Increasing incidence of asset bubbles and financial crisis since the 1980s. A common link ?

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Global Economics & Strategy

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“The monetary history .... has been replete with financial crises. The pattern was that the rate of growth of credit increased and economic growth accelerated, and ..... individuals began to invest for short-term capital gains ....”

Charles Kindleberger

Increasing incidence of financial crisis and asset bubbles since the end of Bretton-Woods

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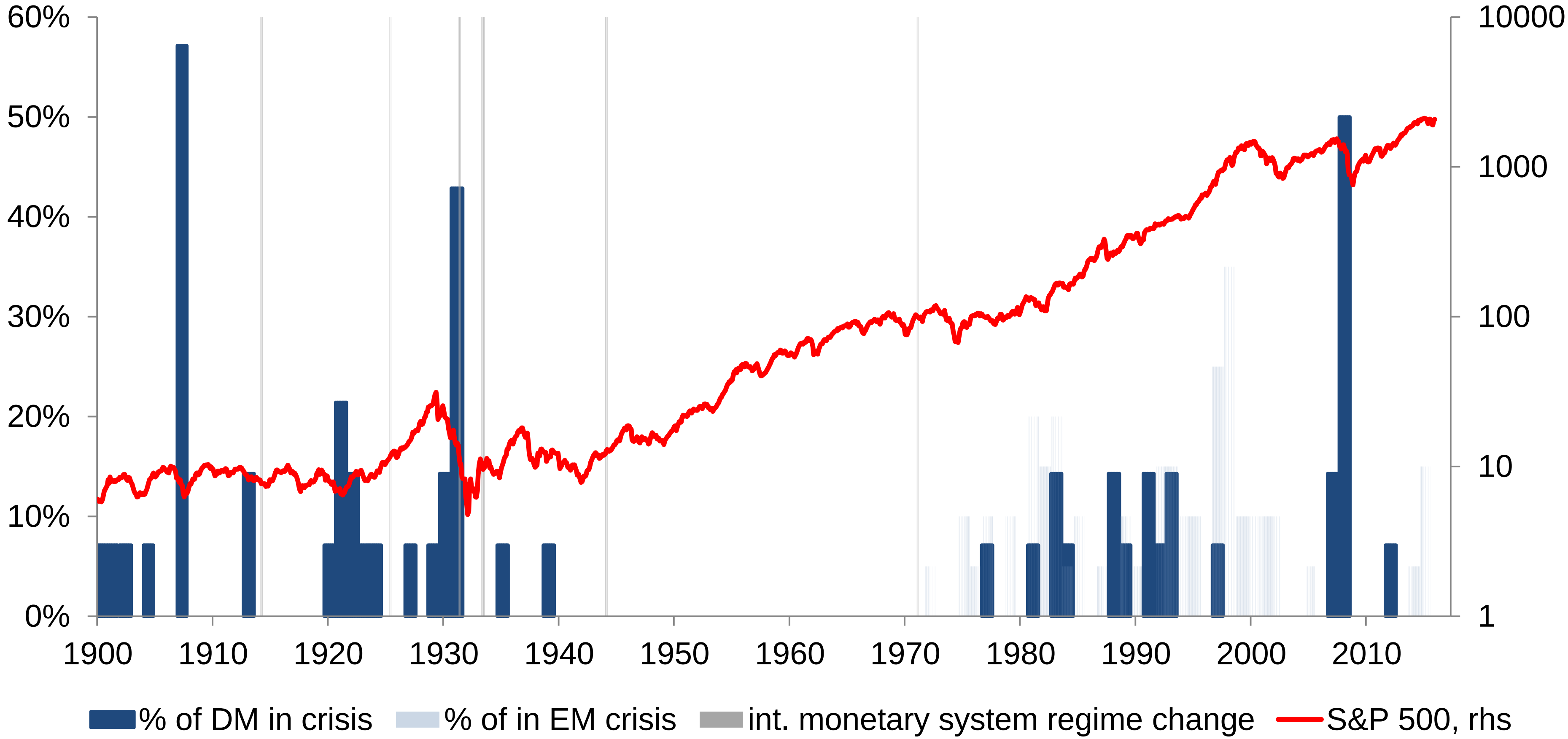
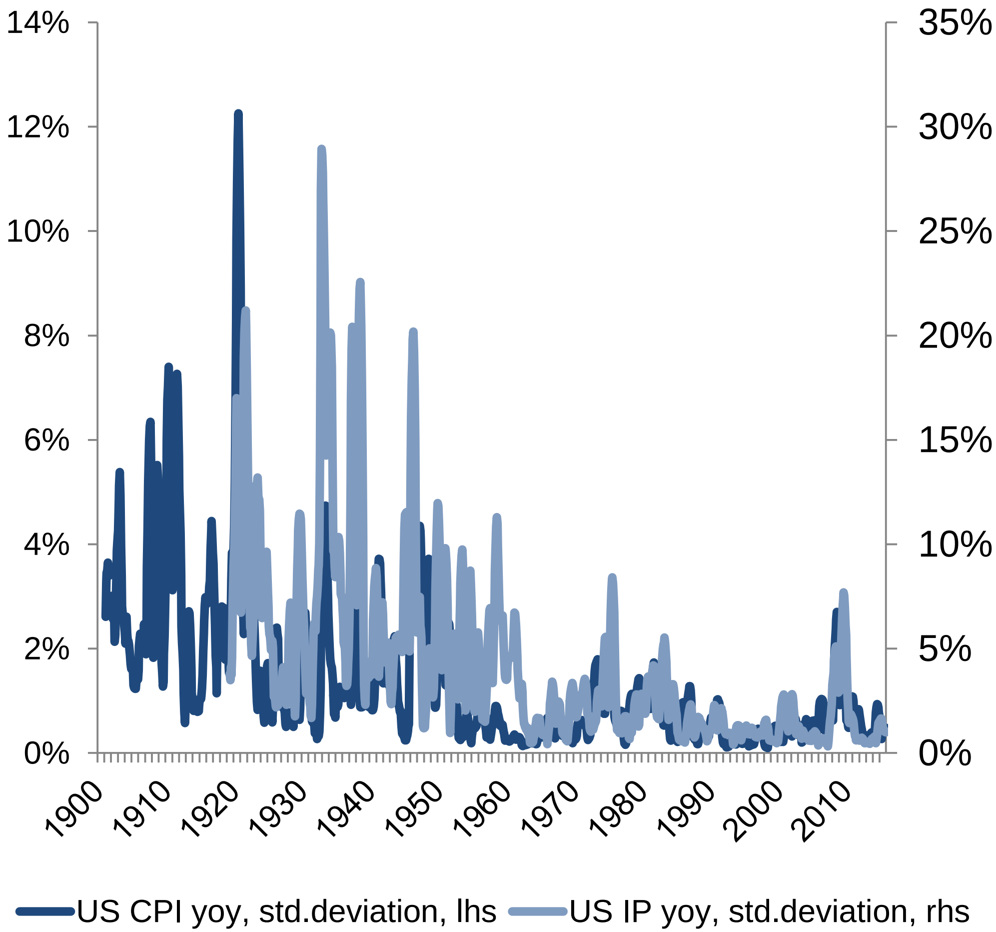
Share of countries in crisis since 1900



