



BANK FOR INTERNATIONAL SETTLEMENTS

Challenges for the global economy: A diagnosis

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Theme and takeaways

- Highlight key themes developed in latest BIS Annual Report
- Why almost a decade since the Great Financial Crisis (GFC) the global economy seems unable to return to sustainable and balanced growth?
- Three takeaways
 - Failure to fully come to grips with financial booms and busts
 - “Excess financial elasticity” (EFE): inability to constrain build-up of financial imbalances (FIs)
 - Progressive loss of policy room for manoeuvre
 - Prevailing analytical lens is not fully adequate
 - Need stronger focus on financial, medium-term and global factors
 - This raises a number of risks
 - Further episodes of serious financial distress
 - Entrenching instability and chronic weakness
 - Ultimately, retrenchment into financial and trade protectionism



Structure of remarks

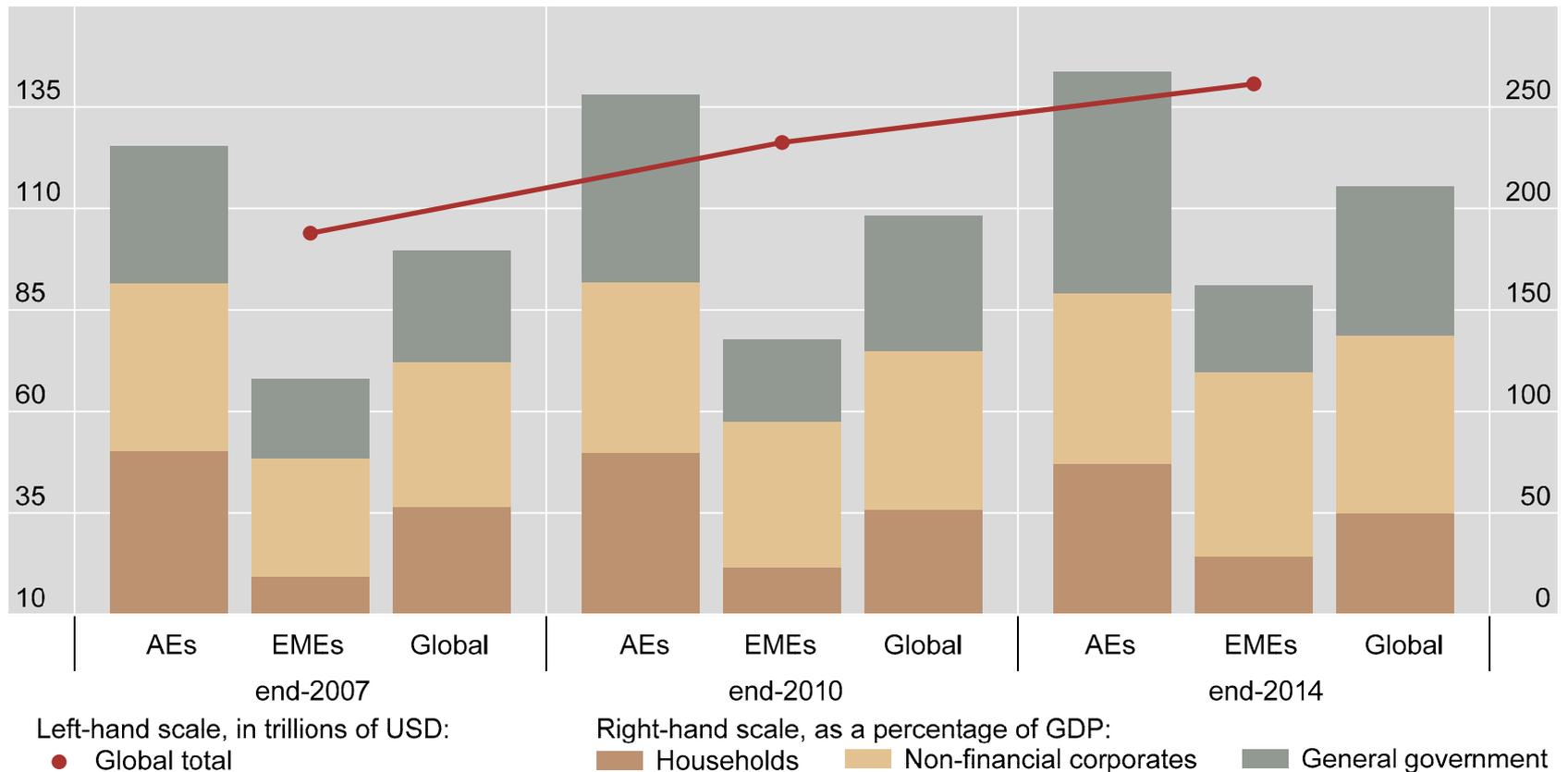
- Review symptoms of unsustainable and unbalanced global expansion
 - Debt; risk-taking; persistent ultra-low rates; productivity; policy room for manoeuvre
- Highlight the main features of the proposed lens
 - Key issue: is the long-term decline in real interest rates an equilibrium phenomenon?
- Provide the corresponding narrative
 - Explain how a faulty lens may have contributed to current predicament



I - The symptoms of the malaise

- Globally, debt in relation to GDP has not adjusted post-crisis (G 1)
 - Crisis-hit countries: some decline in private sector, increase in public sector
 - Non-crisis-hit countries: increase in private sector, mixed in public sector
 - Several have been exhibiting signs of build-up of FIs
- Aggressive risk-taking in financial markets and little risk-taking in real economy
 - Risk-taking is not in the right place
- Persistent ultra-low interest rates, regardless of benchmarks (G 2)
 - Both policy rates and long-term rates
- Decline in productivity growth (G 3)
 - Started well before the crisis, intensified thereafter
- Progressive loss in the policy room for manoeuvre
 - Fiscal (debt levels)
 - Monetary (policy rates & ballooning balance sheets)
- To summarise: the “ugly three”
 - Debt too high; productivity growth too low; policy room for manoeuvre too small

