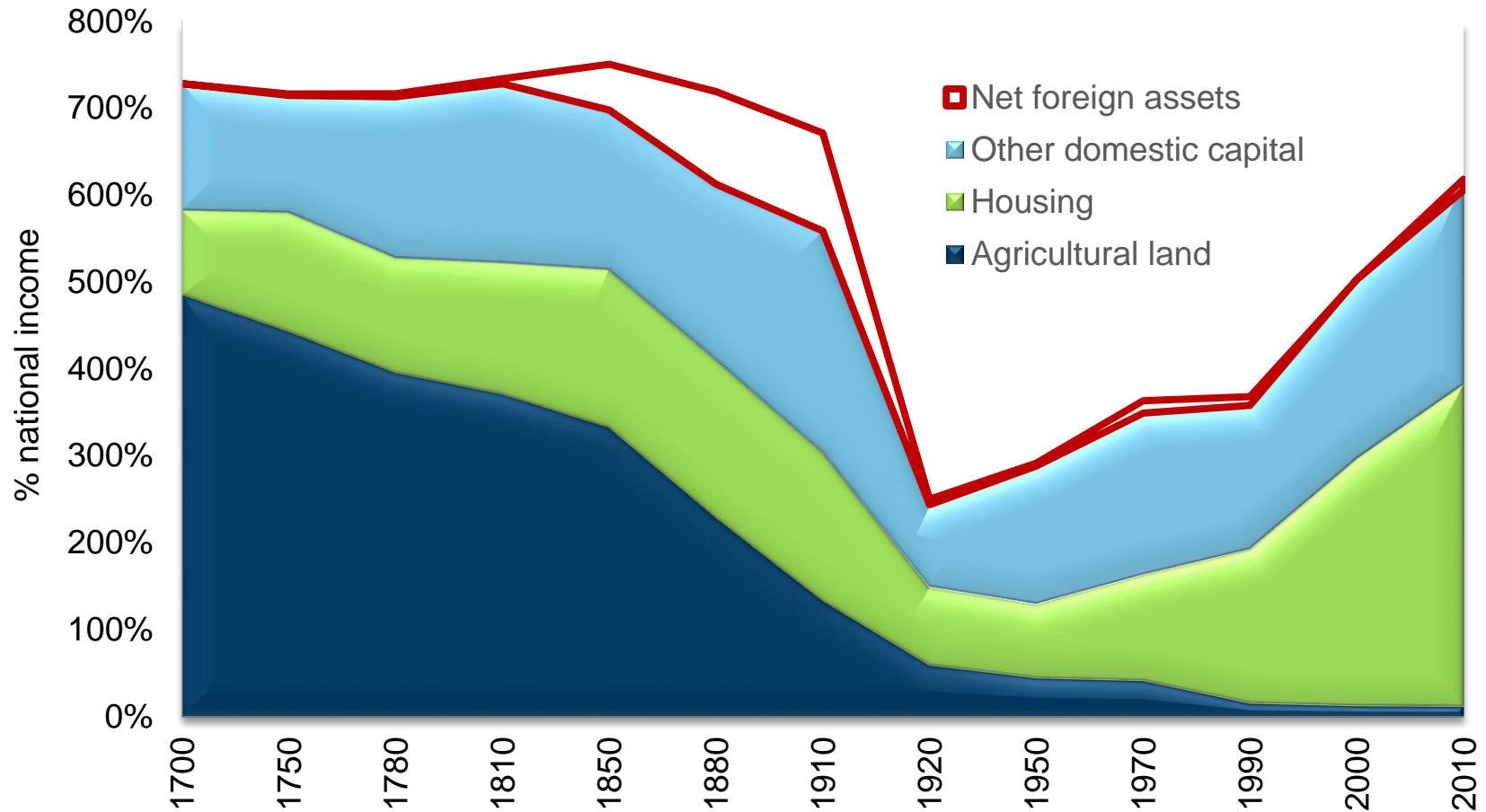
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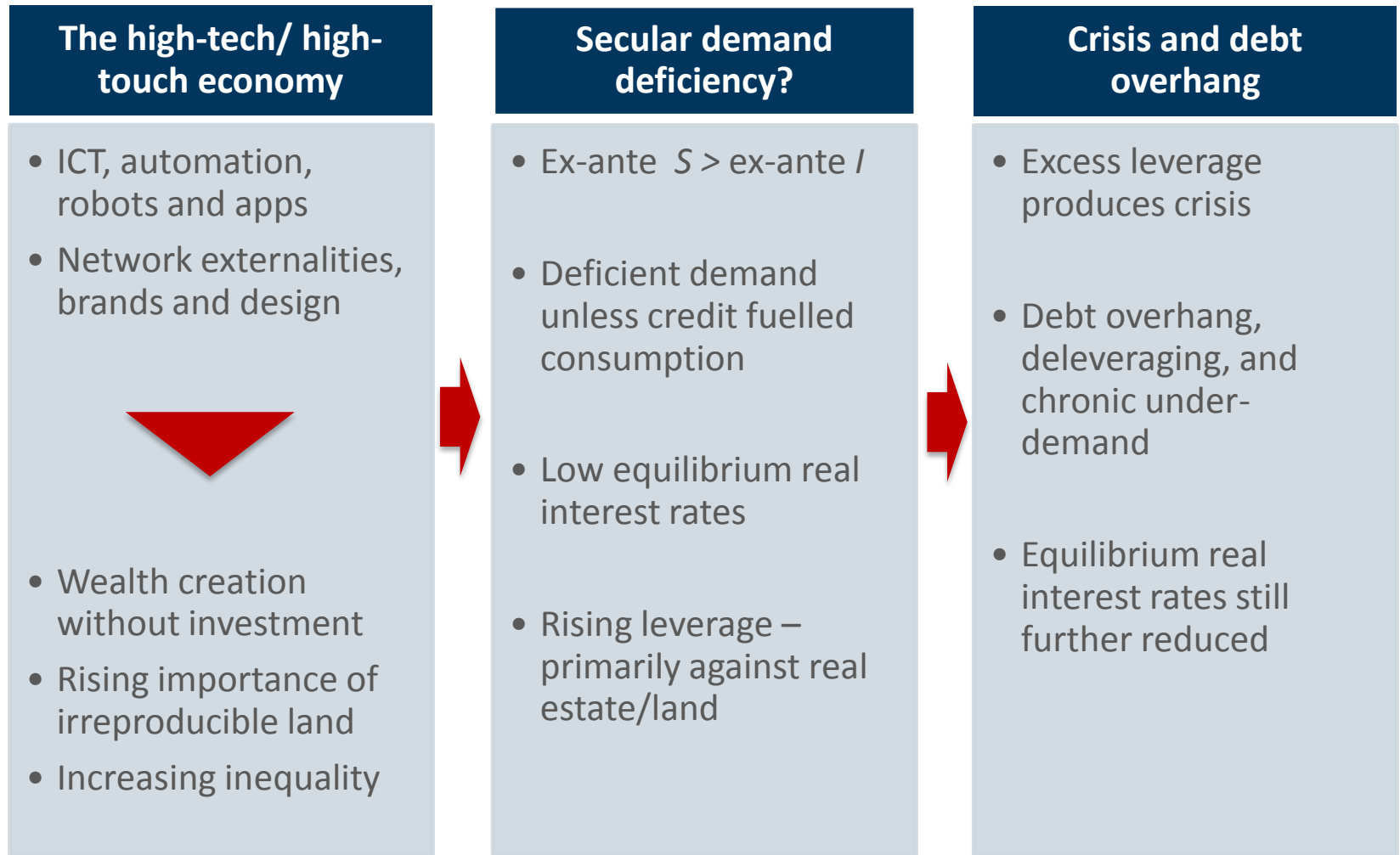


Capital in France 1700 – 2010



Source: *Capital in the Twenty First Century*, T. Piketty (2013)

Deficient demand: secular and cyclical drivers



What will happen



No crisis, but big slowdown



The helicopter money end game: no big deal?



Playing with social and political fire



OK but unbalanced growth



Robust but not as good as hoped