Source: AllianzGI, Datastream. M.Schularick and A.Taylor (2009): „Credit Booms Gone Bust: Monetary Policy, Leverage Cycles and Financial Crisis, 1870-2008"; L.Laeven and F.Valencia:, IMF WP/08/224 „Systemic Banking Crisis Database"; definition of crisis years according to Schularick/Taylor (1900-2010) and Laeven/ Valencia (1970-2008) ; own estimates for years since 2008
DM: G7, Australia, Sweden, Norway, Denmark, Spain; EM: BRICS, Turkey, Poland, Hungary, Turkey, Israel, Kuwait, Hong Kong, Singapore, Thailand, Philippines, Indonesia, Korea, Malaysia, Mexico, Argentina, Chile; grey bars: 1914 WW1 related end of gold standard; 1925: UK returns to gold standard; early 1930s: UK and US off gold standard; 1944 Bretton Woods; 1971 collapse of Bretton Woods

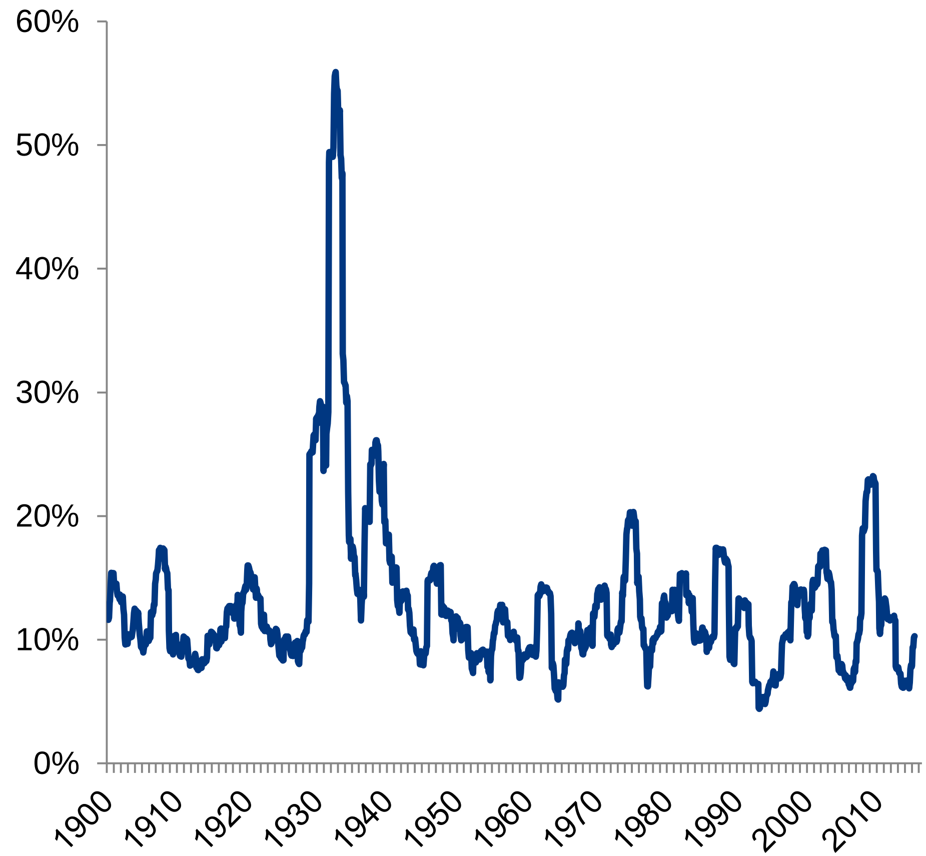
Has the world economy been too good to be true ?
Volatility of macro data and market prices has decreased since WW2, ...

Standard deviation of US CPI (yoy) IP (yoy)



Source: St.Louis Fed, Allianz GI, data as at 2015

S&P 500 ex-post volatility



Source: Rob Shiller, Allianz GI, data as at 2015

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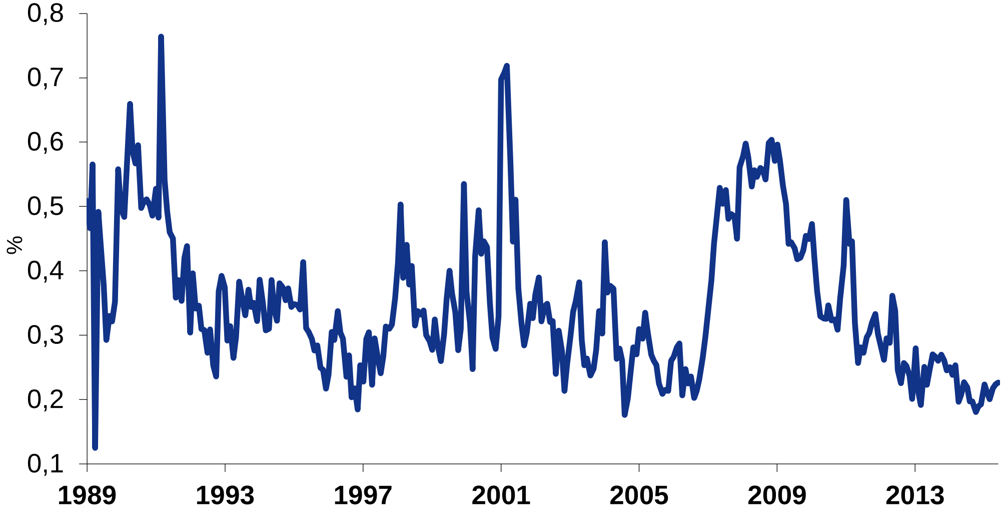
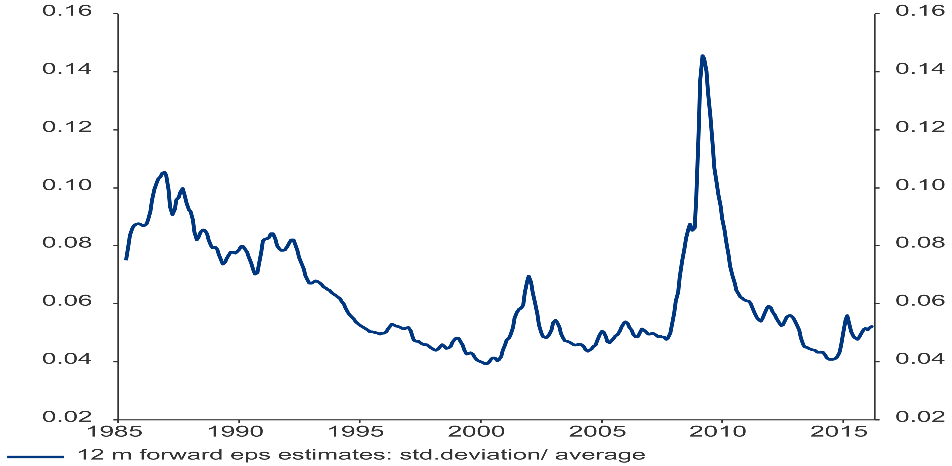
...so has the dispersion of economists‘ estimates since the 1980s.