Graph 1: Debt levels continue to rise

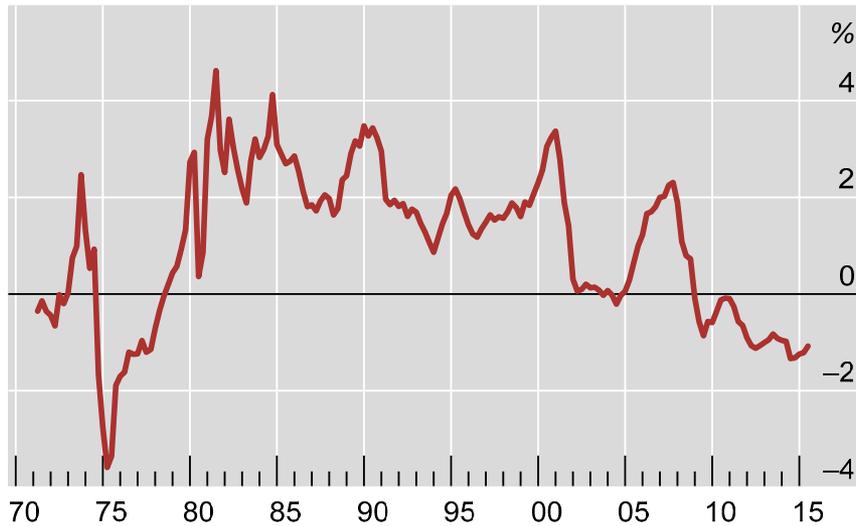


The global sample of countries includes: Argentina, Australia, Brazil, Canada, China, the Czech Republic, Denmark, Germany, France, Greece, Hong Kong SAR, Hungary, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Norway, Poland, Portugal, Russia, Saudi Arabia, Singapore, Spain, South Africa, Turkey, the United Kingdom and the United States. AEs = advanced economies; EMEs = emerging market economies.

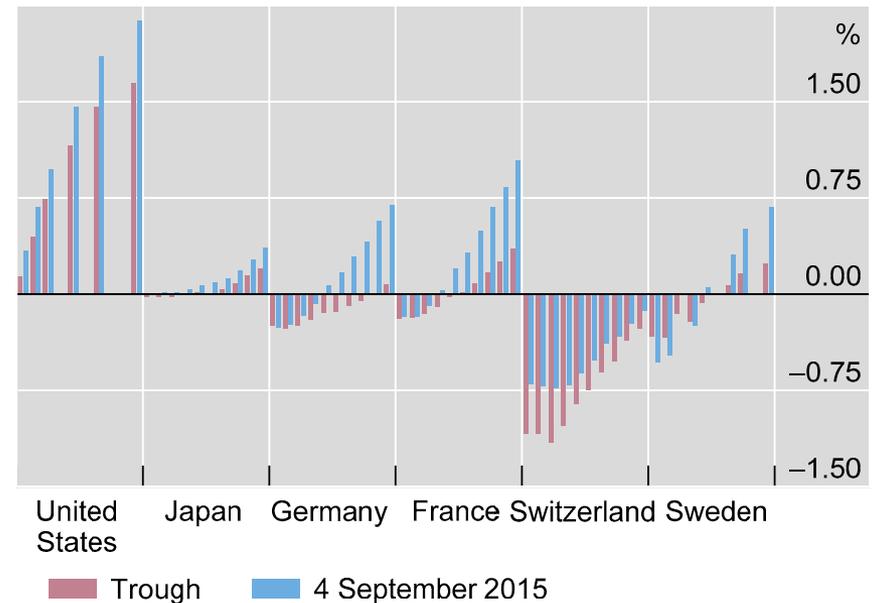
Sources: national data; BIS debt statistics.

