

# **Bank of Portugal Conference on Financial Stability**

## **Roundtable “Current challenges for micro and macroprudential regulation”**

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Lisbon. 8<sup>th</sup> October 2019

## **Outline**

- 1. Non-banks and shadow banking regulation**
- 2. Fintech, Big Tech and Technological disruption: data use and financial stability concerns; payments and digital currencies; PSD2 and “open banking approach”; unbundling banking functions?**
- 3. Macroprudential policy: analytics, timing and tools**  
**[Housing finance, financial stability and structural reforms]**

## Non-banks and shadow banking

Shadow banking is not about all credit intermediation done by non-banks; The **proper concept of shadow banking** refers to the creation of a new market-based credit system using securitization, repos, commercial paper and OTC derivatives to create “safer” short term private instruments to fund less liquid assets.

This led to a significant **increase in the leverage** of the entire finance activity and created **chains of inside liquidity**, including by means of re-use of securities. The result was fantastic growth of unstable funding to the detriment of stability. We know what happened in the crisis, once again proving the statement by Douglas Diamond: **“Financial crises are everywhere and always about short-term debt”**.

“...while we have seen improvements on many regulatory and supervisory fronts, **there is still no framework for dealing with shadow banking and new digital competitors**”

in Report “Sound at last? Assessing a decade of financial regulation” (CEPR, IESE, June 2019)