Standard deviation of US GDP (yoy) estimates

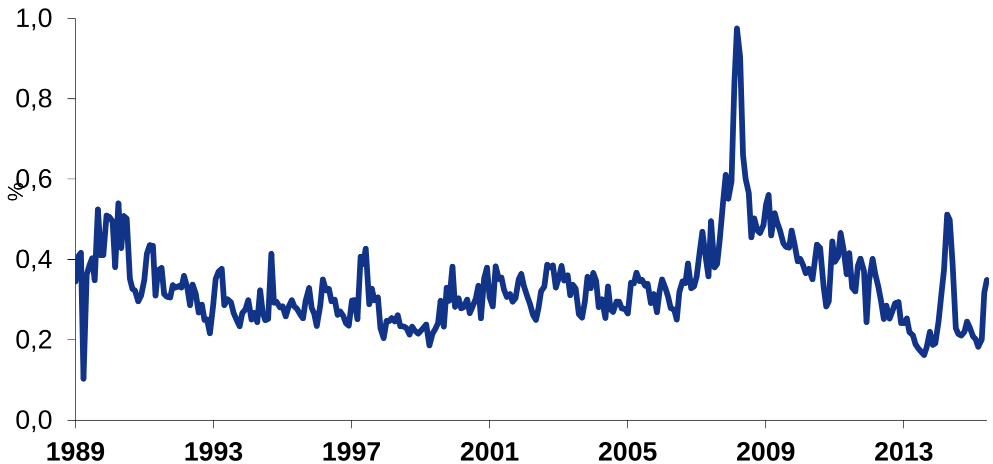


Coefficient of variation of S&P 500 eps estimates



Source: Thomson Reuters Datastream, AllianzGI Economics & Strategy 22/04/2016

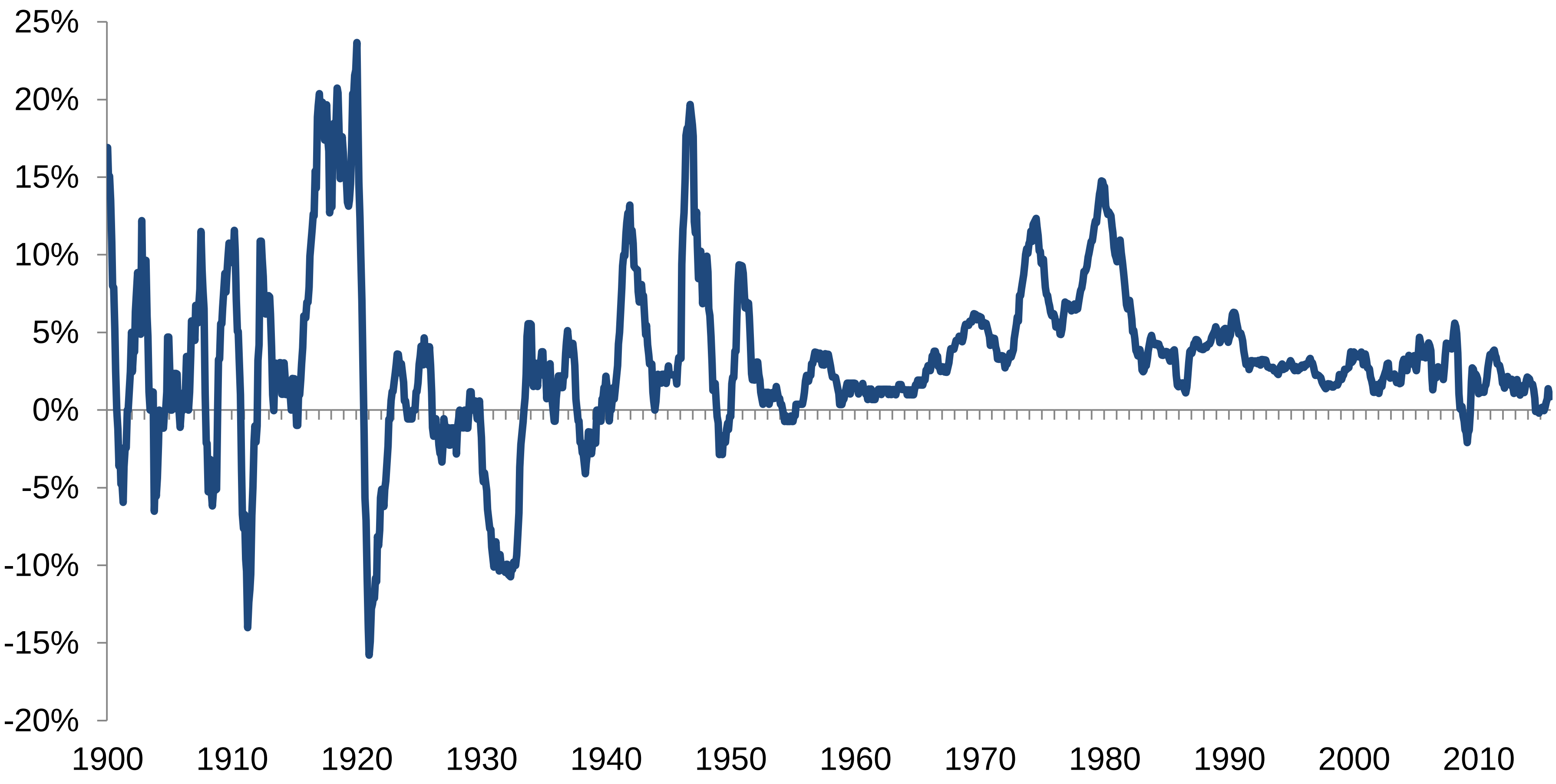
Standard deviation of US CPI (yoy) estimates