Graph 2: Interest rates have been exceptionally and persistently low

G3 real policy rates¹



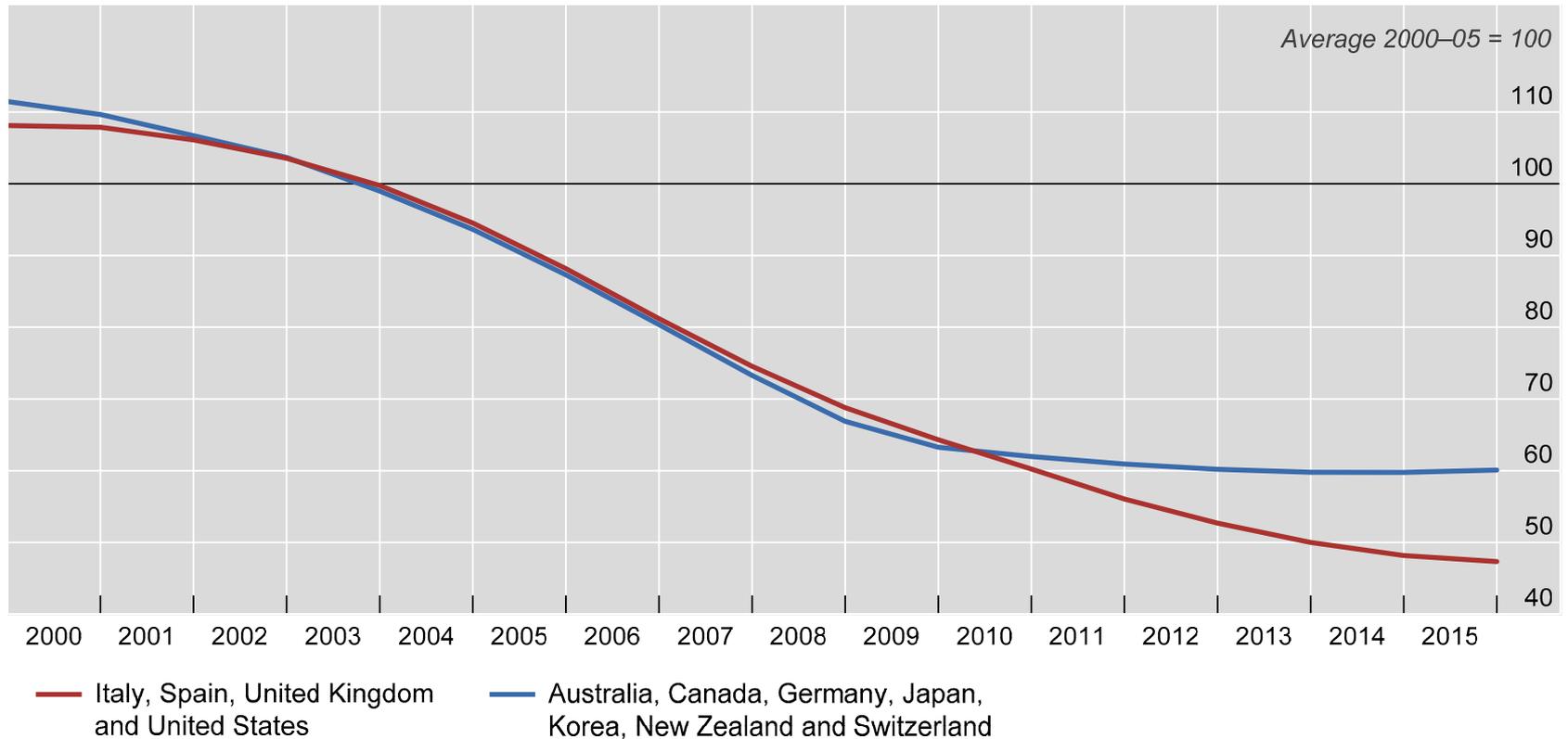
Bond yields²



¹ Nominal policy rate less consumer price inflation excluding food and energy. Weighted averages for the euro area (Germany), Japan and the United States based on rolling GDP and PPP exchange rates. ² Yield per maturity; for each country, the bars represent the maturities from one to 10 years.

Sources: Bloomberg; national data.

Graph 3: Trends in labour productivity growth



Hodrick-Prescott (HP) filter applied to annual growth of output per person employed. Aggregates are weighted averages of trend growth based on GDP at current PPP exchange rates.

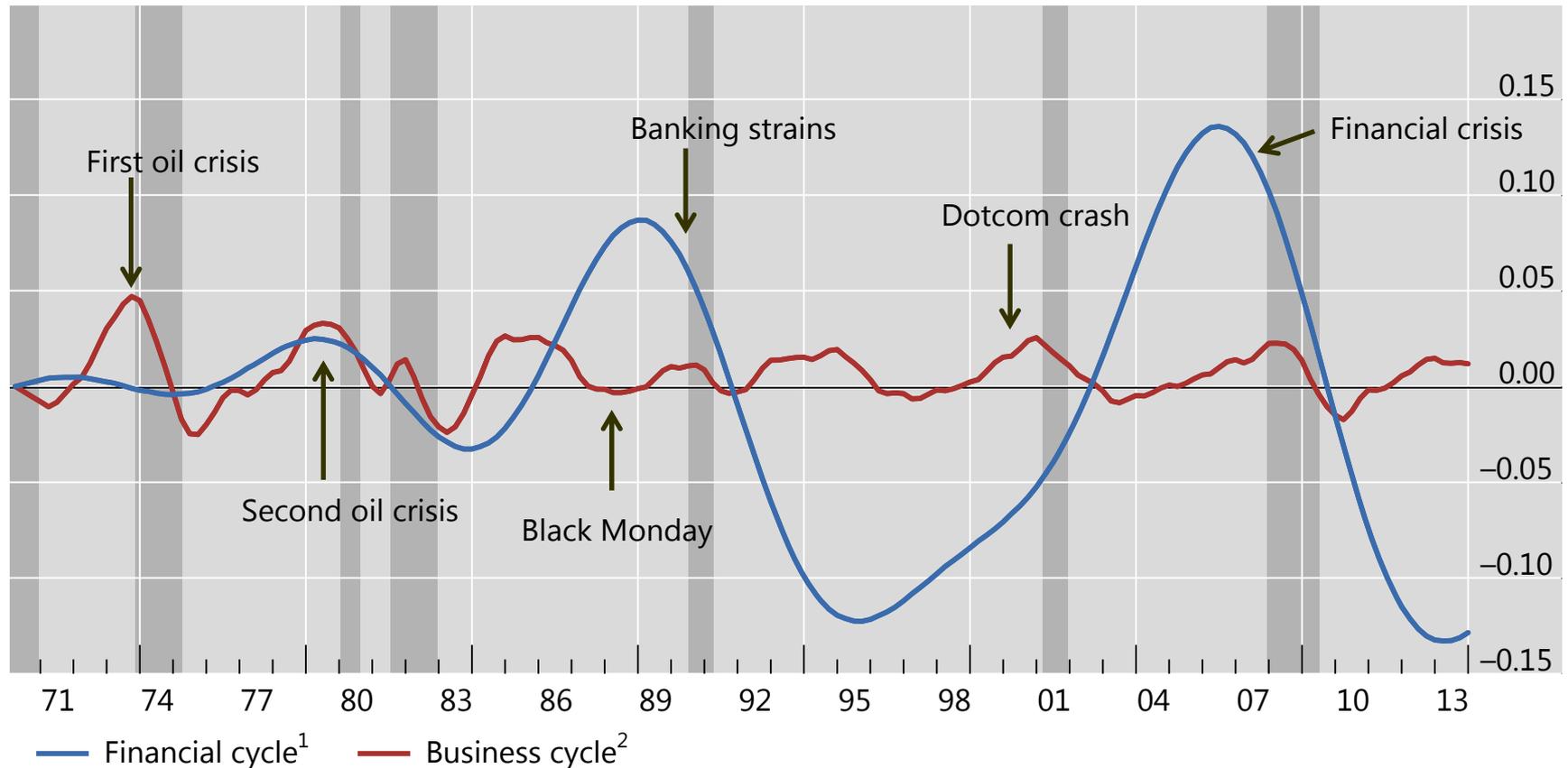
Sources: EU, KLEMS; IMF, *World Economic Outlook*; OECD, *Economic Outlook* and STAN; Conference Board, *Total Economy Database*; GGDC 10-sector database; BIS; BIS calculations.

