



BANK FOR INTERNATIONAL SETTLEMENTS

# Market liquidity and emerging market local currency sovereign bonds

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\* The views expressed here are mine, not necessarily those of the Bank for International Settlements.



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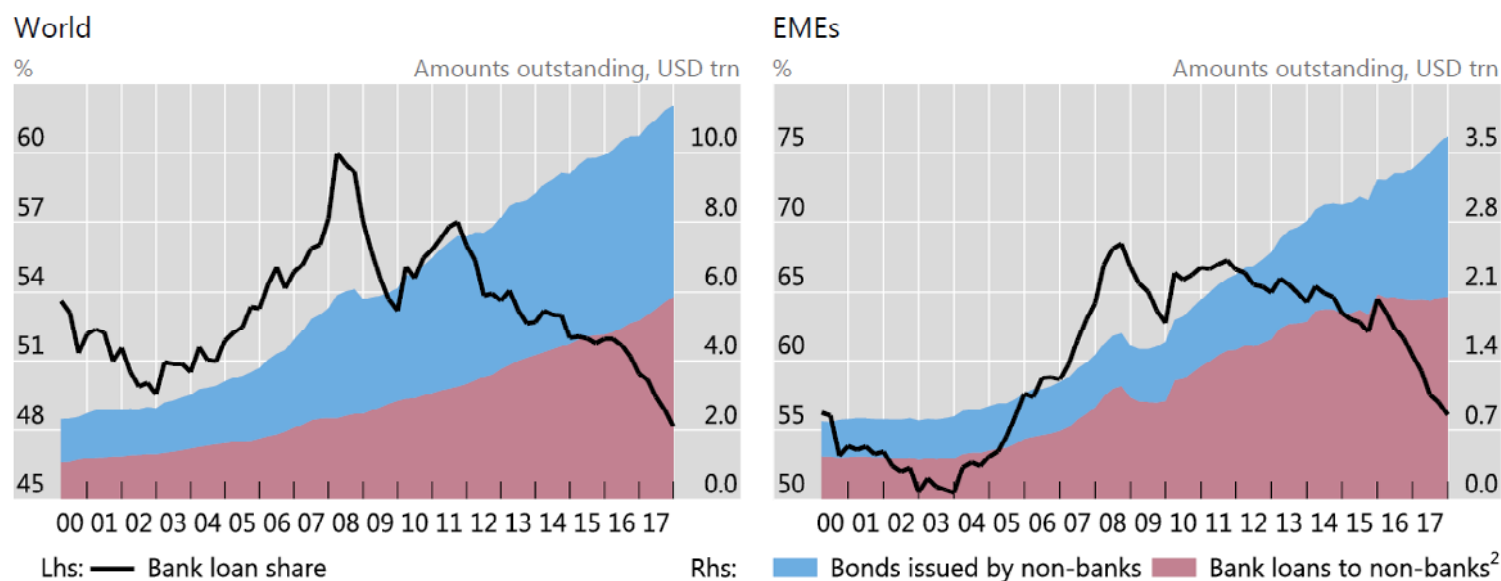
## Two structural developments since 1990s EME crises

- Dollar intermediation has shifted from banks to the bond market
- Local currency sovereign bond markets have matured
  - EMEs better placed to meet challenges
  - But have not insulated them completely from global conditions

