



BANK FOR INTERNATIONAL SETTLEMENTS

Challenges in the wake of the boom*

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* The views expressed in this presentation are my own and not necessarily those of the Bank for International Settlements. I would like to thank Matthias Lörch for help with the graphs.



A long boom is fading out

Real GDP growth (ppp weighted average)

In per cent



Countries: CN,HK,IN,ID,KR,MY,PH,SG,TH, AR,BR,CL,CO,MX,PE, CZ,HU,PL,RU,TR, IL,SA,ZA.

Source: IMF WEO.

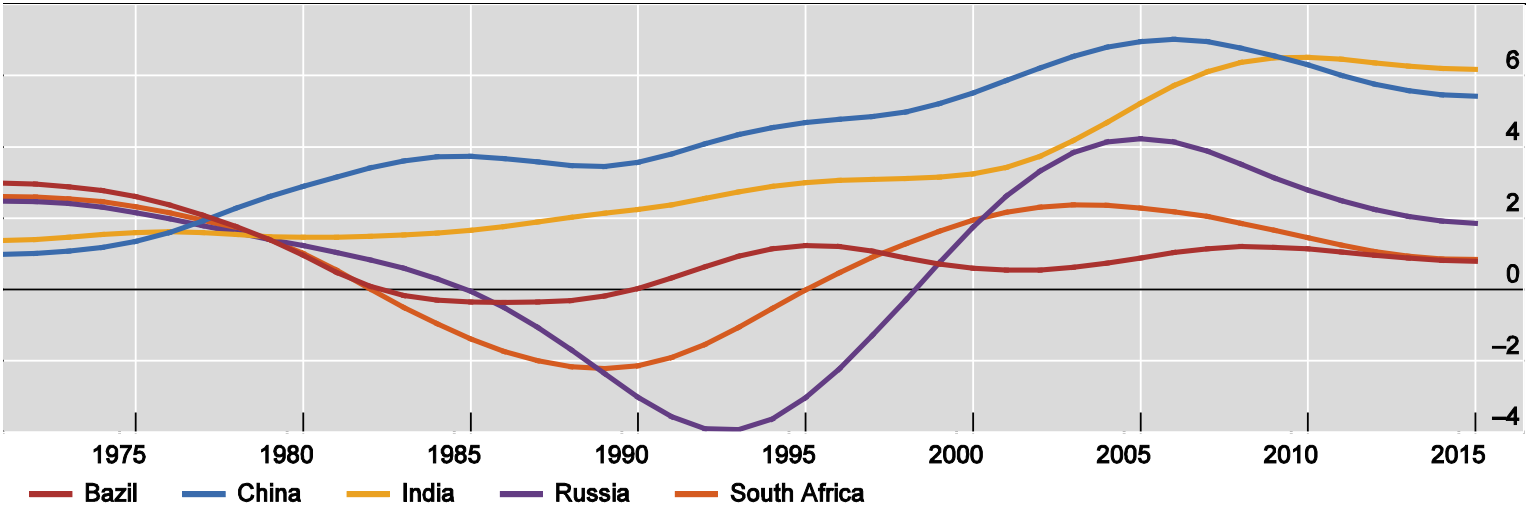


Drivers of the boom: better fundamentals

Labour productivity growth¹

In per cent

Graph 1



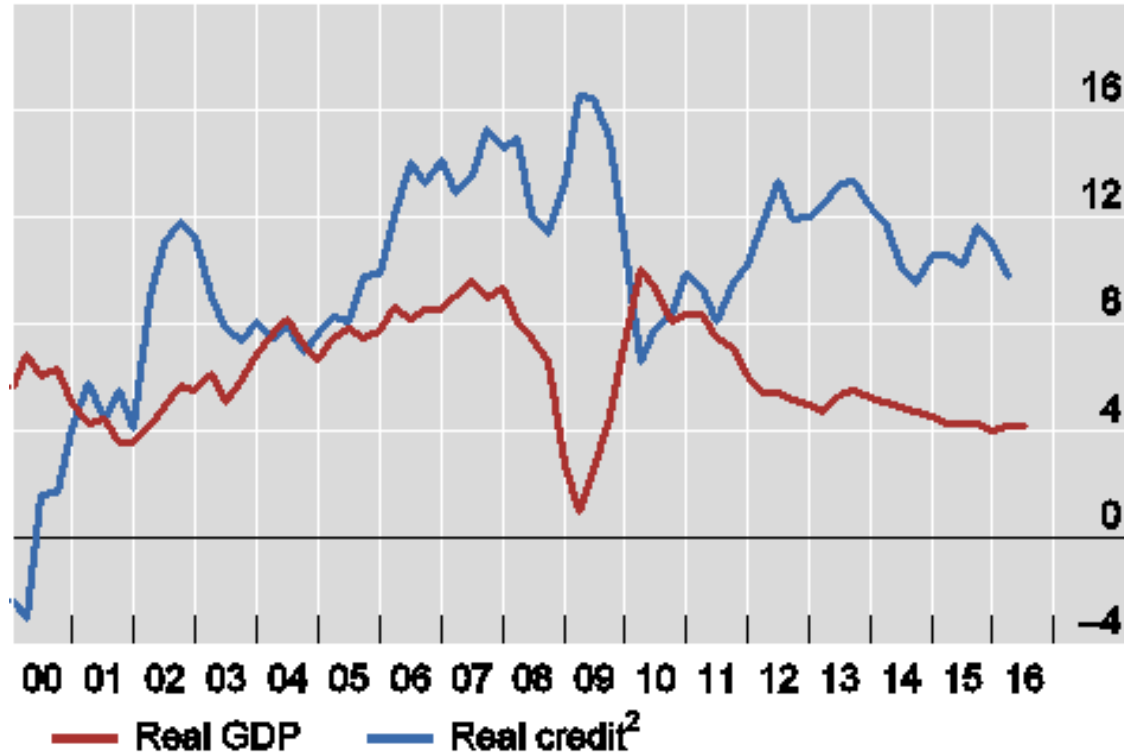
¹ Hodrick-Prescott filter applied to the logarithm of annual labour productivity per person employed.

