



EUROPEAN CENTRAL BANK

EUROSYSTEM

Risks in the shadow banking sector: Should we be concerned?

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Should we be concerned?

Views diverge ...

“... continued financial risk taking and structural changes in credit markets are shifting the locus of financial stability risks from... **banks to shadow banks**, and from solvency to market liquidity risks.” (*IMF, GFSR, April 2015*)

“Overall, the evidence calls for strengthening the microprudential supervision of risks and adopting macroprudential oversight of the (asset management) industry (*IMF, GFSR, April 2015*)

versus

“Protect asset managers from the armchair doom-mongers” (Huw van Steenis, Morgan Stanley, June 2015)

Attempts to define shadow banking

- Entities or activities that exploit regulatory **“boundaries”** (Goodhart, 2008)
- Banks and non-banks creating **money-like claims** outside the traditional depository system, e.g. by means of secured funding (Adrian Ashcraft, 2012; Mehrling, Pozsar, Sweeney, Neilson, 2014; Pozsar, 2014)
- Financial activities outside the regulatory perimeter of banks enjoying **private or public backstops** (Claessens, Ratnovski, 2014)
- **“Credit intermediation** that involves entities and activities fully or partially outside the regular banking system”... where “the provision of **maturity/liquidity transformation** and **leverage** can make credit intermediation by non-bank entities bank-like” (FSB, 2011)

Eventually, it is the risk which is important, not the definition

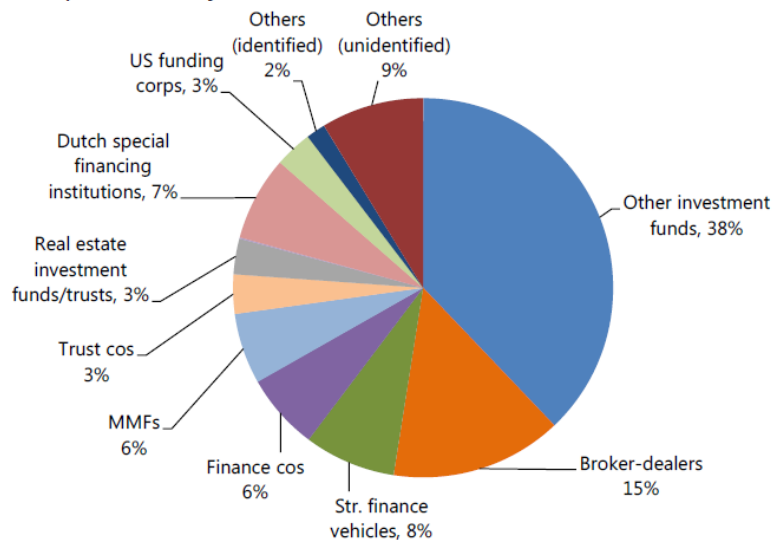
Investment funds dominate in the FSB MUNFI measure

Sub-sectors of MUNFI

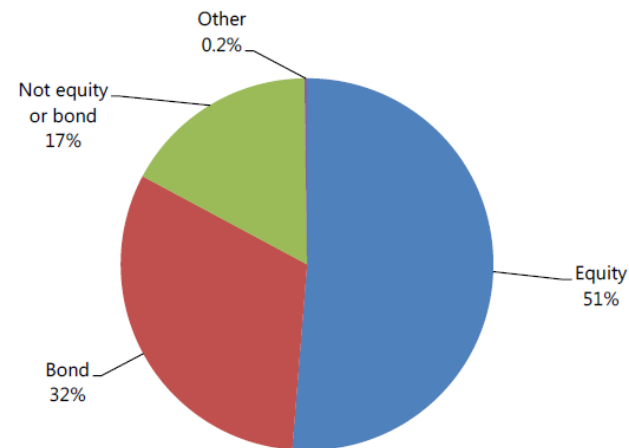
25 jurisdictions, at end-2013

Exhibit 4-1

Decomposition by sub-sector



Other investment funds by type



Sources: National financial accounts data; other national sources.

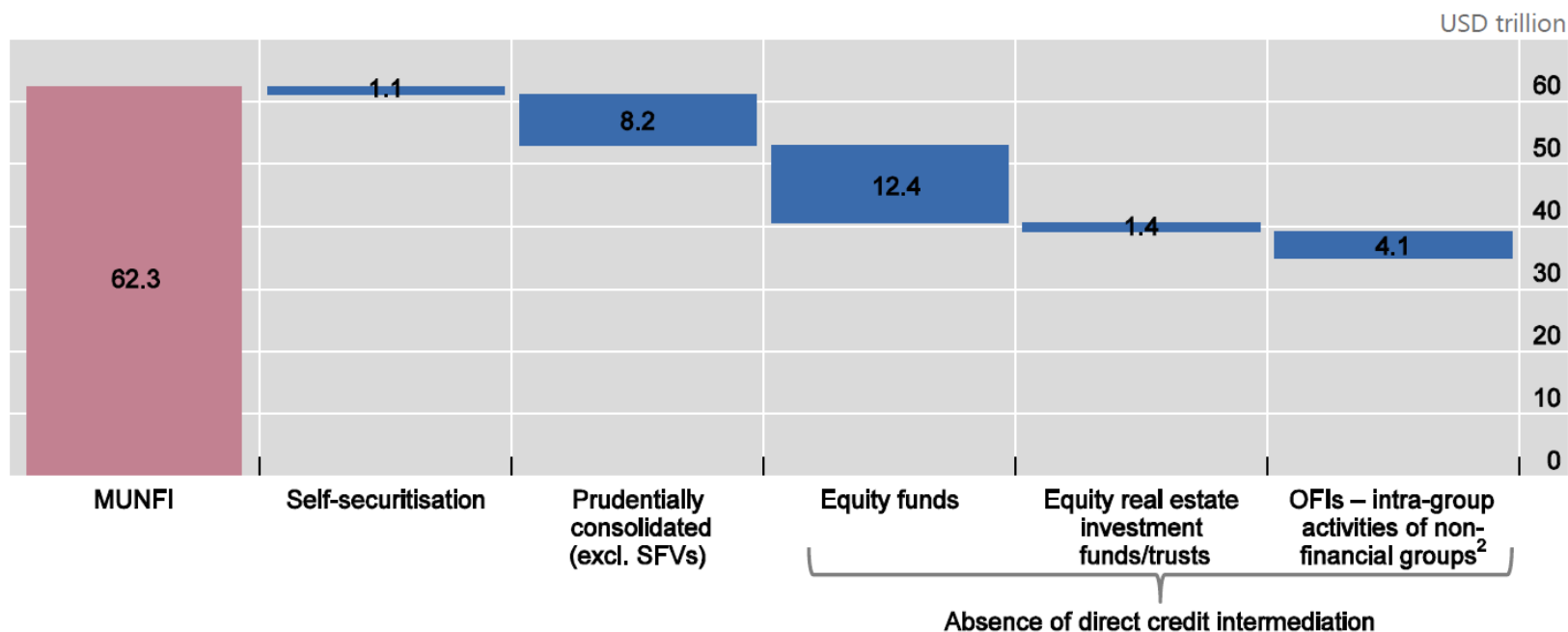
Source: FSB - Global Shadow Banking Monitoring Report 2014.

The FSB approach of narrowing-down

Narrowing down shadow banking

23 jurisdictions¹; at end-2013

Exhibit 5-1

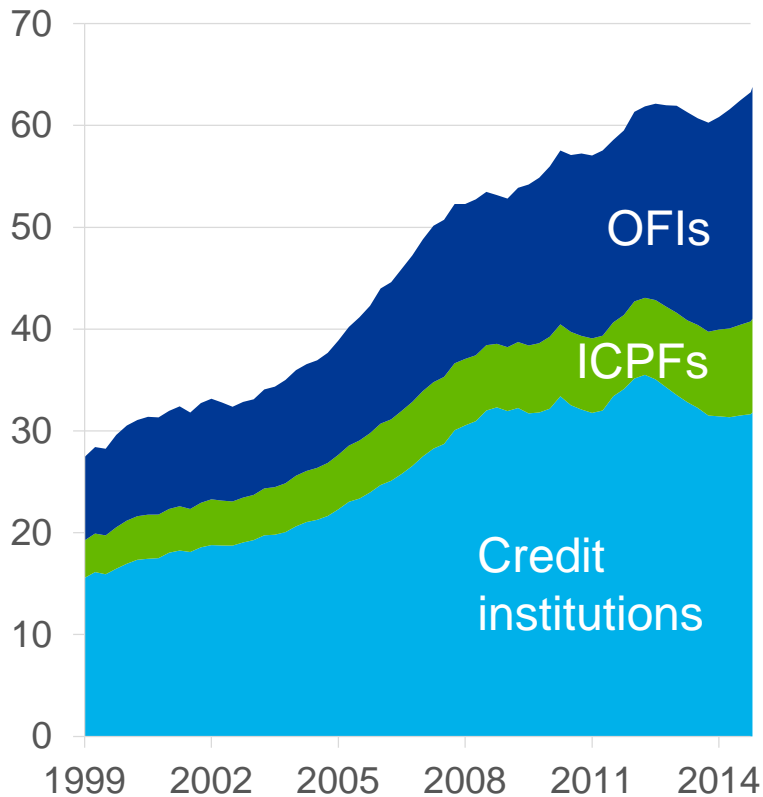


¹ 23 jurisdictions reported more granular data for narrowing down. ² OFIs which are part of a non-financial group and are created for the sole purpose of performing intra-group activities. This year, only Dutch non-financial SFIs are included in this narrowing down component.

Sources: National financial accounts data; other national sources.

