



BANK FOR INTERNATIONAL SETTLEMENTS

# Identifying and assessing risks in the shadow banking system

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Disclaimer: The opinions expressed are those of the author and do not necessarily reflect views of the Bank for International Settlements.

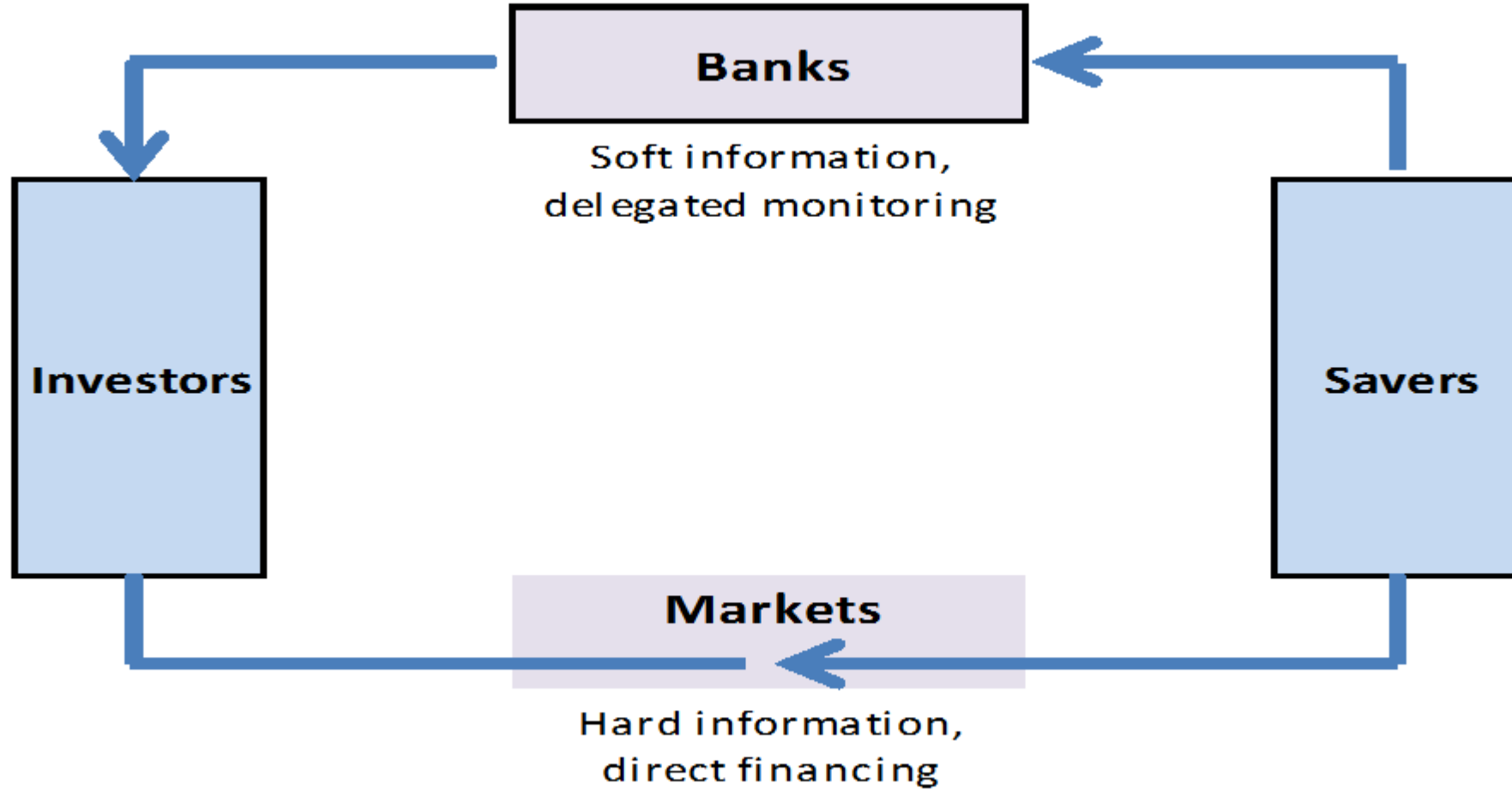


# Outline

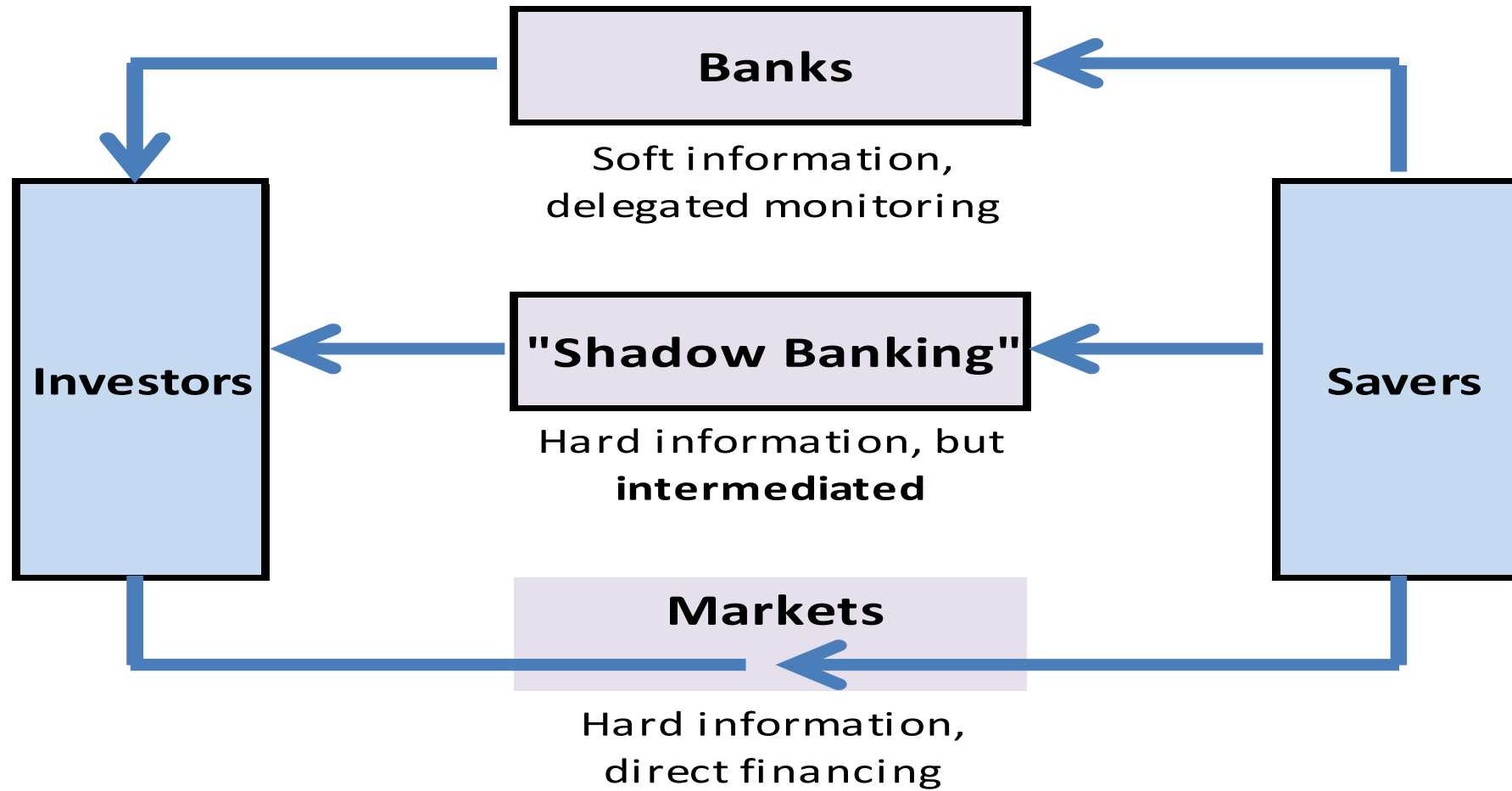
- How to define shadow banking?
  - Financial intermediation “theory,” old, new
- What policy for shadow banking?
  - Reforms, past and future
- How to monitor shadow banking?
  - Monitoring underway