Sources: *Total Economy Database*; BIS calculations.

- But impact of higher productivity growth fading out



Credit a key driver in the late stage of the boom

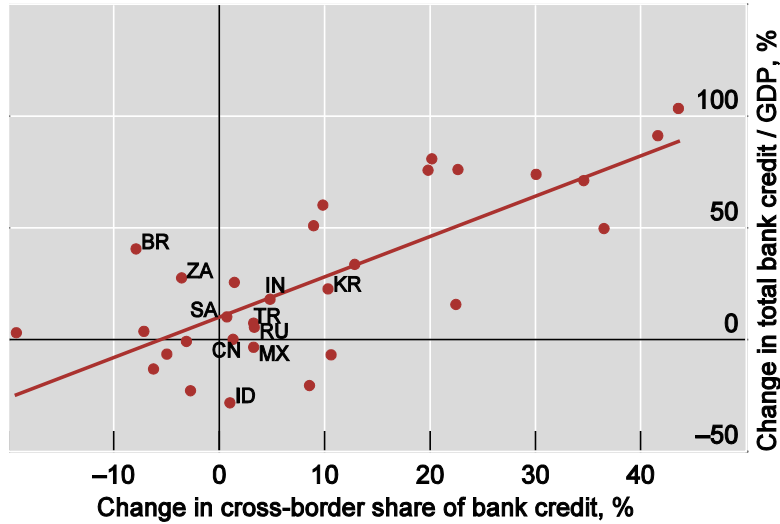


Credit far outpaced GDP, especially in 2006-9, 2012-16

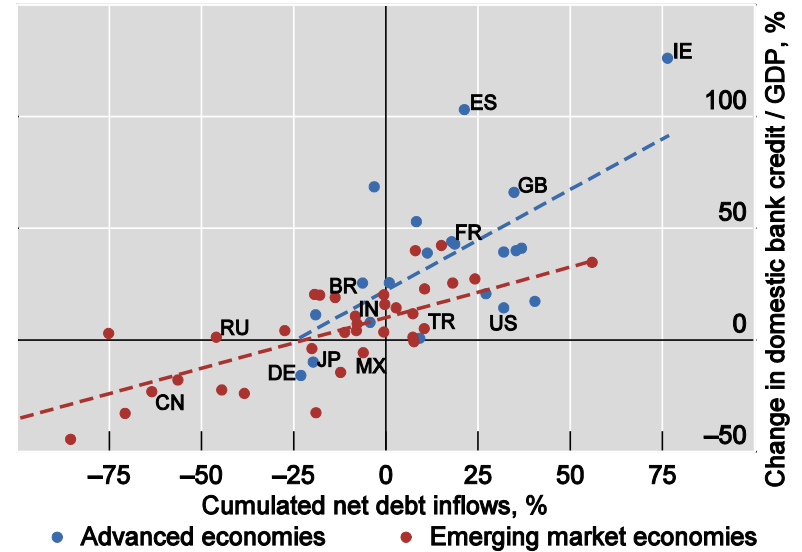


Credit growth in turn driven by capital flows ...

... through cross-border bank credit¹ ...

