



BANK FOR INTERNATIONAL SETTLEMENTS

Liquidity, leverage and macro risk

Hyun Song Shin
Economic Adviser and Head of Research

86th Annual General Meeting

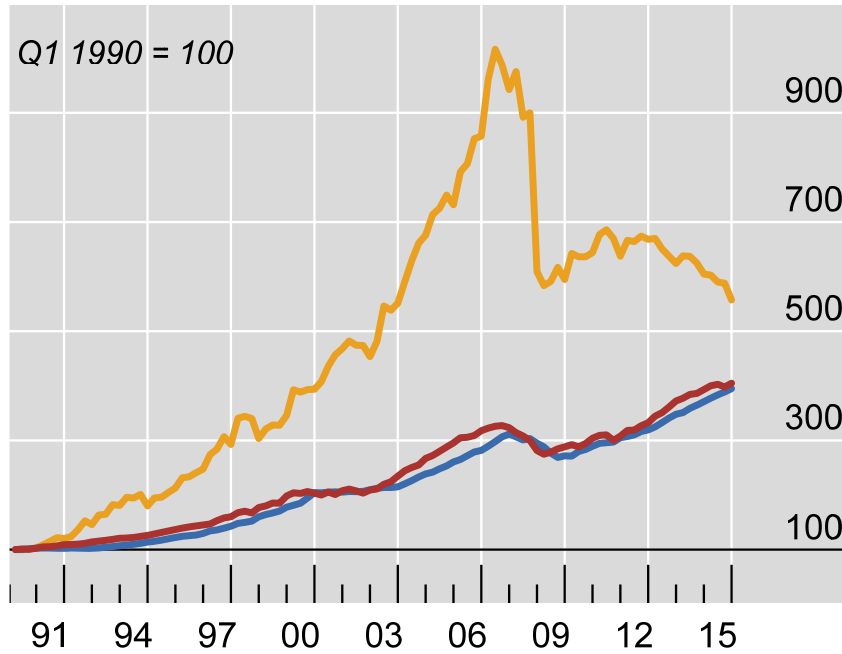


Realignment of the global economy

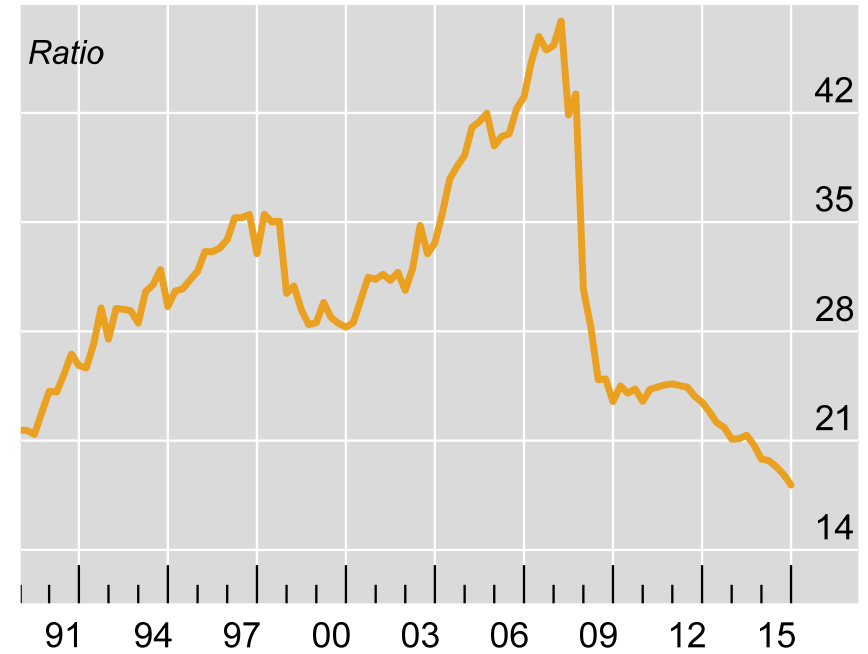
- Exchange rate and commodity price adjustments
- Shocks are accentuated by accumulated stocks
- Same forces that impact emerging economies also bear on:
 - Currency market anomalies
 - Impaired market liquidity

Total assets and leverage of the US securities broker-dealer sector

Total assets



Leverage (total assets/equity)



