# Trends in non-bank financial intermediation: systemic risk and macroprudential policy

**Ana Cristina Leal | Financial Stability Department** 

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# Outline

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2 Potential sources of systemic risk

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Transfer of financial intermediation from banking to non-bank intermediaries

After the global financial crisis of 2007-08, the transfer of financial intermediation from the banking sector to non-bank intermediaries increased significantly possibly due to heightened regulatory requirements to banks and compliance costs related to Basel III, inter alia, which led to constraints in growth in banking activity or even triggered a deleveraging process in the banking sector.

Alternative funding sources

The limited lending capacity of the banking system in the post-crisis led non-financial corporations and households to turn to alternative funding sources such as non-bank credit providers and new technologies such as peer-to-peer lending platforms.

Higher demand for securities

Ageing populations, rising income and increasing dependence on private retirement products as well as low interest rates, originated a demand for securities with higher returns but in some cases with lower liquidity. In this context insurance products and investment funds' units became more attractive among households when compared to bank deposits.



Wide range of heterogeneous entities

Non-bank financial intermediaries comprise a wide heterogeneous range of entities that conduct several activities with different features. The interlinks between them and the rest of the financial system determines the potential for the non-bank financial sector to transmit and amplify shocks. Non-bank financial intermediaries comprises money market funds, investment funds and other financial intermediaries (according to FSB and ERSB definitions), but insurance and pensions funds are not usually included.

Cost-efficient

These entities may also provide credit to the economy as they have specialized expertise that enables them to provide more cost-efficient functions in the credit intermediation chain.

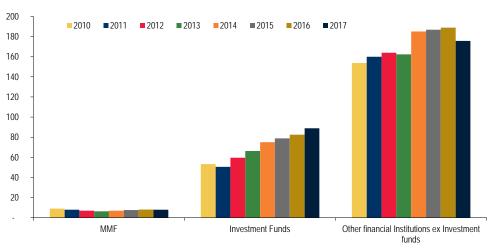
Do not fit into existing regulatory regimes

The activities performed by these financial intermediaries do not necessarily fit into existing regulatory regimes, as there are several ongoing innovations in the financial system, while the systemic risk these entities entail is difficult to define. The microprudential instruments available are not designed to mitigate the sources of systemic risk.

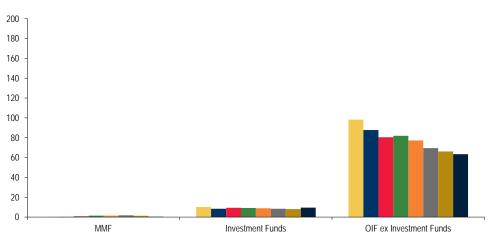


### Non-bank financial intermediation

### Total financial assets in the EU financial system | As a percentage of GDP



Total financial assets in the Portuguese financial system | As a percentage of GDP



Non-bank financial intermediation is the second largest sector in EU as a percentage of GDP, while the importance of banks in financial intermediation have declined. However, developments in non-bank financial intermediation in Portugal have been rather different from those seen in the EU.

From 2010 to 2017, non-bank financial assets grew by around 50% in EU, while the banking sector' assets increased at a rate of 8%. At the end of 2017, non-bank financial intermediation accounted for close to 40% of total financial assets in the EU financial system, with over €42 trillion in assets, i.e. around 273% of GDP.

During the same period, EU investment funds accounted for around one-third of overall non-bank financial intermediaries in the EU and around 89% of GDP in 2017.

From 2010 to 2017, the value of financial assets in the Portuguese non-bank financial sector declined by around 27%. At the end of 2017, this sector held around 20% of total financial assets in the system, corresponding to around 73% of Portuguese GDP. Investment funds in Portugal exhibited a lack of growth in the value of units issued and accounted for a small size relative to GDP.



Note: Insurance and pension funds are not included.

# Risks from a financial stability perspective

Complementing credit intermediation through banks with non-banking institutions avoids over-reliance on the banking system.

The shock from a banking crisis is likely to be minor if links between the banking sector and the financing of the real economy are diminished and there are credit providers that can complement the financial intermediation function.

A more diversified financial system in which banks play a relatively smaller role improves efficiency and risk sharing.

Non-bank based finance enables investors to invest in equity, which in financial stability terms is the most effective way to share risk.