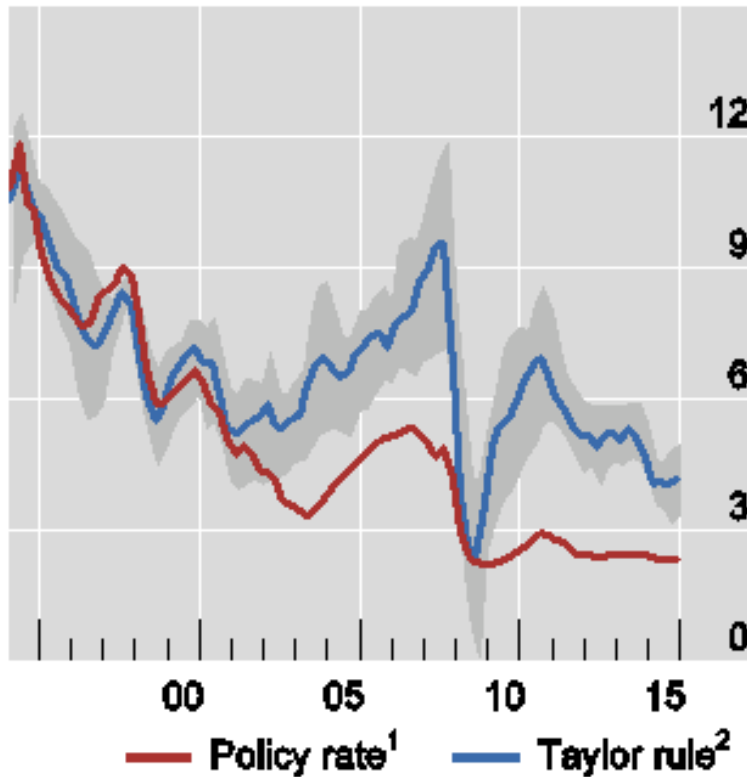


... and through broader net debt inflows²

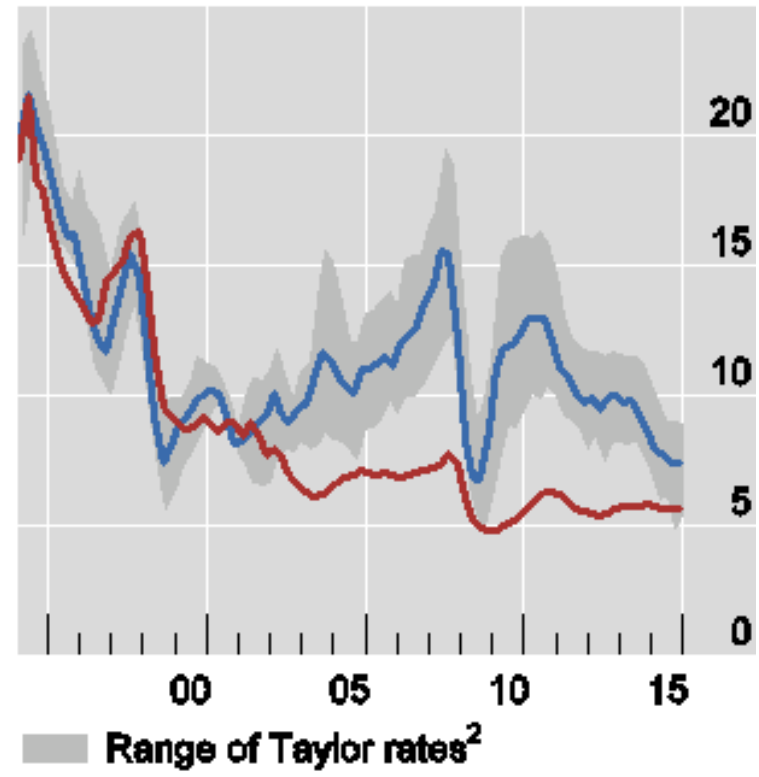


... and accommodative monetary policy

... in AEs ...



... and EMEs



Three challenges for EME central banks

1. Maintaining credibility
2. Dealing with financial imbalances
3. Supporting economic activity

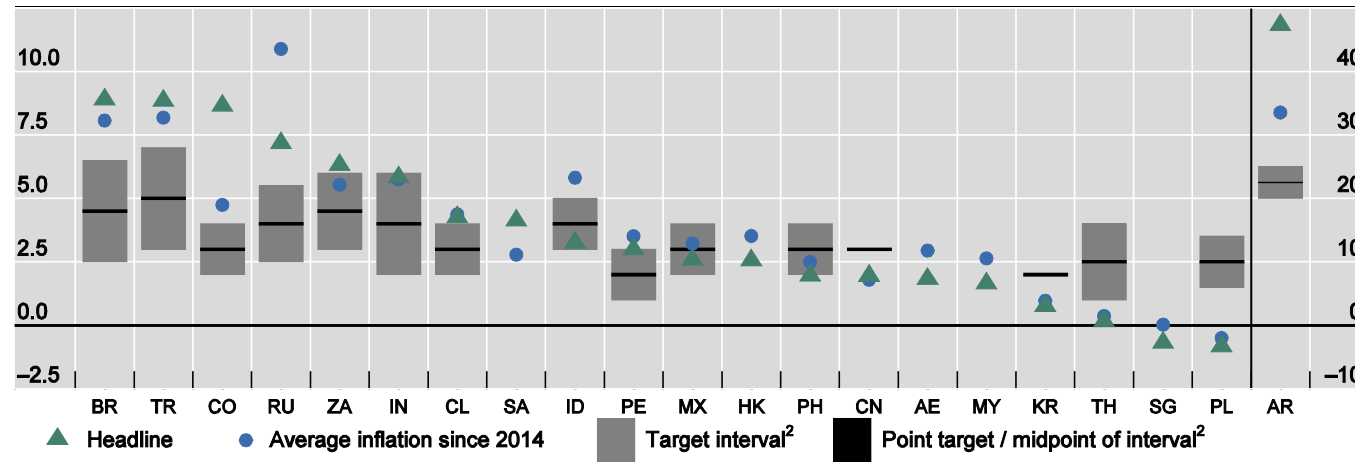


Challenge #1: maintaining credibility

Headline inflation and inflation targets¹

In per cent

Graph 1



AE = United Arab Emirates; AR = Argentina; BR = Brazil; CL = Chile; CN = China; CO = Colombia; HK = Hong Kong SAR; ID = Indonesia; IN = India; KR = Korea; MX = Mexico; MY = Malaysia; PE = Peru; PH = Philippines; PL = Poland; RU = Russia; SA = Saudi Arabia; SG = Singapore; TH = Thailand; TR = Turkey; ZA = South Africa.

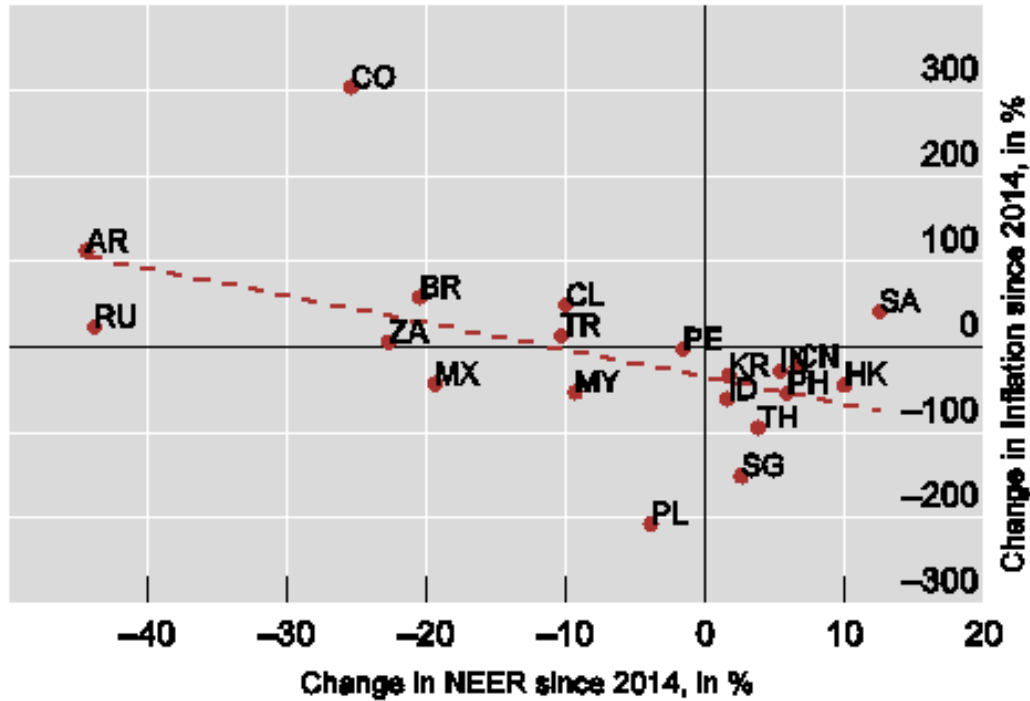
¹ Annual inflation rate as of June 2016; for Indonesia, Korea, Peru, Thailand and Turkey, July 2016. For Argentina, shown on the right-hand scale, the inflation rate is based on the consumer price index for the City of Buenos Aires. ² For countries following an inflation targeting strategy.