Source: Consensus Economics, Allianz GI, data as at q1 2016

Inflation rates have declined since 1980.
Central banks have lived up to their mandate of price stability

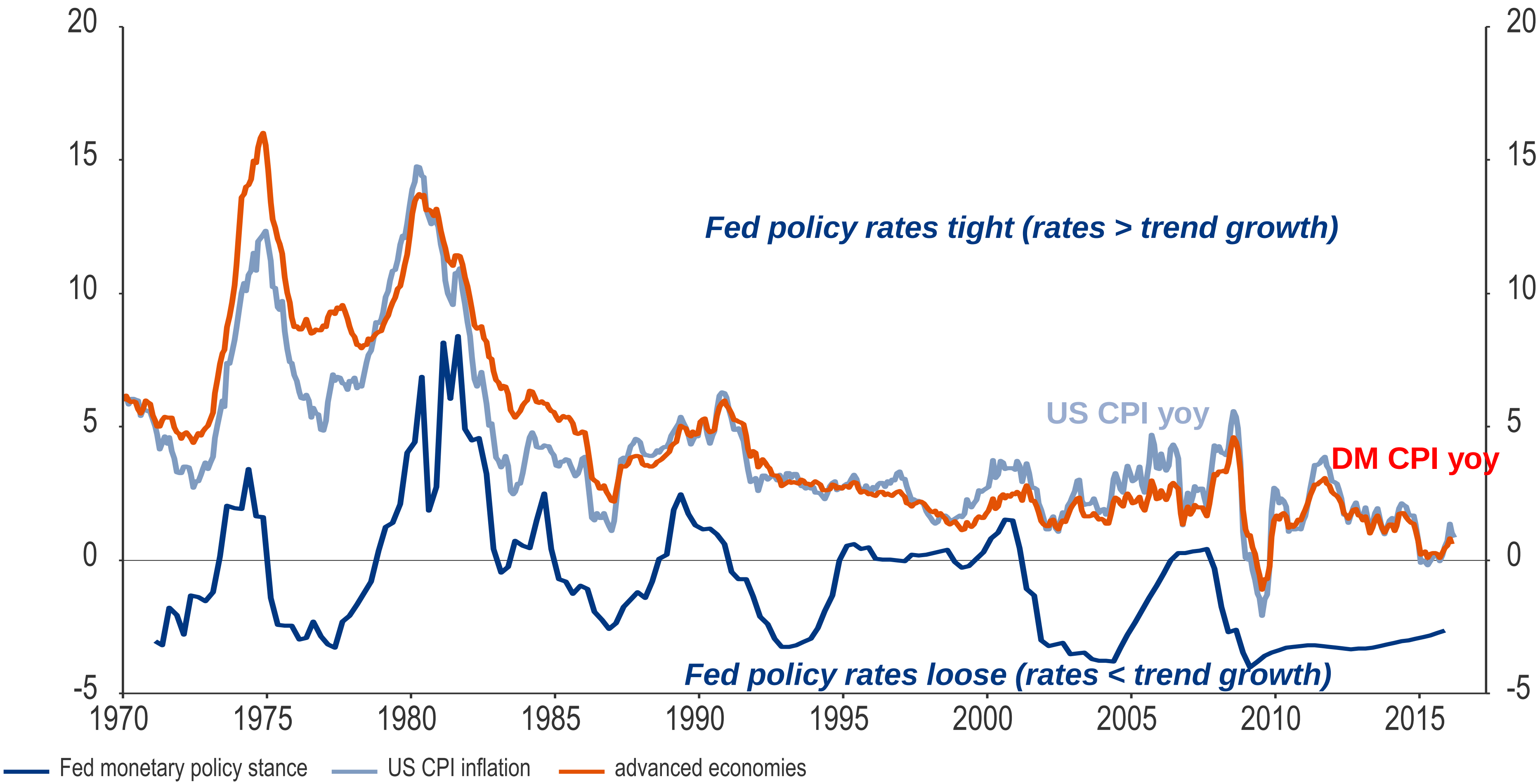
US CPI (yoy)



Source: St.Louis Fed, Allianz GI, data as at q1 2016

Monetary policy has tended to be too loose since the mid 1980s, starting with the „Greenspan-Put“

Estimate of Fed policy stance vs US and global developed economies CPI (yoy)



Source: Thomson Reuters Datastream, AllianzGI Economics & Strategy 22/04/2016

Source: St.Louis Fed, Allianz GI, data as at q1 2016

Easy monetary policy has been exported to the rest of the world and...

