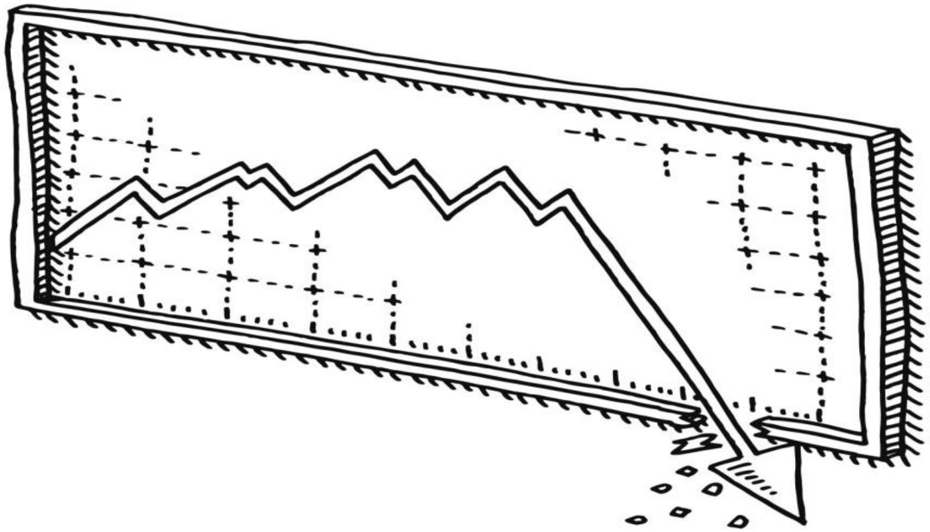
Economic Perspectives

The Real Reason Real Rates Are So Low



How central banks became endogenous to financial prices

Peter Warburton

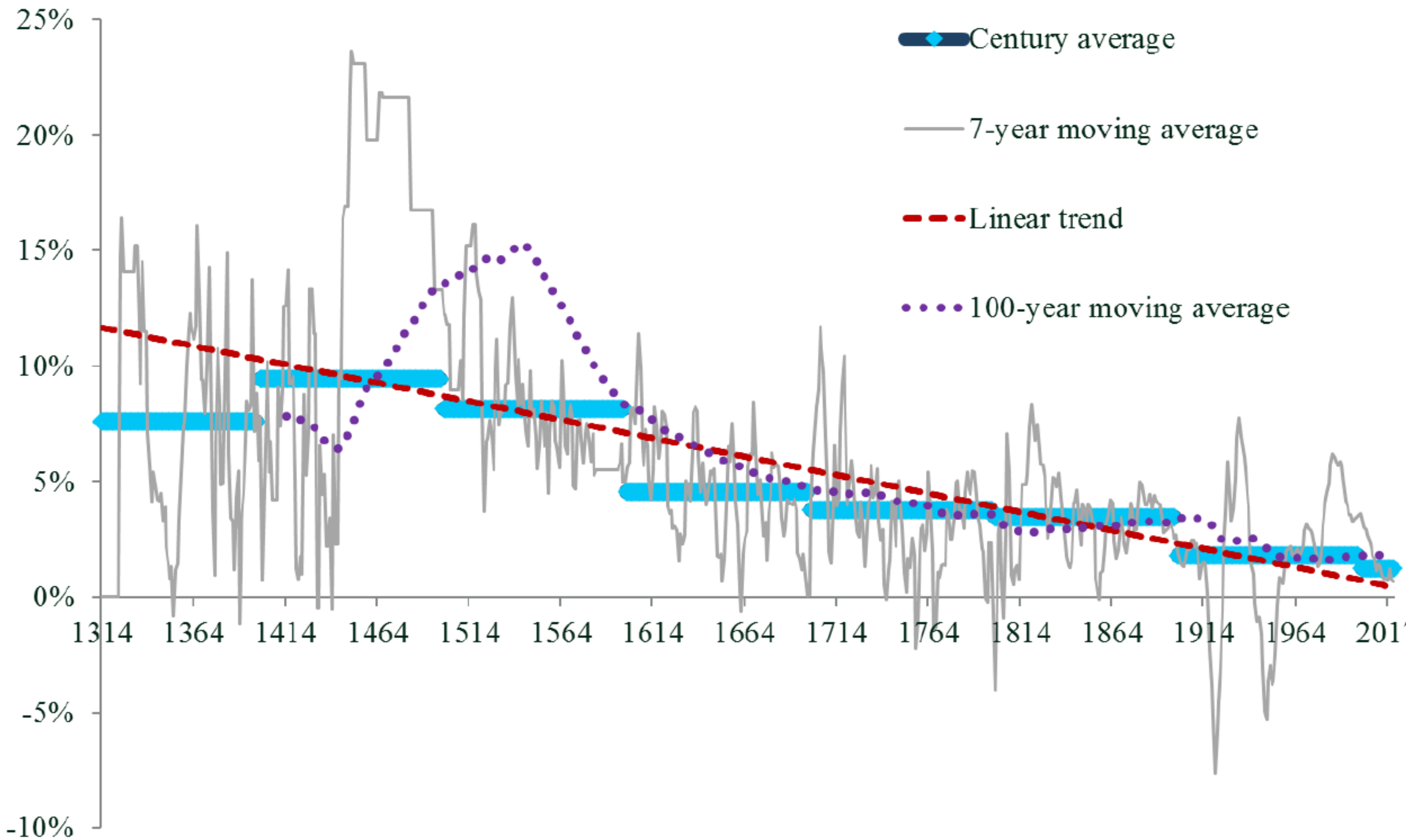
30 November 2017

Summary

- The secular decline in real growth rates and long-term real interest rates owes much to structural factors
- However, there is an overlay of financial repression that explains why real bond yields are lower still
- A global (shadow) banking glut offers a better explanation than a global savings glut
- Central banks have been gamed by financial markets, bringing renewed stability risks
- There is no safe exit from unconventional policies: yield curve control is forfeited as policy tightens

A long-term trend towards lower real interest rates …

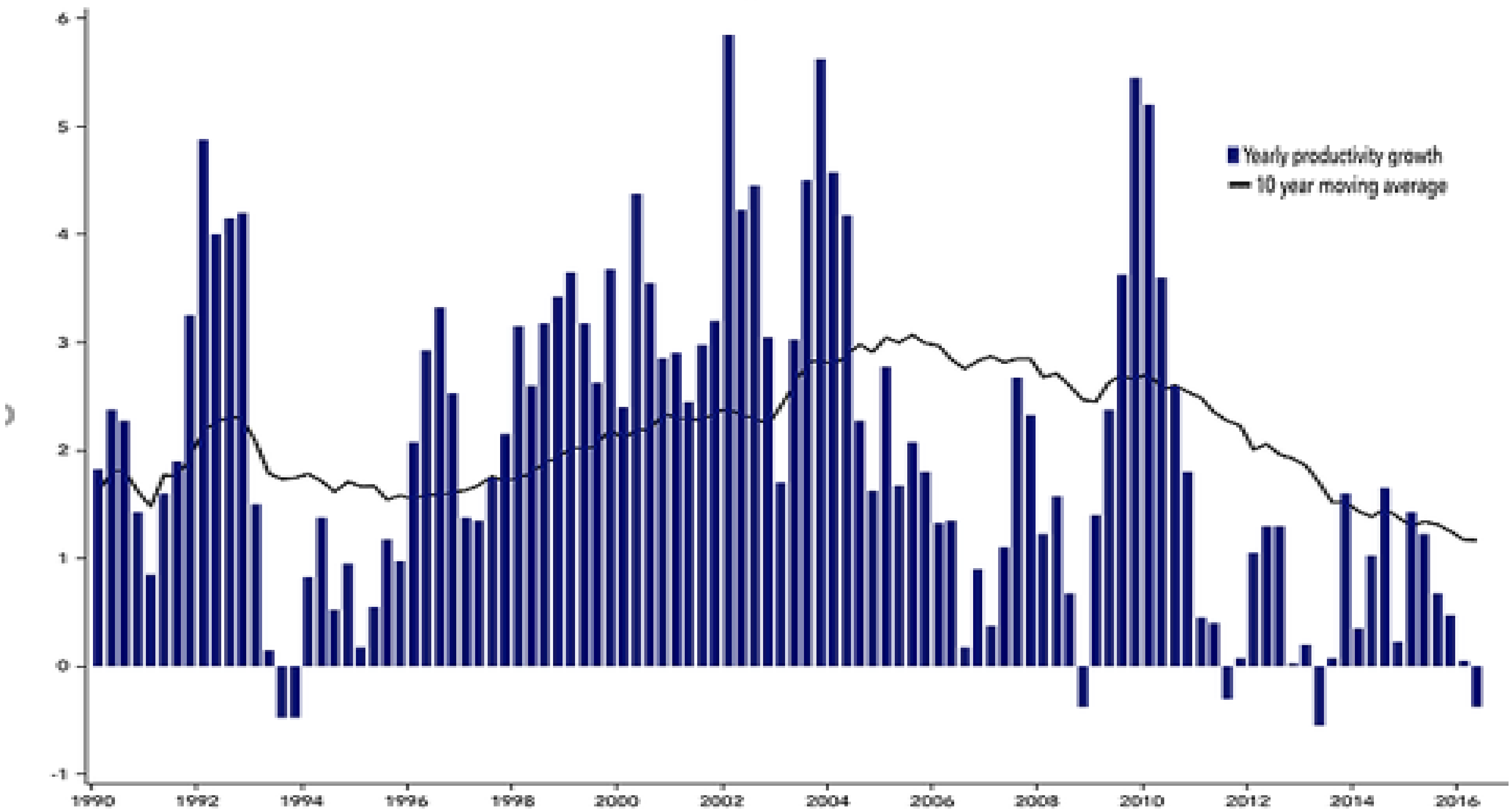
- … but 100-year moving average is clearly positive