# From banks to bond markets

## US dollar denominated credit to non banks outside the United States<sup>1</sup>

Amounts outstanding, in trillions of US dollars

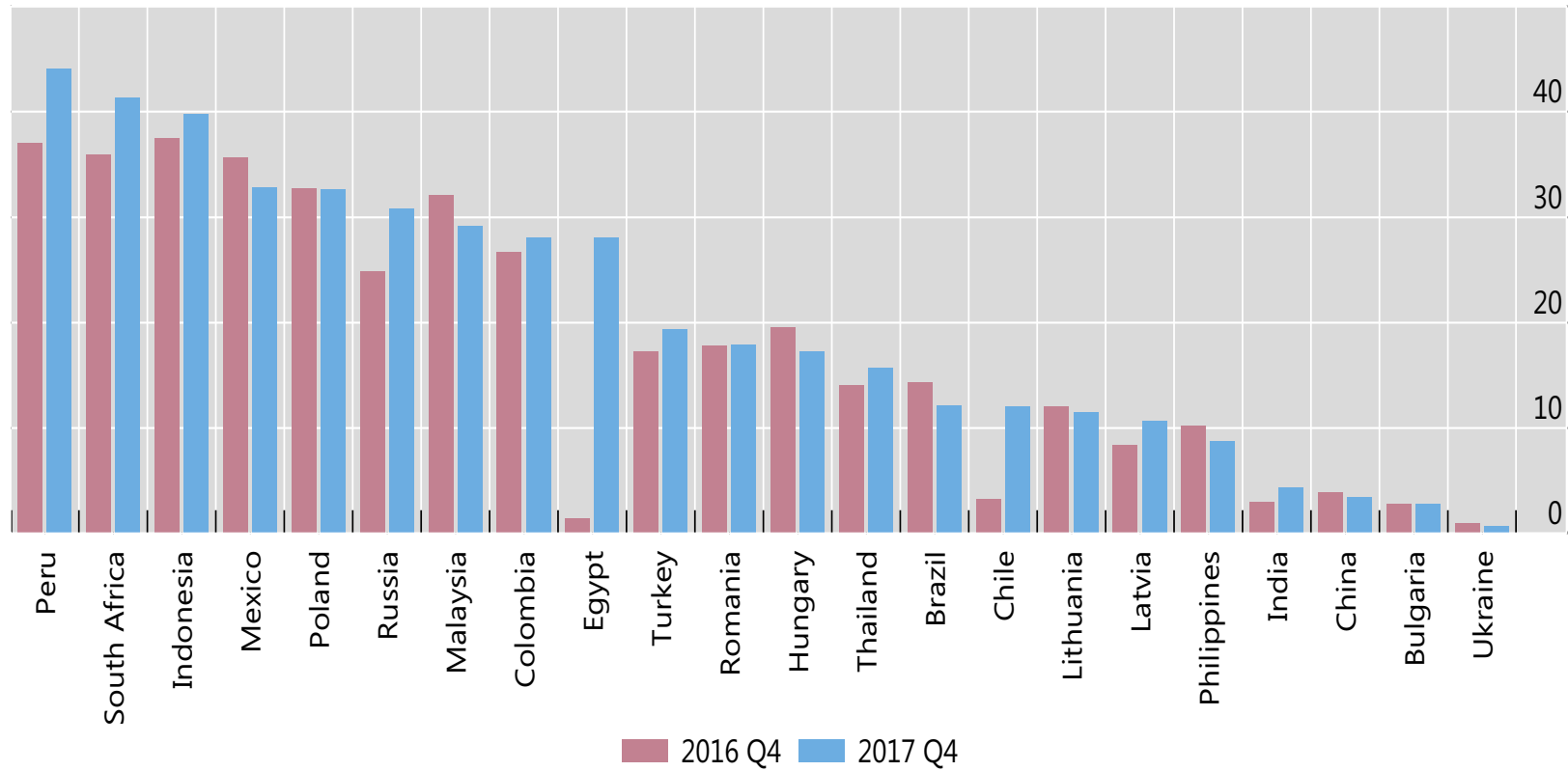


Further information on the BIS global liquidity indicators is available at [www.bis.org/statistics/about\\_gli\\_stats.htm](http://www.bis.org/statistics/about_gli_stats.htm).

<sup>1</sup> Non-banks comprise non-bank financial entities, non-financial corporations, governments, households and international organisations. <sup>2</sup> Loans by LBS-reporting banks to non-bank borrowers, including non-bank financial entities, comprise cross-border plus local loans.

Source: BIS global liquidity indicators.