II – A different lens: 5 key propositions

- **P1:** Macroeconomics cannot ignore the financial cycle (FC) (G 4)
 - FC= Self-reinforcing interaction between risk perceptions/appetite and financing constraints
 - Can lead to systemic financial crises and serious macroeconomic dislocations
 - Best described by joint booms and busts in credit and property prices
 - Much longer than the traditional business cycle
 - Was at the root of the GFC
 - Helps identify build-up of risks and potential output in real time
- **P2:** FCs cause major and long-lasting damage to the real economy
 - Previous work: permanent output losses
 - New BIS research: also long-lasting damage to productivity growth (G 5)
 - During a typical credit boom: over 0.3 pp per year
 - Largely through sectoral misallocations: almost $\frac{3}{4}$ of total loss
 - & with larger effects if a crisis follows: some 0.7 pp per year
 - 5-year boom & 5-year post-crisis window: 6 pp cumulatively



Graph 4: The financial cycle grows bigger (the US example)

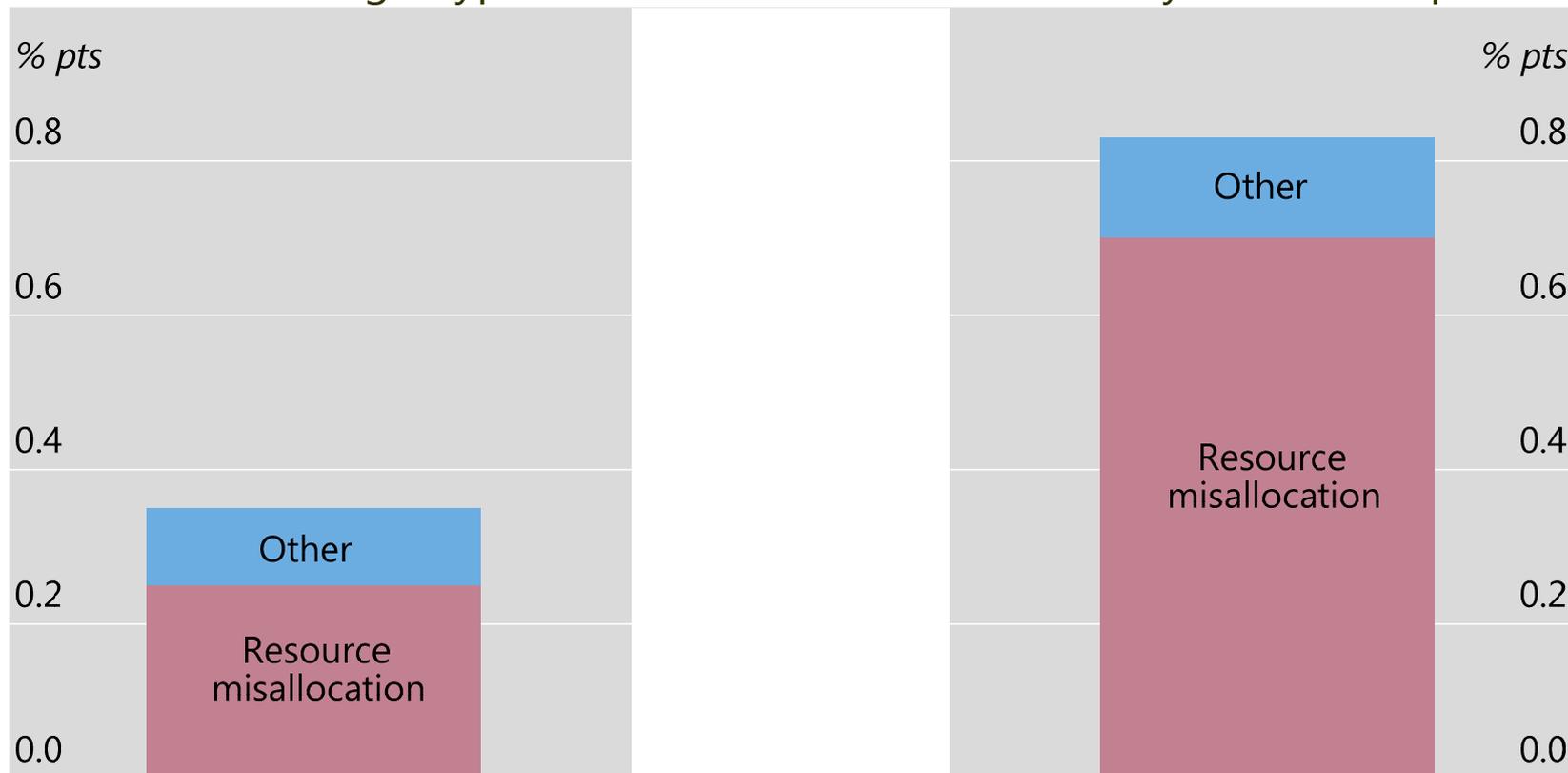


¹ The financial cycle as measured by frequency-based (bandpass) filters capturing medium-term cycles in real credit, the credit-to-GDP ratio and real house prices. ² The business cycle as measured by a frequency-based (bandpass) filter capturing fluctuations in real GDP over a period from one to eight years.

Source: Drehmann et al (2012), updated.

Graph 5: Financial booms sap productivity by misallocating resources

Annual cost during a typical boom ... and over a five-year window post-crisis



Estimates calculated over the period 1980–2010 for 22 advanced economies. Resource misallocation = annual impact of labour shifts into less productive sectors during the credit boom on productivity growth as measured over the period shown. Other = annual impact in the absence of reallocations during the boom.

Source: based on Borio et al (2015), BIS calculations.