Data source: Bank of England

Global productivity growth: down but not out

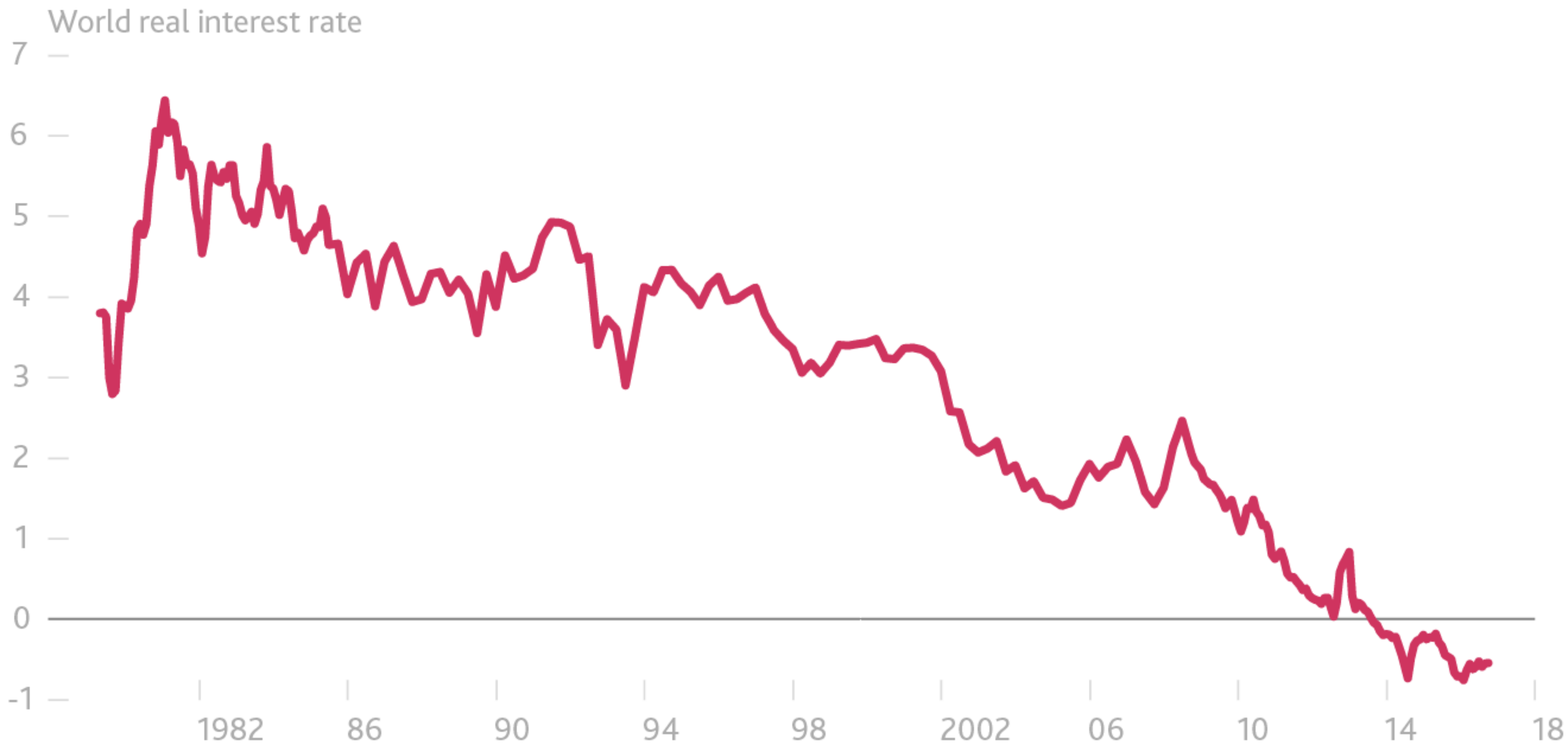
- Cannot justify a negative real long-term rate



Data source: Light Field Capital

The post-GFC plunge in real interest rates

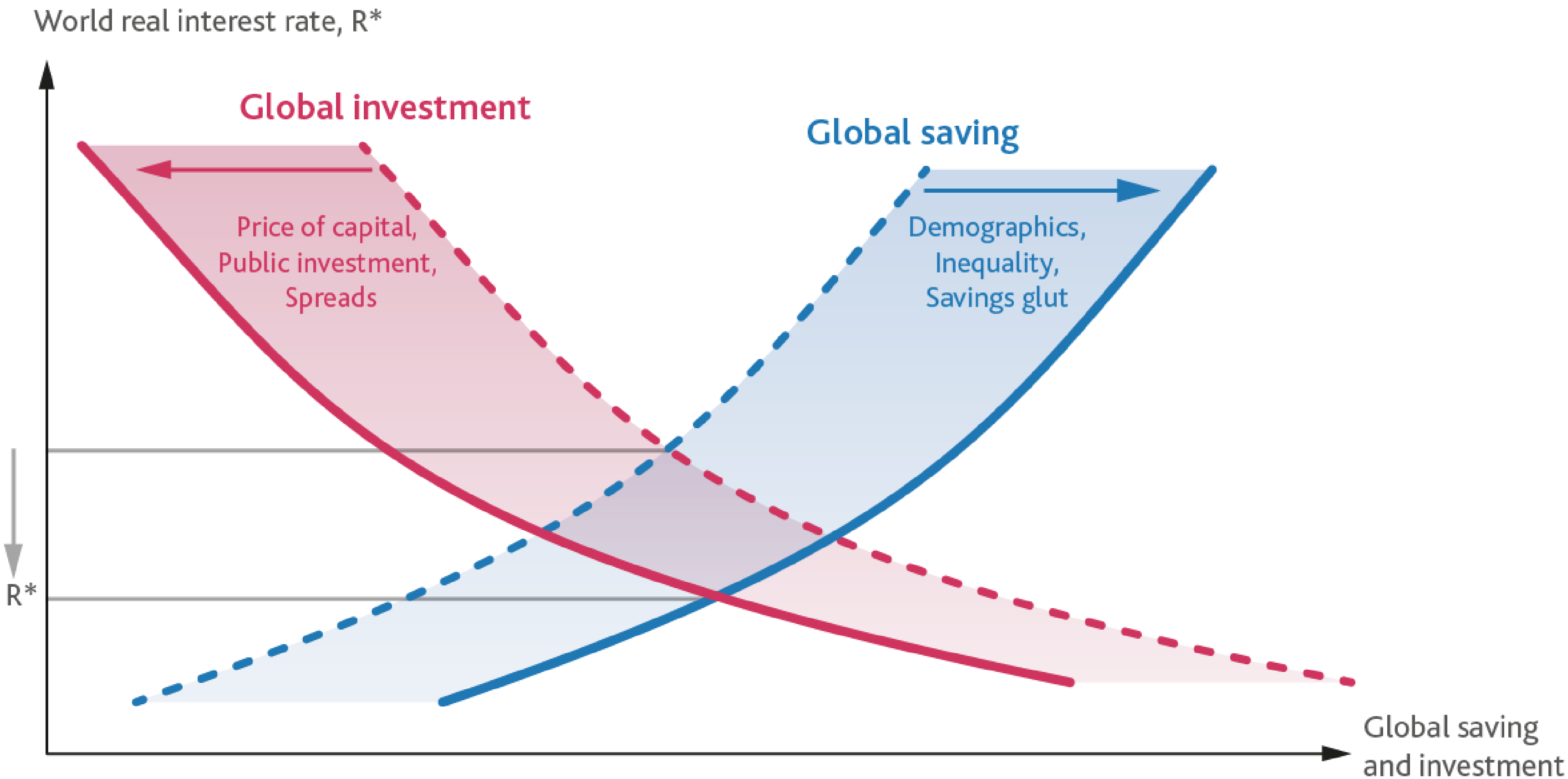
- An overlay of financial repression



Data source: Bank of England

Central bank narratives around very low real rates

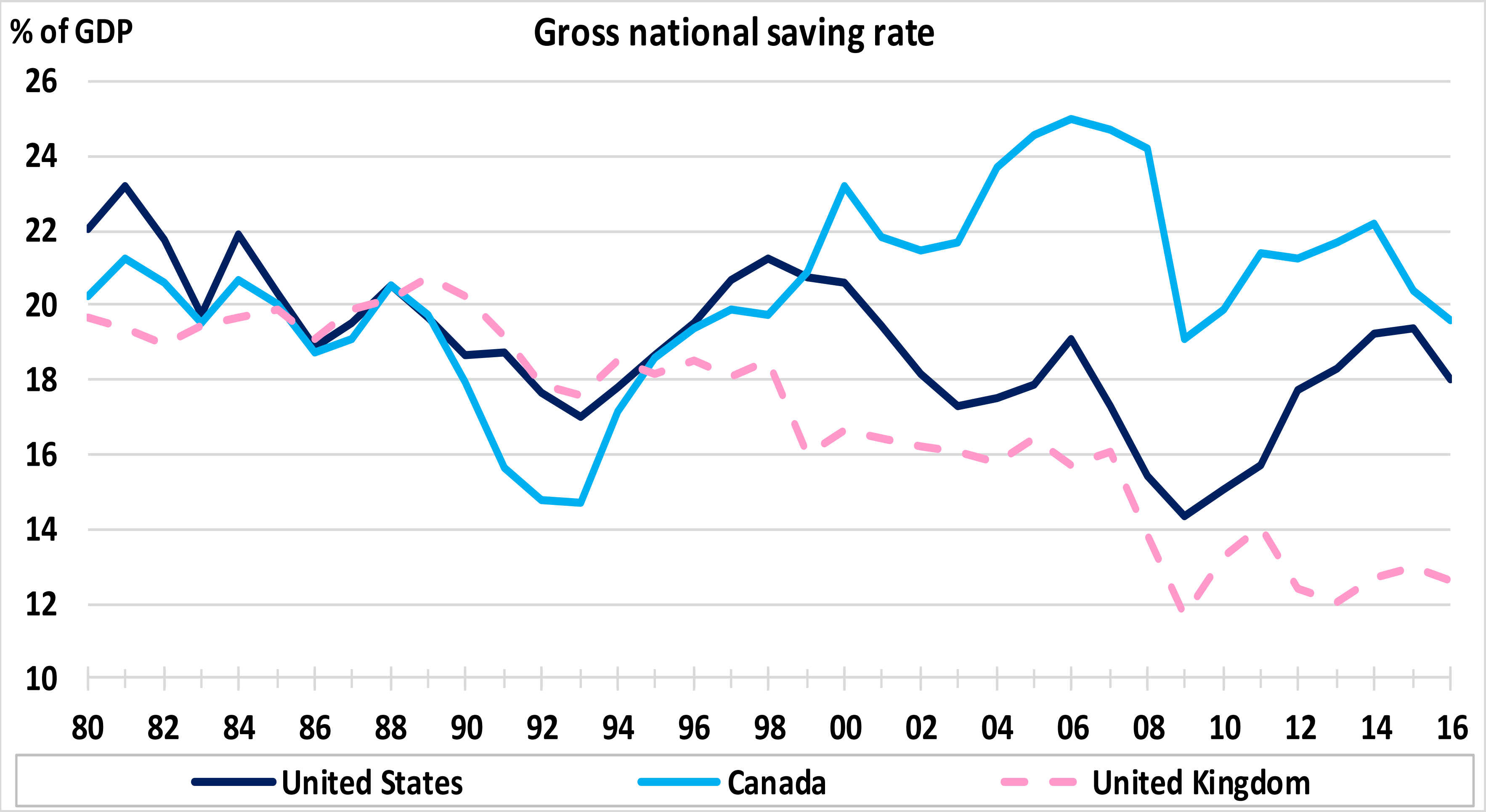
- 'Global savings glut' is taken as read



Data source: Bank of England

Where are these surplus savings?