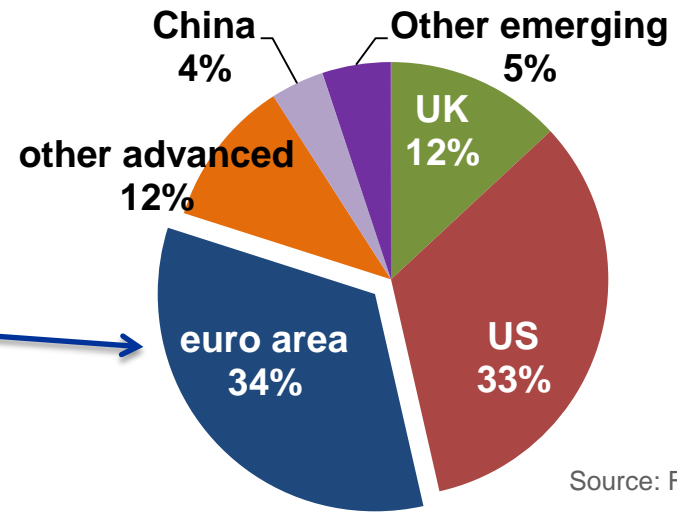
Euro area shadow banking assets in context

Euro area financial system (assets €66 tr)



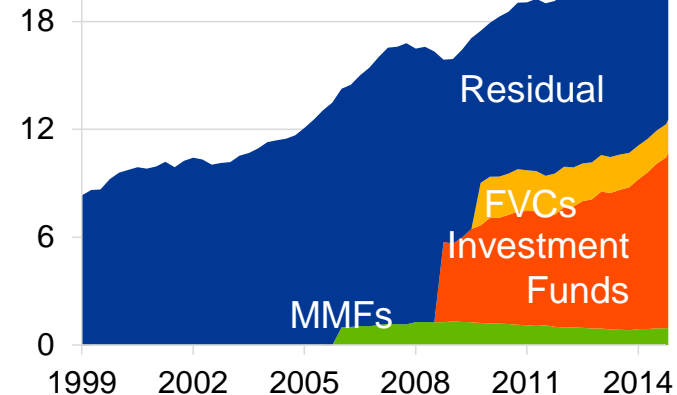
Sources: ECB euro area accounts, ICPF statistics, MFI statistics.

Global shadow banking assets (\$ 75 tr)



Source: FSB (2014)

Euro area shadow banking assets (€25 tr)

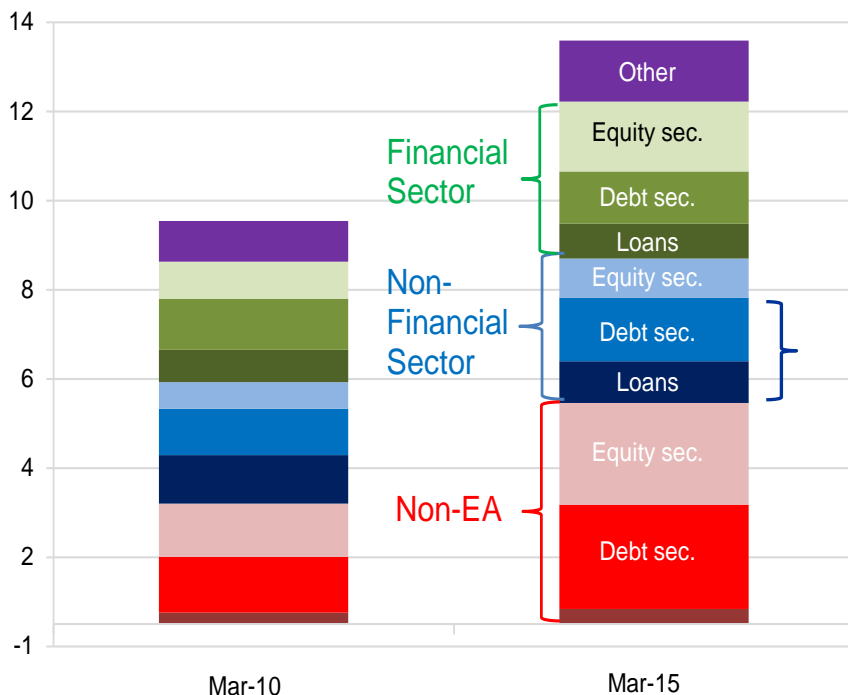


Sources: ECB euro area accounts, FVCs statistics, IVFs statistics, MFI statistics.

EA shadow banking role in supporting economic activity

Financial assets of the shadow banking (narrow measure)

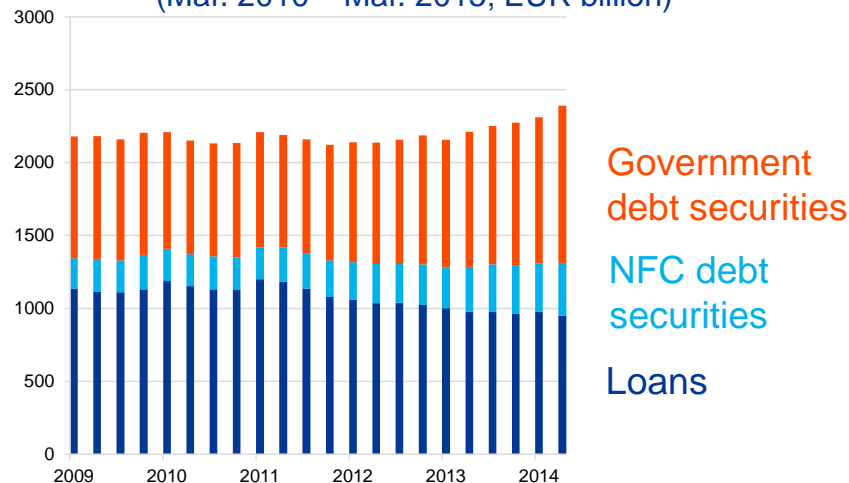
(Mar. 2010; Mar. 2015; EUR trillions)



Sources: FVCs statistics, IVFs statistics, MFI statistics.

Credit provision to the euro area non-financial sector (narrow measure)

(Mar. 2010 – Mar. 2015; EUR billion)



Sources: FVCs statistics, IVFs statistics, MFI statistics.

EUR 2.3 trillion of credit given to the euro area non-financial sector
(equivalent to 19% of bank credit)

... of which EUR 1.3 trillion in credit to non-financial corporates and households alone
(equivalent to 9% of total credit received by NFPS)

Credit to the non-financial sector is only 18% of the balance sheet, due to large holding of:
Equities
Securities of the EA financial sector
Non-euro area assets

Entities-based

- Non-bank entities which engage in bank-like activities
- In the EA: national accounts data and dedicated statistics on IVFs, MMFs, FVCs – largely collected for monetary policy purposes
- More granular view on entities is needed to assess involvement in credit intermediation, liquidity and maturity transformation.

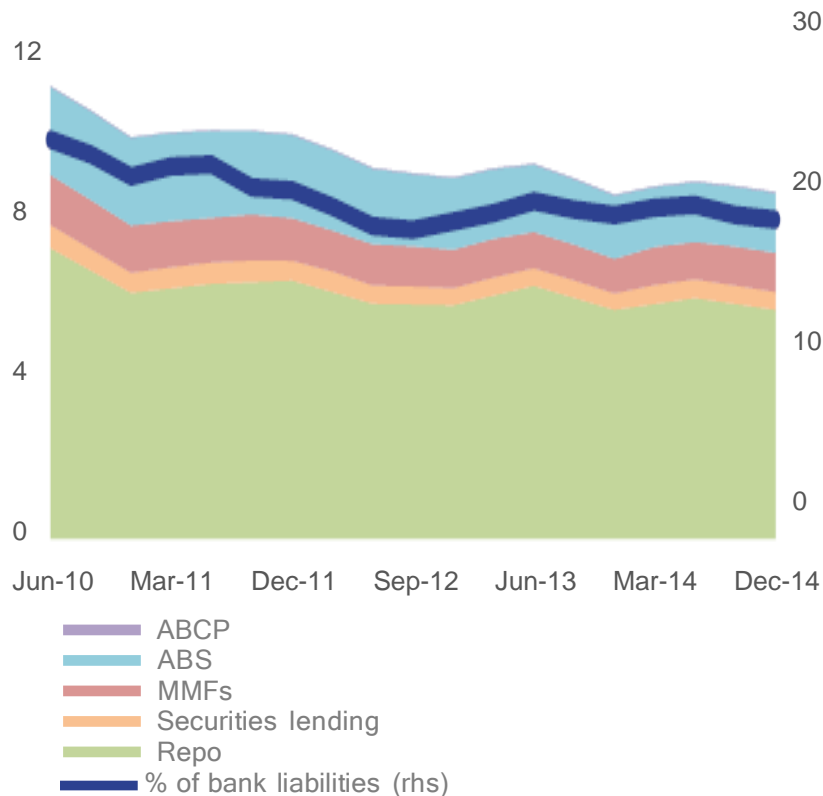
Activities-based

- Intermediation activities conducted primarily through markets (incl. securities financing transactions, collateral transformation, or derivatives markets)
- These activities can be conducted by both regulated banks or other (regulated) institutions, but they escape both monetary statistics and flow-of-funds accounts

Alternative measures of shadow banking

EU shadow banking liabilities

(Jun. 2010 – Dec. 2014, EUR tn, % of bank liabilities (rhs))