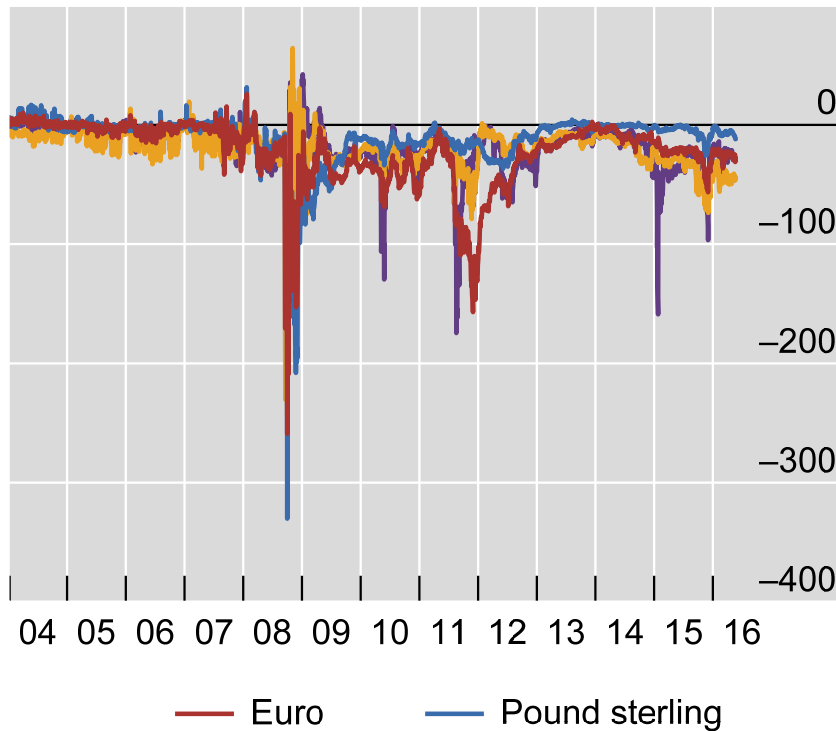
- Households and non-profit organisations
- Non-financial corporate business
- Securities brokers and dealers

- Securities brokers and dealers

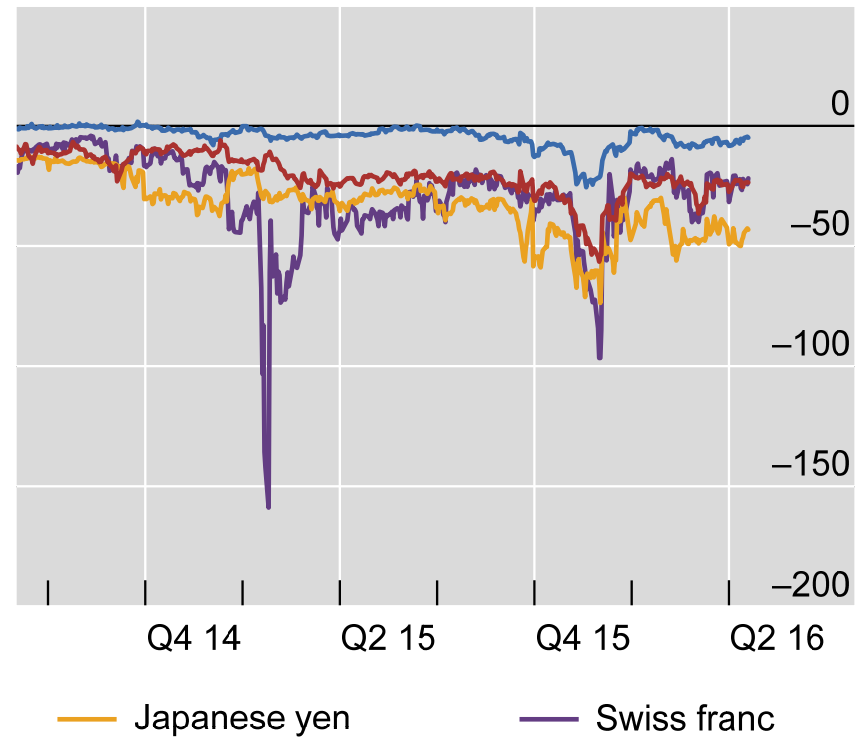
Sources: Federal Reserve, *Flow of Funds*; BIS calculations.