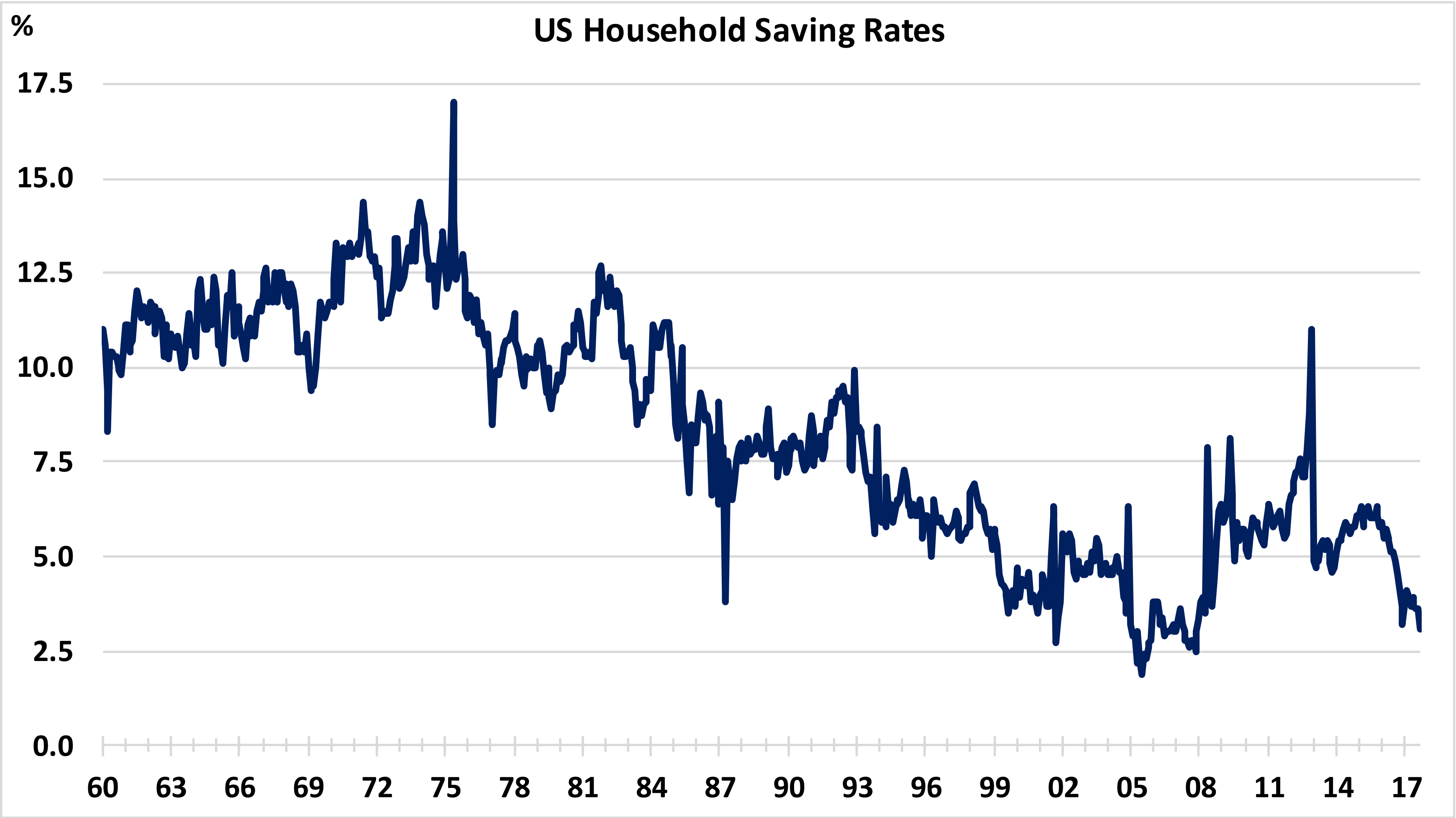
- Post-GFC saving rates are uniformly lower



Data source: CEIC

Where are the surplus savings?

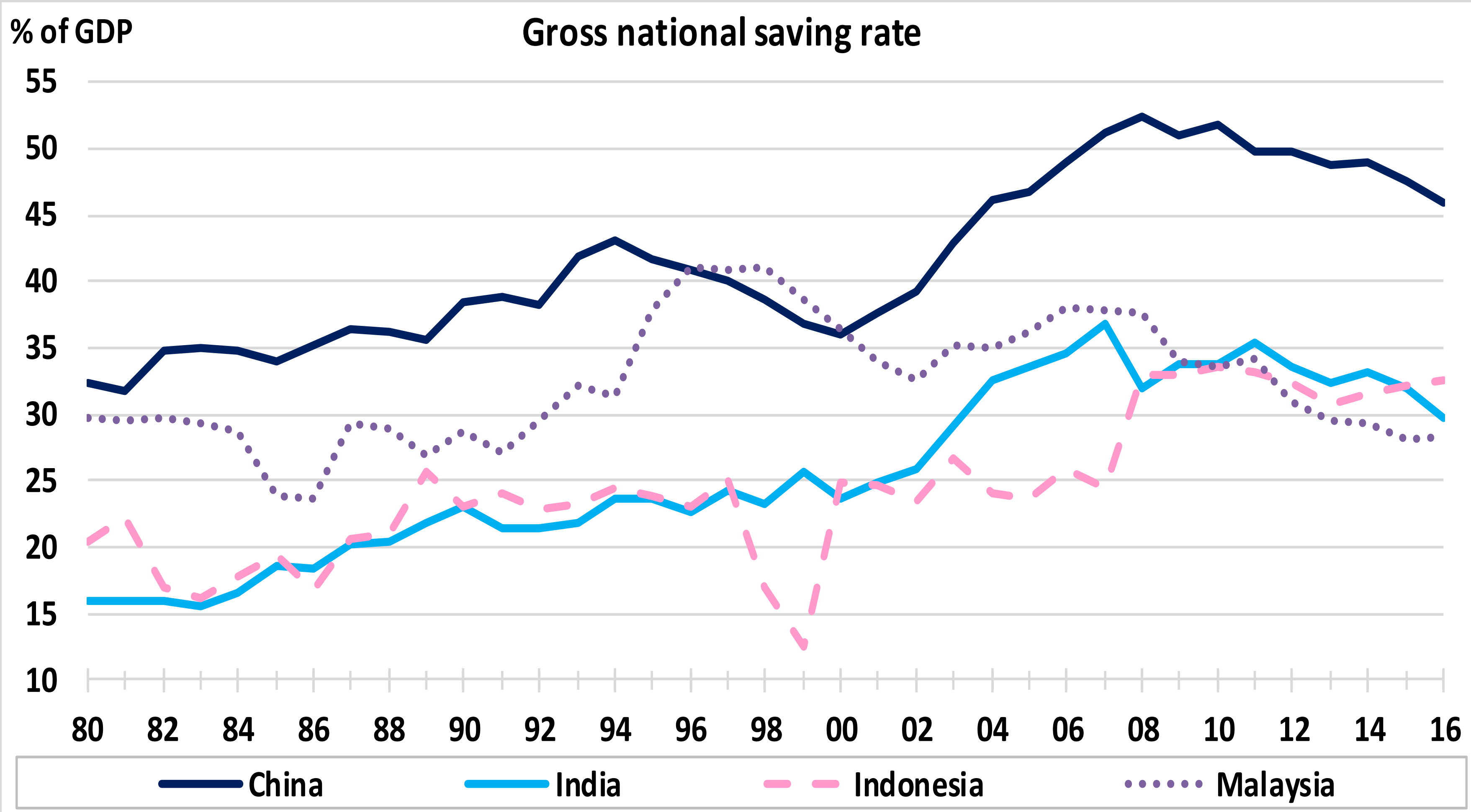
- Not in the US household sector



Data source: St Louis Federal Reserve

Where are these surplus savings?

- In China and India, saving rates are slipping



Data source: CEIC

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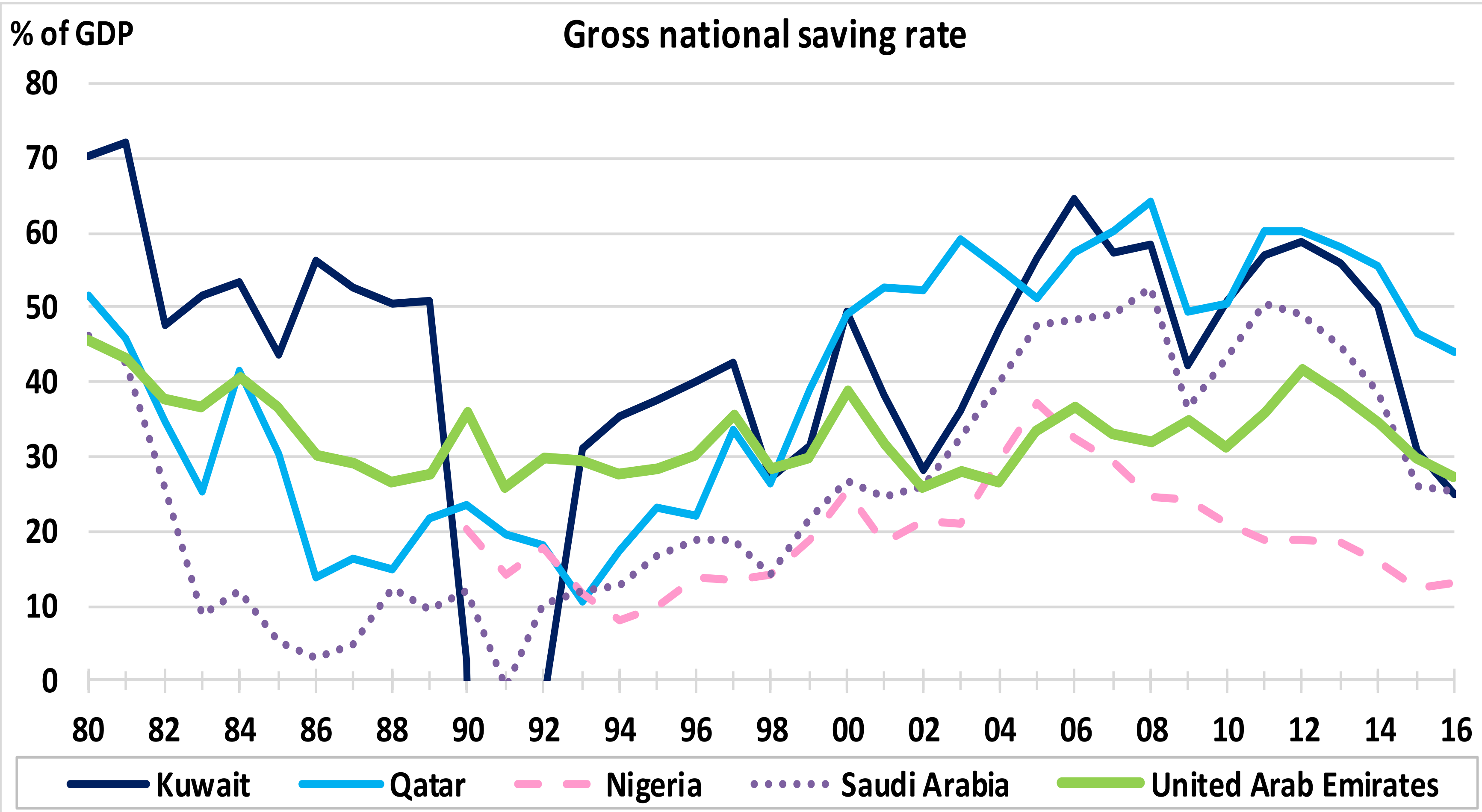
Where are these surplus savings?