# Traditional theory of financial intermediation



# Shadow banking role in financial intermediation (theory "TBD")



# What is Shadow Banking? SB can be hard to define

- Existing definitions

1. "Credit intermediation involving entities and activities outside the regular banking system "
2. Functional (activity based): "a collection of specific services"
3. Continuum: banking  $\Leftrightarrow$  shadow banking  $\Leftrightarrow$  market-based finance

- Drawbacks

1. Covers entities not commonly thought of as SB; describes SB activities as primarily outside banks, but in practice, many operate within banks
2. Stresses demand (and less supply/arbitrage), but does not tell essential characteristics, and is not general (eg, US, EU, China, vs India)
3. Distinguishing characteristics can be many and shift over time, vary by system



## Alternative (systemic) risk-based: “All financial activities, except traditional banking, which require a private or public backstop to operate”

- SB, just like *traditional banking*, involves risk – credit, liquidity, maturity – transformation
- Differs from banking in that SB uses many *capital markets* type tools
- Yet differs from capital market activities in that it needs a *backstop*:
  - While most risks can be distributed away, some rare and systemic ones (“tail risks”) always remain
  - SB has to show it can absorb these risks to minimise the exposures of the ultimate claimholders who do not wish to bear them



## SB: Activities that look for deep backstop externally

- SB cannot generate ultimate risk absorption capacity internally
  - Too low margins – as services are contestable
- Yet backstop needs to be sufficiently deep
  - Scale is large and residual, “tail” risks significant
- Two ways to obtain such a backstop:
  - **Private:** franchise value of existing institutions → therefore operate **within** banks
  - **Public:** explicit or implicit → government guarantees, too-big-to-fail, too-complex-to-fail; bankruptcy “stay” exemptions for repos; implicit guarantees on bank-affiliated products, NBFIs liabilities; etc.



# Policy: Backstop “Litmus test” provides clues, helps in practice

- 1. Where to look for new SB risks.** Among activities needing franchise value or guarantees
- 2. Why SB poses regulatory challenges.** Backstops reduce market discipline, enable (systemic) risks
- 3. Yet, often within regulatory reach.** Policy can affect whether regulated entities use franchise value or guarantees to support SB activities
- 4. Less migration of risks from regulated to SB.** A lesser problem than many fear: cannot migrate on a large scale without access to franchise value or guarantees. Makes spotting SB a narrower task





# List of past and current policy issues: FSB five plus two

1. Mitigating risks in banks' interactions with shadow banking entities
2. Reducing the susceptibility of money market funds (MMFs) to "runs"
3. Improving transparency and aligning incentives in securitisation
4. Dampening procyclicality and other financial stability risks in securities financing transactions (eg, repos, securities lending)
5. Establishing a framework for ongoing assessment and mitigation of financial stability risks posed by shadow banking entities and activities
6. "Demand-side": expanding supply of safe, sovereign assets
  - Advocated by some, but more controversial
7. Macro, monetary policy, financial cycle
  - To be explored more, eg, role of monetary policy in shadow banking