Sources: Datastream; national data; BIS calculations.

Most EMEs undershot or overshot their targets in late 2015/early 2016 ...



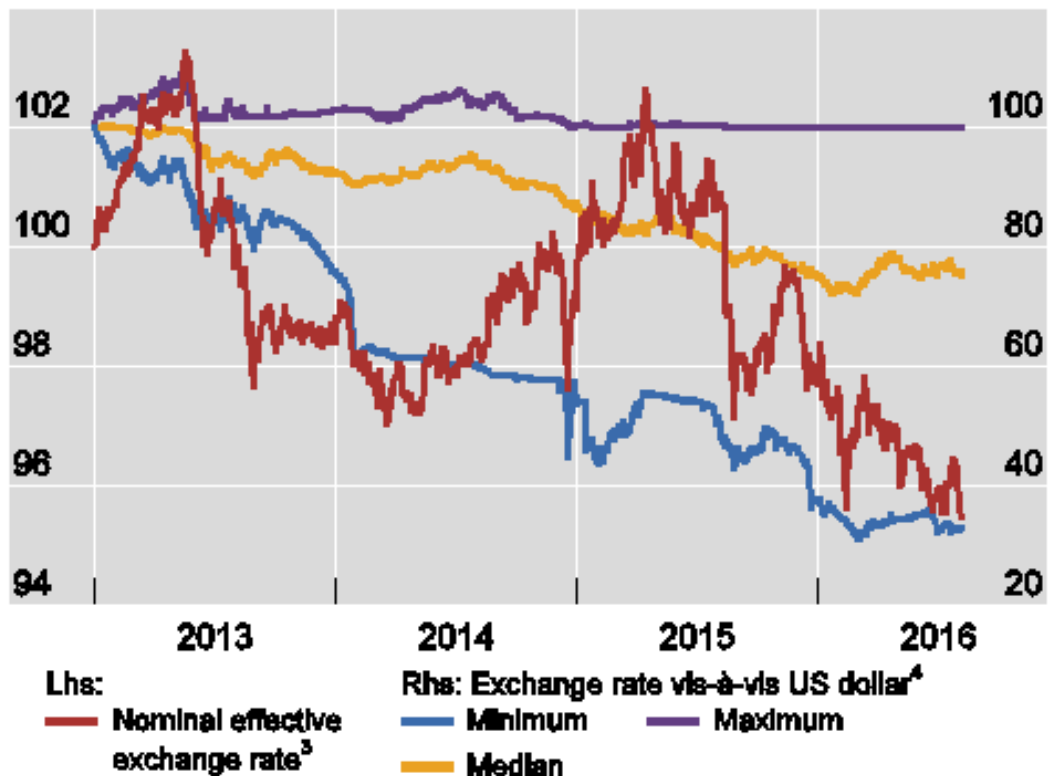
Challenge #1: maintaining credibility



... partly in response to lower commodity prices and sharp swings in exchange rates



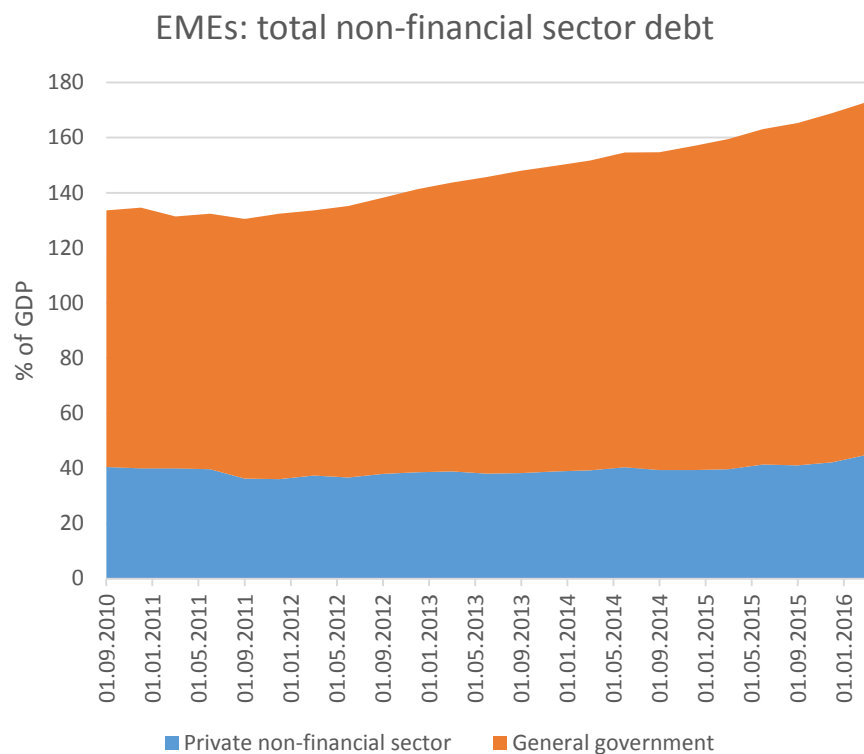
Challenge #1: maintaining credibility



- Decline in external value of currency may also sap credibility
- But less so if inflation is under control