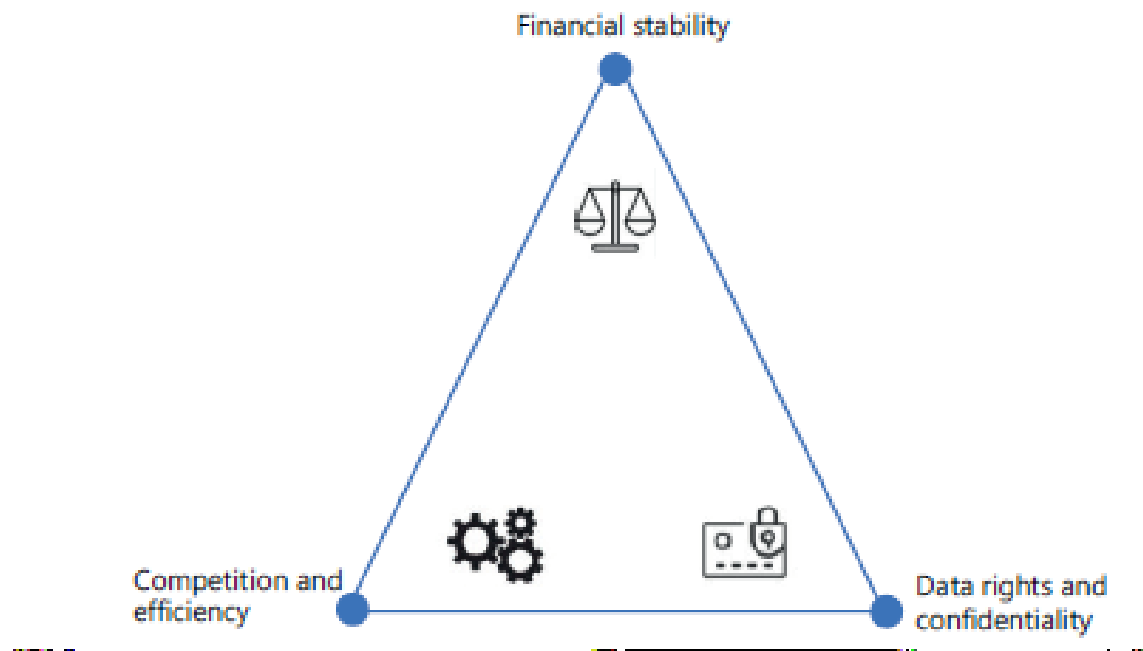
## Non-banks and shadow banking

- Changes after the crisis: Securitisations became less attractive being now subject to higher capital charges, securities vehicles were consolidated with bank sponsors and repos and OTC derivatives have become subject to central clearing. The overall progress in reducing risk in STFs and derivative markets has been significant, but not be sufficient.
- The recommendations by the FSB about mere reporting of re-hypothecation and re-use of securities in repos are not sufficiently far-reaching
- Regarding the use of margins and haircuts, the FSB recommendations to introduce minimum initial levels are also quite narrow.
- Going forward, more should be done. In a public opinion, the ECB stated. “two policy instruments that potentially could reduce or limit leverage through derivatives and SFTs and the pro-cyclicality of margins and haircuts: (a) permanent minimum requirements, and (b) time-varying minimum requirements or buffers”.
- Policy recommendations by the FSB to address structural vulnerabilities arising from asset management activities and investment funds are too general. Remaining problems include liquidity mismatch between fund assets and redemption terms, operational risk, mere reporting regarding securities lending activities and leverage reporting by investment funds, including synthetic leverage.
- Leverage requirements (LR) for investment funds. already partially introduced in Europe. represent an important point. The final aim should be to extend LR requirements to a broader set of financial institutions

## Fintech, Big Tech and Technological disruption

With the exception of payments, Fintech financial firms (P2P, Crowdfunding, robot-advisors, money-aggregators etc..) are still a very small sector. Problems emerge from Big Tech, payments and expansion to other financial services,

Figure 17 A financial policy trilogy for the FinTech and Big Tech era<sup>38</sup>



Source: “Banking Disrupted? Financial Intermediation in an Era of Transformational Technology”. Geneva Reports on the World Economy 22 CEPR , September 2019

## **Fintech, Big Tech and Technological disruption**

- 1. Data ownership and risks of “open banking approach” and PSD2**
- 2. Unbundling of Banking components (from credit to money): diversification, collateralisation, monitoring, leveraging, pooling, maturity transformation, insuring, contractual liquidity (safe deposits as inside money)**
- 3. Risks of using AI, machine learning and algorithms in asset management and financial transactions.**
- 4. Payments and role of digital currencies or “stable coins”**

## **Macroprudential policy: analytics, timing and tools**

- 1. Macroprudential policy needs more formal structure. More precise objectives and forward-looking measurement of systemic risk in relation to material consequences for the real economy: “GDP-at-Risk” type of methodologies.**
- 2. Instruments to release regulation in general economic downturns and lack of instruments to tighten regarding housing finance. The missing opportunity of the CRD/CRR revision. House financing structural reforms.**

## Guidelines for financial regulation

1. History illustrates that there is a spontaneous tendency for finance to **increase leverage and maturity transformation** without considering the potential social costs of an overall excess of credit and debt and the crashes that may follow.
2. “... **private credit booms**, not public borrowing or the level of public debt, tend to be the main precursors of financial instability in industrial countries”. Jordá, Schularik and Taylor (2016) “Sovereigns versus banks: credit, crises and consequences”
3. “Banks produce short-term debt, private money, as their product (Diamond and Dybvig (1983) and Gorton and Pennacchi (1990)). This short-term debt is an *inherent* feature of market economies. It is a fact that the output from real production happens at longer horizons than agents want to transact. In other words, **maturity transformation is a built-in feature of a market economy.**” (Gary Gorton 2019)
4. **Narrow banking** or similar approaches do not guarantee the amount of credit to finance investment and economic growth. The solution proposed by *FinTech* enthusiasts of substituting banks by a sort of money market funds or even by investment funds, offering securities’ accounts with provision of liquidity services, does not work in situations of stressed liquidity
5. New technologies generate new risks and do not eliminate the old ones which provide the rationale for financial regulation in the first place. Asymmetries of information and default externalities do not disappear with the introduction of new ways of supplying financial services. **FinTech does not provide an excuse for less regulation.**
6. **Institutions that regularly collect funds from the public and guarantee redemption at par, like in deposit contracts, should be regulated like banks.**