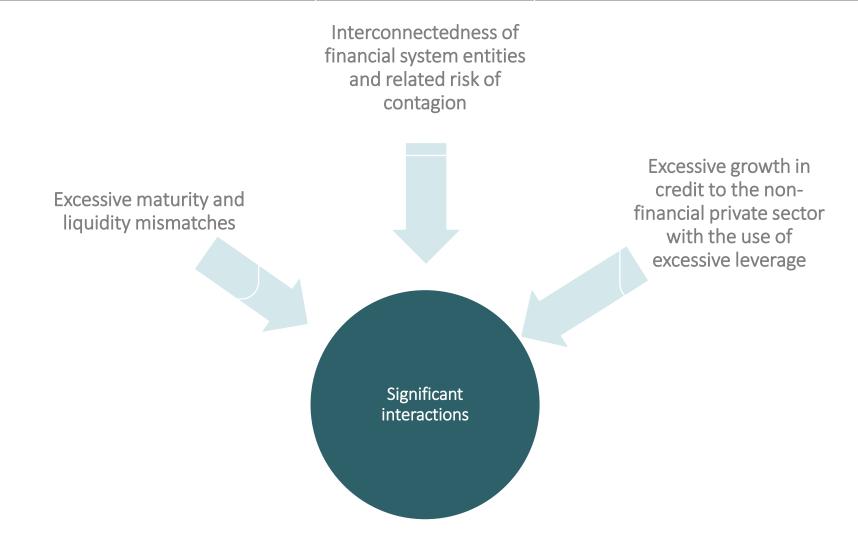
There is an established framework for addressing sources of systemic risk in the banking sector through preventive macroprudential policy and ex-post liquidity and resolution policies. This framework for non-bank financial entities is still being developed and operationalized.

Non-bank and bank credit can also reinforce each other, potentially amplifying credit booms and busts.

Experience shows that non-bank intermediation can, however, also pose contagion risks to financial stability.

These risks could be amplified in an integrated financial market where the presence of non-residents investors is significant. The increase in total assets of real estate investments trusts and commercial real estate funds owned by non-EU residents is an example.







### Excessive maturity mistmaches

Invest in assets with longer maturities and higher yields than the required notice of redemption or by using leverage strategies

Difficulties to meet an unexpectedly high level of redemptions

If a severe drop in market liquidity or increased volatility in the asset market happen, then a investor may be encouraged to redeem their units in open-ended funds and thus withdraw the capital invested

### Under stressed market conditions

The effects on the price dynamics may be exacerbated if the funds invest in illiquid assets and/or are leveraged

Amplifying the contagion effects, with material consequences for the portfolios of institutions holding the same assets or holding assets that have their return closely correlated

Systemic Risk



Investment funds are

perceived as a saving

product generating yields

Contagion between investment funds and

banks can occur through

different channels

### Direct channel

Investment funds' units, deposits and loans holdings by banks

Holdings of debt securities or shares of banks by investment funds

Transactions with derivative instruments

Indirect channel

Common exposures in investment funds and bank portfolios

Common behaviour of fund investors

Under stressed market conditions

Deposits in banks by investment funds tend to be withdrawn, when investment funds have to mobilise them in order to cope with unit redemptions

When the investors are not able to redeem their units, they may redeem units in another fund or even sell securities also held by a bank

Systemic Risk



The period post

international financial

crisis was characterised

by low interest rates and

deleveraging by banking

institutions

Bonds issued by nonfinancial corporations

Increased demand and supply in the bond market: bonds issued by non-financial corporations increased

Other financial intermediaries have replaced banks in granting credit to non-financial corporations

Herding behaviour: pro-cyclical behaviour by fund investors. They want to redeem their units when investment funds have low returns and to subscribe units when investment funds have high returns.

Increased correlation of their portfolios

Increase in risk premia or volatility in financial markets

Unexpected high level of redemptions by investors

Increase in risk premia – and consequently in interest rates – may have an effect on the ability of nonfinancial corporations to service debt, thus leading to a drop in the prices of these debt issues

Spillover to other financial market participants.

Systemic Risk



Increasing size and growth of the EU investment fund sector while at the same time the interconnectedness between investment funds and banks also increased

- ✓ In recente years, EU non-bank financial institutions continue to increase their share of funding to the real economy, augmenting the exposure to credit and liquidity risks.
  - ✓ Fixed income investment funds increased their risk taking via a higher asset allocation to lower-rated debt securities and an increased duration in their fixed income portfolios.
  - ✓ The redemption patterns can be procyclical and large redemption calls can have widespread amplification effects in financial markets, which can foster adverse market dynamics when asset prices are declining.
  - ✓ The use and reuse of financial collateral in derivatives and securities financing transactions can create intermediation chains highly leveraged which can also spread funding liquidity shocks.
- ✓ The importance of non-resident investors in European Commercial Real Estate (CRE) and, in particular, real estate investment trusts increases its vulnerability to abrupt and significant rises in risk premia at the international level, given the faster adjustment that tends to characterize these investors. In particular, an abrupt sharp reversal of demand by international investors would hinder prices in this market.