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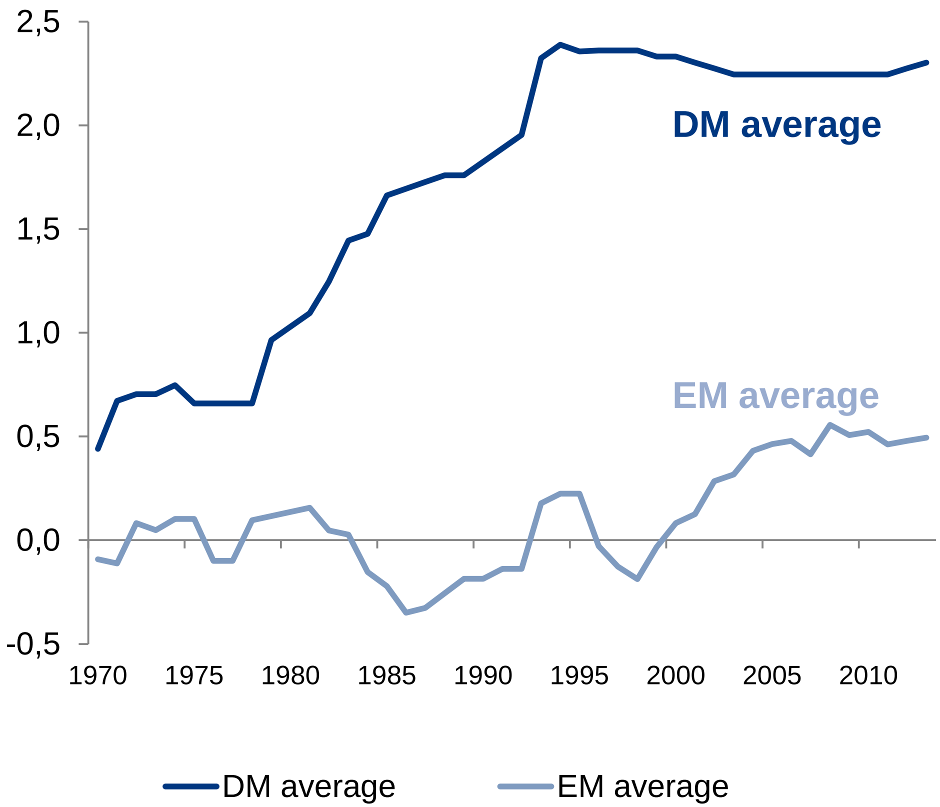
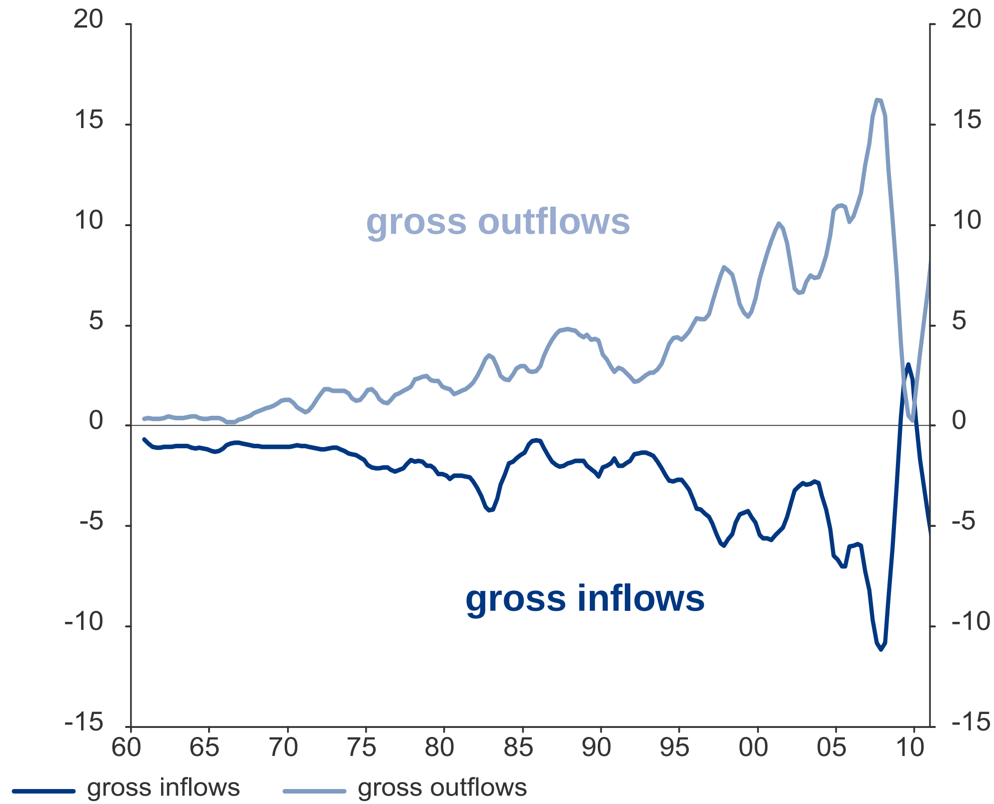
Chinn-Ito Index of capital account openness