- Oil producers' saving rate has been falling for years



Data source: CEIC

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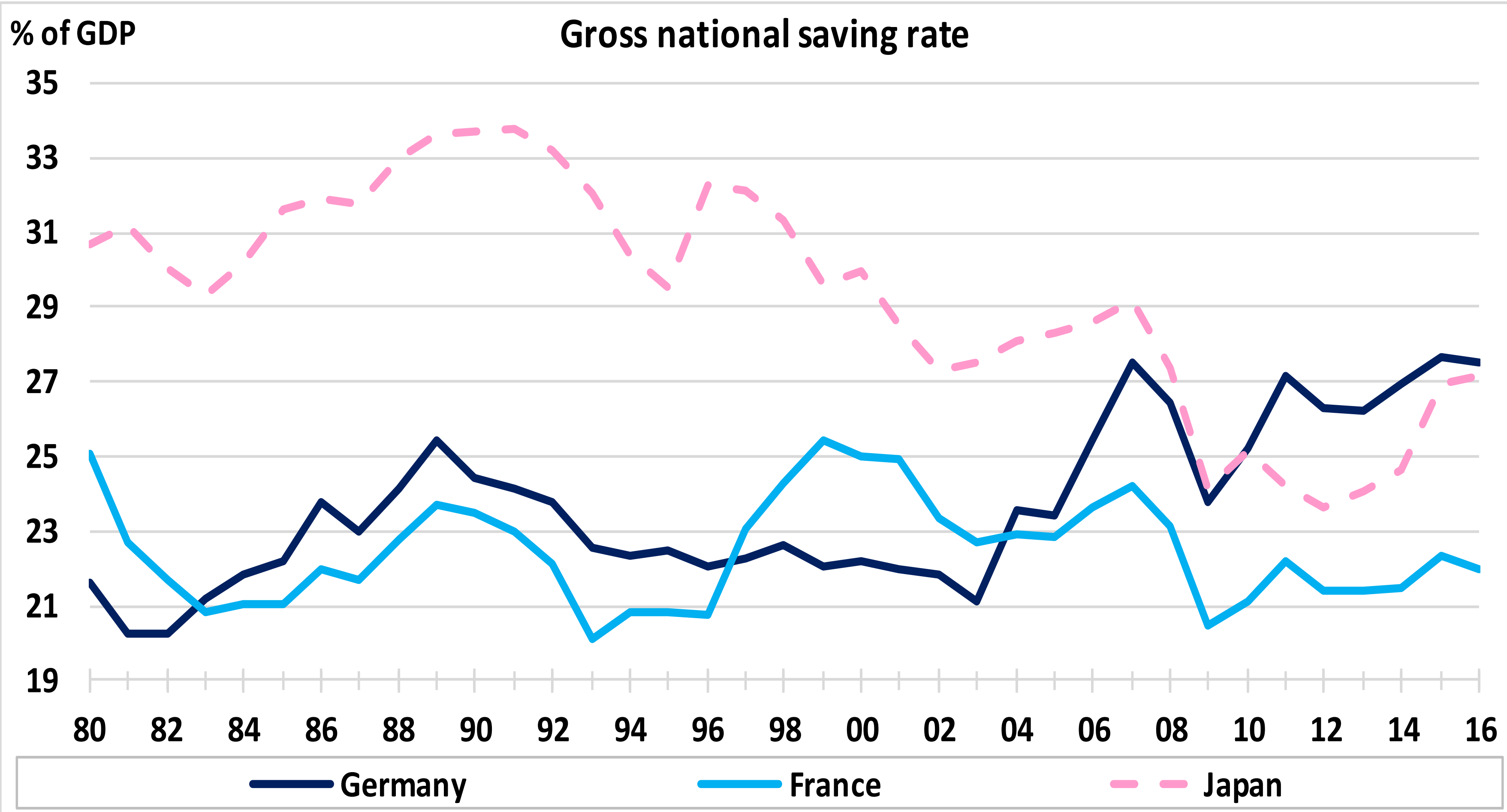
Where are these surplus savings?

- In Germany, we will allow, possibly in Japan



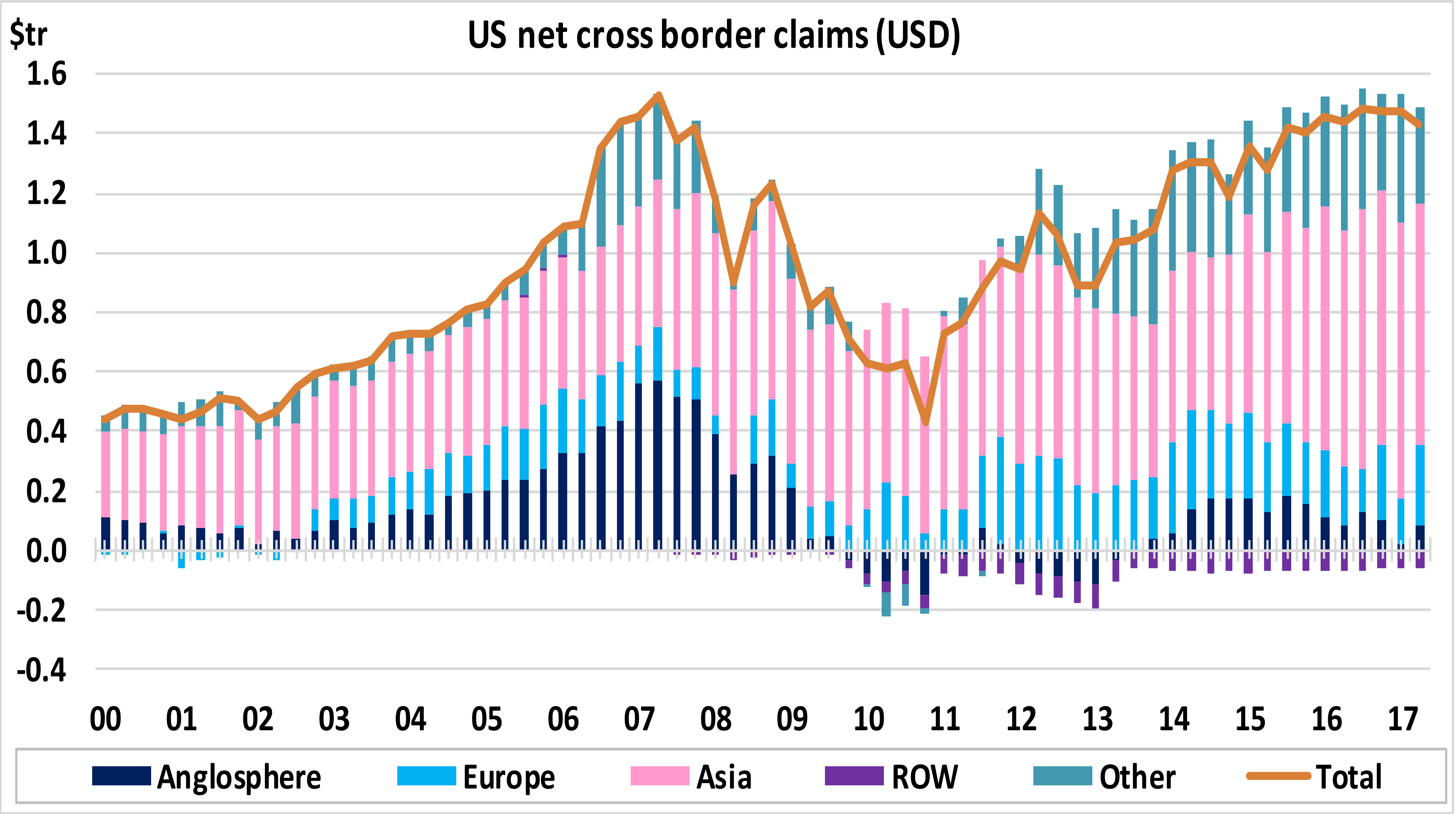
Data source: CEIC

A global (shadow) banking glut, not a global savings glut

- In the saving glut view, the fall in long-term real interest rates is taken as <u>evidence</u> of a global excess of *ex ante* saving over investment, based on current account balances
- The explosive growth of cross-border lending in Europe – gross financing flows – offers a more compelling explanation of the 2007-08 financial crisis. The Chinese did not fund US sub-prime!
- Excess financial elasticity works in both directions: crushed credit spreads and term premia pave the way for potentially violent rebounds