# Regulatory and supervisory initiatives

G20 and the Financial Stability Board proposed to strengthen the oversight and regulation of non-bank financial entities since the financial crisis

- ✓ mismatch between liquidity of fund investments and redemption terms and conditions for fund units;
- ✓ leverage within investment funds;
- ✓ operational risk and challenges in transferring investment mandates; and
- ✓ securities lending activities of asset managers and funds.

ESRB Recommendation on money market funds of 20 December of 2012 and Regulation of the European Parliament and of the Council on money market funds of 14 June 2017

- ✓ Lay down rules for the the composition of portfolios and the valuation of assets, to ensure the stability of their structure and to guarantee that MMFs invest in well-diversified assets of a good credit quality;
- ✓ introduce common standards to increase the liquidity of MMFs, to ensure that they can face sudden redemption requests;
- ✓ establish common rules to ensure that the fund manager has a good understanding of investor behavior;
- ✓ require that investors and supervisors have adequate information; and
- ✓ prohibit sponsor support from third parties, including banks.



Regulation of the European Parliament and of the Council on transparency of securities financing transactions of of 25 November 2015

- ✓ introduces reporting requirements of those transactions to trade repositories;
- ✓ all new investment funds will have to disclose the use of Security Financing Transactions and total return swaps in the pre-contractual documents;
- ✓ establishes transparency rules on collateral reuse.

ESRB Recommendation to address systemic risks related to liquidity mismatches and the use of leverage in investment funds of 14 February 2018

- ✓ additional liquidity management tools ability to impose redemption fees and to temporarily suspend redemptions;
- ✓ open-ended alternative investment funds (AIFs) should be required to show supervisors that they would be able to maintain their investment strategy under stressed market conditions by holding a large amount of less liquid assets;
- ✓ tighter liquidity stress testing practices;
- ✓ risks from leverage can be addressed by creating a harmonized reporting framework; and
- ✓ supervisors should make better use of existing possibilities to set leverage limits.



### Macroprudential policy - going forward

Several international regulatory initiatives (FSB, IOSCO, EC, ESRB, ESMA, ...) are taking place to address some of the risks. However there is some room for improvement:

# Data requirements

The availability of sufficiently granular and historical data series for the non-bank financial sector is still lagging behind the situation on the banking side, even though there is an ongoing effort to enhance data coverage (e.g. ESMA's reports on derivatives market and alternative investment funds). These efforts could be complemented by the following:

- ✓ Data on fund leverage as a key risk measure, i.e. taking into account both on-balance-sheet and off balance-sheet exposures. In particularly, possible measures of synthetic leverage;
- ✓ Data on the inter-connections (direct and indirect) between non-bank financial institutions and banking systems; and
- ✓ Data on the linkages between ultimate investors and ultimate investment destination; and
- ✓ Data on other alternative investment funds category and a more detailed breakdown of fund strategies.

# Development of analytical models/macroprudential stress tests

- ✓ Develop appropriate metrics to measure liquidity risk, leverage and interconnectedness between banks and non-bank entities;
- ✓ Improve the existing non-bank stress test approaches in order to better account for interactions between agents. The impact of a stress test event hitting a financial institution is often amplified via its interactions with the rest of the financial system. Therefore, failing to account for such interactions may risk overestimating the resilience of single institutions and the system as a whole;

✓ Macroprudential stress tests will improve the calibration and design of macroprudential instruments.

### Macroprudential policy - going forward

# Develop the regulatory framework

- ✓ Develop a range of policies to address financial stability risks from non-bank financial intermediation;
- ✓ To address bank-like risks to financial stability emerging outside of the regular banking system, while not inhibiting sustainable non-bank financing models that do not pose such risks; and
- ✓ To design a proportionate approach, focusing on those activities that are material to the system.

# Broaden the macroprudential toolkit and operationalize existing tools for non-bank financial intermediation

- ✓ Widening the toolkit so that policymakers are able to effectively confront risks emerging beyond the banking sector;
  and
- ✓ Designing instruments to contain the excessive build-up of leverage and to mitigate illiquidity spirals.

# Increase the effectiveness of macroprudential policy

- ✓ Macroprudential instruments should target entities and activities; and
- Current macroprudential requirements mainly apply to bank credit. Hence, all forms of credit need to be within scope,
   i.e. bank loans, non-bank loans and debt securities, whether domestic or foreign.