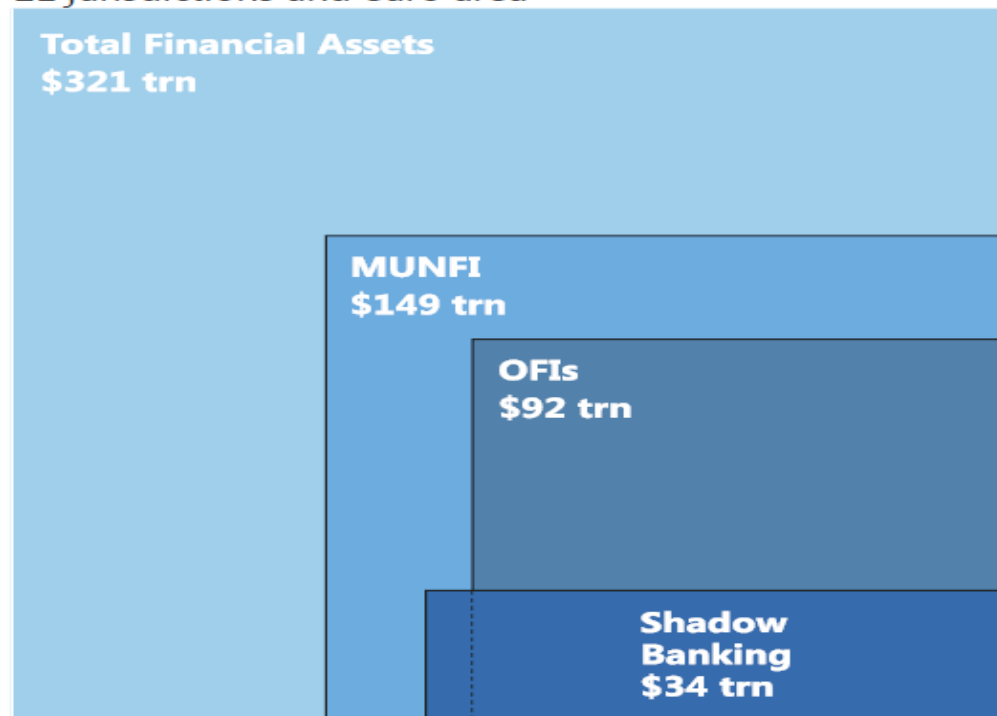
# How to monitor SB? FSB: from macro to credit to risks

Monitoring aggregates

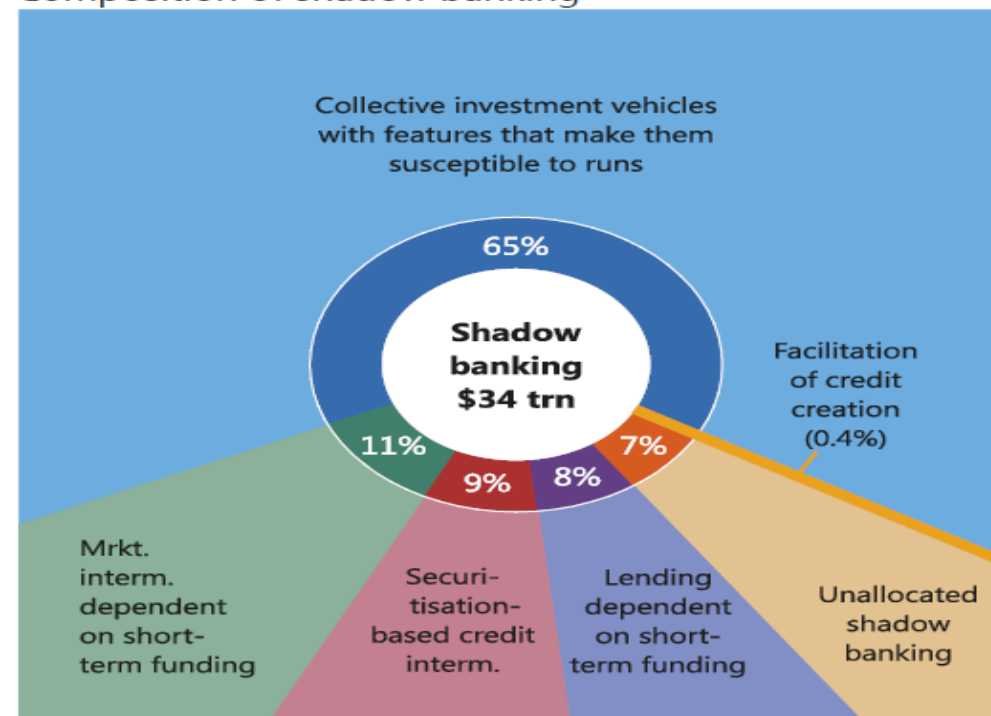
USD trillion at end-2015

Exhibit 0-1

21 jurisdictions and euro area<sup>1</sup>



Composition of shadow banking<sup>2</sup>



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, net of entities which are prudentially consolidated into banking groups.