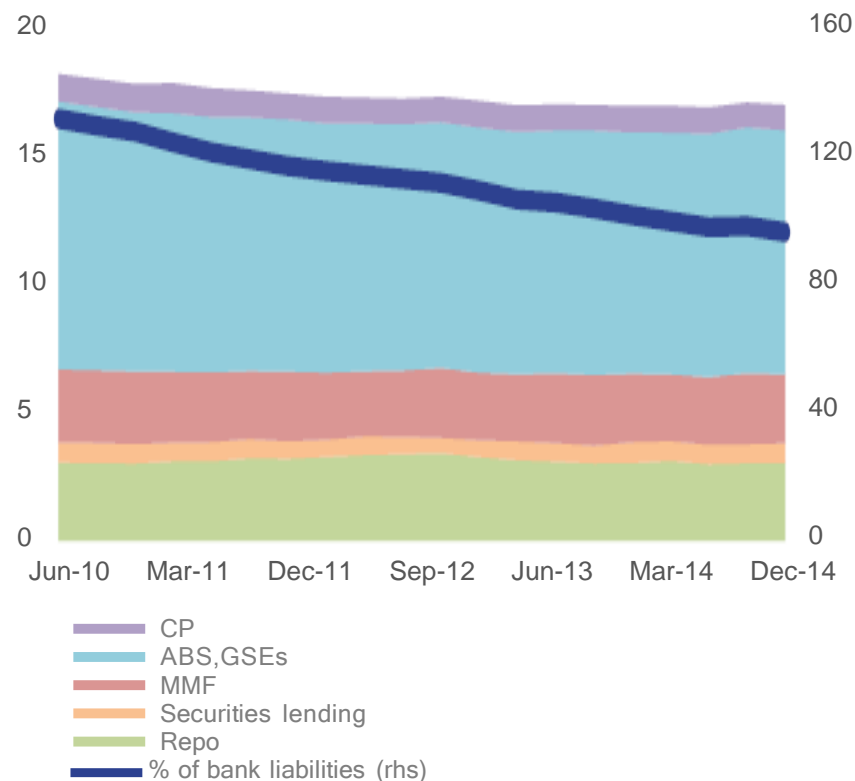


Note: Size of shadow banking system proxied by amounts of ABS and ABCP outstanding, size of the EU repo market and EU securities on loan (collateralised with cash), and liabilities of MMFs, based on data from ECB, AFME, ICMA, Markit.

Source: ESMA, TRV No. 2, 2015.

US shadow banking liabilities

(Jun. 2010 – Dec. 2014, USD tn, % of bank liabilities (rhs))

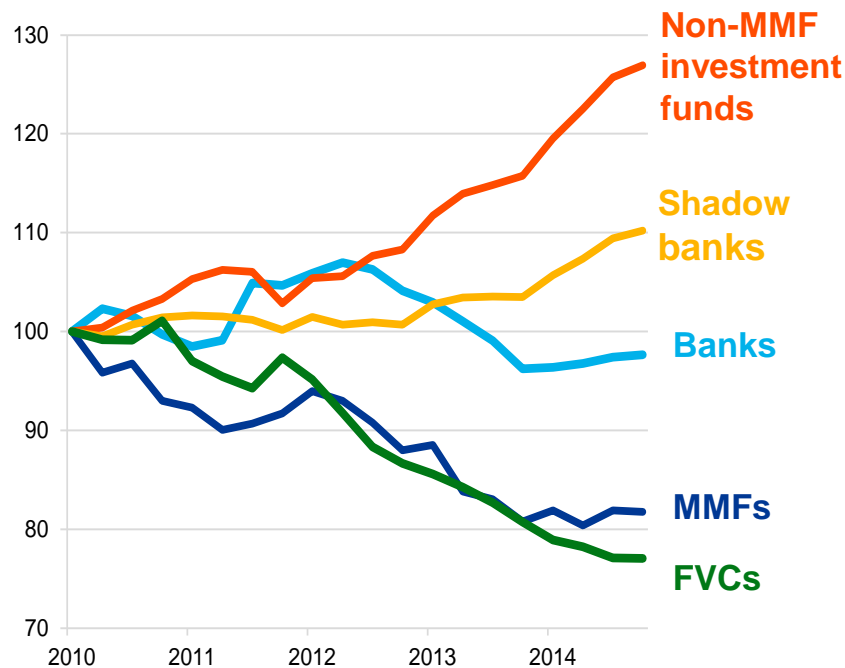


Note: Size of shadow banking system proxied by liabilities of ABS issuers, GSEs and pool securities, open commercial paper (CP), size of the US repo and securities lending (collateralised with cash) markets, and liabilities of MMFs, based on data from Federal Reserve Flow of Funds, Thomson Reuters Datastream.

Source: ESMA, TRV No. 2, 2015.

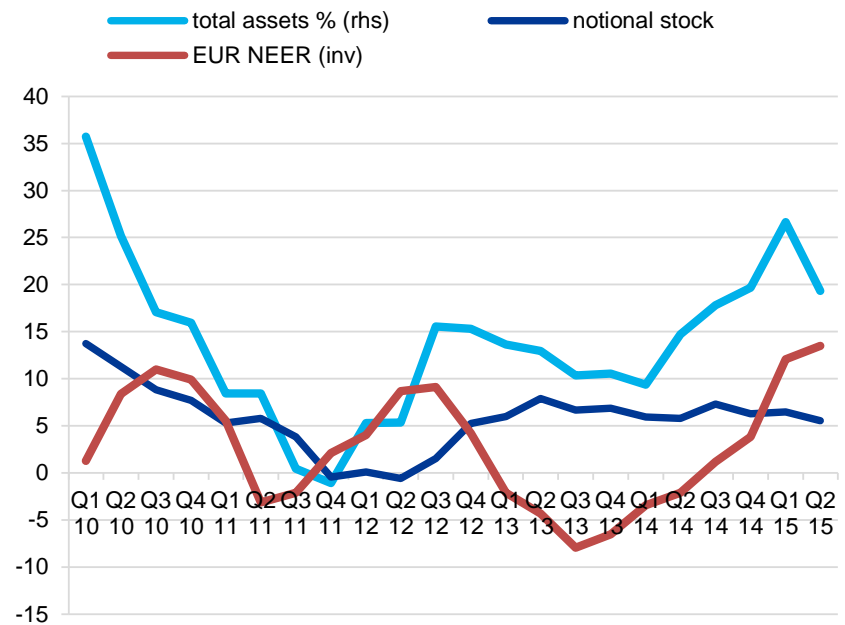
Growing footprint of the EA fund sector amid increased risk-taking

Growth in financial system assets since 2010
(latest observation Jun. 2015)



Sources: ECB and ECB calculations.

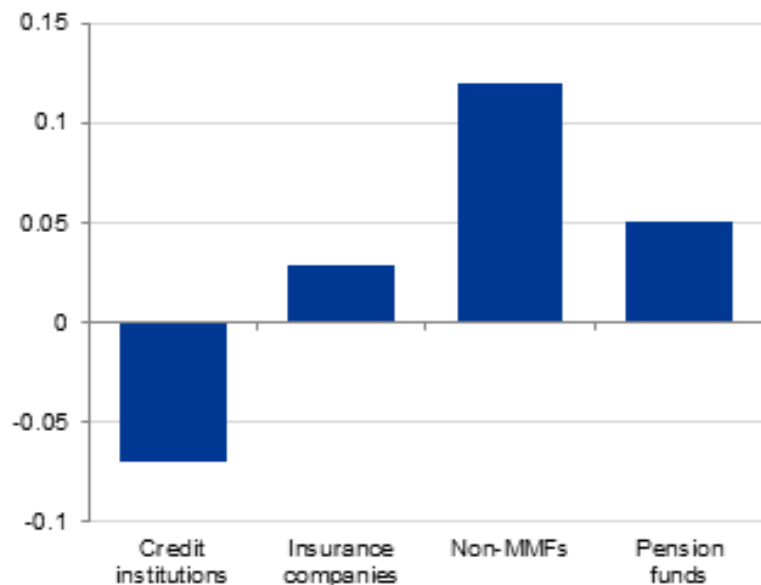
Annual growth of the EA fund sector
(Q1 2010 – Q2 2015; yoy %)



Sources: ECB and ECB calculations.

Shift in asset allocation in the EA fund sector

Projected change in risk spread (Q1 2014 - Q1 2015, percentage points)



- Investment funds and pension funds, in particular, have shifted portfolios towards higher yielding securities
- Banks have shifted towards lower-risk securities

Sources: ECB and ECB calculations and ECB calculations
Note: The chart shows projected changes in the average portfolio spreads keeping yields constant at Q1 2014 levels. The measure captures changes in investors' allocation between Q1 2014 and Q1 2015. Difference between the yield to maturity on an individual security and the OIS of the corresponding maturity; for floating rate securities, the spread is defined over the 3-month OIS.

Risks to financial stability in the euro area – the fund sector

**Growing prevalence of callable equity
... which is not a stable source of funding**

**Low measures of leverage are misleading due to synthetic
leverage and riskier equity**

**Funds promise daily liquidity ... but buffers of liquid
assets have fallen**

**Large footprint of systemically important
institutions linked to banks**

**Strengthening of contagion
channels to the wider financial
system and real economy**

Concerns include the role of funds in market-wide shocks ...

98 % of investment funds based in
the euro area are open-ended ...