Challenge #2: dealing with financial imbalances



- Expansionary impact of borrowing may be gone, but debt is still around
- Private sector debt reaches record level
- Government debt stable



Challenge #2: dealing with financial imbalances

Early warning indicators for stress in domestic banking systems¹

Table

	Credit-to-GDP gap ²	Property price gap ³	Debt service ratio ⁴	Debt service ratio if interest rates rise by 250 bp ^{4, 5}
Asia ⁶	12.2	6.2	1.6	3.9
Brazil	4.2	-30.4	7.4	9.2
Central and eastern Europe ⁷	-12.0	9.2	0.1	1.5
China	29.6	-1.9	5.4	8.7
India	-2.9		1.8	2.9
Korea	3.2	5.4	-0.6	3.0
Mexico	8.8	5.0	0.6	1.3
South Africa	-0.3	-9.8	-0.3	1.0
Turkey	9.7		5.7	7.3
<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>

Early warning indicators are flashing red in some countries

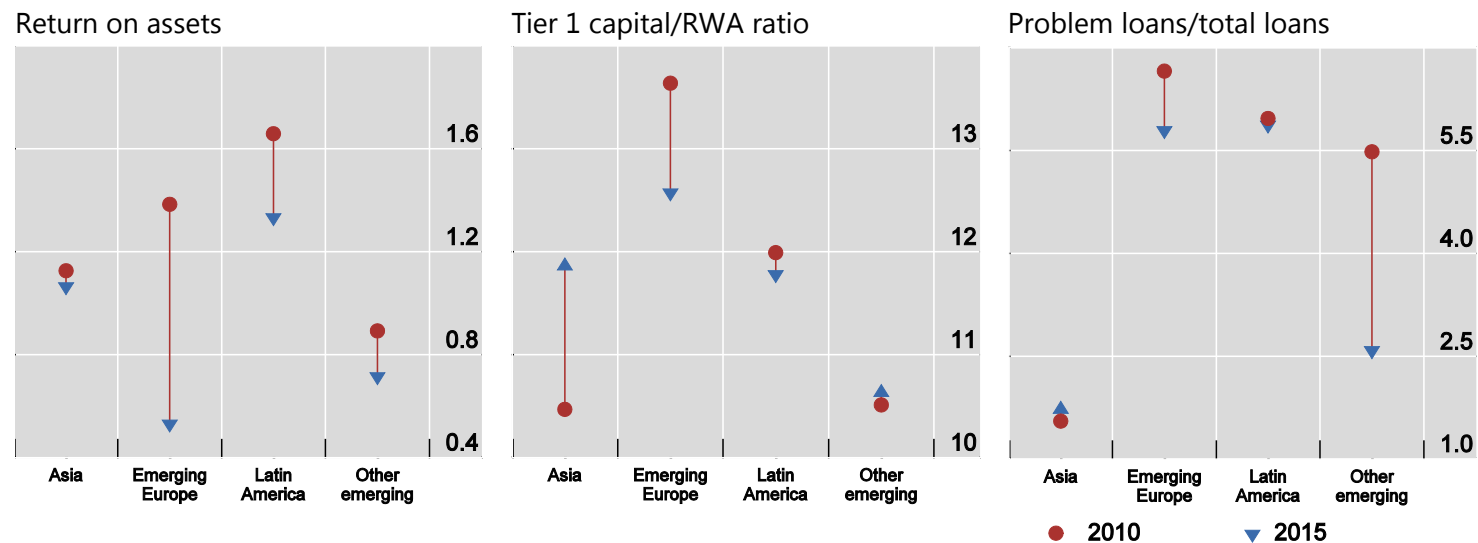


Challenge #2: dealing with financial imbalances

Key balance sheet indicators of EME banks¹

In per cent

Graph Number



¹ Averages weighted by total assets.

Sources: IMF, *Global Financial Stability Report*; Bankscope.

- No major banking crisis, but profitability has fallen
- capital ratios are (still?) high and NPLs low.



Challenge #3: supporting economic activity

- IMF expects EMEs to grow around 4.5% during next few years, much less than during the boom. Muted growth outlook reflects
 - Slowdown in advanced economies
 - Rebalancing in China
 - Adjustment to lower commodity prices
 - Uncertain external environment
 - Geopolitical tensions and strife
 - Demographic transition
 - Prospects for export diversification and convergence
- **All outside the control of the domestic central bank!**



Challenge #3: supporting economic activity

- Expansionary monetary policy may boost growth in short term
- but may result in financial stability risks down the road
- Financial booms may also sap productivity growth through resource misallocation



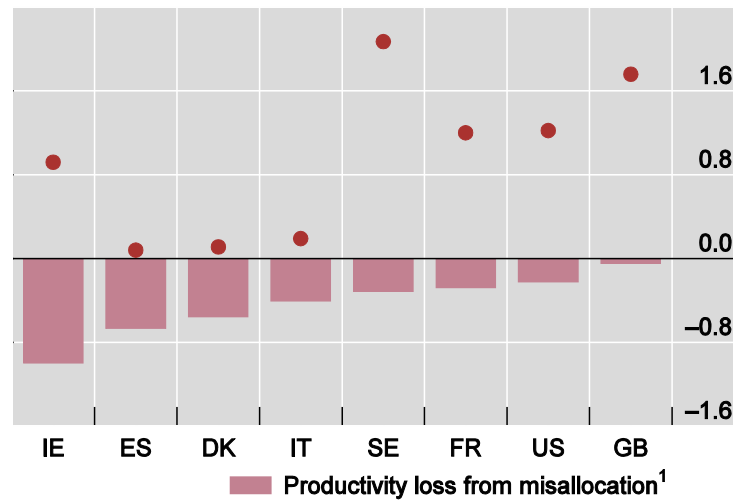
Challenge #3: supporting economic activity