<sup>1</sup> The narrow measure of shadow banking is 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 European Central Bank (ECB). For 27 jurisdictions, the corresponding aggregates are Total Financial Assets (\$304 trillion), MUNFI (\$127 trillion) and OFIs (\$72 trillion).

<sup>2</sup> For additional details on these categories, please see Section 4.

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

Source: <http://www.fsb.org/wp-content/uploads/global-shadow-banking-monitoring-report-2016.pdf>

# SB activities: economic functions and risks

<b>Economic Function</b>	<b>Definitions</b>	<b>Key shadow banking risks</b>
EF1	Management of collective investment vehicles with features that make them susceptible to runs	Public funds: Liquidity and maturity transformation Private funds: Leverage and maturity transformation
EF2	Loan provision that is dependent on short-term funding	Liquidity and maturity transformation, leverage
EF3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	Liquidity and maturity transformation, leverage
EF4	Facilitation of credit creation	Credit risk transfer
EF5	Securitisation-based credit intermediation and funding of financial entities	Liquidity and maturity transformation, leverage

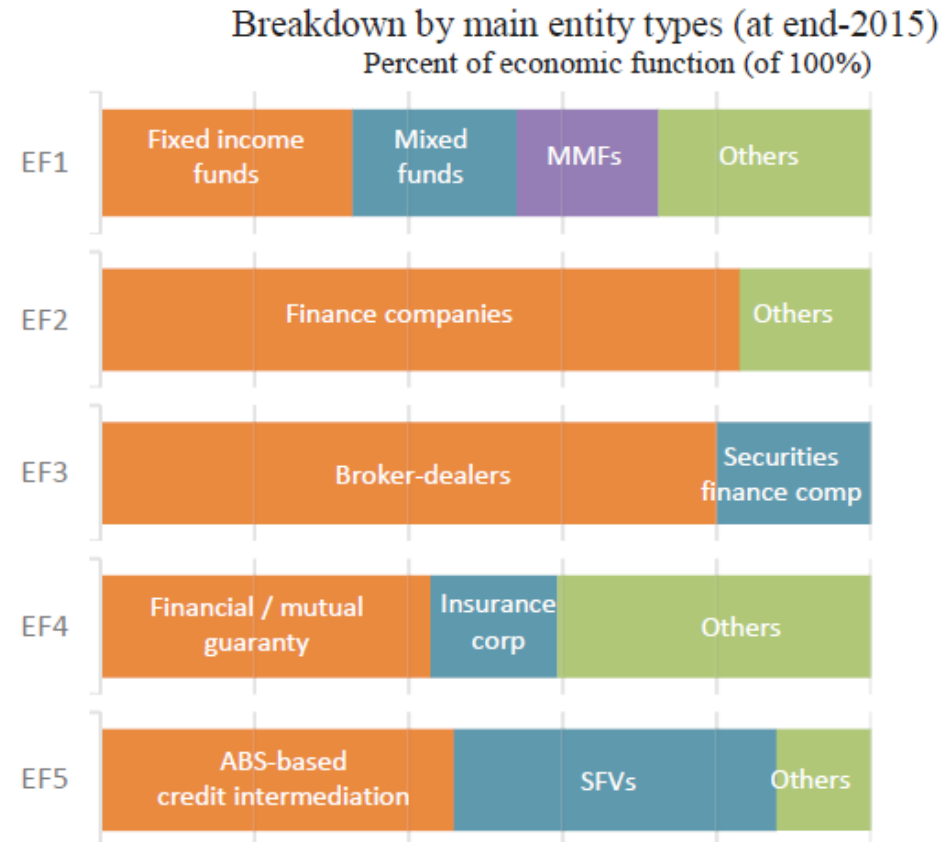
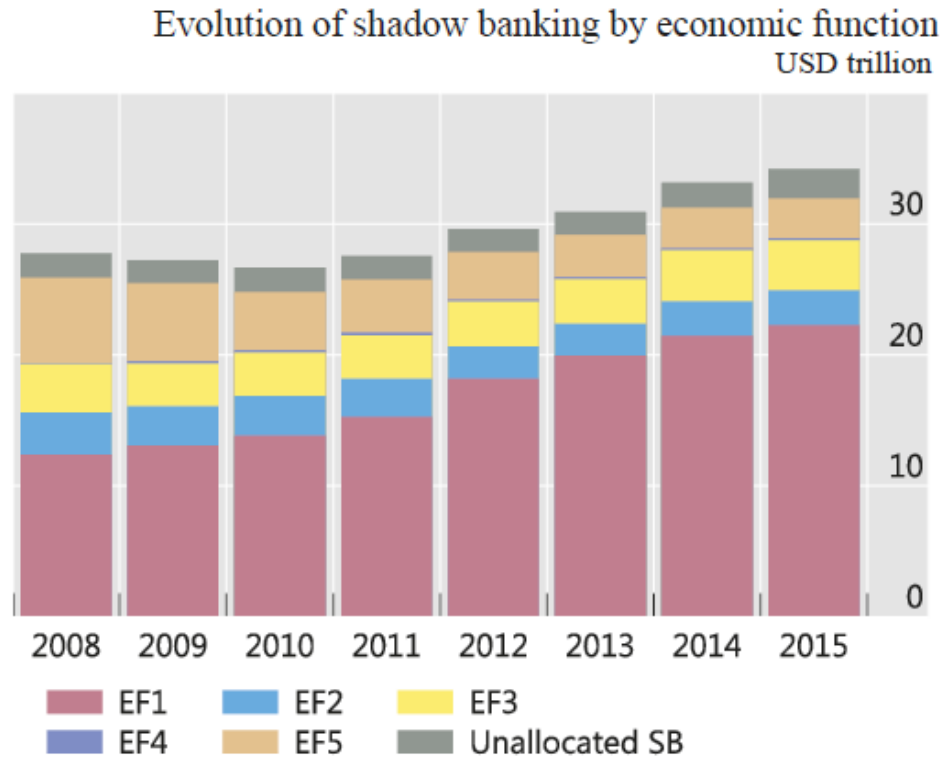
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# Triangulating entities and activities that pose risks

## Shadow banking decomposition

27 jurisdictions



Increases in the value of EFs may also reflect improvements in the availability of data over time. Exchange rate effects have been netted out by using a constant exchange rate (from 2015). EF1 = Economic function 1; EF2 = Economic function 2; EF3 = Economic function 3; EF4 = Economic function 4; EF5 = Economic function 5; Unallocated SB = assets of entities that were assessed to be involved in shadow banking activities, but which could not be assigned to a specific economic function.