... which implies inherent maturity
and liquidity mismatches

Strengthening of contagion
channels to the wider financial
system and real economy

Large footprint of systemically
important institutions linked to banks

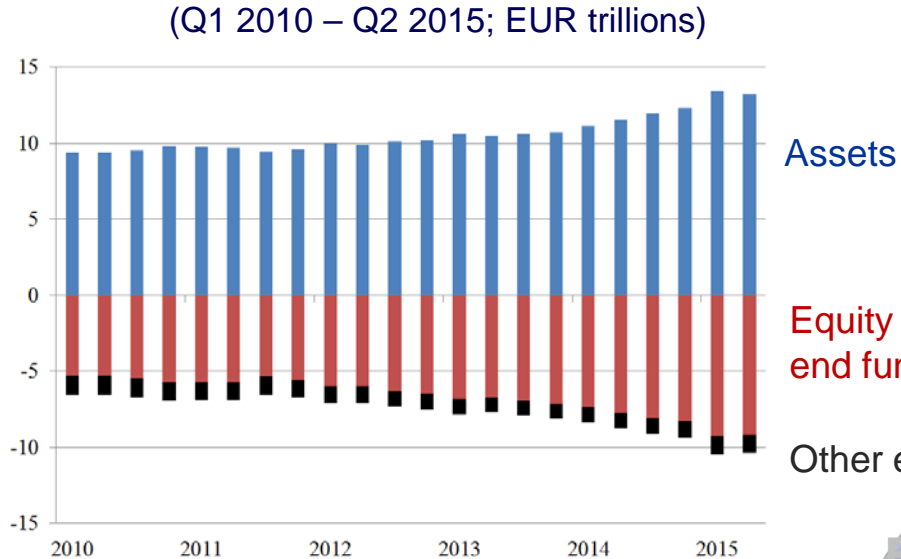
Funds promise daily liquidity ... but
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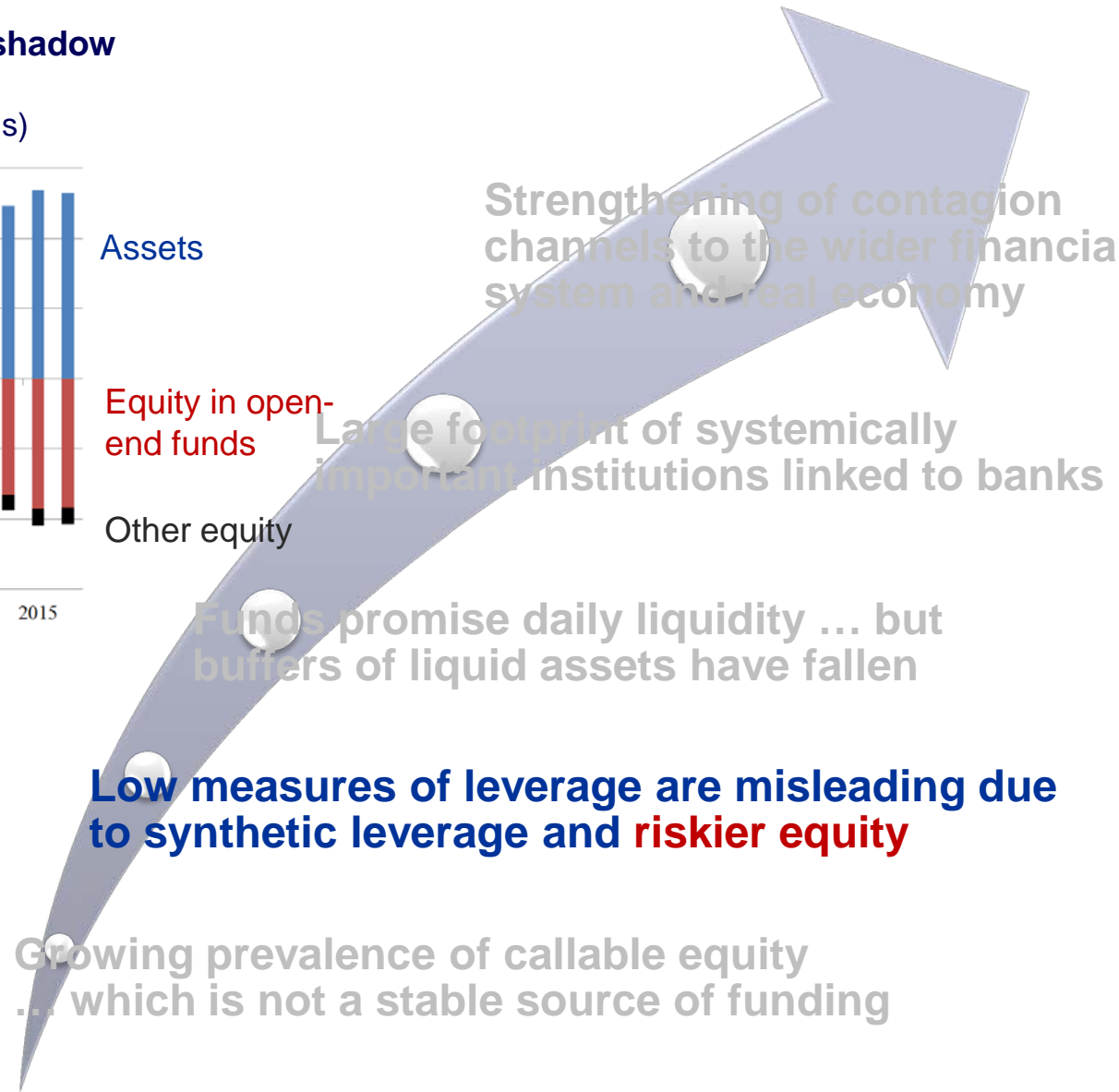
**Growing prevalence of callable equity
... which is not a stable source of funding**

... amplified by hidden leverage

Assets and equity for the narrow shadow banking sector (Q1 2010 – Q2 2015; EUR trillions)



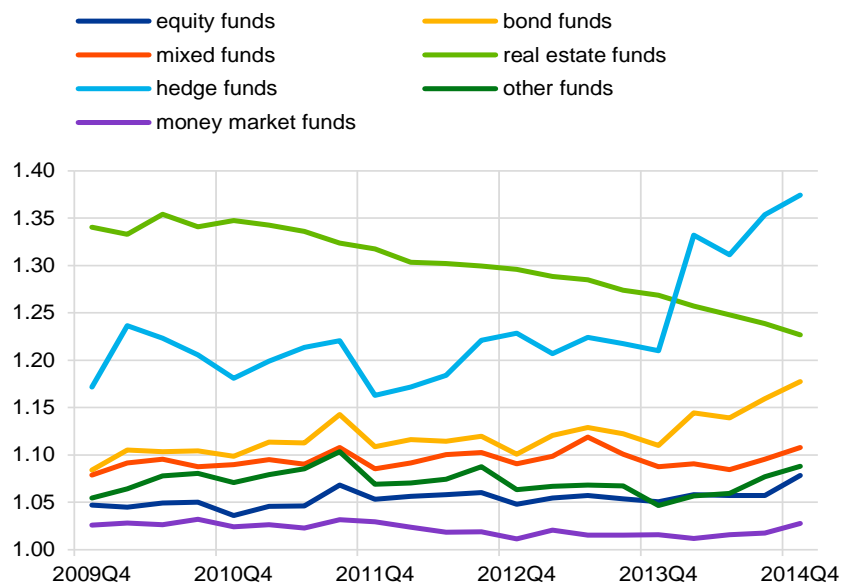
Sources: ECB and ECB calculations.



Leverage in the fund sector is difficult to observe

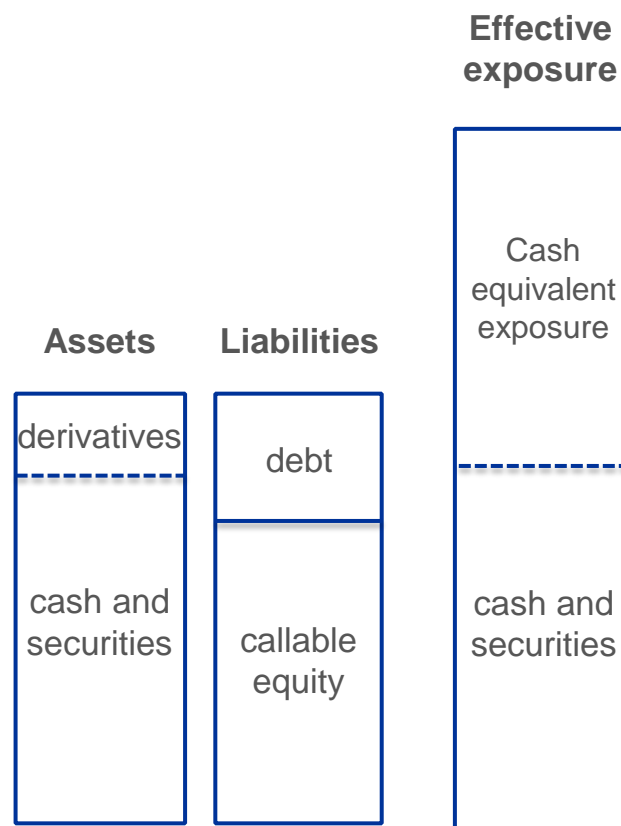
Headline leverage in the investment fund sector

Total assets to shares/units issued
(Q4 2009 – Q4 2014; ratio)



Sources: ECB IVF statistics, and ECB calculations.