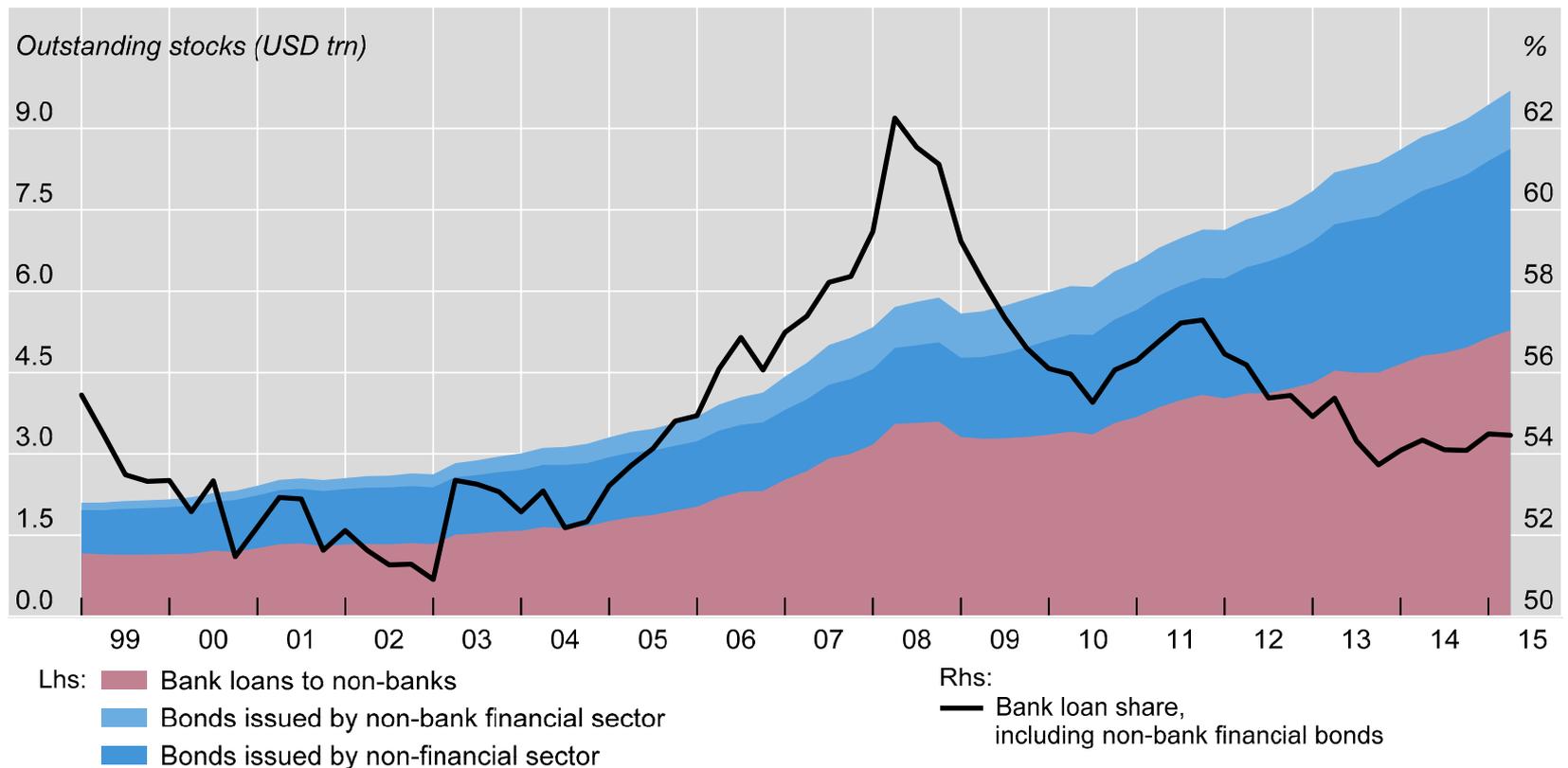


II – A different lens: 5 key propositions (ctd)

- **P3:** FCs have become bigger since early 1980s, following
 - Financial liberalisation (weaker financing constraints)
 - Monetary policy regimes that focus on near-term inflation control (less resistance)
 - Globalisation of the real economy (encourages booms, causes disinflation)
 - Policy regimes have fostered an EFE
- **P4:** The international monetary and financial system (IMFS) amplifies this EFE through the interaction of domestic monetary and financial regimes
 - Monetary regimes pay little attention to the build-up of FIs
 - spread easing bias from the core economies to RoW through
 - extensive reach of international currencies – esp. US dollar (G 6)
 - resistance to exchange rate appreciation – US policy rates matter (G 7)
 - Financial regimes reinforces and channels these effects
 - Global price of risk and global liquidity play a key role
- **P5:** Post-financial boom (balance-sheet) recessions are less amenable to demand management
 - Less policy room for manoeuvre
 - Weaker transmission mechanisms
 - Hence importance of balance-sheet repair and structural reforms



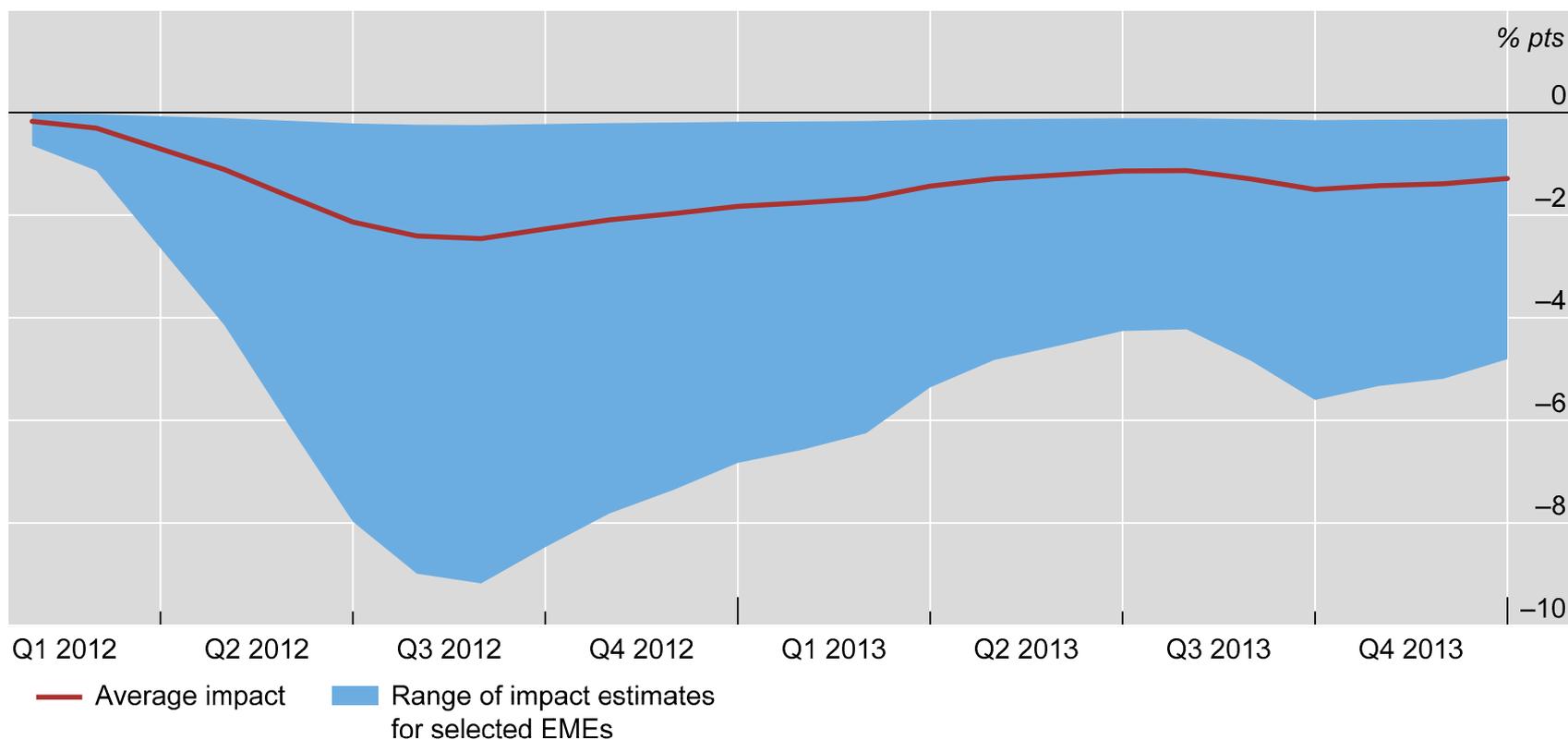
Graph 6: Surge in US dollar credit to non-banks outside the United States