## Non-resident holdings of local currency sovereign bonds



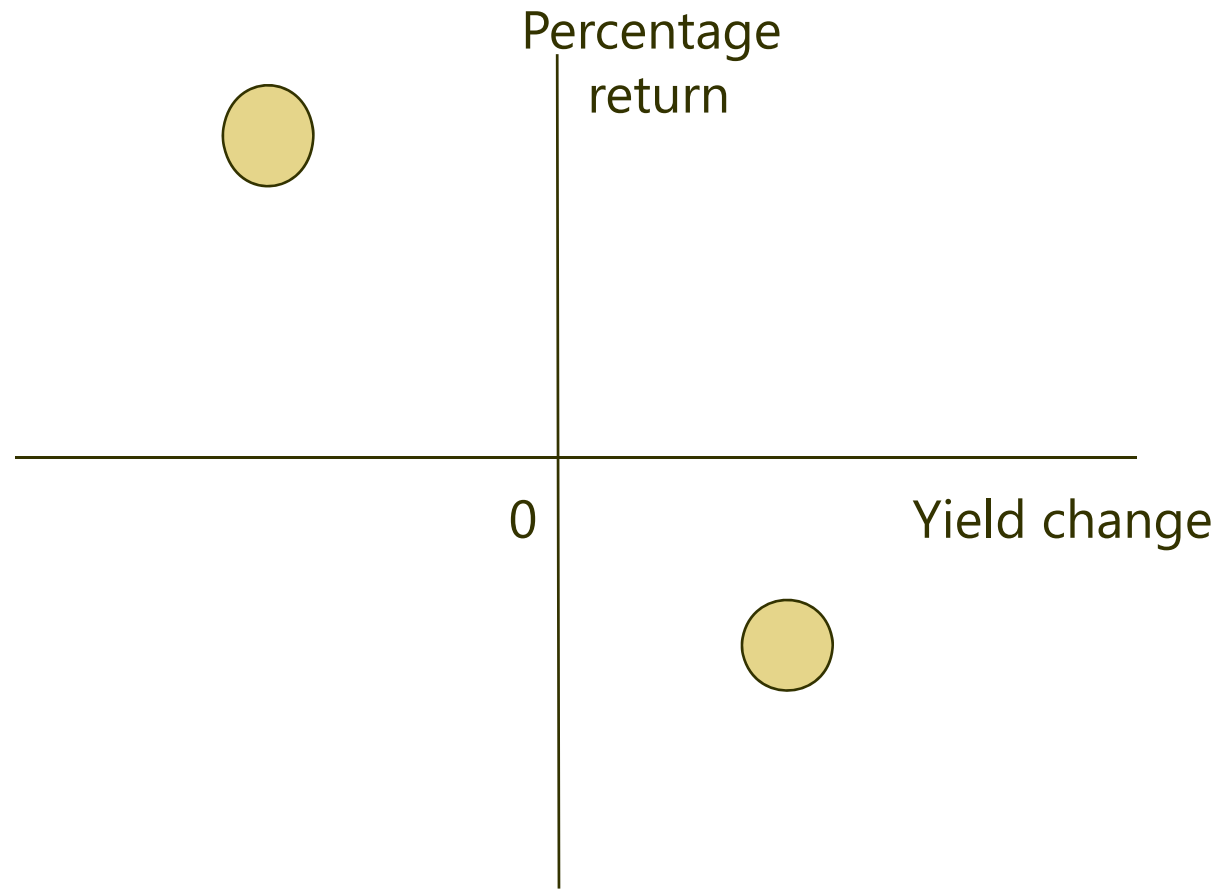
Source: World Bank

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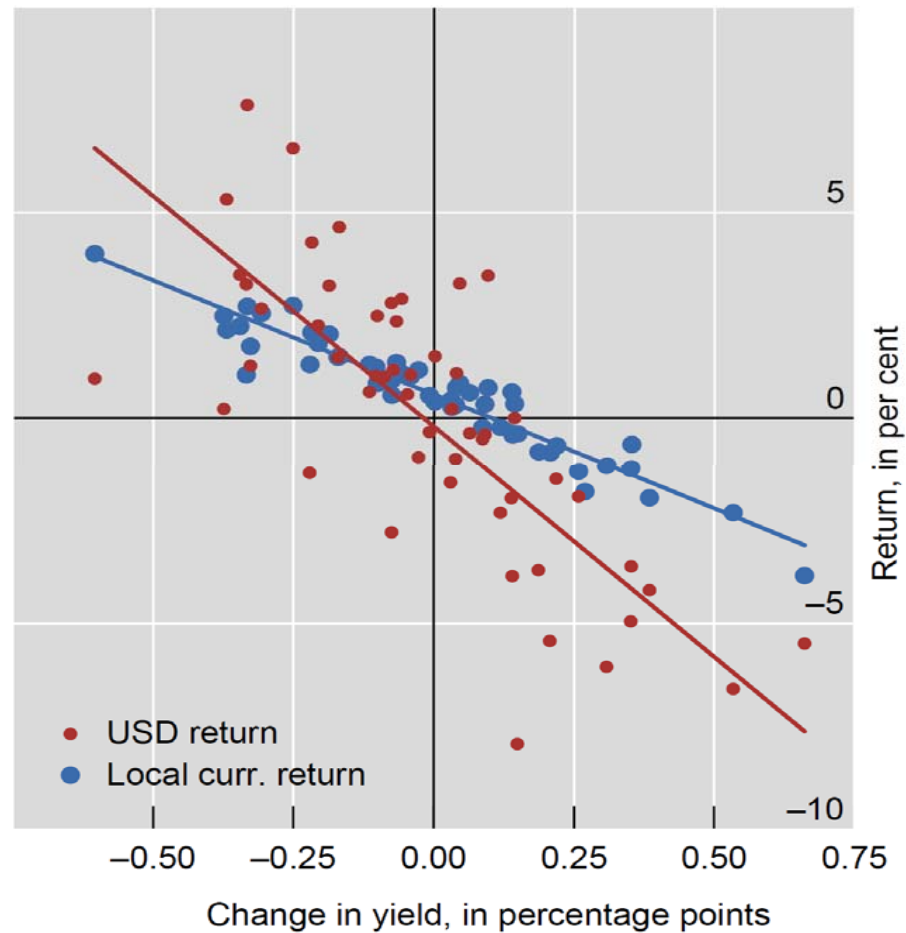
## Two duration measures

$$\text{Duration} = -\frac{dP/P}{dr}$$

- Compare duration measures with:
  - Percentage return in local currency terms
  - Percentage return in dollar terms