Stylised balance sheet and synthetic leverage



Reporting and supervisory practices in the EU

UCITS

On balance sheet leverage
< 1.1

Basic investment
strategies

Complex
investment
strategies

Commitment
approach

VaR approach

Leverage < 2;
No disclosure requirement

Absolute VaR < 20% of NAV
Or
Relative VaR < 2 x VaR of
benchmark portfolio

AIF

No hard limits on balance
sheet leverage

“substantial
leverage”

Commitment
approach

Commitment
approach

Leverage < 3

No leverage limits but extra
reporting requirements

If “excessive”, then
supervisory intervention,
either microprudential or to
prevent systemic risk

- **Netting in Commitment approach (matching, counterparty risk)**
- **VaR shortcomings**
- **Disclosure rules**
- **Diverse supervisory practices**

If sizable leverage exists => liquidity spirals strengthened

... and decreasing liquidity buffers

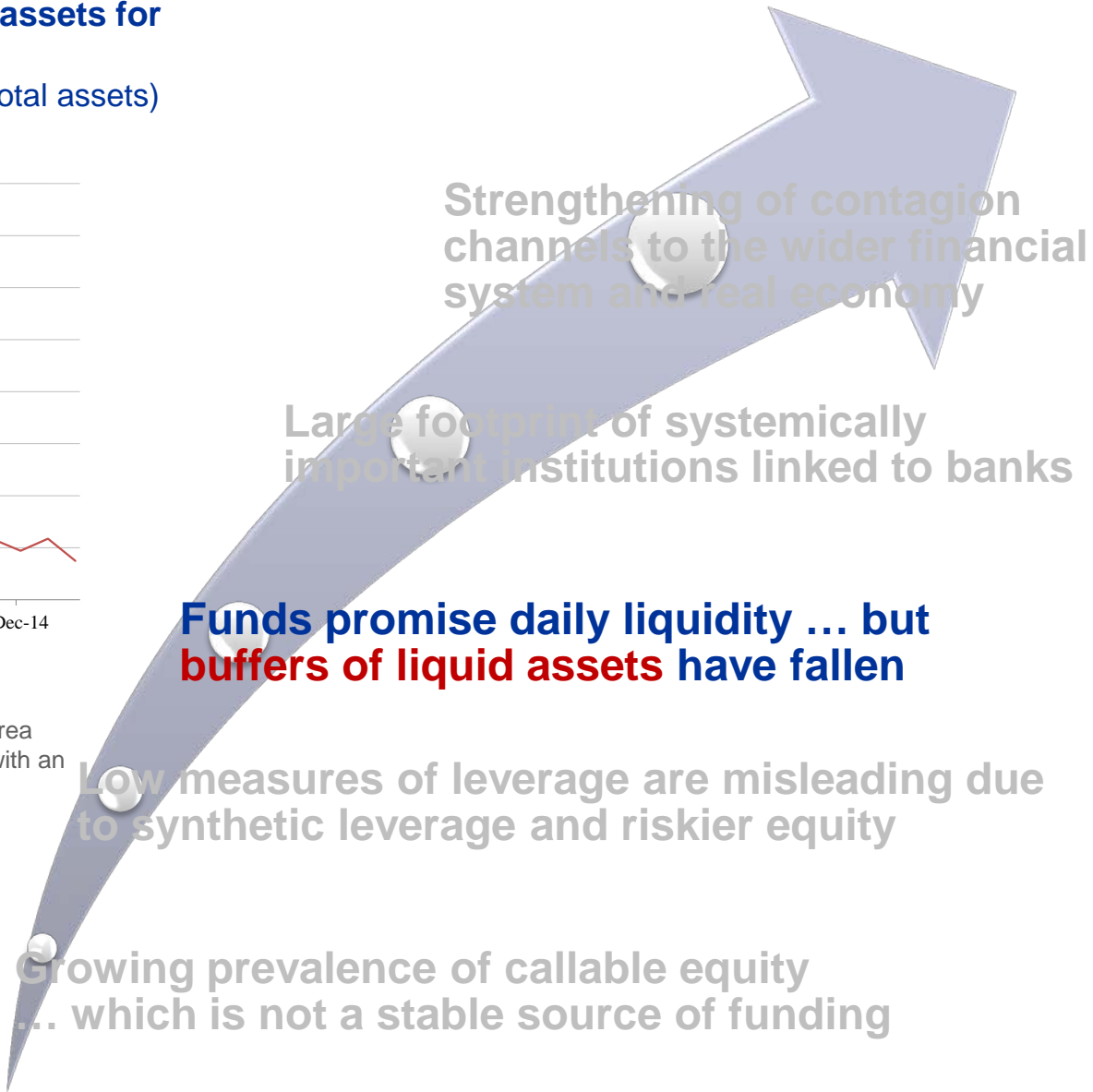
Liquid assets as a share of total assets for euro area bond funds

(Q4 2009 – Q2 2015; percentage of total assets)



Sources: ECB and ECB calculations.

Note: Liquid assets: Cash, deposits, equities, euro area government debt securities, other debt securities with an original maturity of 1 year

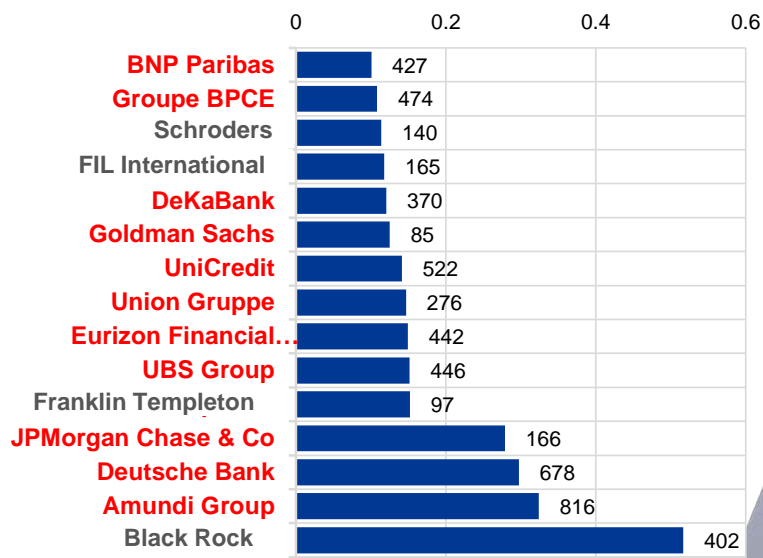


... but also links with the banking system

87% of assets owned by 10% of asset management companies

Assets and number of euro area funds managed of the top-15 management company parents

(Q2 2015; EUR trillions; number of funds)



Sources: Lipper for Investment Management, and ECB calculations.

Strengthening of contagion channels to the wider financial system and real economy

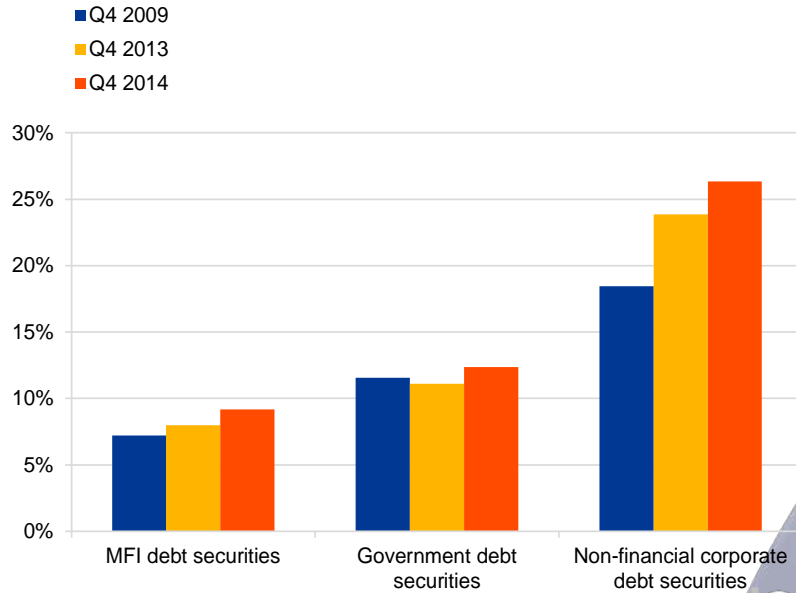
Large footprint of systemically important institutions linked to banks

Funds promise daily liquidity ... but buffers of liquid assets have fallen

Low measures of leverage are misleading due to synthetic leverage and riskier equity

Growing prevalence of callable equity ... which is not a stable source of funding

Share of outstanding euro area debt securities issues held by euro area (non-MMF) investment funds



Strengthening of contagion channels to the wider financial system and real economy

Large footprint of systemically important institutions linked to banks

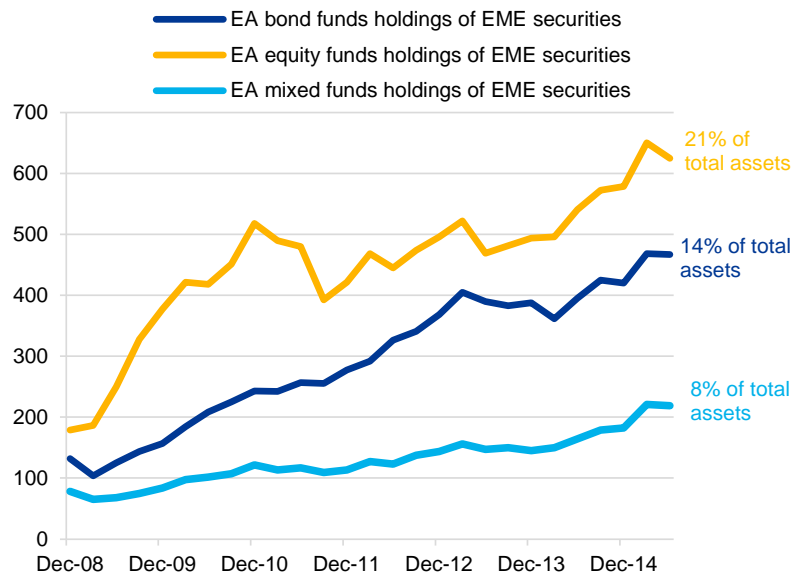
Funds promise daily liquidity ... but buffers of liquid assets have fallen