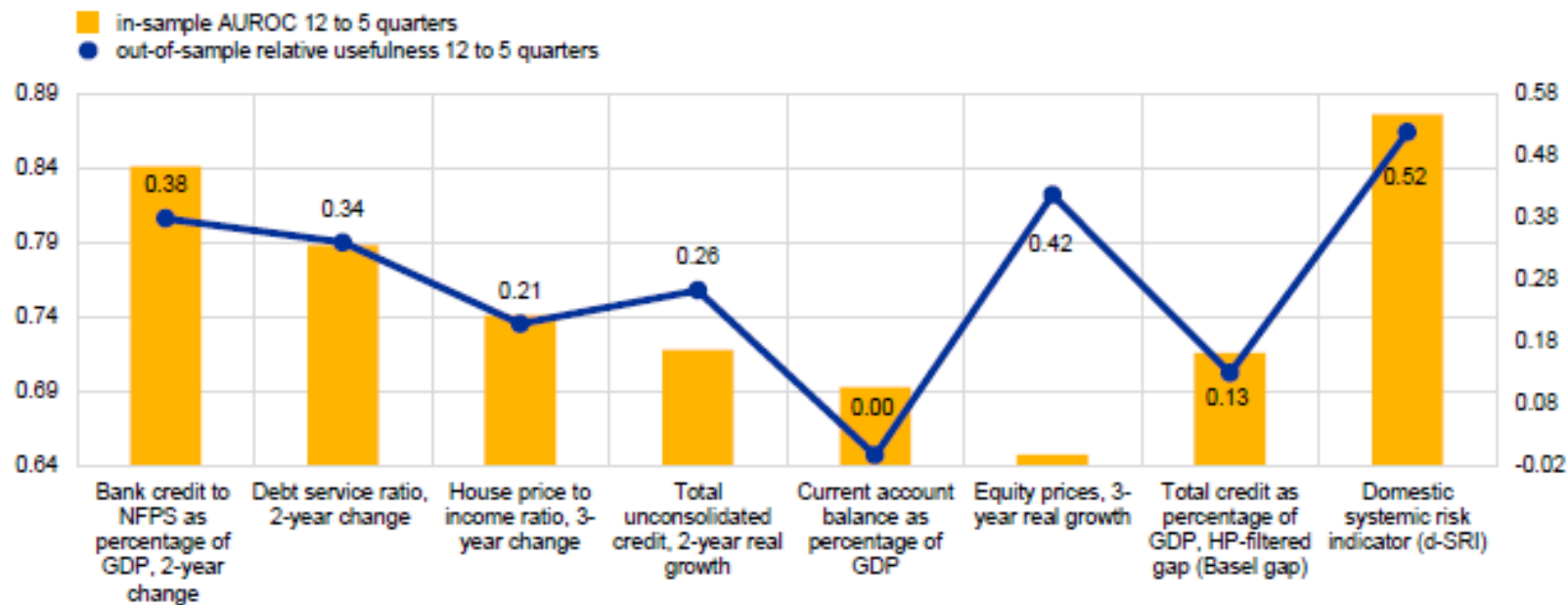
## **BACKGROUND SLIDES**

# The ECB's CSRI

Simple credit and asset price indicators have similar or even better early warning properties for domestic financial crises in euro area countries than the total credit-to-GDP gap

In-sample and out-of-sample early warning properties of the best univariate indicators and the Basel gap

(left-hand scale: in-sample AUROC; right-hand scale: out-of-sample relative usefulness)



Source: ECB calculations based on the ECB/ESRB EU crises database.