Bank loans include cross-border and locally extended loans to non-banks outside the United States. For China and Hong Kong SAR, locally extended loans are derived from national data on total local lending in foreign currencies on the assumption that 80% are denominated in US dollars. For other non-BIS reporting countries, local US dollar loans to non-banks are proxied by all BIS reporting banks' gross cross-border US dollar loans to banks in the country. Bonds issued by US national non-bank financial sector entities resident in the Cayman Islands have been excluded.

Sources: IMF, *International Financial Statistics*; Datastream; BIS international debt statistics and locational banking statistics by residence; authors' calculations.

Graph 7: Unusually easy monetary policy spreads globally: the impact of US monetary policy



The shadow US policy rate driven component of the augmented Taylor equation when it is significant at the 5% level: Brazil, China, Colombia, the Czech Republic, Hungary, India, Indonesia, Israel, Korea, Mexico, Peru, the Philippines, Poland, Singapore (overnight rate), South Africa and Turkey. For details see E Takáts and A Vela, "International monetary policy transmission", BIS Papers, forthcoming.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*; Bloomberg; CEIC; Consensus Economics; Datastream; national data; BIS calculations.

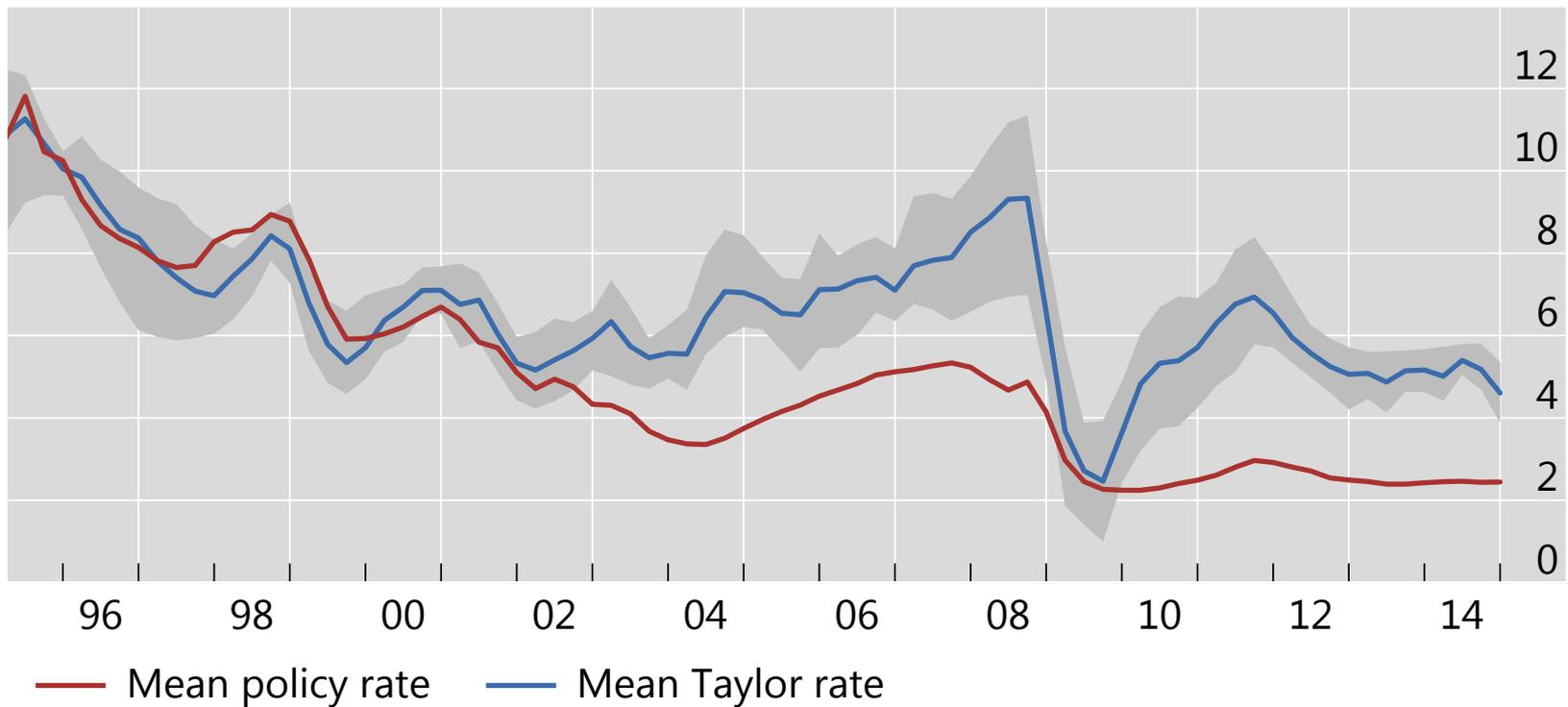


III – A different narrative

- Policymakers have failed to come to grips with the FC
 - They did too little to constrain financial booms
 - They relied too much on demand management to address financial busts
 - Failure to distinguish clearly between crisis management and crisis resolution
- Drawbacks of policy regimes most evident post-crisis
 - As other policies lagged behind, monetary policy became overburdened
 - Low rates in countries fighting a financial bust induced problems elsewhere
 - Exchange rates took adjustment burden and appreciations elsewhere were resisted
 - Easing begets easing
 - Helps explain why
 - Policy rates appear unusually low for world as a whole (G 8)
 - Signs of the build-up of dangerous FIs in countries less affected by the crisis (T 1)