US gross international capital flows in % of GDP

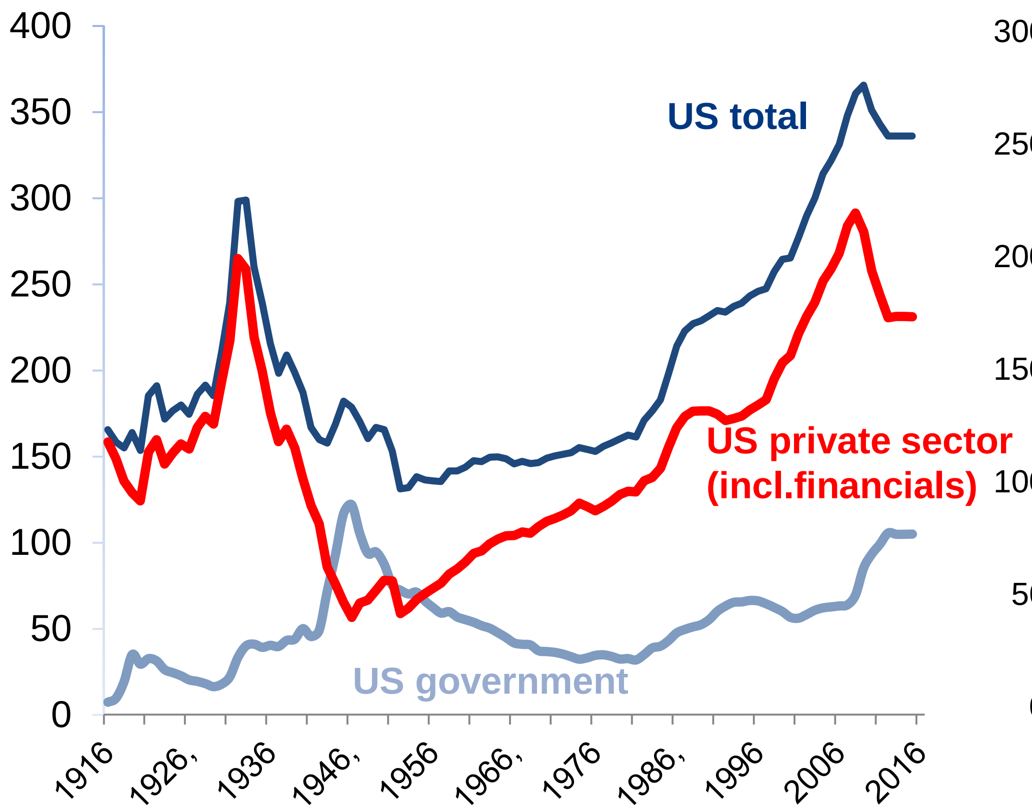


Source: Thomson Reuters Datastream, AllianzGI Economics & Strategy 22/04/2016

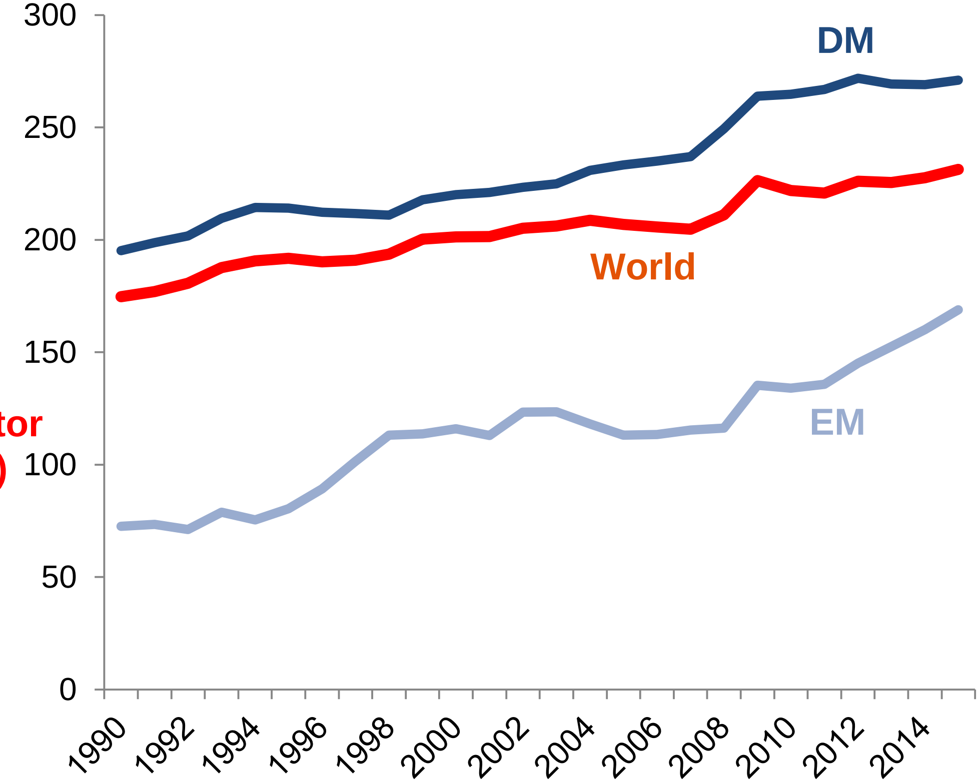
Source: Chinn-Ito, Allianz GI
Legend: DM: G7, Australia, Switzerland; EM: BRICS, Hungary, Poland, Mexico, Saudi Arabia, Israel, Indonesia, Thailand, Korea, Singapore, Hong Kong; simple averages

...has been conducive to a sharp rise in leverage globally

US debt/ GDP in %



World non-financial public and private debt/GDP in %

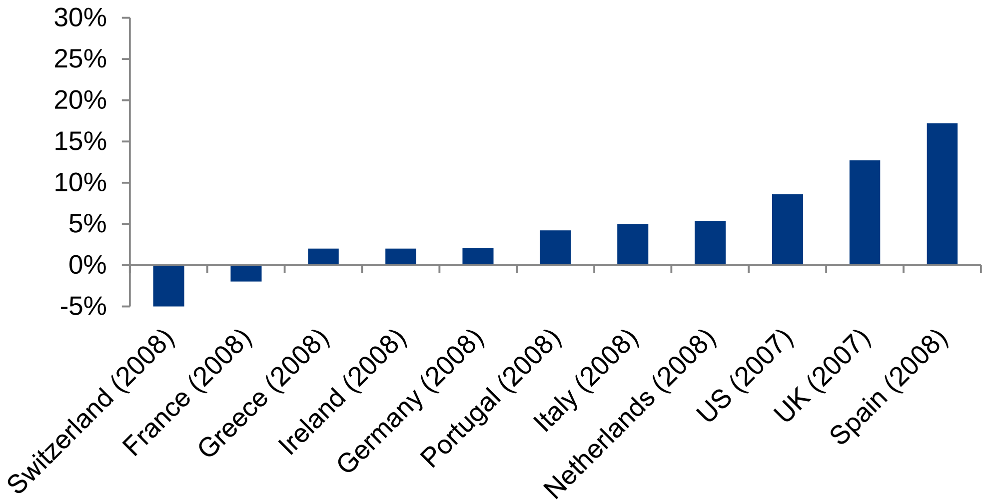


Source: Allianz GI, St.Louis Fed, BIS, data as at 2015

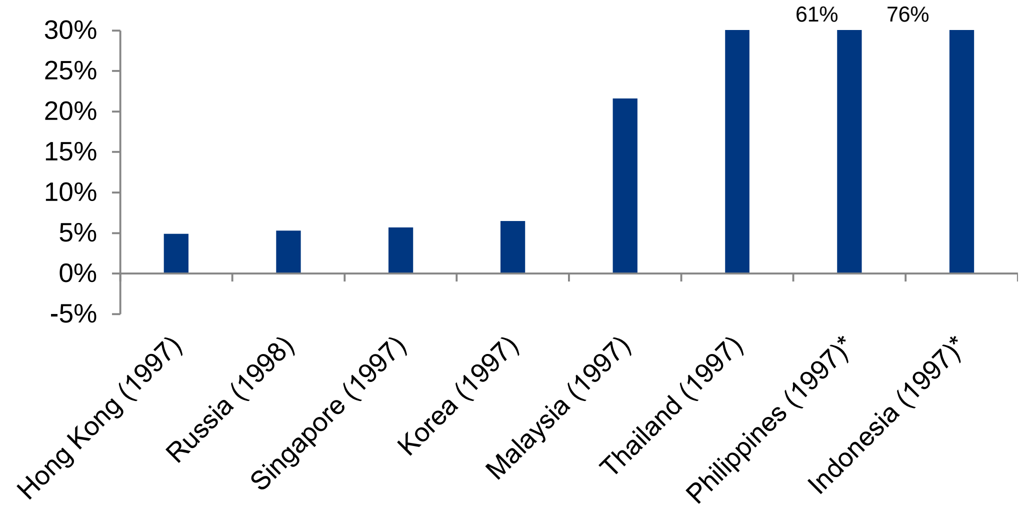
Source: Allianz GI, Datastream, BIS, data as at q3 2015
DM: G7, Australia, EM: BRICS, Turkey, Indonesia, Mexico, Argentina, Saudi Arabia

Credit gaps in % of GDP on the eve of a crisis since the 1980s

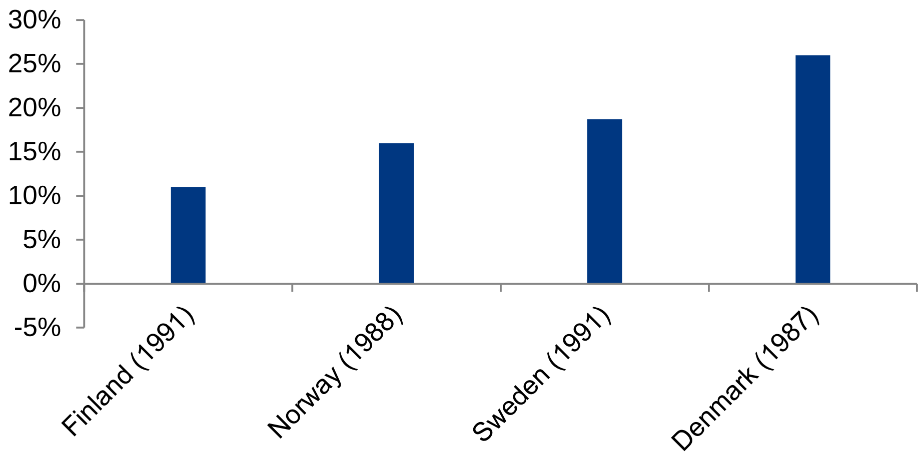
Global Financial Crisis (2007/08)