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Important channel for in- and outward spill-over from the EMs

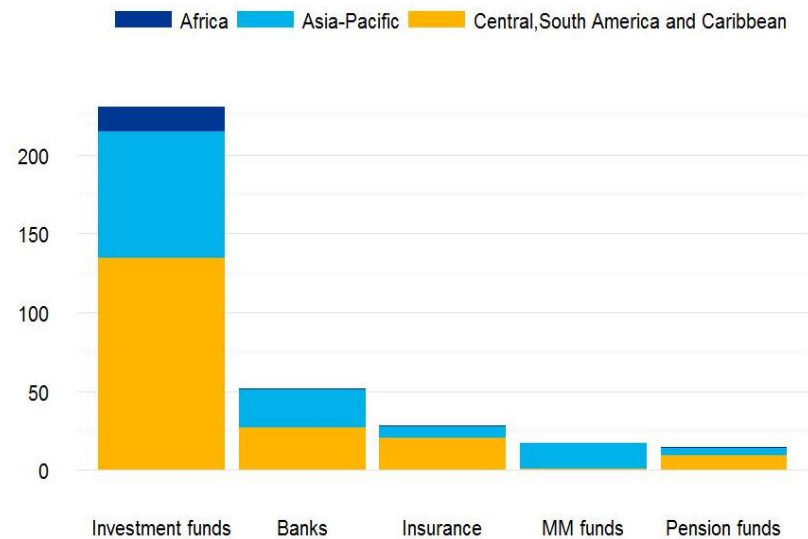
Euro area bond and equity funds' exposure to emerging markets
(Dec. 2008 – Jun. 2015, EUR billions)



Sources: ECB and ECB calculations.

Note: EME shares and debt securities are proxied by debt securities and shares issued in countries outside the European Union, the United States and Japan.

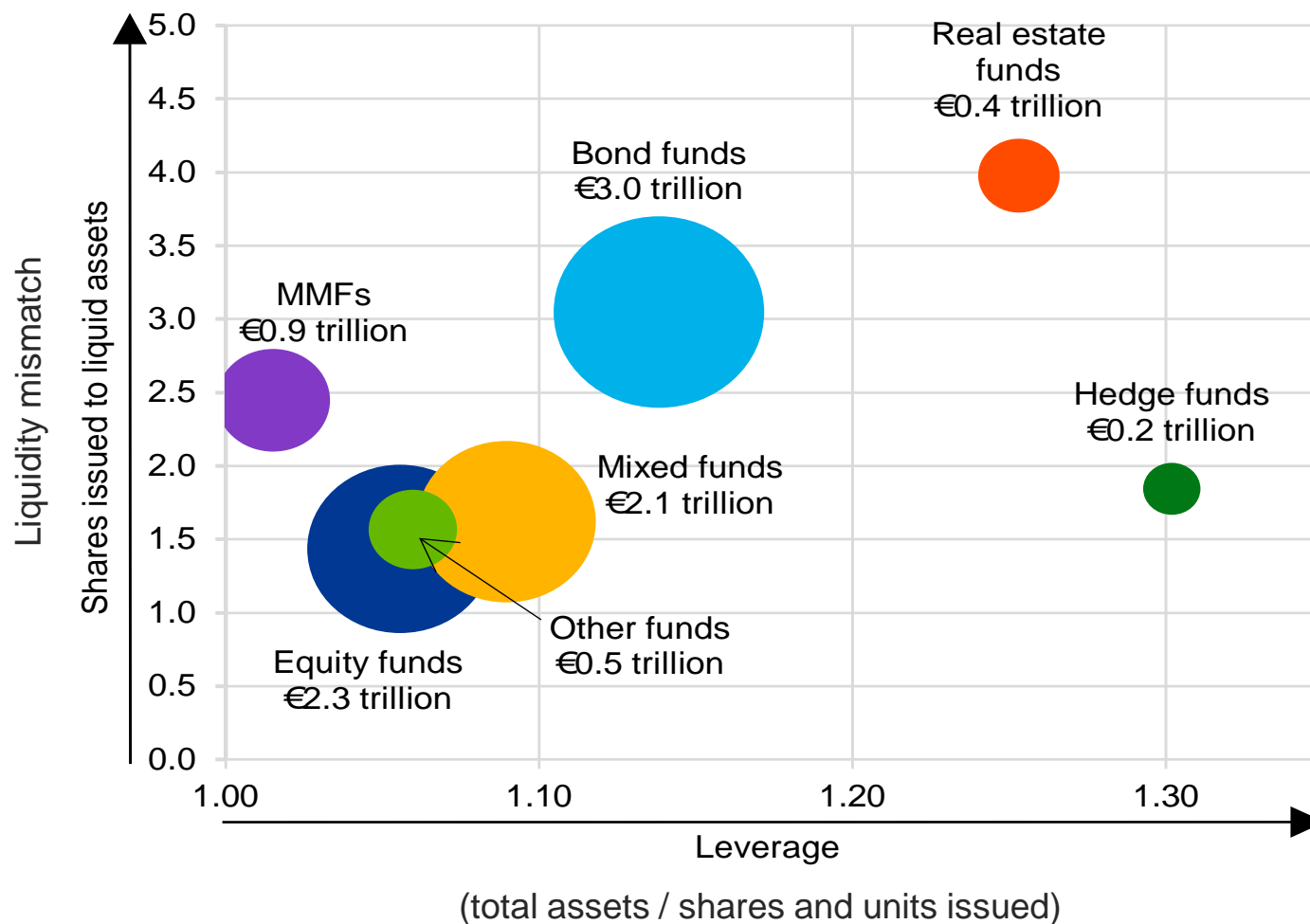
Euro area investment fund holdings of emerging markets debt securities issued in non-domestic currency
(Q1 2015; EUR bn)



Sources: SHS, ECB calculations.

Notes: Debt securities holdings are classified according to the country of residence of the issuer. Countries are grouped into three regions. Debt securities issued in Japan are excluded from the Asia-Pacific category. Only issuance of 'hard currency' debt is considered, including securities issued in USD, EUR, GBP, CHF and JPY. MM funds = money market funds.

Heterogeneity of risks across sub-sectors

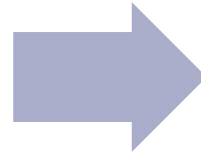


Sources: ECB and ECB calculations.

Note: Data as of Q4 2014; x-axis: leverage (total assets/shares and units issued); y-axis: liquidity mismatch (shares and units issued/liquid assets); bubble size: total assets in EUR trillions.

Vulnerabilities are growing

- Growing prevalence of callable equity
- Declining liquidity buffers
- Growing footprint of systemically important institutions
- Leverage to be monitored



Potential impact of developments in SB on real economy is also increasing

- Growing role in capital markets
- Strengthening inter and intra sectoral links

Due to a rapidly growing shadow banking sector in the euro area and elsewhere, with signs of increasing vulnerabilities and impact on real economy, there is a clear need to:

- **Enhance surveillance of shadow banking risks**
- **Ensure data availability at granular and aggregate level**
- **Develop analytical tools to assess risks (e.g. stress tests) and a framework for regular monitoring**
- **Enhance regulatory handle to deal with risks**

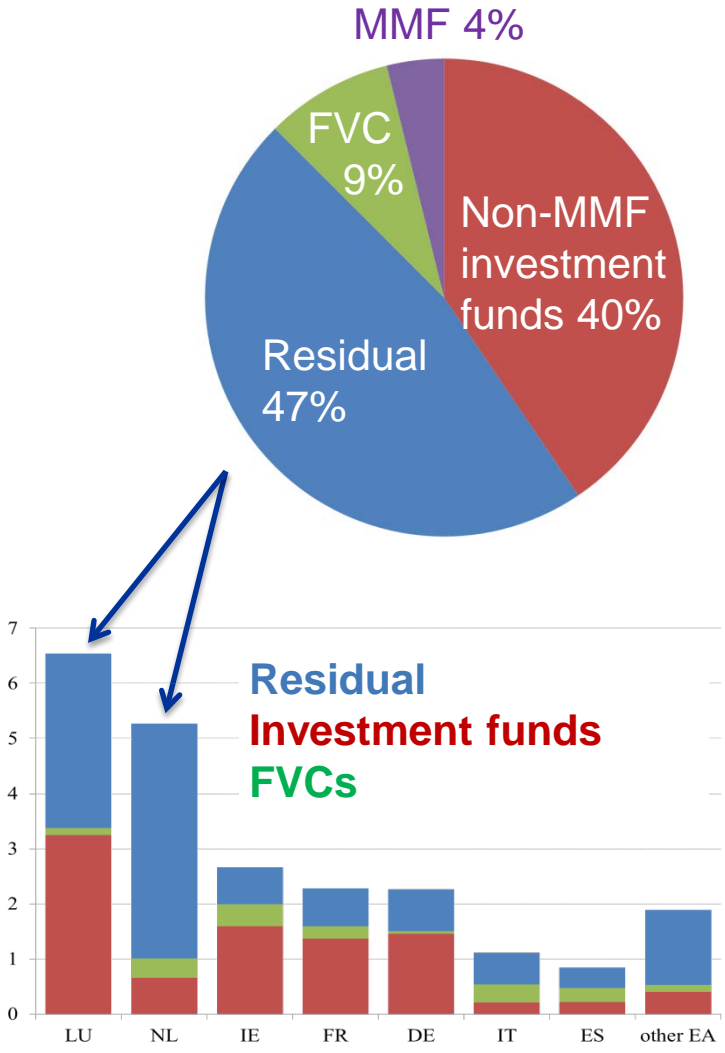
- Consistent **policy framework** still lacking, also due to the diversity of entities and activities that could create risk
- Regulatory efforts should:
 - Ensure the valuable **spare-tire function** of market-based finance by limiting exposure of shadow banks to banks and vice versa
 - Avoid **regulatory arbitrage and spill-over** from banking to shadow banking sector
- Need for **tools**, e.g. SFT margining or limits on fund leverage for **countercyclical** use?
- Reorganisation of the **supervisory framework** under the proposed capital markets union?