Global banking glut: the recovery of cross-border lending

- Gross capital flows dominate current accounts



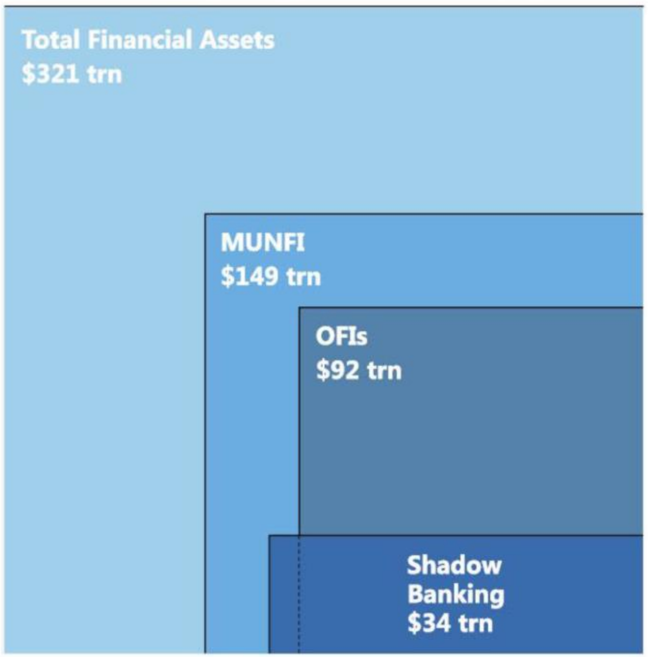
Data source: BIS

Prolonged policy ease has brought about …

- … an explosion of shadow banking

Monitoring aggregates

USD trillion, end-2015, 21 jurisdictions and euro area

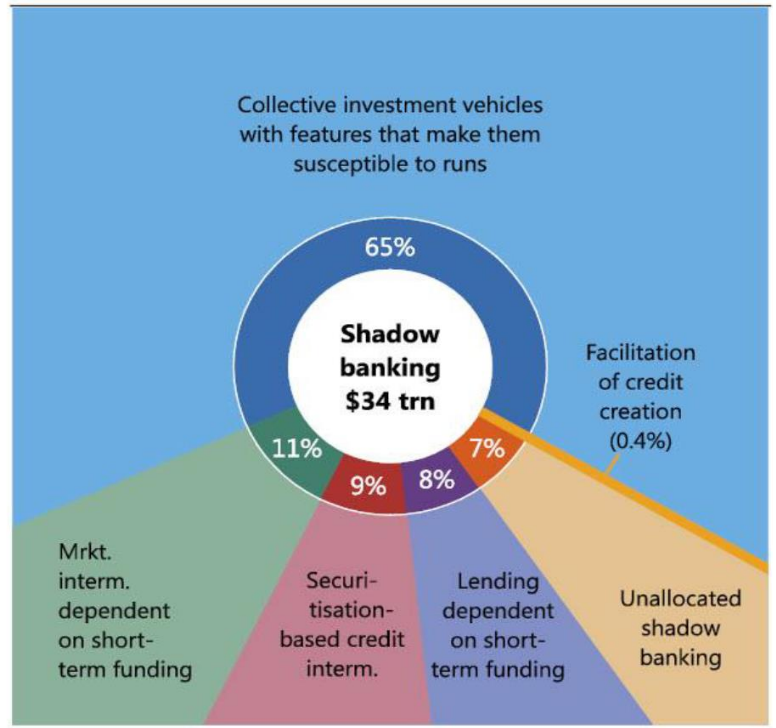


MUNFI = Monitoring Universe of Non-bank Financial Intermediation, includes OFIs, pension funds, and insurance corporations; OFIs also includes captive financial institutions and money lenders; Shadow banking = narrow measure of shadow banking, based on data from the 27 jurisdictions, instead of 21 jurisdictions and the euro area, because data from seven participating euro area jurisdictions are more granular than the aggregate euro area data from the ECB.

Source: FSB Global Shadow Banking Monitoring Report 2016.

Composition of shadow banking

USD trn, end-2015, 27 jurisdictions



Shadow banking = narrow measure of shadow banking.

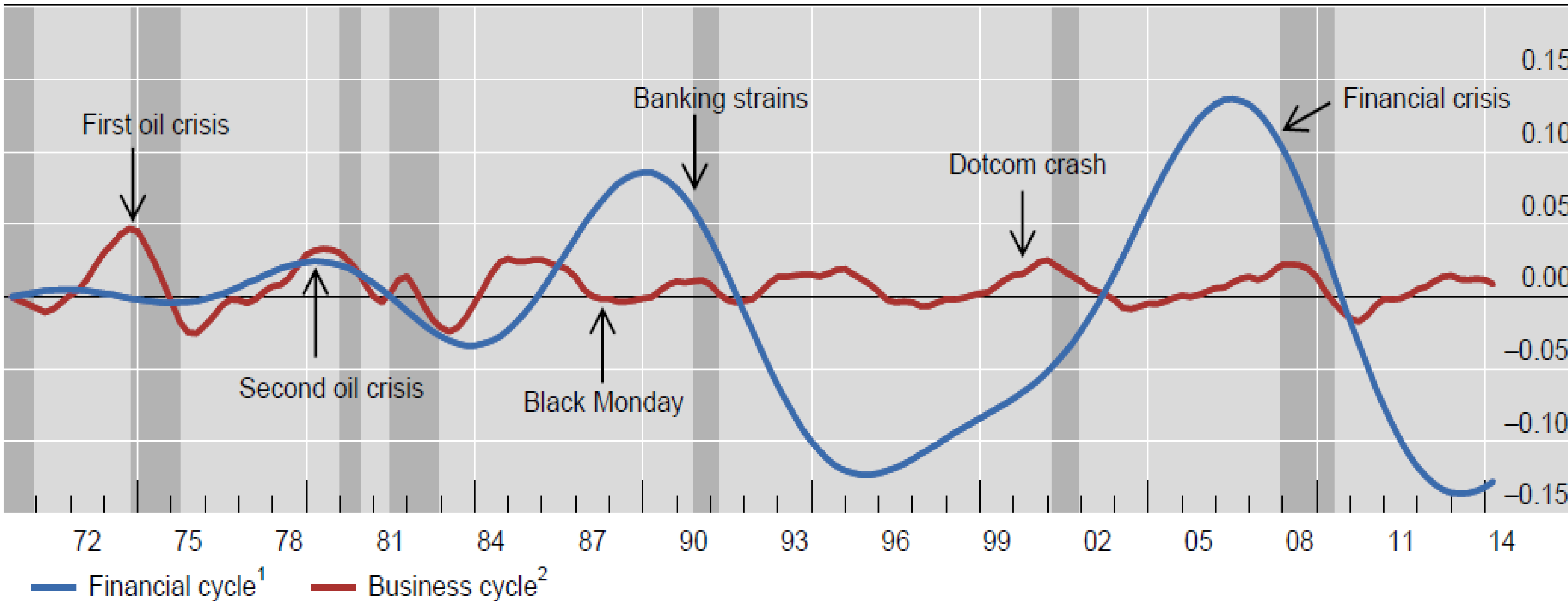
Source: FSB Global Shadow Banking Monitoring Report 2016.

Data source: Financial Stability Board

Excess financial elasticity amplifies asset price cycles

- Post-GFC policy easing fosters financial instability

The financial and business cycles in the United States Graph 1



[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: update of Drehmann et al (2012).

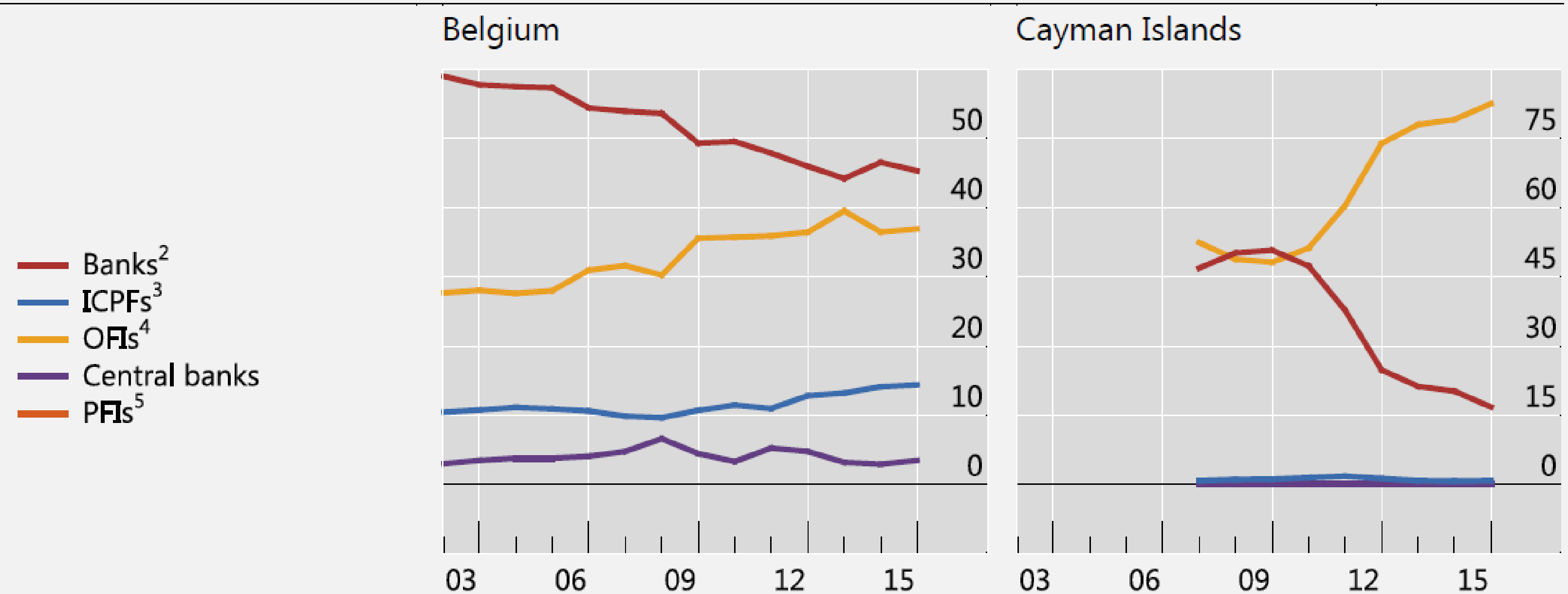
Data source: OECD

Post-GFC, financial intermediation has migrated …

- … from banks to other financial institutions

Financial system composition

Percent of total national financial system[1] Exhibit 2-4



[1] Based on historical data included in jurisdictions' 2016 submissions. Exchange rate effects have been netted out by using a constant exchange rate (from 2015). [2] Deposit-taking corporations. [3] Insurance corporations and pension funds. [4] Also includes captive financial institutions and money lenders, and, for presentation purposes, financial auxiliaries. [5] Public financial institutions.

Sources: National sector balance sheet and other data; FSB calculations.