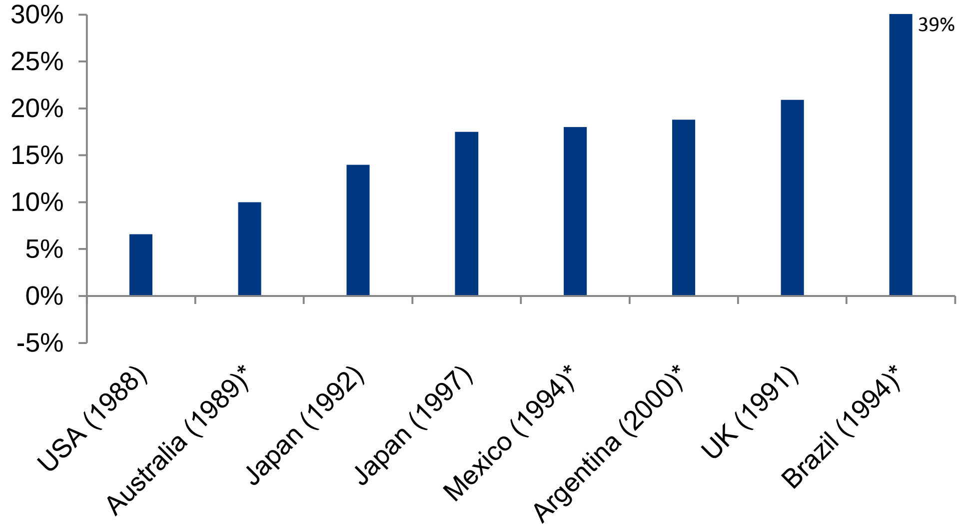
Asian/ EM crisis 1997/98



Nordic countries (late 1980s/early 1990s)



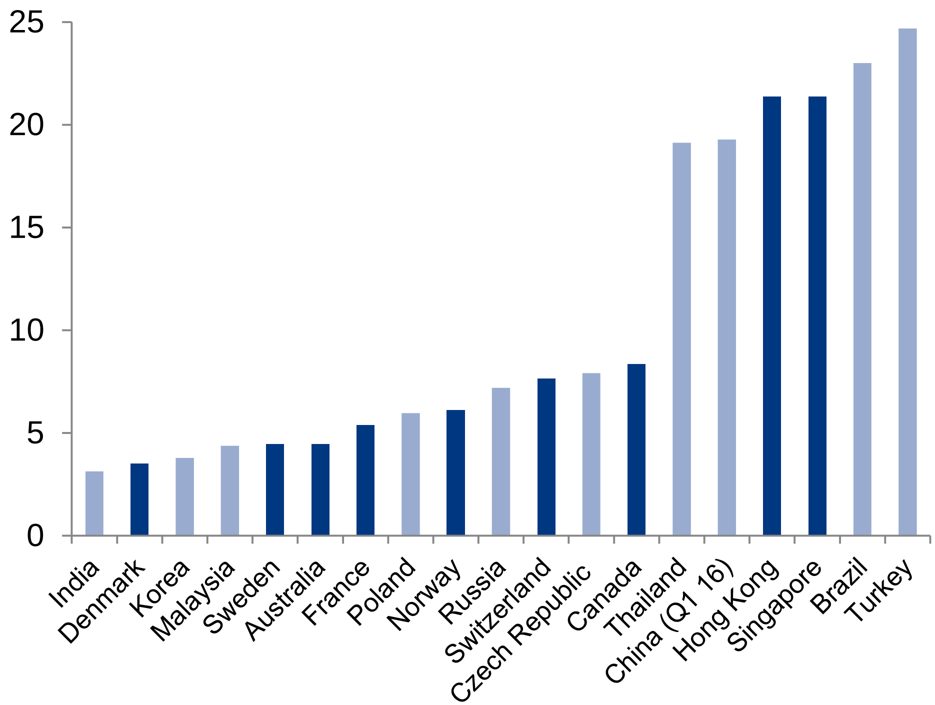
Other crisis in 1980s and 1990s



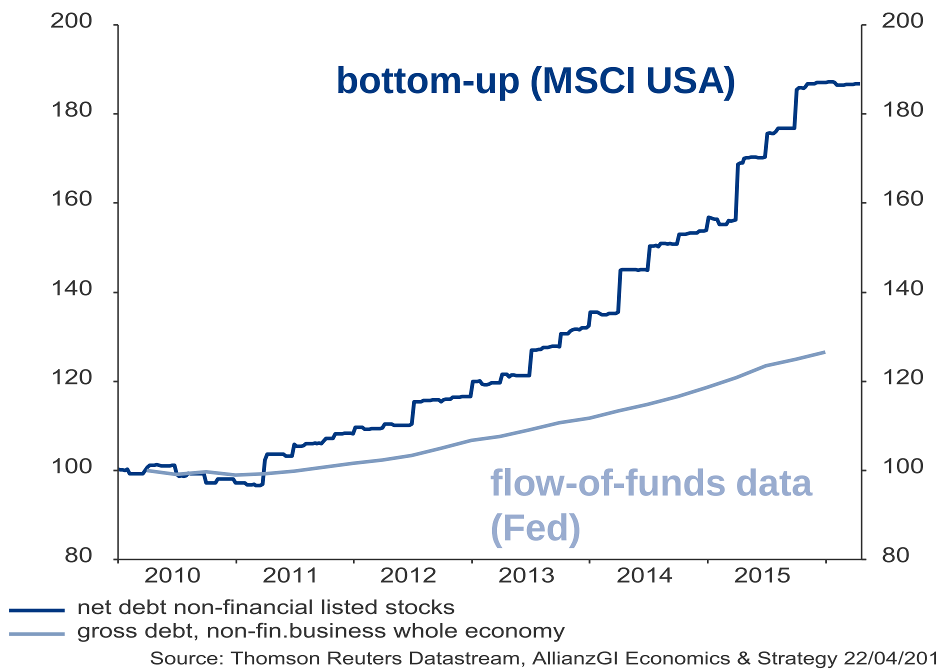
Source: Allianz GI, World Bank for countries with domestic debt only, BIS for all others; Legend: credit gap = private non-financial sector debt/GDP relative to trend; data refer to year before crisis started; *based on domestic credit only