Cross-currency basis against the US dollar¹

Historical

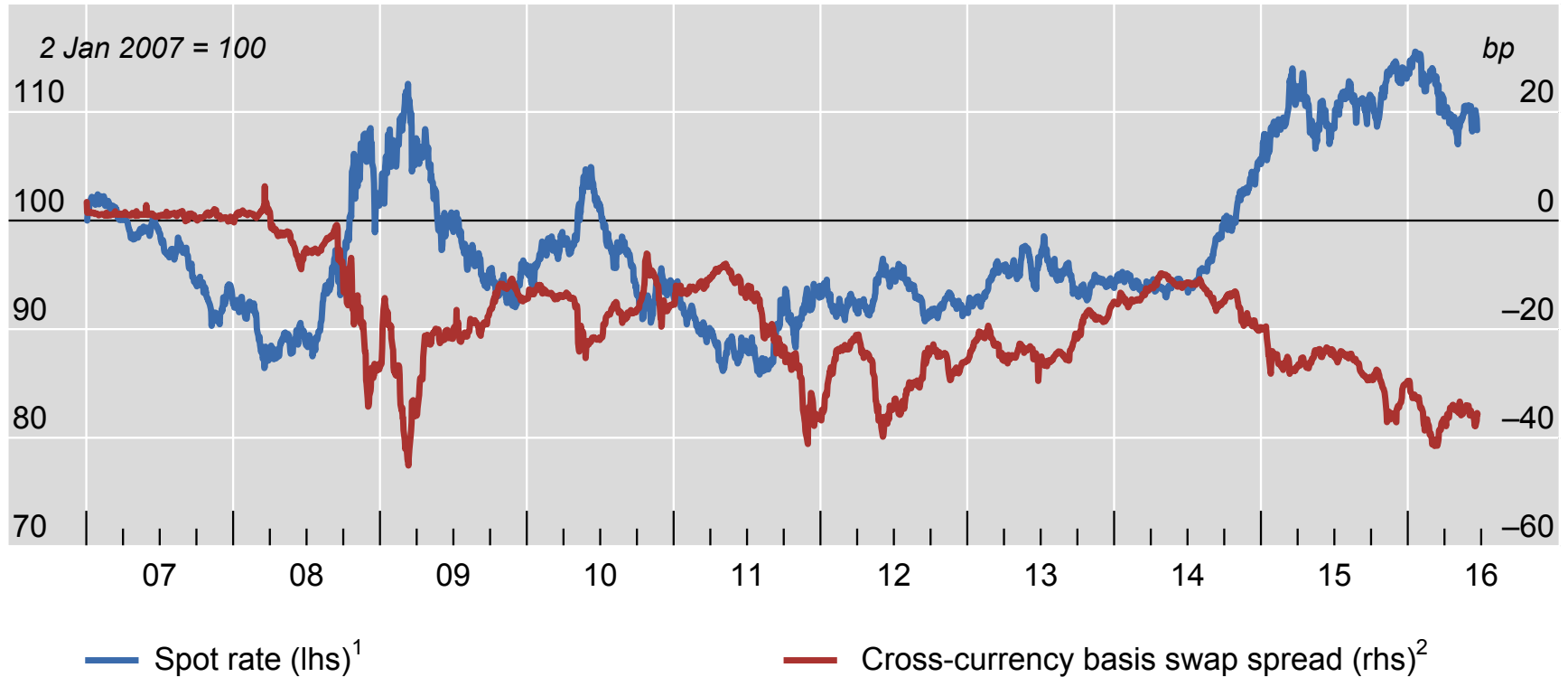


Recent



¹ Spread between three-month US dollar Libor and three-month dollar rate implied by FX swaps.
Sources: Bloomberg; Datastream; BIS calculations.