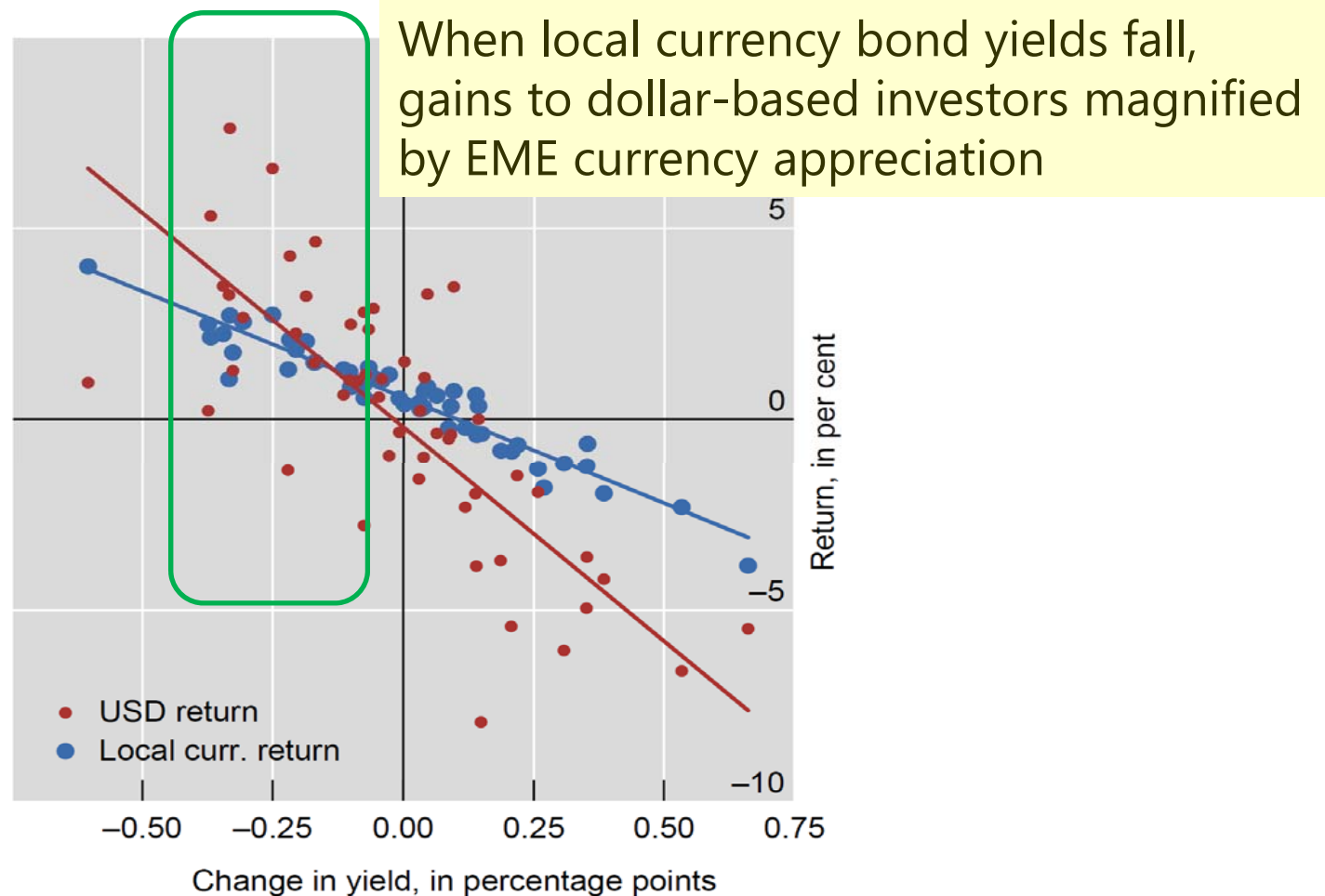


## EME bond fund local currency returns and USD returns



Sources: EPFR; JPMorgan Chase; Hofmann, Shim and Shin (2017)