Thank you for your attention!

Additional slides

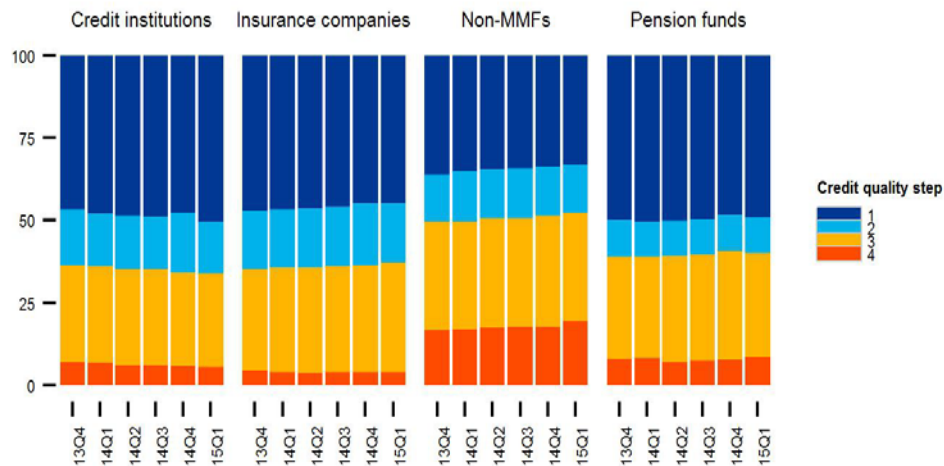
Remaining data gaps

Sectoral and geographical breakdown of shadow banking assets in the euro area

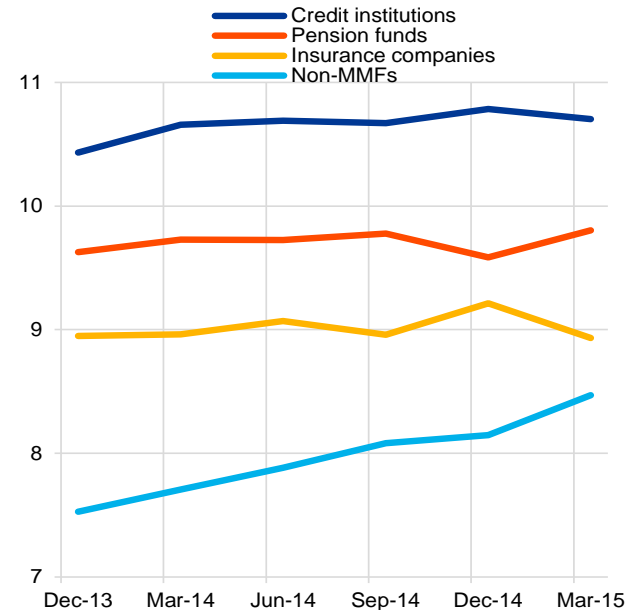


Shift towards lower-rated securities in the non-bank financial sector

Share in nominal debt securities holdings by sector and rating category
(Q4 2013 - Q1 2015, percentage)



Residual maturities by sector
(Q4 2013 - Q1 2015, years)



Sources: ECB and ECB calculations.

Note: Credit quality steps are defined in accordance with the Eurosystem credit assessment framework (ECAAF), which provides a harmonized rating scale which classifies ratings into three credit quality steps. The first category includes securities rated from AAA to AA-, the second, from A+ to A- and the third, from BBB+ to BBB-. The fourth category is created by defect, including all rated securities with a rating below credit quality step three.

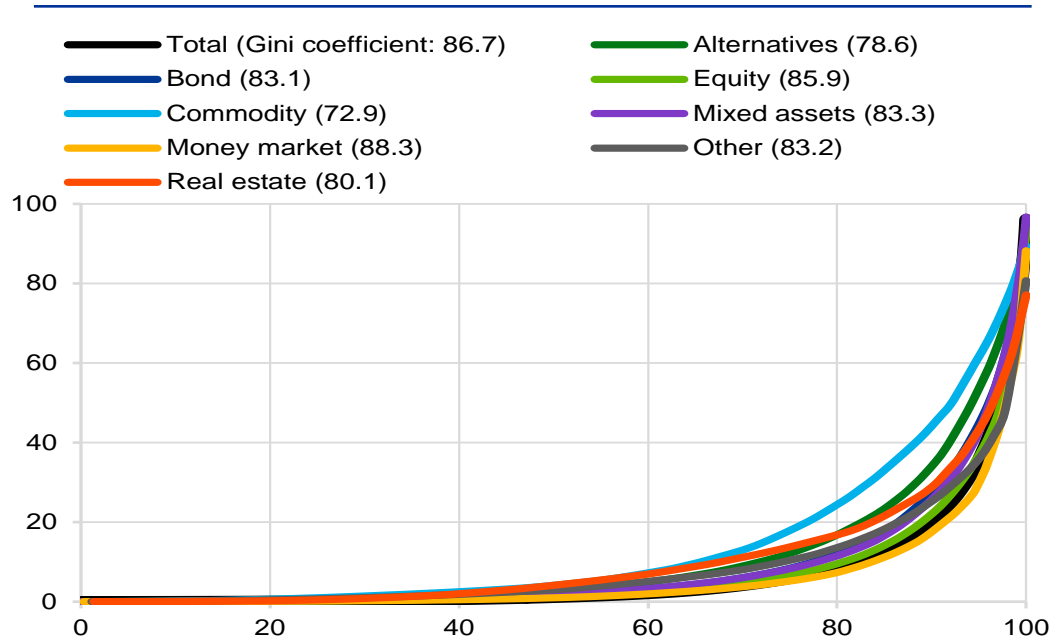
Sources: ECB and ECB calculations and ECB calculations
Note: All alive, rated and non-rated, EUR and foreign currency denominated debt securities are included. In order to estimate the average, residual maturities are weighted by the nominal amount held of each security by each sector over the total debt holdings of each sector.

Growing footprint of systemically important institutions

- Dominance of a limited number of assets management companies in each investment policy (LHS)

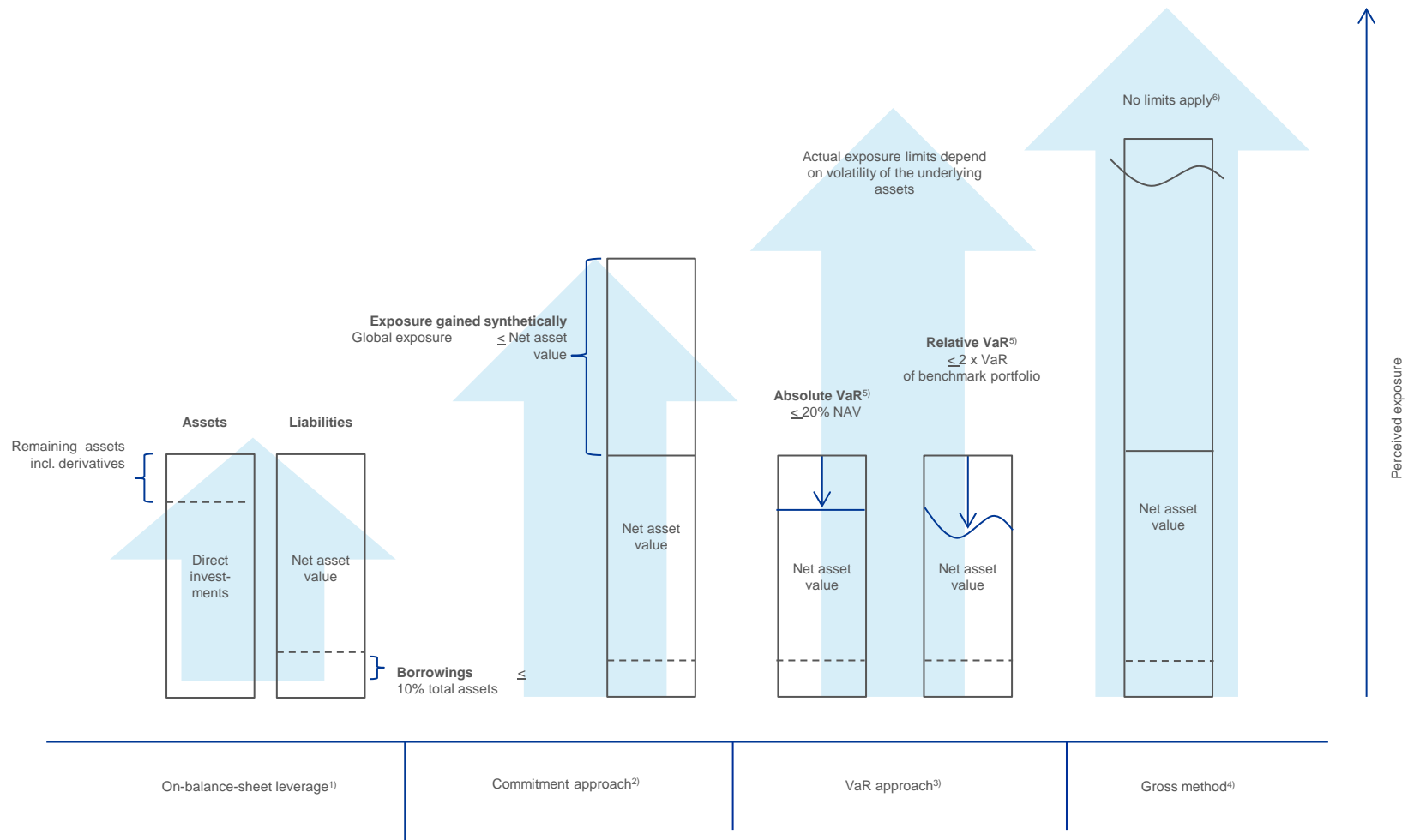
Lorenz curve for distribution of assets by management company parent

(Q2 2015; x-axis: percentage of fund management company parent; y-axis: percentage of assets managed: Gini coefficient (percentage))



Sources: LIM and ECB calculations.