Credit gaps are wide in many countries also today

Private sector credit gap in % of GDP



Leverage US non-fin. corporate sector (2010=100)



Source: BIS, AllianzGI. Trend calculation based on data starting in 1980 or later, depending on data availability; data as of Q3 2015, except for China (Q1 2016)
Legend: DM countries in dark blue , EM in light blue

Booming real estate markets explain the recent rise in leverage in many countries

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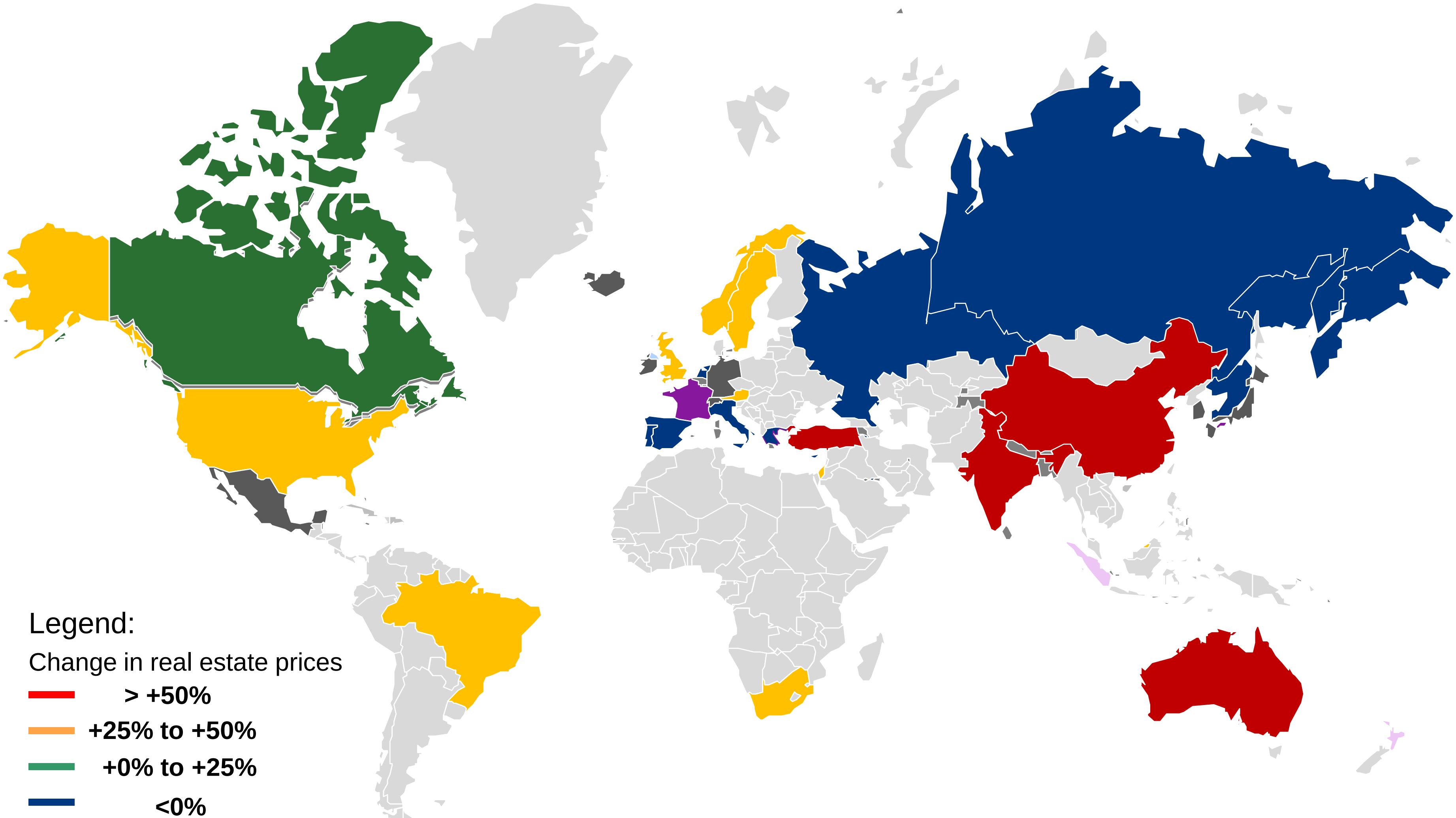
Change in real estate prices between 2010 and 2015



Source: BIS, Datastream, Allianz GI.

The Minsky/Kindleberger framework for asset price booms/ busts

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	Displacement	Boom/ Expansion	Leverage	Euphoria	Profit Taking	Liquidation	Revulsion	Finale

	Displacement	Boom/ Expansion	Leverage	Euphoria	Profit Taking	Liquidation	Revulsion	Finale
valuation of *risky* assets		fair/ attractive	expensive	massively overvalued	peaking	falling	low	very undervalued
investor sentiment	"new era perception"	positive	high	euphoric	sceptical	fear	panic	confidence building
macro backdrop	loose monetary policy	improving eco. cycle	easy access to credit	excessive leverage	growth fading	bankrupties, bank failures	credit crunch	lender of last resort

Source: Ch. Kindleberger, H. Minsky, Allianz GI

Several asset markets are (red) hot again

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Asset classes in a Minsky/ Kindleberger framework

risk appetite

	Boom	Leverage	Euphoria	Profit Taking	Liquidation	Revulsion	Finale
equities	MSCI EUR	S&P 500 TOPIX		China A		MSCI EM	Greece
bonds		Eur and US IG, HY		EMBI+	EM LC bonds	UST Gilts Bunds	JGB
FX	GBP, Euro	USD		Yen			EM FX
alternatives	Real Estate: USA, GER, SPA, ITA, SWI	Gold; Real Estate: GBR, BEL, IRE, FRA, SWE, DEK, CAN, SGP, BRA,, CHN	Real Estate:, HKG, AUS, NZ, TUR, ISR, BEL major cities globally		oil		Real Estate: Russia, Japan; industrial metals

Source: Allianz GI, C.Kindleberger, H.Minsky, The Economist

Understand. Act.

- Increasing incidence of financial crisis, credit and asset bubbles since the end of BW
- Easy monetary policy, financial market deregulation, low vola in macro data and „displacements“ are at the roots of the crisis
- Rapid increase in private sector leverage – especially in combination with a booming real estate market - is an early warning signal for crisis
- Currently, we identify again excess private sector credit and expensive asset markets around the world
- Price stability and financial stability are interlinked
- ‚Leaning against the wind‘ and policy coordination may reduce the risk of crisis. Is macropru sufficient ?

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