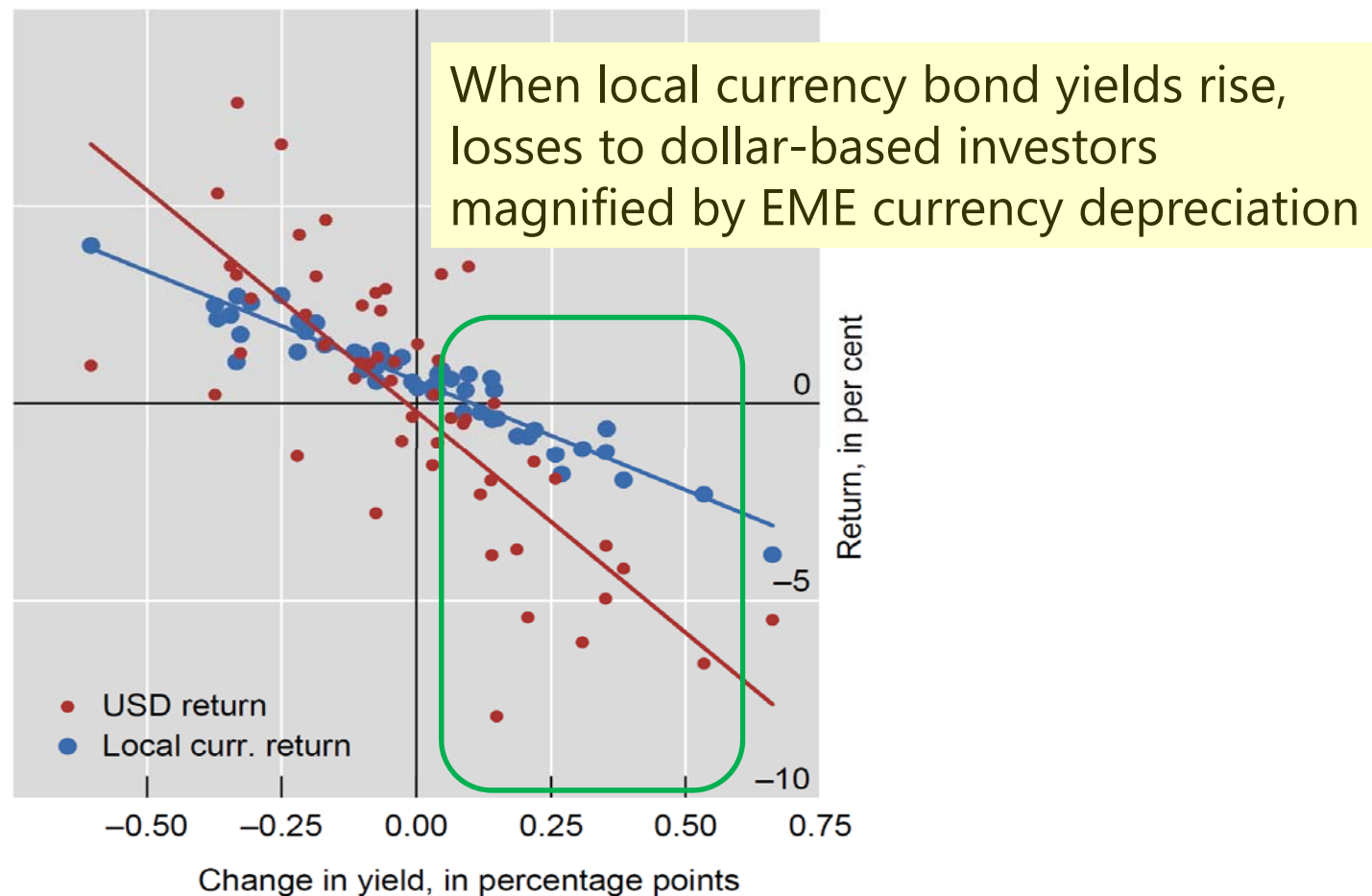
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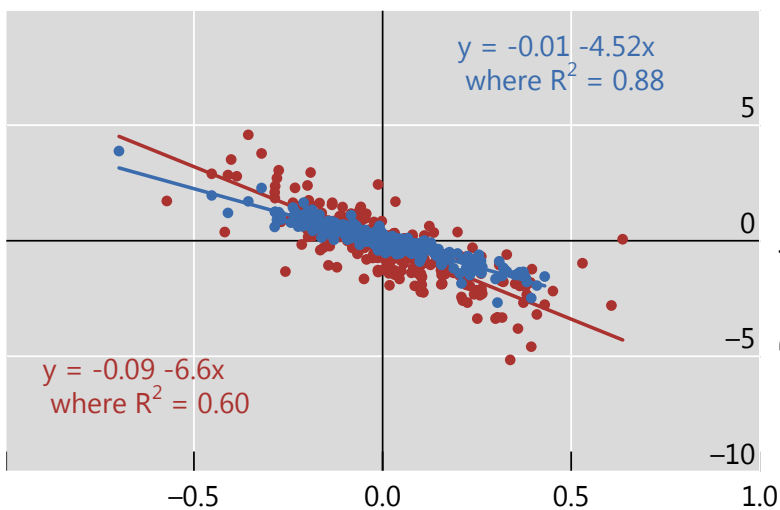
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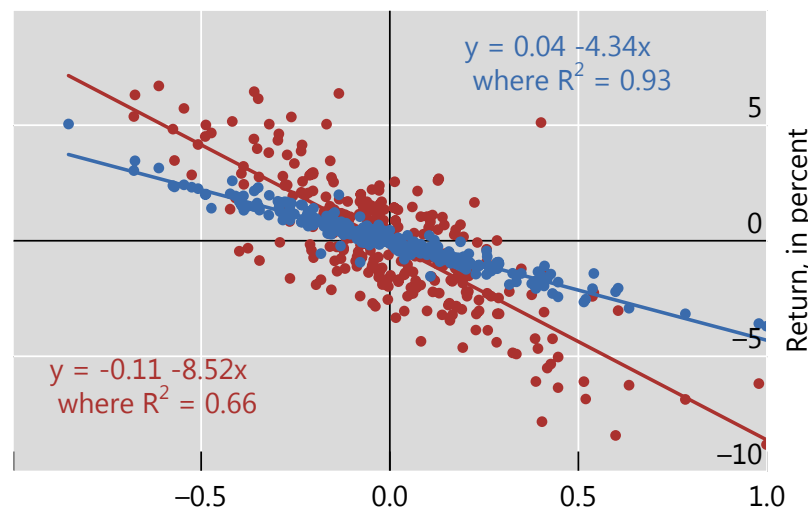
# EMEs local currency sovereign bonds performance<sup>1</sup>, January 2013 – October 2018