Resource misallocations from credit booms hold back productivity growth

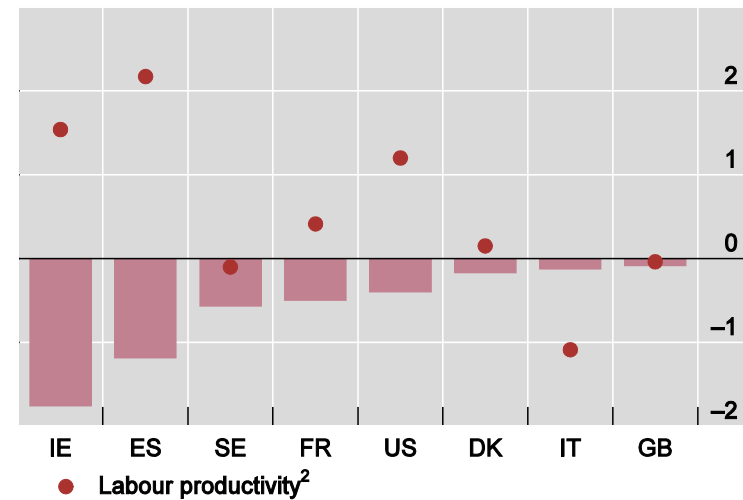
Annualised average growth rates

Graph III.3

2004–07



2008–13



DK = Denmark; ES = Spain; FR = France; GB = United Kingdom; IE = Ireland; IT = Italy; SE = Sweden; US = United States

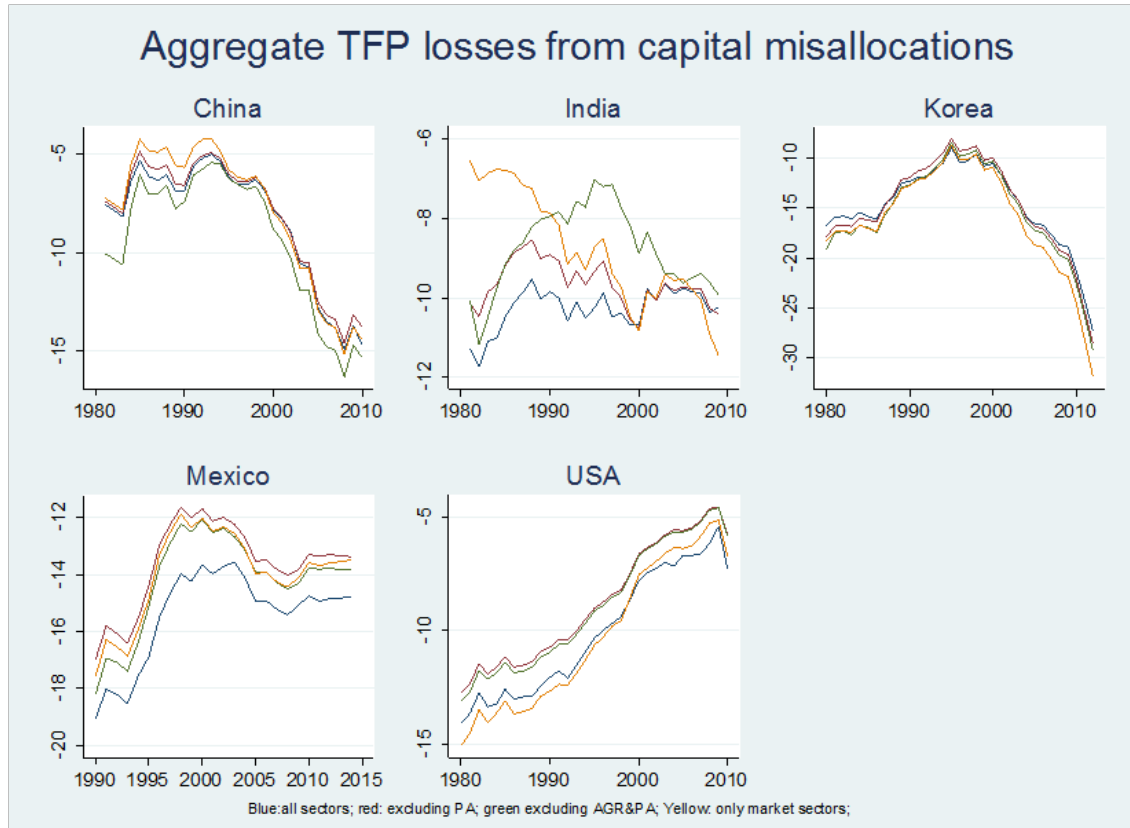
¹ Loss in annual labour productivity growth relative to a counterfactual in which credit grew at the 1994–2004 country-specific average during 2004–07; in percentage points. ² In per cent.

Sources: EU, KLEMS; OECD, STAN; GGDC 10-sector database; BIS calculations.

Borio, Kharroubi, Upper and Zampolli (2016): Credit booms are associated with misallocation of resource in advanced economies



Challenge #3: supporting economic activity



Marconi and Upper (2016): large misallocations of capital in EMEs.