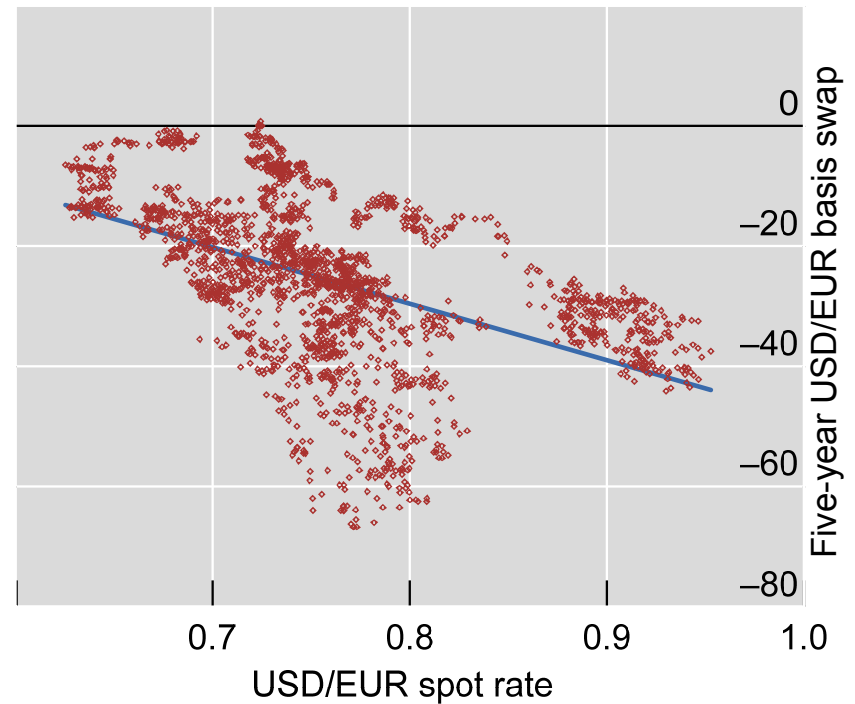
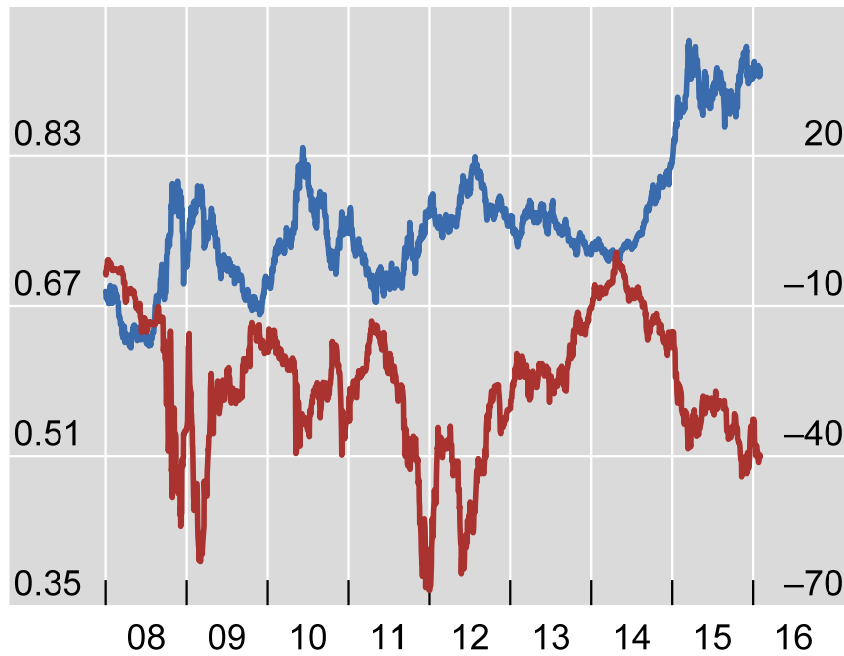
US dollar exchange rate and the cross-currency basis



¹ Simple average of the bilateral exchange rate of the US dollar against CAD, CHF, EUR, JPY, GBP and SEK. Higher values indicate a stronger US dollar. ² Simple average of five-year cross-currency basis swaps against CAD, CHF, EUR, JPY, GBP and SEK vis-à-vis the US dollar.

Sources: S Avdjiev, W Du, C Koch and H Shin (forthcoming); Bloomberg; BIS calculations.