Indonesia



• US dollar return

Brazil



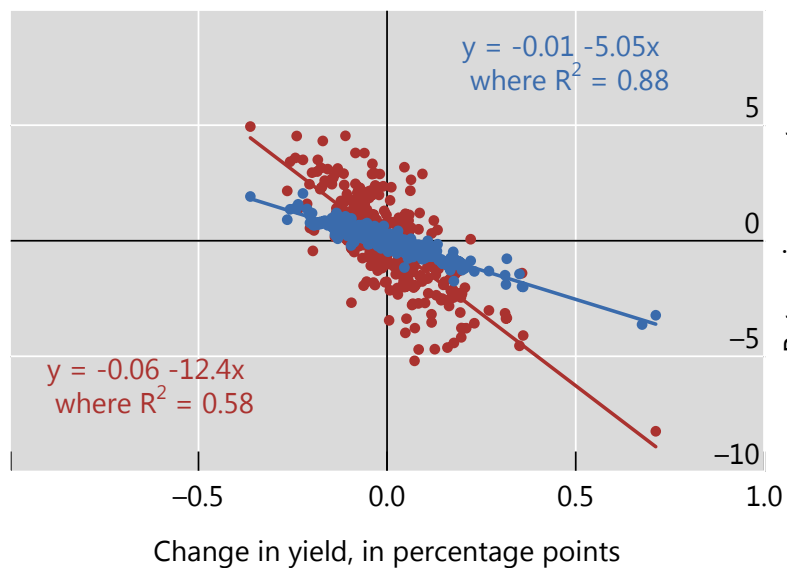
• US dollar return

<sup>1</sup>Total return on bonds denominated in local currency as weekly change in JPMorgan GBI-EM principal return index in local currency and US dollar.

Sources: JPMorgan Chase; BIS calculations.

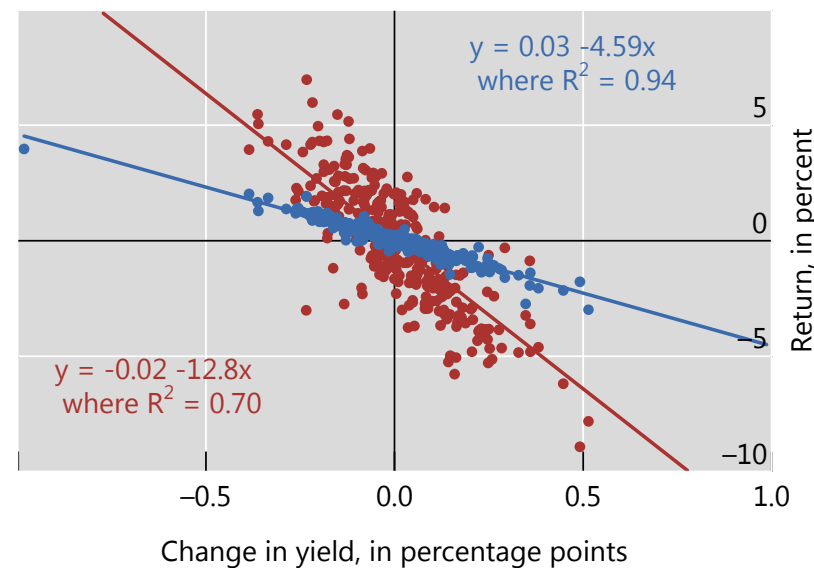
# EMEs local currency sovereign bonds performance<sup>1</sup>, January 2013 – October 2018

Mexico



• Local currency return

South Africa



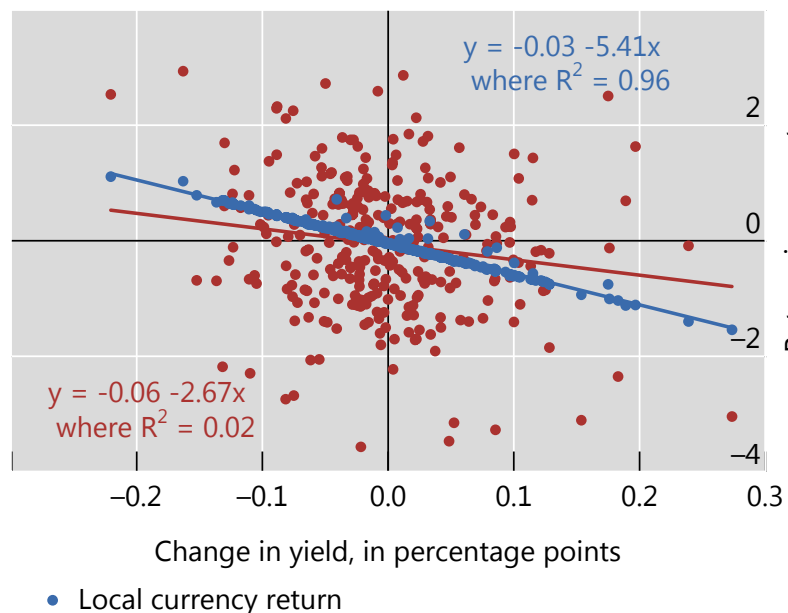
• US dollar return

<sup>1</sup>Total return on bonds denominated in local currency as weekly change in JPMorgan GBI-EM principal return index in local currency and US dollar.