Setting priorities

- Priority 1: maintaining credibility
 - Large deviations from target may undermine central bank credibility
 - Low credibility could undermine ability to deal with inflation deviations, financial imbalances and low growth
 - Is the problem symmetric?
- Priority 2: dealing with financial imbalances
 - Address financial imbalances with macroprudential and, if necessary, monetary policy
- Not clear what they can do to support output growth without hypothecating the future other than smoothing the real adjustment



References

Bank for International Settlements, Annual Report, several issues

Borio, C, E Kharroubi, C Upper and F Zampolli (2016): "Labour reallocation and productivity dynamics: financial causes, real consequences", BIS Working Paper No 534

Hördahl, P, J Sobrun and P Turner (2016): "Low long-term interest rates as a global phenomenon", BIS Working Paper No 574

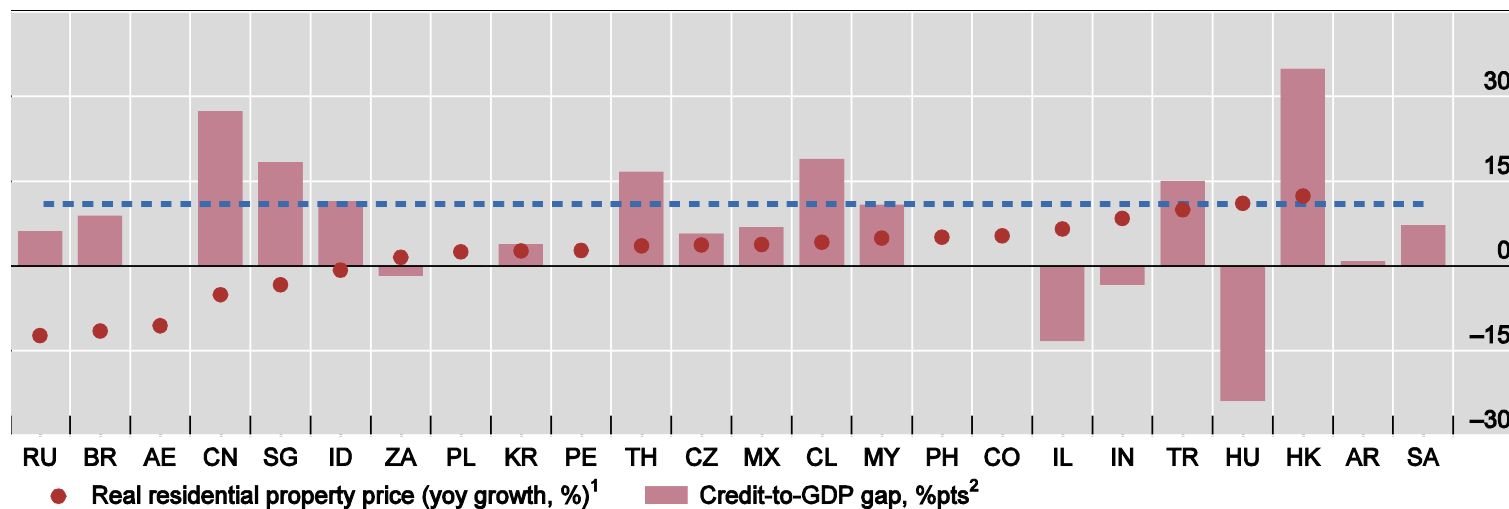
Marconi, D and C Upper (2016): "Financial factors and capital misallocation in EMEs", unwritten manuscript



Financial cycles in major EMEs

Real property prices and credit-to-GDP gaps in 2015; annual averages

Graph 2



A combination of high (low) credit-to-GDP gaps with falling (rising) real property prices tends to signal a peak (trough) in the financial cycle. The dotted line indicates the average credit-to-GDP gap three years before financial crises; the sample covers 34 crises in 28 economies since 1980.

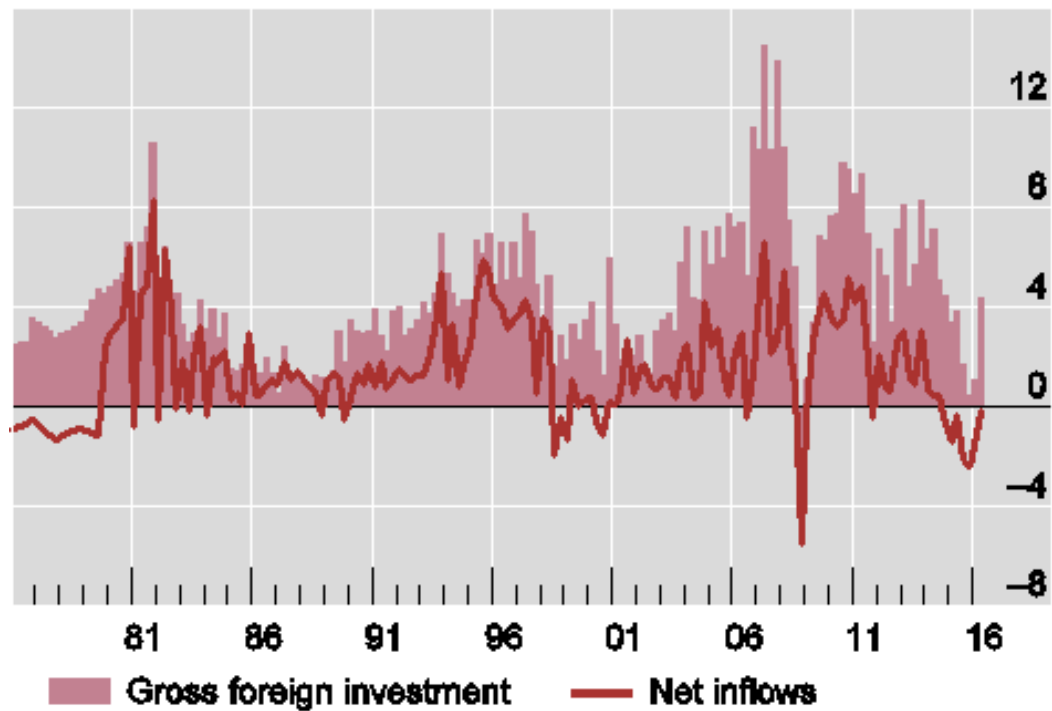
¹ Deflated using consumer prices. ² Total credit to the private non-financial sector. Deviation of the credit-to-GDP ratio from its long-run, real-time trend calculated with a one-sided HP filter using a smoothing factor of 400,000.