 - EMEs (including very large ones), but also some advanced economies (AEs)
 - If serious financial strains did materialise, spillbacks to RoW could spread weakness



Graph 8: Unusually accommodative global monetary conditions



Weighted averages. For details, see BIS, *85th Annual Report*, Graph V.3.

Table 1: Early warning indicators for banking distress – risks ahead

	Credit-to-GDP gap ²	Property price gap	Debt service ratio (DSR)	Debt service ratio if interest rates rise by 250 bp ⁴
Asia	18.3	10.4	2.0	4.3
Australia	1.6	1.5	0.7	4.5
Brazil	15.7	-5.2	4.6	6.3
Canada	6.5	6.3	1.7	5.5
China	25.4	-6.3	5.8	9.1
Central and Eastern Europe	-11.2	7.1	1.2	2.7
France	5.7	-11.7	1.4	4.5
Germany	-5.9	9.7	-1.8	0.1
Greece	-7.4	4.6		
India	-3.4		2.1	3.2
Italy	-9.8	-17.2	0.8	3.0
Japan	5.2	13.3	-2.2	0.6
Korea	3.4	4.2	0.1	3.8
Mexico	6.0	-4.0	0.3	0.9
Netherlands	-14.7	-19.2	1.6	6.5
Nordic countries	1.5	2.6	1.7	5.9
Portugal	-29.7	7.6	-0.5	2.9
South Africa	-2.1	-6.2	-0.9	0.4
Spain	-39.1	-26.6	-2.2	0.8
Switzerland	9.3	11.6	0.4	3.6
Turkey	16.6		4.1	5.7
United Kingdom	-29.0	-3.1	-1.7	1.2
United States	-12.5	0.9	-1.8	0.7
<i>Legend</i>	<i>Credit/GDP gap > 10</i>	<i>Property gap > 10</i>	<i>DSR > 6</i>	<i>DSR > 6</i>
	<i>2 ≤ Credit/GDP gap ≤ 10</i>		<i>4 ≤ DSR ≤ 6</i>	<i>4 ≤ DSR ≤ 6</i>



III – A different narrative : market vs equilibrium (natural) rates

- Are current market rates equilibrium ones?
- Consensus: market rates are determined by central banks and market participants
 - Given nominal rates, inflation determines real rates (ex ante, ex post)
- Prevailing view
 - Natural rate: output at potential & price (inflation) stability in a given period
 - Behaviour of inflation signals disequilibrium
- Our lens
 - Natural rate: consistent with sustainable good macroeconomic performance
 - Also FIs can signal disequilibrium
- If low rates ...
 - ... contribute to financial instability ...
 - ... and financial instability causes huge economic costs ...
 - ... it is not reasonable to regard those rates as equilibrium ones
- To think otherwise reflects deficiencies in current models

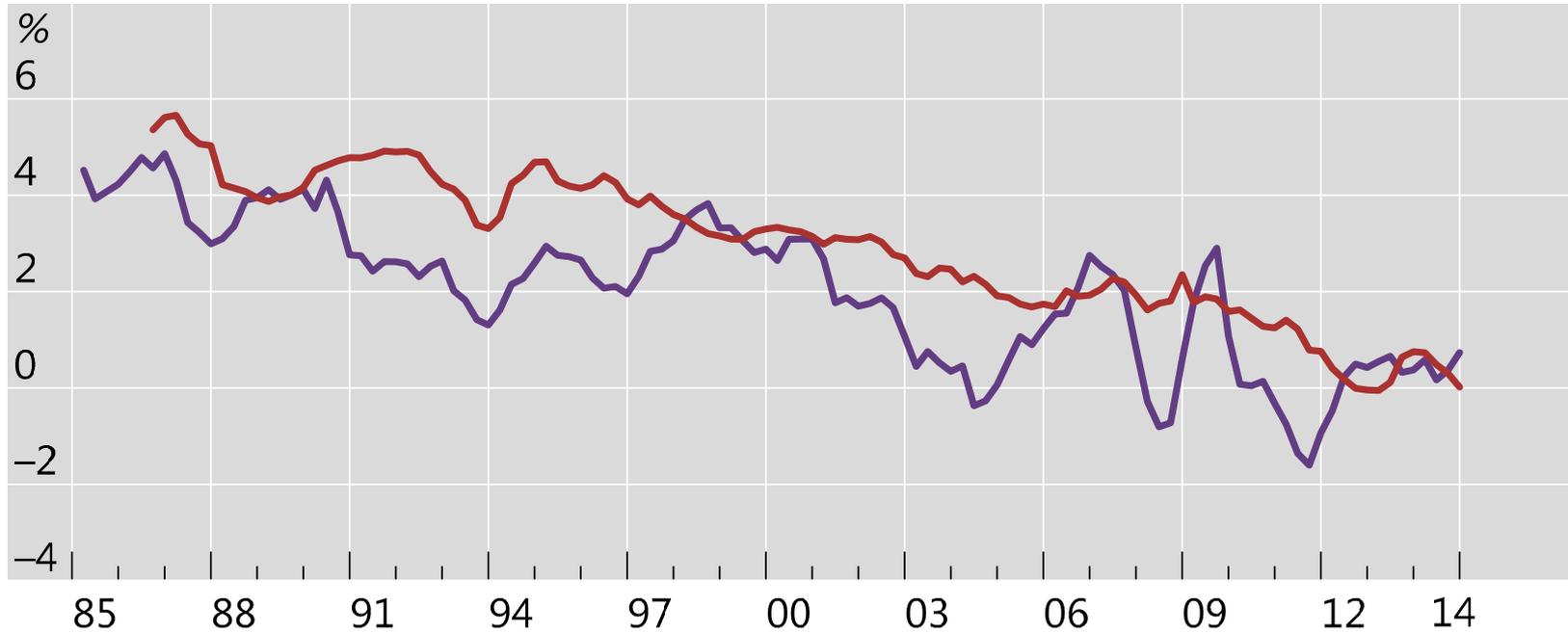


III – A different narrative: why the long-term decline in real rates?