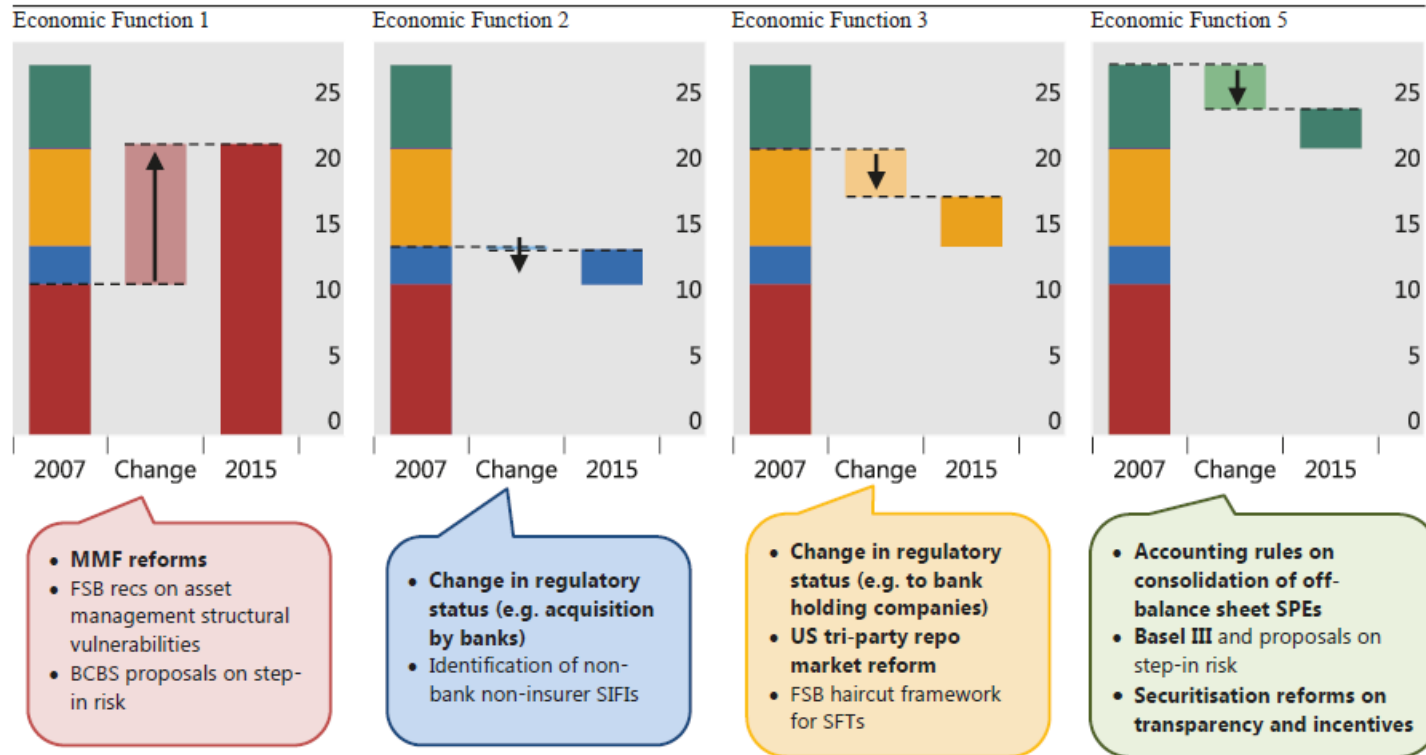
Source: Global Shadow Banking Monitoring Report 2016.

Source: <http://www.fsb.org/wp-content/uploads/P300617-1.pdf>

# Addressing financial stability risks from SB: progress to date

Regulating the evolving system of market-based finance

In trillions of US dollars



Bubbles show examples of policy measures applied to the relevant economic functions since the financial crisis. Additional policy measures may have been introduced at national/regional and international levels. Measures in bold are in force. EF4 was not represented in this graph as it is only 0.4% of total shadow banking assets.

- Securitisation-based credit intermediation (EF5)
- Facilitation of credit intermediation (EF4)
- Market intermediation dependent on short-term funding (EF3)
- Lending dependent on short-term funding (EF2)
- Management of collective investment schemes that are susceptible to runs (EF1)

Source: Adapted from [FSB Shadow Banking Monitoring Report 2016](#).

Source: <http://www.fsb.org/wp-content/uploads/P300617-1.pdf>

# Conclusions

- Need to define, approach SB using systemic perspective
  - SB is partly about “shadowy” banking: regulatory arbitrage
  - But also genuine demands: eg, safe assets, collateral services
  - Consider systemic risks/impacts: (implicit) backstop as a clue
- Need to consider various policy angles
  - List of five and two
- Need better data, market discipline and monitoring
  - Important to collect and disseminate better data
  - Regardless, use backstop for “smell” test