Sources: National data; BIS calculations.

Financial cycles are turning in many EMEs



International capital flows



Large net flows, unprecedented gross flows

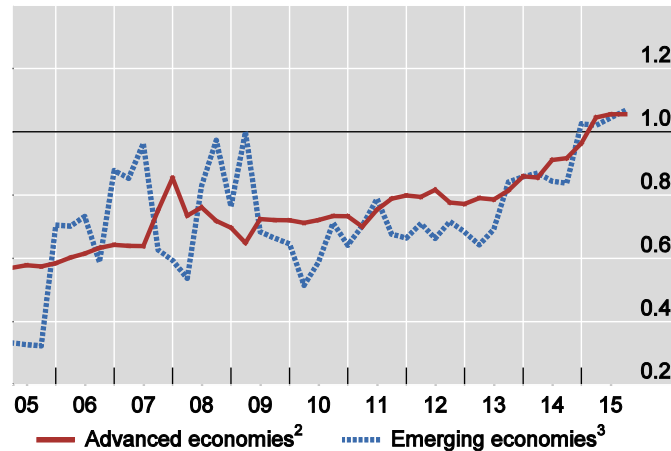


Global factors increasingly drive domestic yields

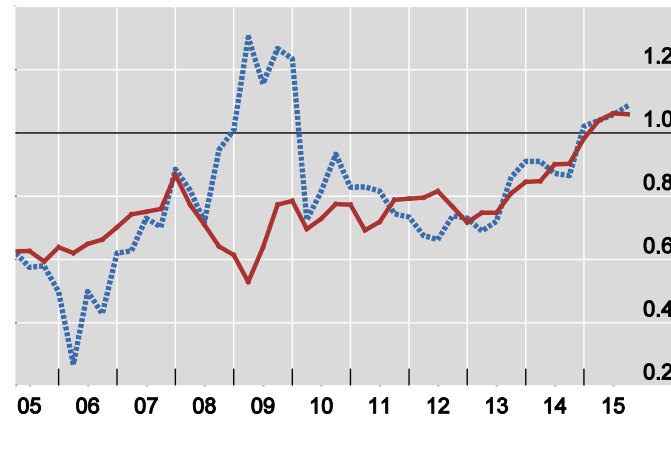
Regression coefficients of local bond yields on 10-year US Treasuries¹

Graph 3

A. 10-year yields



B. The term premium in the 10-year yield



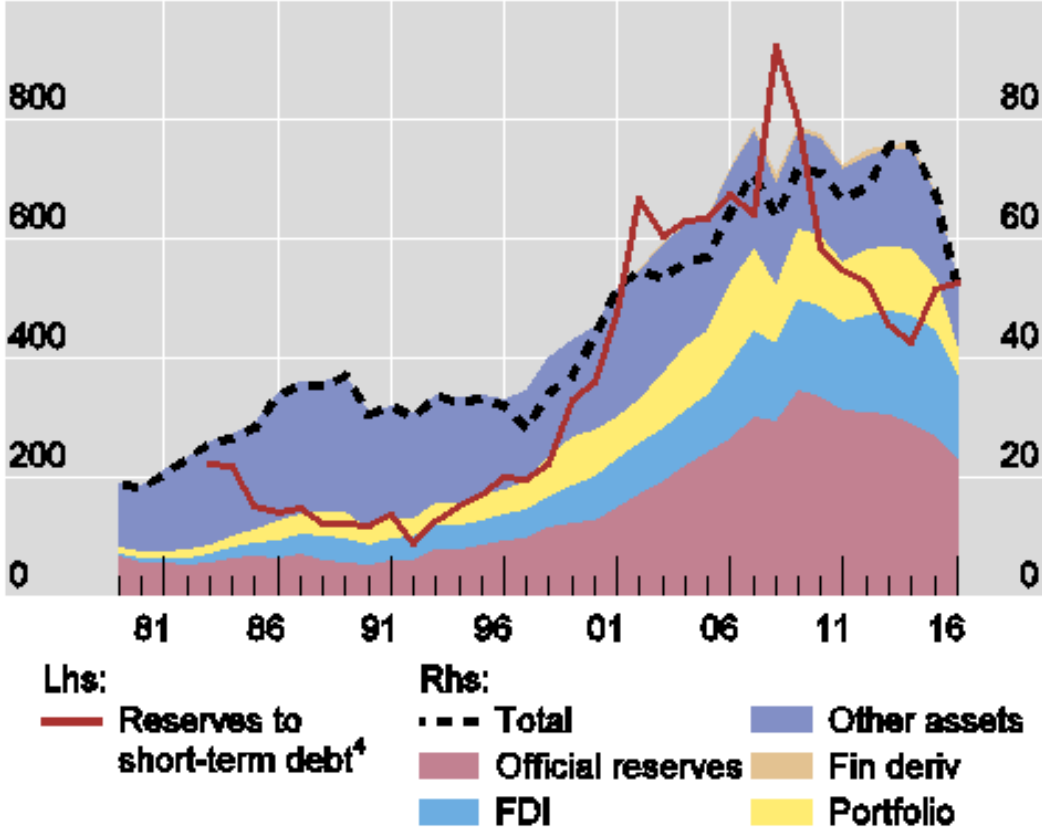
¹ The coefficients indicate the results of a pooled regression over a 3-year moving window of first differences, based on quarterly observations. The specification is summarised in the annex. ² Australia, Canada, France, New Zealand, Sweden and the United Kingdom. ³ Brazil, Chile, Colombia, Indonesia, Korea, Malaysia, Mexico, the Philippines, Poland, South Africa, Thailand and Turkey.

Source: authors' calculations.

From Hördahl, Sobrun and Turner (2016)



High external reserves and private sector assets



Helpful but no panacea