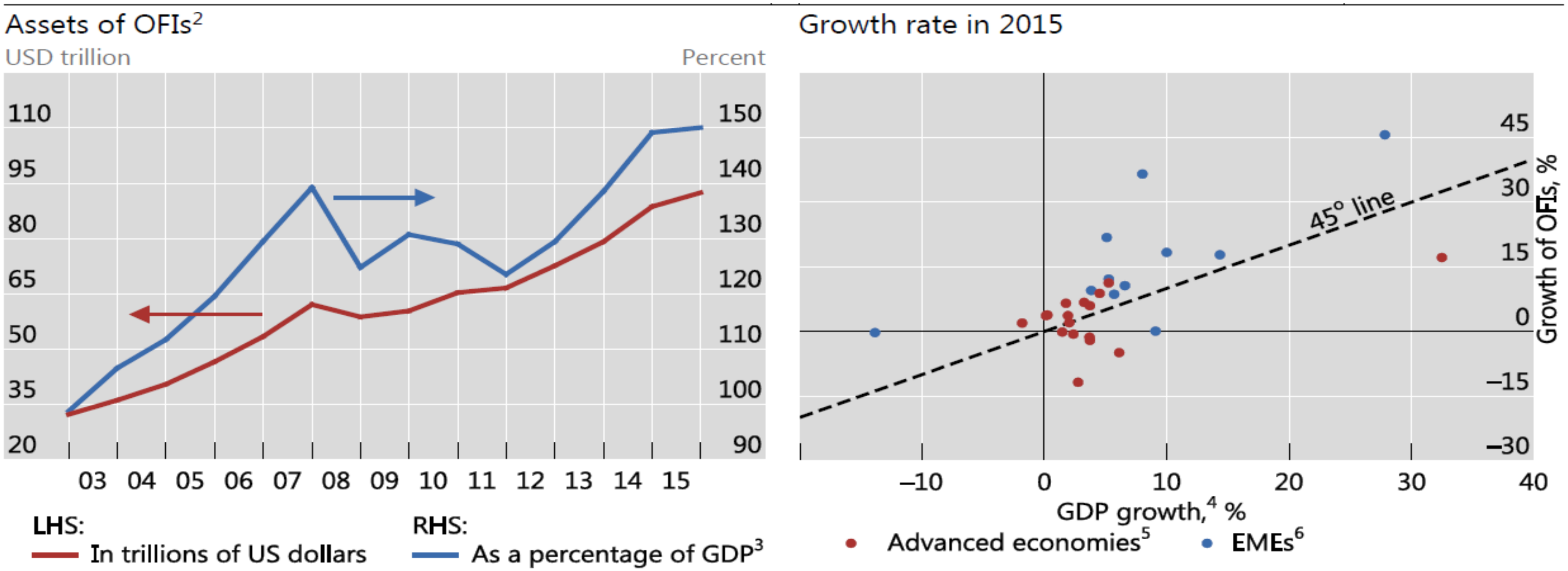
Data source: Financial Stability Board

OFI financial leverage easily exceeds 2007 peak

Other financial intermediaries (OFIs) compared to GDP[1]

21 jurisdictions and the euro area

Exhibit 2-7



[1] Also includes captive financial institutions and money lenders. Exchange rate effects have been netted out by using a constant exchange rate (from 2015). Based on historical data included in jurisdictions' 2016 submissions. [2] Increases in the value of OFI assets may also reflect improvements in the availability of data for some OFI subsectors over time at the jurisdiction level. [3] As a weighted average based on GDP weights. [4] Calculated from GDP figures in local currency based on current prices. Growth rates in two outlier jurisdictions are reflecting high inflation and one-off relocations of big economic agents. [5] Australia, Belgium, Canada, the Cayman Islands, France, Germany, Hong Kong, Ireland, Italy, Japan, South Korea, the Netherlands, Singapore, Spain, Switzerland, the UK and the US. [6] Argentina, Brazil, Chile, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey.

Sources: National sector balance sheet and other data; IMF *World Economic Outlook*; FSB calculations.

Data source: Financial Stability Board

Other financials running riot in a cheap credit world

- Boom in non-bank financial intermediation

Major OFI subsectors

28 jurisdictions

Exhibit 2-10

	Inv. funds	BDs	CFI MLs	MMFs	SFVs	Fin. co.	HFs	Trusts	REITs	CCPs
Size in 2015 ($ trillion)	30.7	9.5	5.4	4.6	4.4	4.6	3.2	2.9	1.8	0.4
Share of OFI total (% of OFIs)	38.5	11.9	6.8	5.8	5.5	5.7	4.0	3.7	2.2	0.5
Growth in 2015 (year-over-year, %)	3.2	−5.5	2.8	9.2	−4.3	6.6	1.0	15.3	1.8	-4.1
Growth 2011-14 (compounded, %)	15.3	4.9	3.8	3.6	−7.5	3.0	32.8	38.3	14.1	−5.9

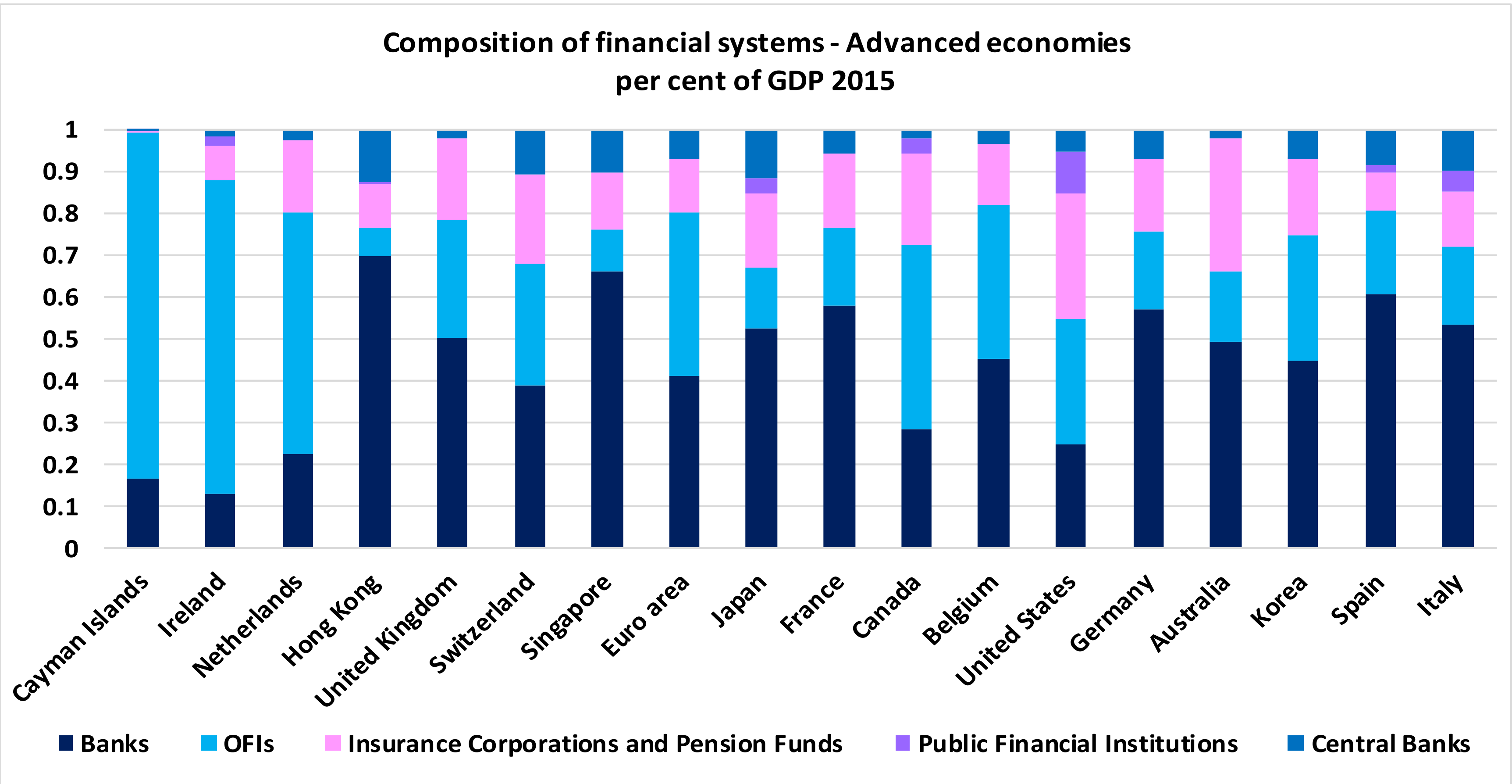
Based on historical data included in jurisdictions' 2016 submissions. Exchange rate effects have been netted out by using a constant exchange rate (from 2015). MMFs = Money market funds; HFs = Hedge funds; Inv. funds = Investment funds (equity funds, fixed income funds, mixed/other funds); REITs = Real estate investment trusts and real estate funds (RE funds); Trusts = Trust companies; Fin. co. = Finance companies; BDs = Broker-dealers; SFVs = Structured finance vehicles; CCPs = Central counterparties; CFIMLs = Captive financial institutions and money lenders.

Sources: National sector balance sheet and other data; FSB calculations.