- Complementary explanation: the decline is in part a disequilibrium process (G 9)
 - Reflection of asymmetrical MP over booms and busts
 - Little response during financial booms
 - Large and persistent response during busts
 - Lost-lasting economic damage
 - Induces a downward bias in interest rates and upward bias in debt (G 10)
 - Debt trap?
 - Policy runs out of ammunition over time
 - It becomes harder to raise rates without causing economic damage
 - Owing to large debts/distortions in the real economy
 - Over long horizons, rates become to some extent self-validating
 - Too low rates in the past are one reason for lower rates today
 - Policy rates are not simply passively reflecting some deep “exogenous” forces...
 - ... they are also helping to shape the economic environment



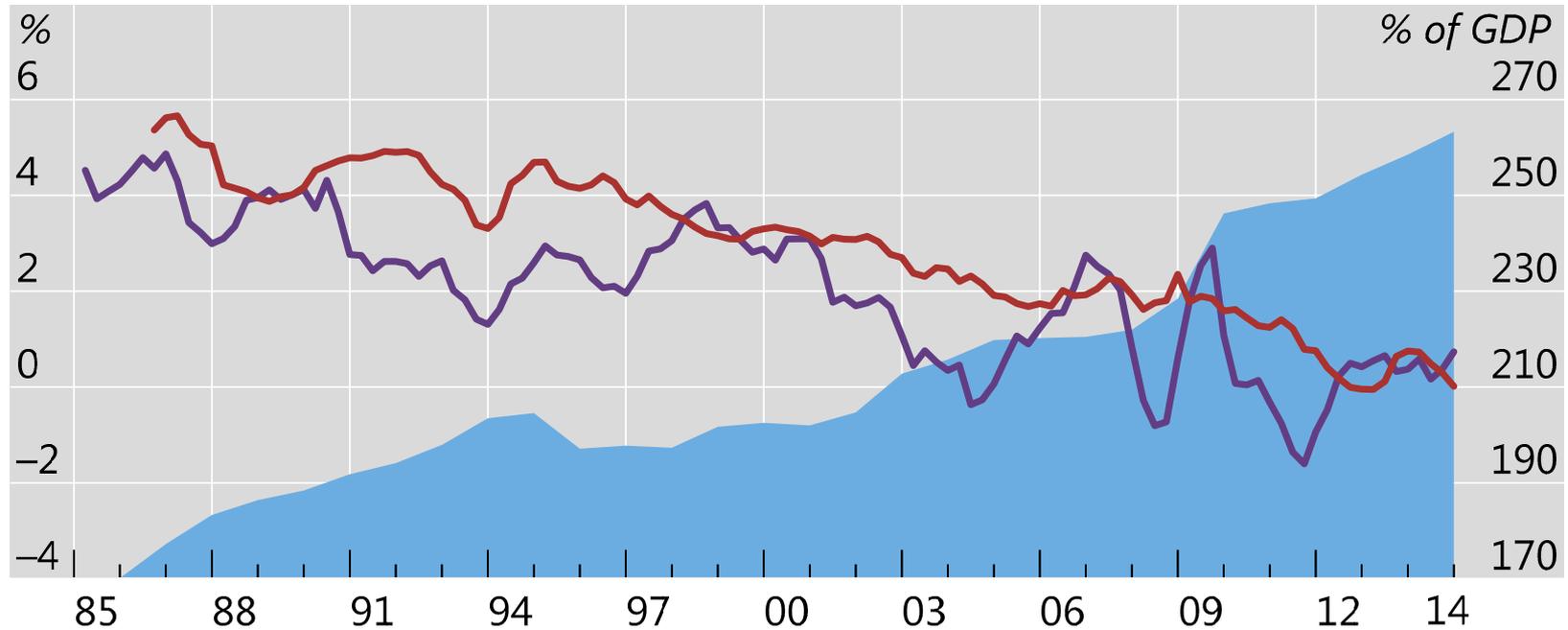
Graph 9: Interest rates sink ...



- Long-term index-linked bond yield
- Real policy rate



Graph 10: Interest rates sink ... as debt soars



Lhs:

— Long-term index-linked bond yield¹
 — Real policy rate^{2, 3}

Rhs:

■ Global debt (public and private non-financial sector)³

¹ From 1998, simple average of France, the United Kingdom and the United States; otherwise only the United Kingdom. ² Nominal policy rate less consumer price inflation. ³ Aggregate based on weighted averages for G7 economies plus China based on rolling GDP and PPP exchange rates.

Sources: IMF, *World Economic Outlook*; OECD, *Economic Outlook*; national data; BIS calculations.

Conclusion

- The global economy is struggling to achieve sustainable and balanced expansion
 - Most conspicuous sign: exceptionally low interest rates for exceptionally long
 - Most recent slowdown in EMEs is but latest chapter in unfolding plot
- I have offered a possible lens to understand this predicament
 - Key: inability of policy frameworks to come to grips with the global economy's EFE
 - ie, propensity to generate hugely damaging financial booms and busts
- This raises near-term and long-term risks
 - Further episodes of serious financial distress
 - Entrenching instability and chronic weakness
 - A rupture in the open global economic order
- Adjustments to policy frameworks are needed
 - Address the FC through all policies (PP, MP and FP) – more symmetry is key
 - Rebalance the policy mix towards structural measures
 - Not presume that if one's own house is in order the global village will also be
 - Lengthen policy horizons
- We cannot afford to rely on the current debt-fuelled growth model any longer
 - The sooner we realise this, the better



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