Cross-currency basis of the euro against the US dollar

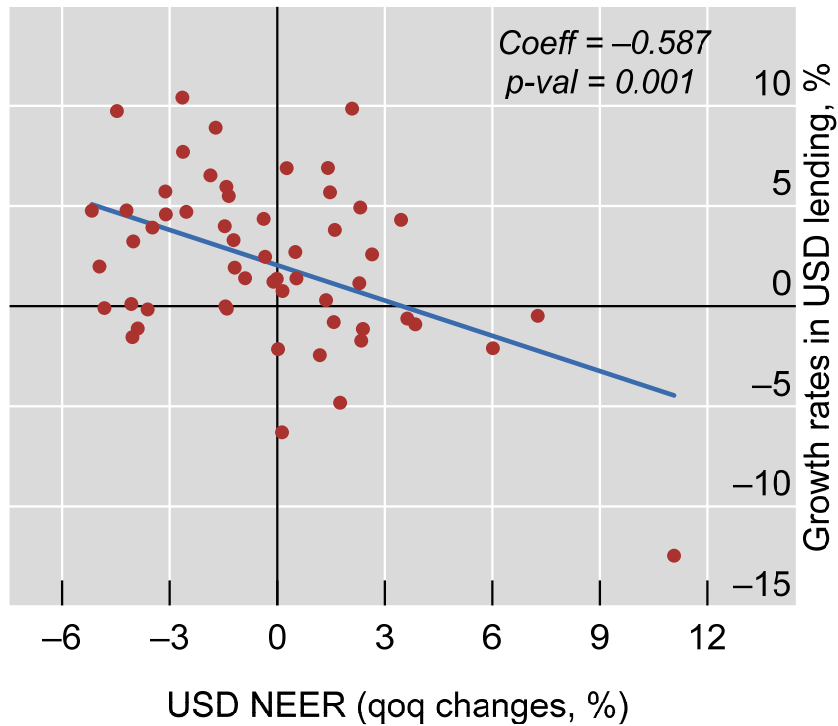


— USD/EUR spot rate (lhs)
— Five-year USD/EUR basis swap (rhs)

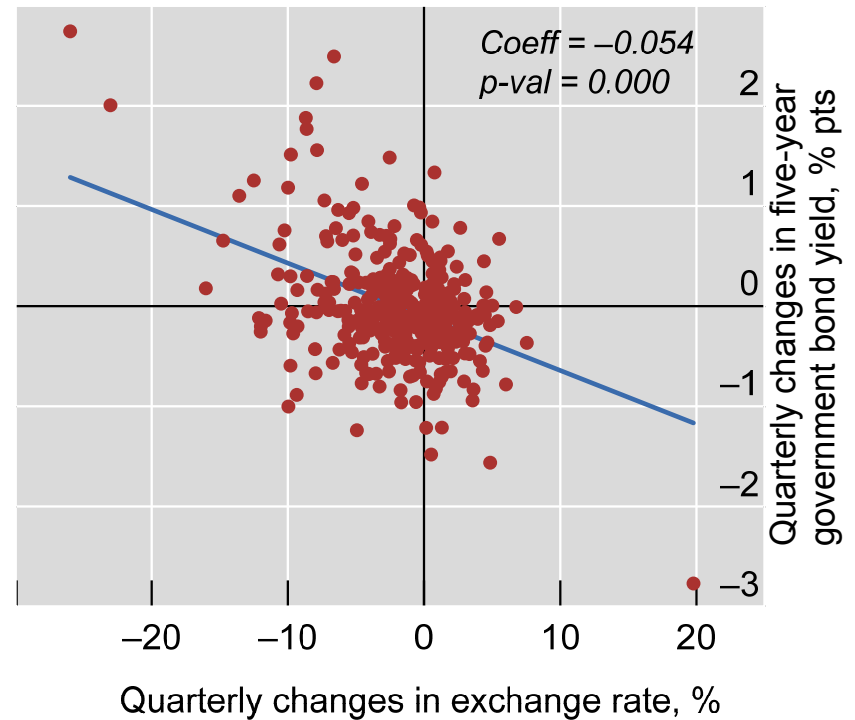
Source: Bloomberg.

Risk-taking channel of exchange rates

Cross-border bank credit to EMEs, all sectors



Changes in EME local currency sovereign yields



Source: BIS, 86th Annual Report, Graph III.5.

Elasticity of GDP growth with respect to real effective (REER) and debt-weighted (DWER) exchange rates

	EMEs			Advanced economies		
	Short run	Long run	Ratio: Short run to long run	Short run	Long run	Ratio: Short run to long run
REER	-0.103*** (0.017)	-0.1217*** (0.040)	0.85	-0.058 (0.034)	-0.0104*** (0.044)	0.56
DWER	0.1233*** (0.025)	0.105*** (0.033)	1.26	0.026 (0.027)	0.032 (0.033)	
Observations		1055			1072	
R ²		0.92			0.32	

Robust standard errors (clustered by country) in parentheses; ***/**/* denotes results significant at the 1/5/10% level.

Source: BIS, *86th Annual Report*, Table III.B.



Elasticity of GDP growth with respect to real effective (REER) and debt-weighted (DWER) exchange rates

	EMEs			Advanced economies		
	Short run	Long run	Ratio: Short run to long run	Short run	Long run	Ratio: Short run to long run
REER	-0.103*** (0.017)	-0.1217*** (0.040)	0.85	-0.058 (0.034)	-0.0104*** (0.044)	0.56
DWER	0.1233*** (0.025)	0.105*** (0.033)	1.26	0.026 (0.027)	0.032 (0.033)	
Observations		1055			1072	
R ²		0.92			0.32	

Robust standard errors (clustered by country) in parentheses; ***/**/* denotes results significant at the 1/5/10% level.