Data source: Financial Stability Board

OFIs have muscled in on the global financial system …

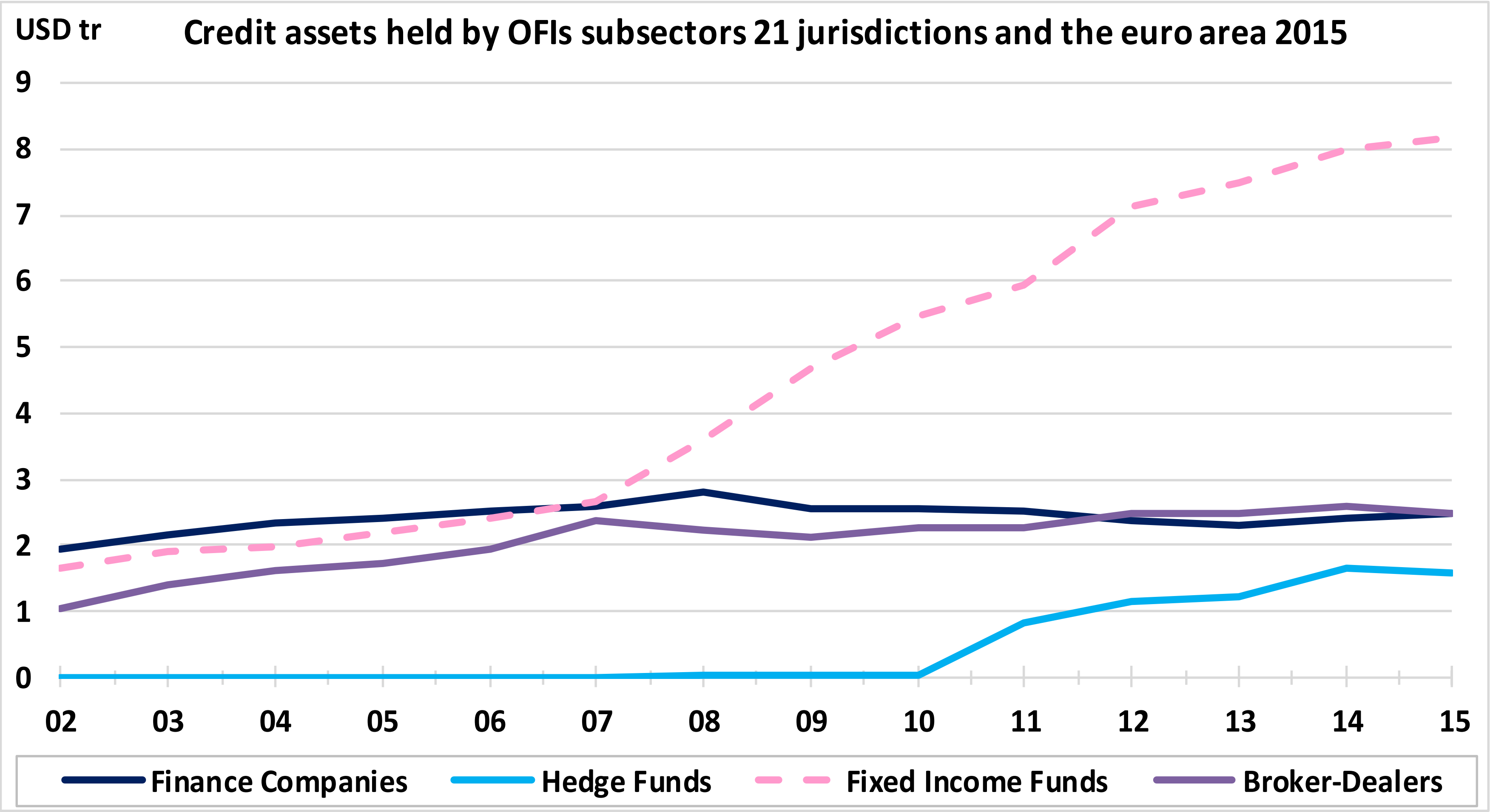
- … with significant leverage and little capital



Data source: Financial Stability Board

The rise of leveraged (fixed income) asset management

- Forward guidance = a green light for leverage



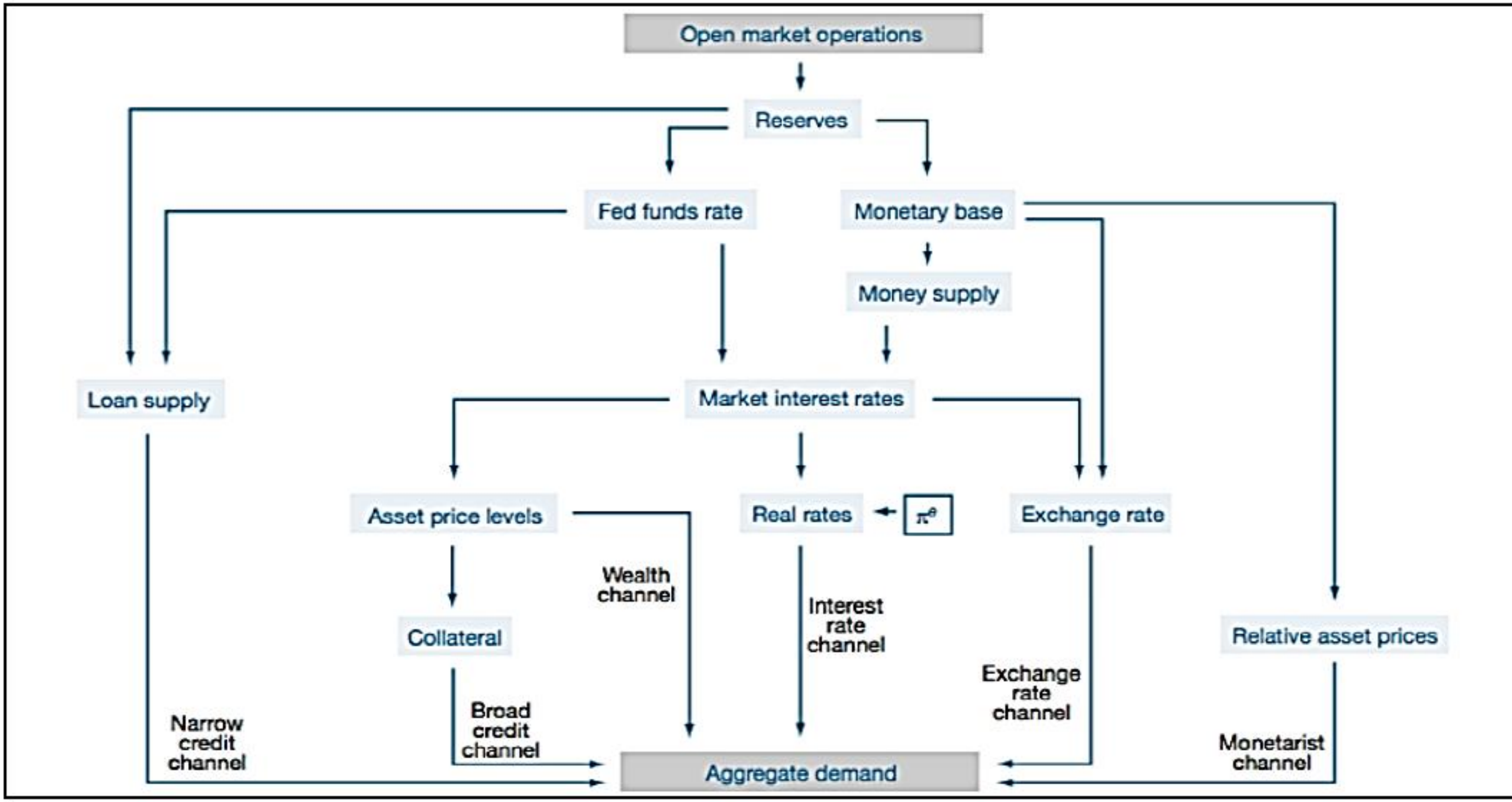
Data source: Financial Stability Board

Financial market strategies have adapted to policy

- Forward guidance emboldens leveraged asset management – lessened risk of rate reversal
- Suppressed bond and equity market volatility has fostered the style of asset management known as risk-parity
- Large-scale asset purchases have created artificial shortages and triggered convexity trades, eg German insurance companies
- Central banks have reinforced the pro-cyclicality of the financial system

The transmission of monetary policy …

- … once upon a time



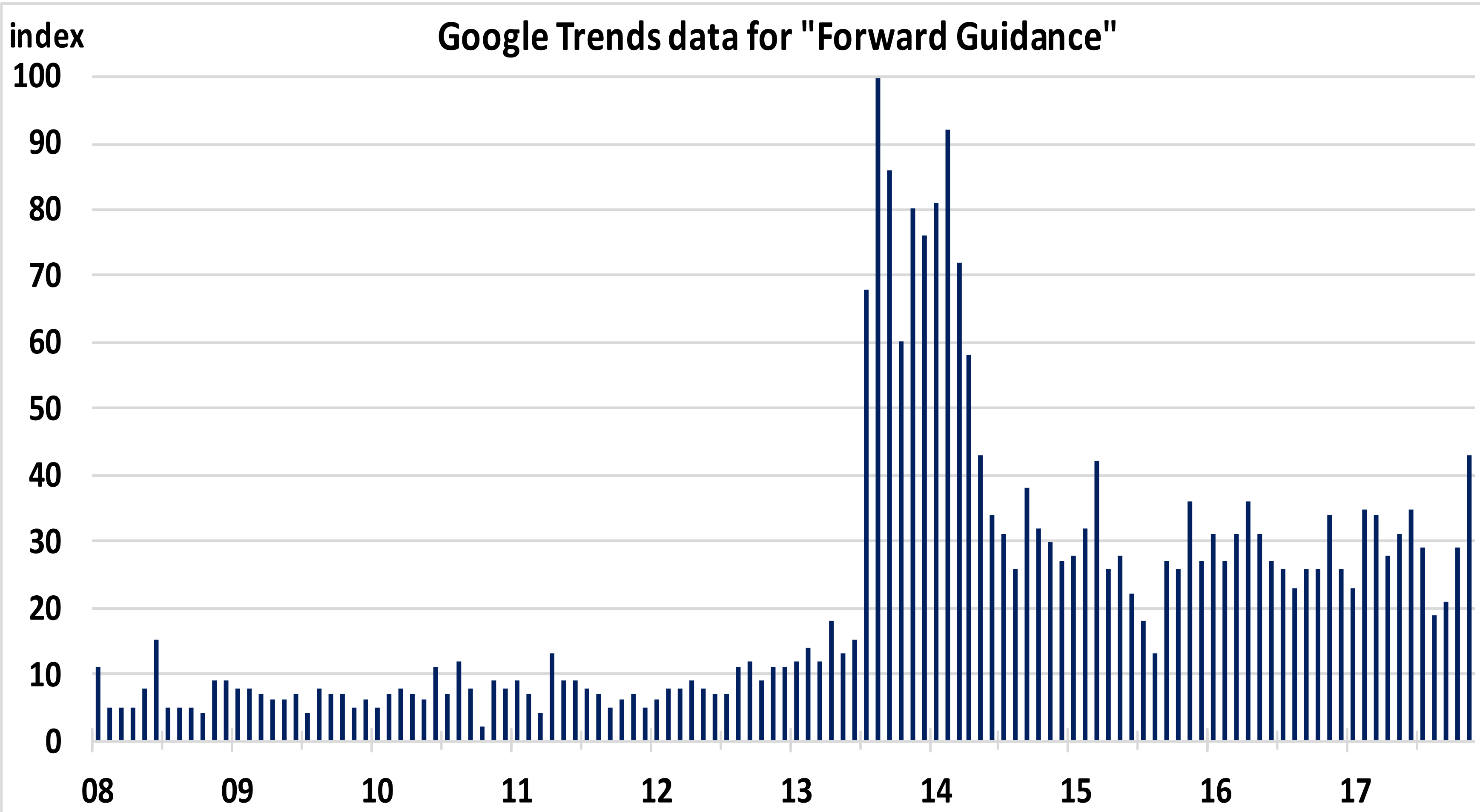
Data source: New York Federal Reserve

Central banks: a journey from control to mere influence

- Capital markets revolution of 1980s and 1990s weakened the authority of central banks
- Central bank control of the government yield curve evaporated as bond markets flexed their muscles
- Post-GFC, monetary policy has been in a state of near-continuous innovation
- Escalation in policy initiatives and frantic pace of communication
- Seeking to regain lost influence over the long end of the yield curve