Reporting choices, exposure limits, and synthetic leverage in EU



¹ Restrictions apply to UCITS.

² Derivatives and other exposures are netted and transformed into cash equivalent portfolios; restrictions apply to UCITS and AIF.

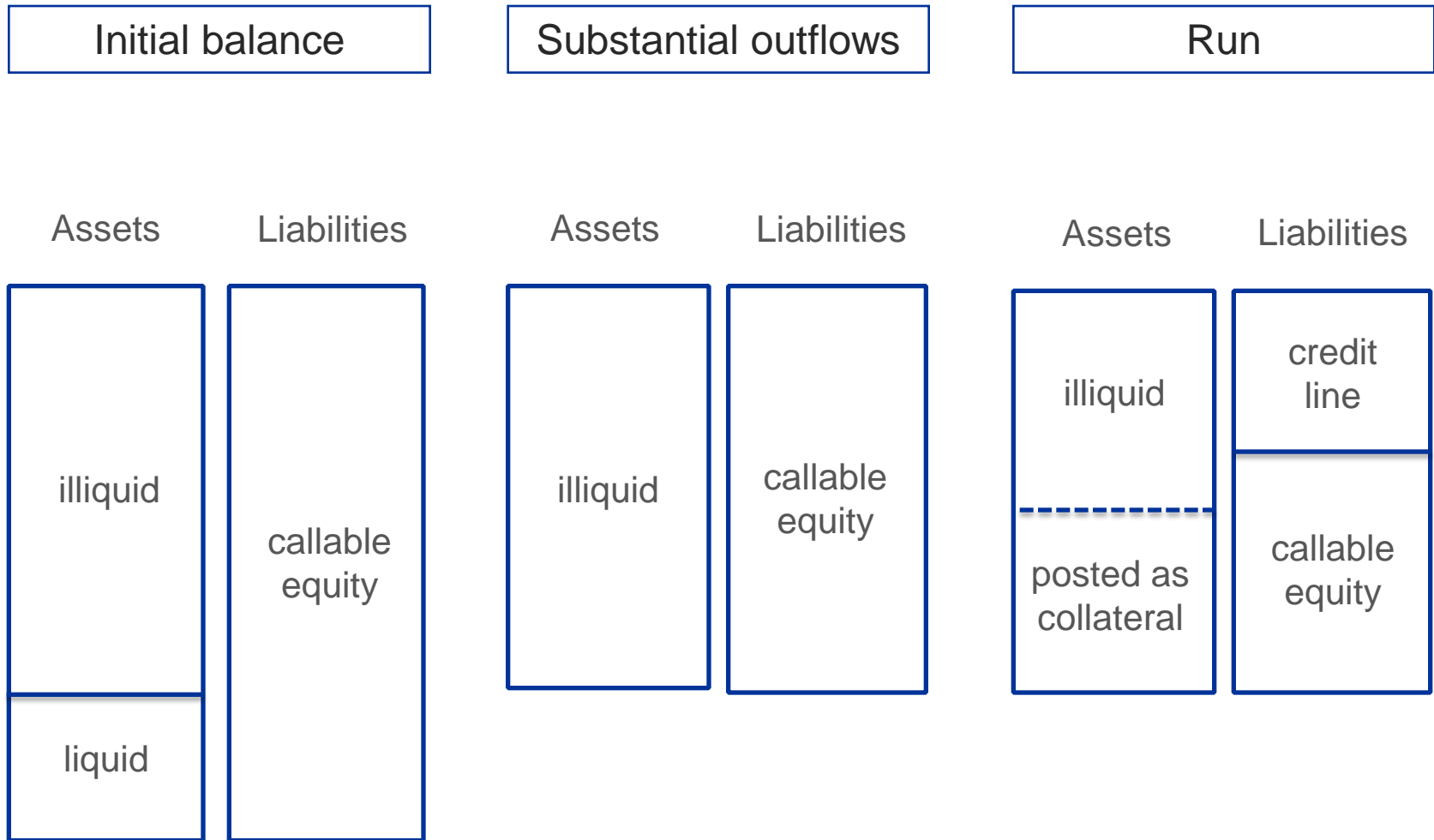
³ Maximum potential loss for a confidence interval, assuming a certain probability distribution for historic observations.

⁴ Sum of gross exposures, i.e., portfolio equivalents for derivatives, excluding cash. Metric to be reported under the AIFMD.

⁵ Maximum potential loss for a 20 days 99% confidence interval; restrictions apply to UCITS.

⁶ Other limits may be binding, including counterparty exposure for UCITS.

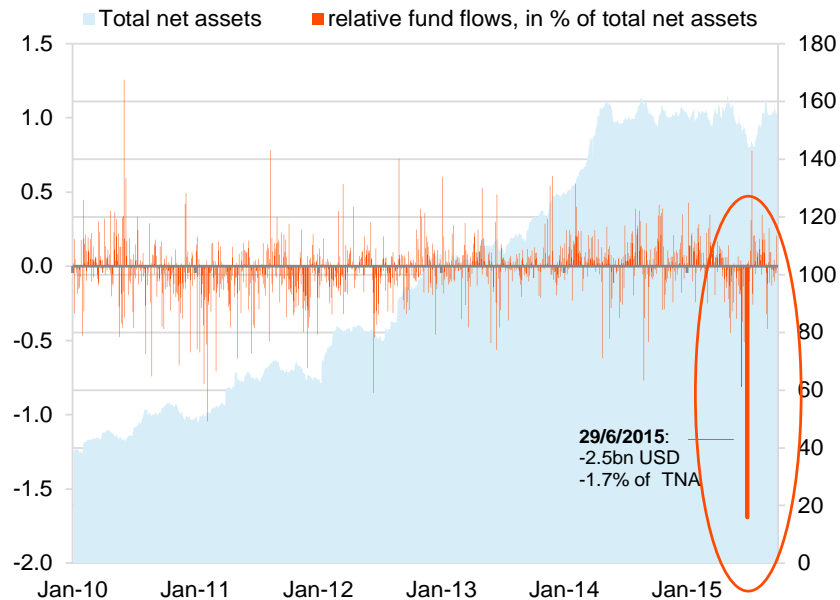
Liquidity mismatch and asset sell-off



Only few events affect net flows and liquidity conditions simultaneously

European sovereign bond fund flows

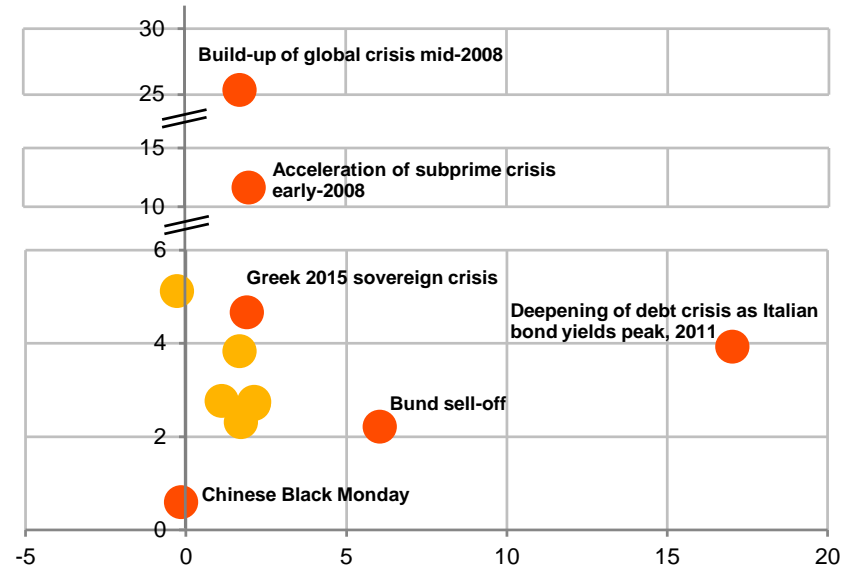
(1 Jan. 2013 – 7. Oct. 2015; daily net flows in m. USD, total net assets in bn. USD)



Sources: EPFR and ECB calculations.

European sovereign bond fund – net outflows and changes in sovereign bond bid-ask spreads

(Jan. 2008 – Sept. 2015; x-axis: bid-ask spread change in bp, y-axis: 4-week cumulative flows in % of TNA)



Sources: SHS, ECB calculations.

Notes: Debt securities holdings are classified according to the country of residence of the issuer. Countries are grouped into three regions. Debt securities issued in Japan are excluded from the Asia-Pacific category. Only issuance of 'hard currency' debt is considered, including securities issued in USD, EUR, GBP, CHF and JPY.

MM funds = money market funds.