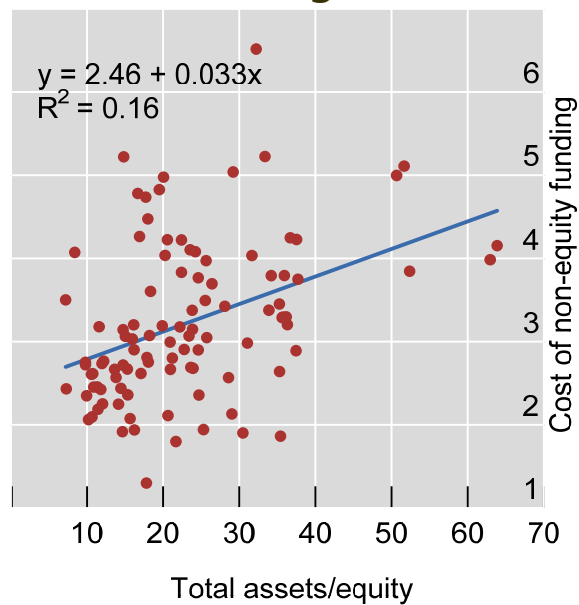
Source: BIS, *86th Annual Report*, Table III.B.

Total assets = equity x leverage

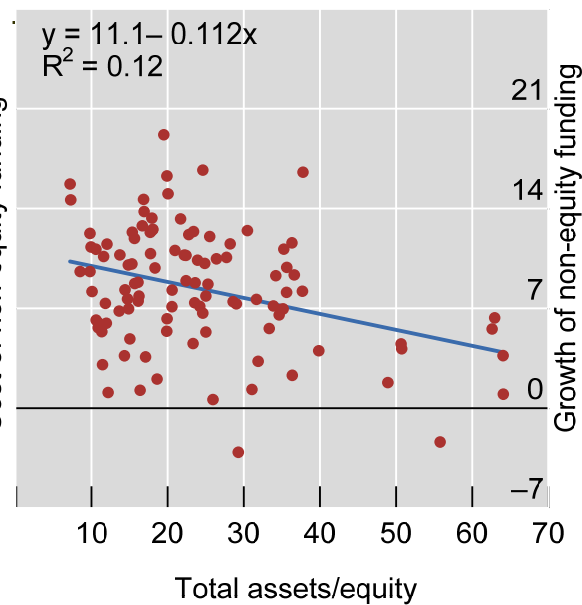
- Equity  foundation of the building
- Leverage  height of the building
 - Leverage is affected by regulation, but also by market risk factors
 - Insufficient risk-taking capacity is like a building that is too small to accommodate needs
 - Broader foundations for the building can make up for limits on market risk factors

Sound banks lend more

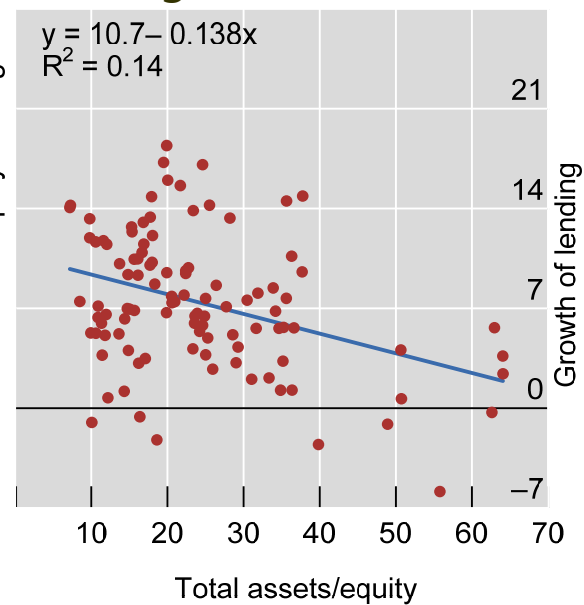
Cost of funding



Non-equity



Lending



Source: Based on BIS, *86th Annual Report*, Graph VI.A.

Connecting the dots

- Stock of dollar-denominated debt as common thread:
 - Market liquidity
 - Currency market anomalies
 - Risk-taking capacity of financial intermediaries
- Better capitalised financial sector conducive to:
 - Greater resilience, but also to:
 - More liquid financial markets
 - Better macro outcomes