Central banks' quest for greater influence …

- … is laced with moral hazard



Data source: Google

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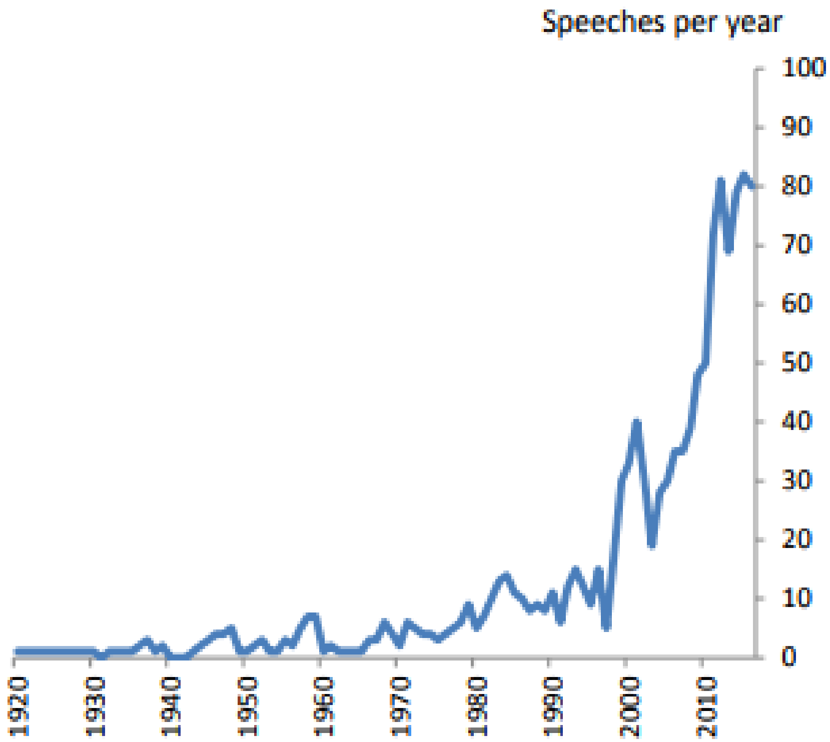
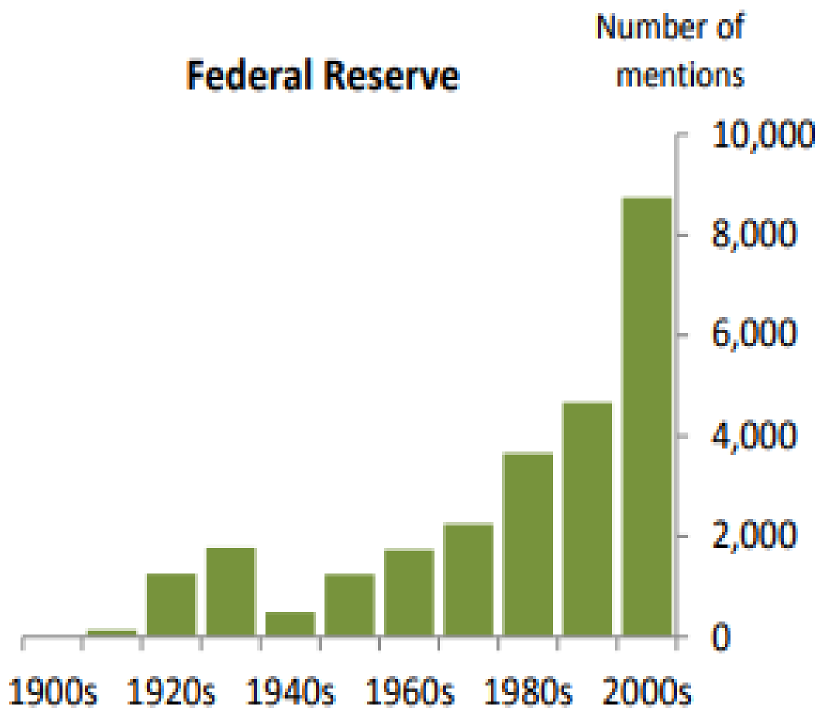
Central banks' quest for greater influence …

- … has led to over- and mis-communication

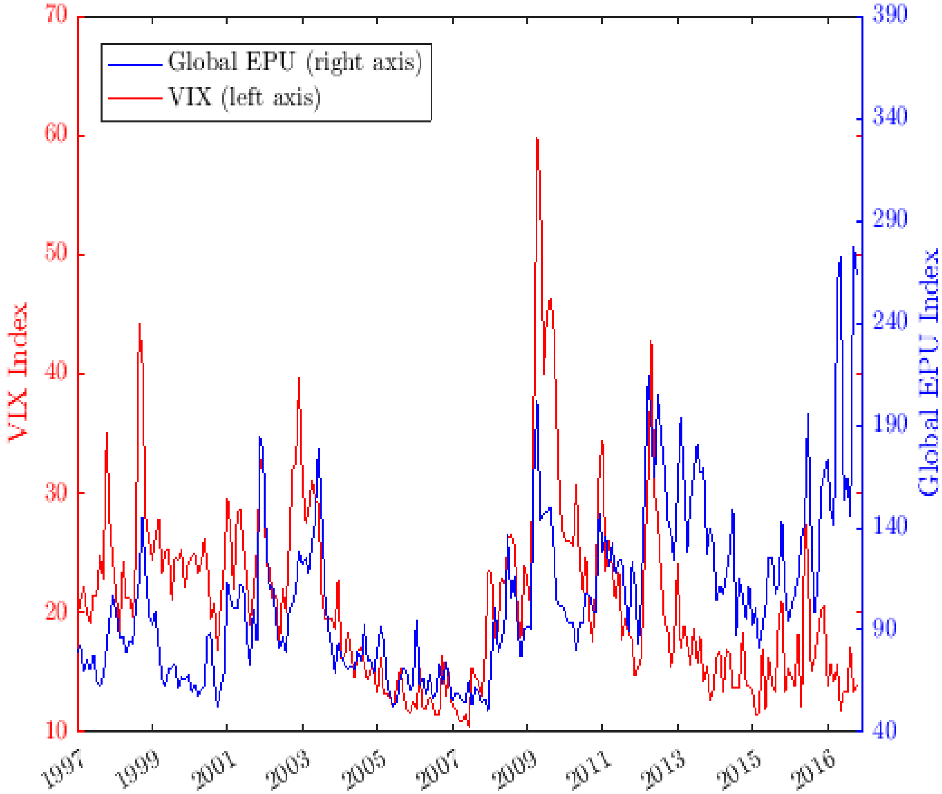


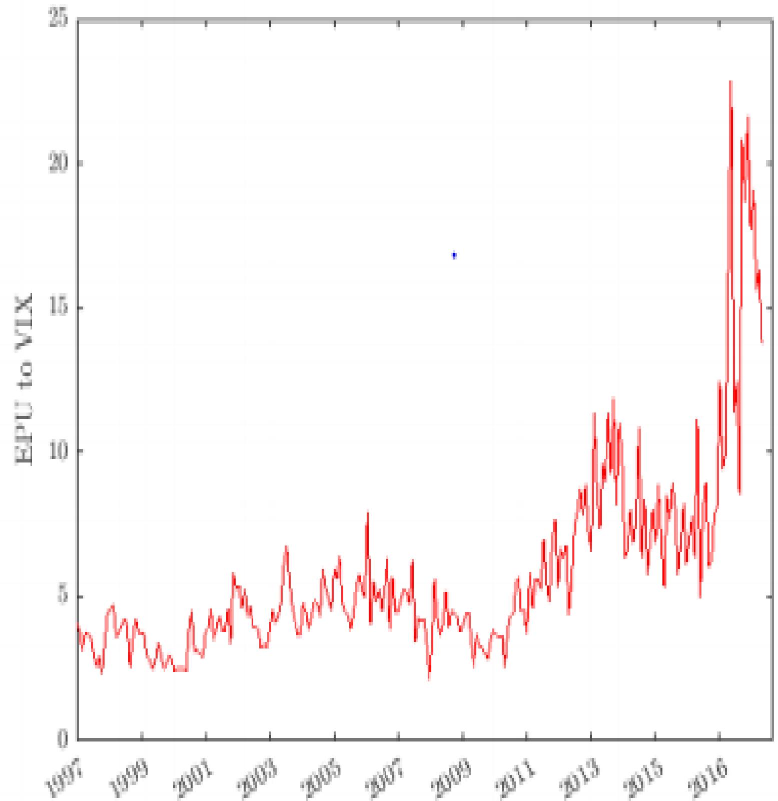


Data source: Bank of England

Central banks' quest for greater influence …

- … has artificially suppressed market volatility





EPU – Economic and Political Uncertainty Index

Data source: Pastor and Veronesi (2017)

Monetary policy has been gamed by financial industry

- In their efforts to reassert control over long-term real interest rates, central banks have become embedded in the system
- They are no longer pulling levers in a signal box, with predictable economic outcomes
- Banks, brokers, asset managers and large non-financial corporations have learnt to pre-empt central banks and influence monetary policy
- ‘Too big to fail’; ‘too complex to fail’ and ‘systemically important financial institutions’ have entered the lexicon

Monetary policy has been subverted by powerful interests

- Central banks have become endogenous to the economic and financial system
- There are feedback loops and expectations effects to consider
- Policy no longer has predictable consequences
- Raising interest rates could be stimulatory!
- Unconventional monetary policy has allowed CBs to regain a measure of control through interest rate and volatility suppression
- But at what cost?

Conclusions

- There is no safe exit from unconventional policy
- Control over long-term real rates is surrendered as policy is unwound (tapering, tightening, etc.)
- Co-option of financial leverage to exert downward pressure on long rates in an easing phase implies powerful upward pressure when the tide turns
- Lack of capital in risk markets spurs the unwinding of leverage. Margin requirements set to rise
- Rebound in market volatility compresses risk positions even further
- Likelihood of disorderly financial asset markets

The power of false hypotheses: a postscript

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	Platinum	Gold	Silver
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North America Economic Perspective	✓	✓	
Eurozone Economic Perspective	✓	✓	
Research Digest	✓	✓	✓
Global Inflation Heat Maps	✓	✓	
Research publication archive access	✓	✓	
Onsite meetings or conference calls	7 per year	3 per year	
Research Insight presentations	2 per year	1 per year	1 per year
Private lunches with Dr Peter Warburton	✓	✓	
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Economic Perspectives – Partnership selections

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