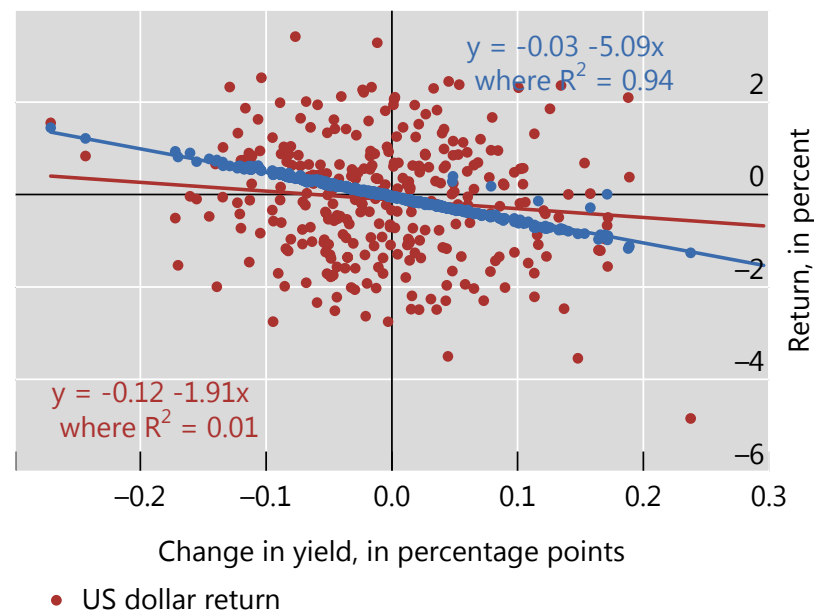
Sources: JPMorgan Chase; BIS calculations.

# Advanced economies sovereign bond indices<sup>1</sup>, January 2013 – October 2018

France



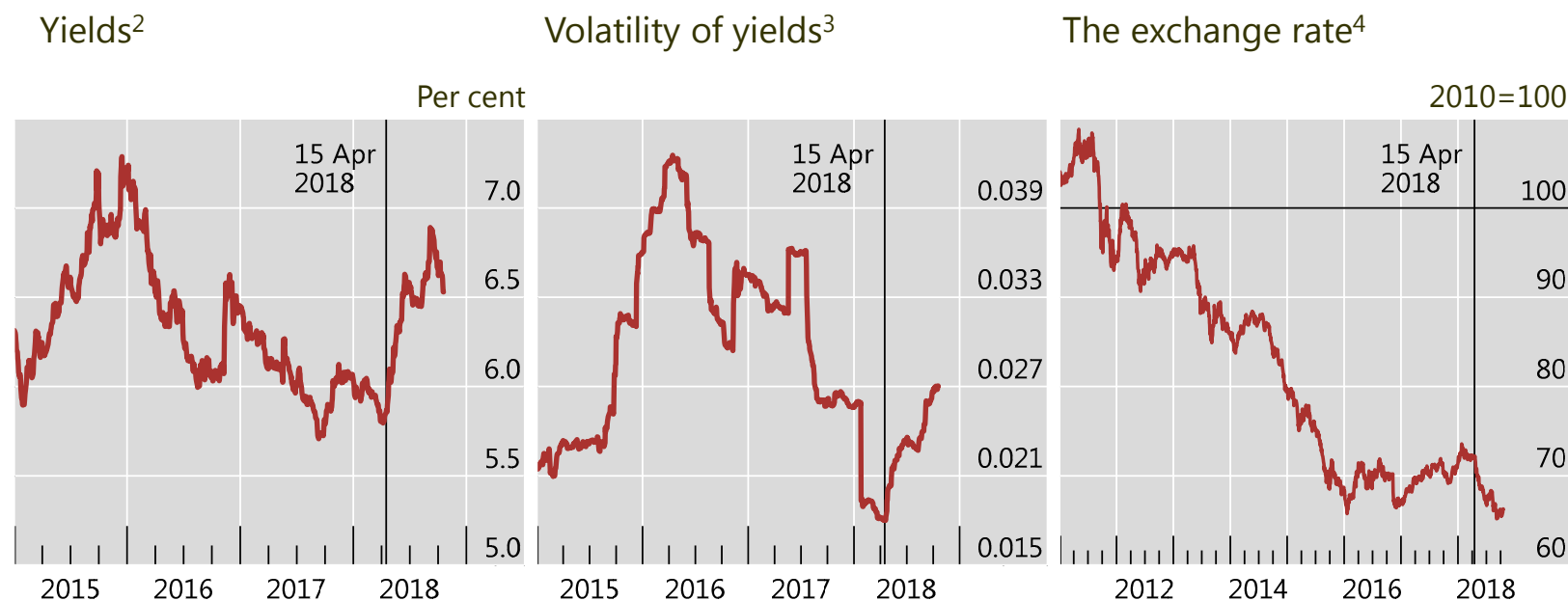
Sweden



<sup>1</sup>GBI Global Country 5 to 7 year maturity indices for the selected economies.

Sources: JPMorgan Chase; BIS calculations.

# Yields of local currency EM government bonds and the exchange rates<sup>1</sup>



<sup>1</sup> All three graphs show the simple average of Brazil, India, Indonesia, Malaysia, Mexico, the Philippines, Poland and South Africa. The black vertical lines correspond to 15 April 2018. <sup>2</sup> Yields on 5-year local currency bonds. <sup>3</sup> 180-day moving standard deviation of daily changes in yields. <sup>4</sup> In dollars per unit of local currency.

Sources: Bloomberg; national data; BIS calculations.

## Du-Schreger spread

- Du and Schreger (JF 2015)
- Consider a dollar-based investor
  - Swap dollars into pesos
  - Invest in peso sovereign bonds

Du-Schreger spread = peso bond yield on swapped basis  
– same maturity US treasury yield

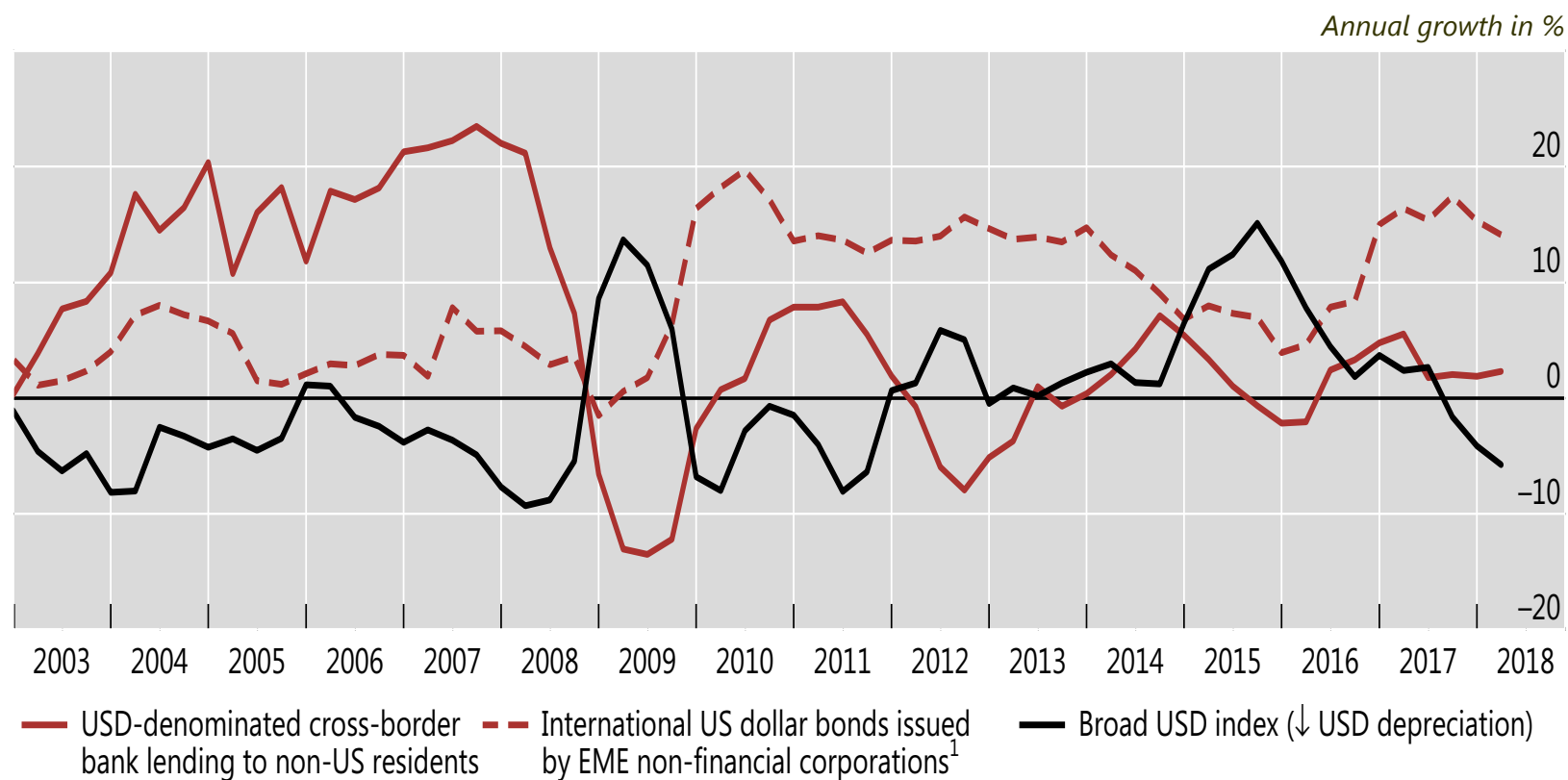
- Du-Schreger spread is risk premium on local currency sovereign bond for a dollar-based investor
- Du-Schreger spread is high when the dollar is strong
  - Hofmann, Shim and Shin (2016)

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## Exchange rates and credit conditions

- Conventionally, exchange rates enter through
  - Exchange rate pass-through to inflation
  - Net exports
- Financial channel of exchange rates
  - Operates through financial intermediaries
  - Appreciation loosens domestic credit conditions

## Annual growth rates of dollar loans and bonds together with broad USD index



Source: BIS locational banking statistics and nominal effective exchange rate indices.