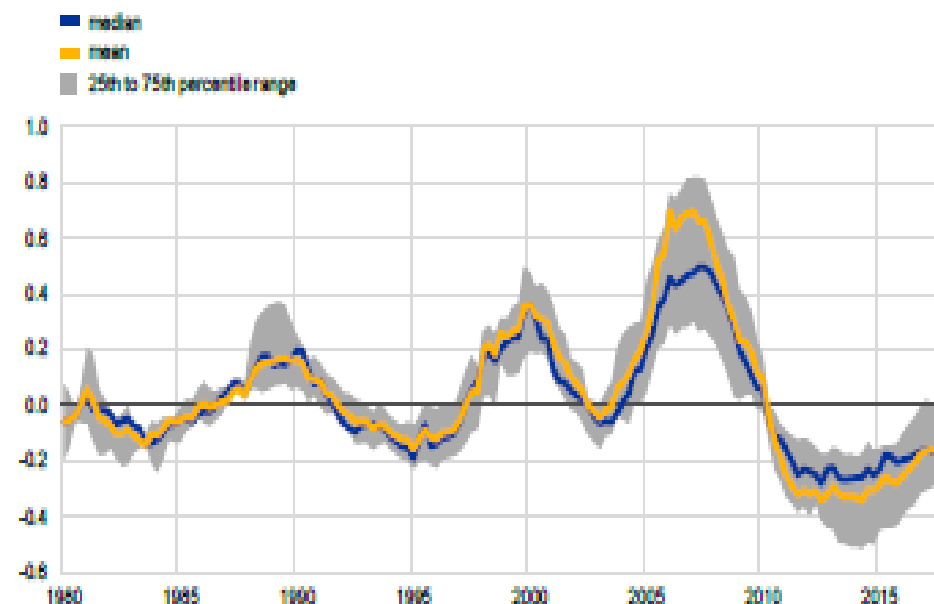
The domestic d-SRI achieves an AUROC of 0.88 for a prediction horizon of 5 to 12 quarters while the total credit-to-GDP gap reaches an AUROC of 0.67

# The CSRI performance

The CSRI displays long cycles with three peaks since the early 1980s across euro area countries

Cross-country mean, median and Interquartile range of the CSRI over time

(x-axis: time; y-axis: CSRI)



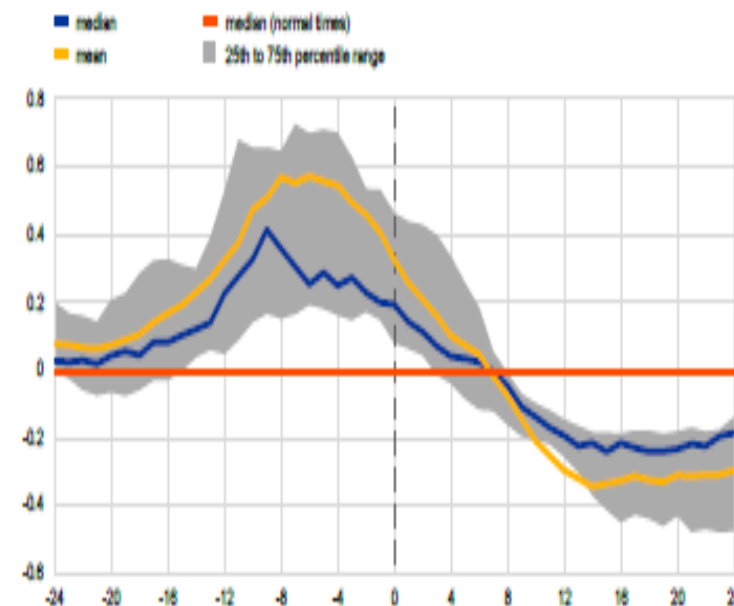
Source: ECB calculations based on various data sources.

Notes: The grey shaded area indicates the interquartile range of the CSRI across euro area countries. The CSRI is constructed as a weighted average of the d-SRI and the e-SRI.

The CSRI starts to increase on average around five years before a financial crisis

Cross-country distribution of CSRI values around past systemic financial crises

(x-axis: quarters before/after the start of systemic financial crises; y-axis: CSRI)



Source: ECB calculations based on various data sources.

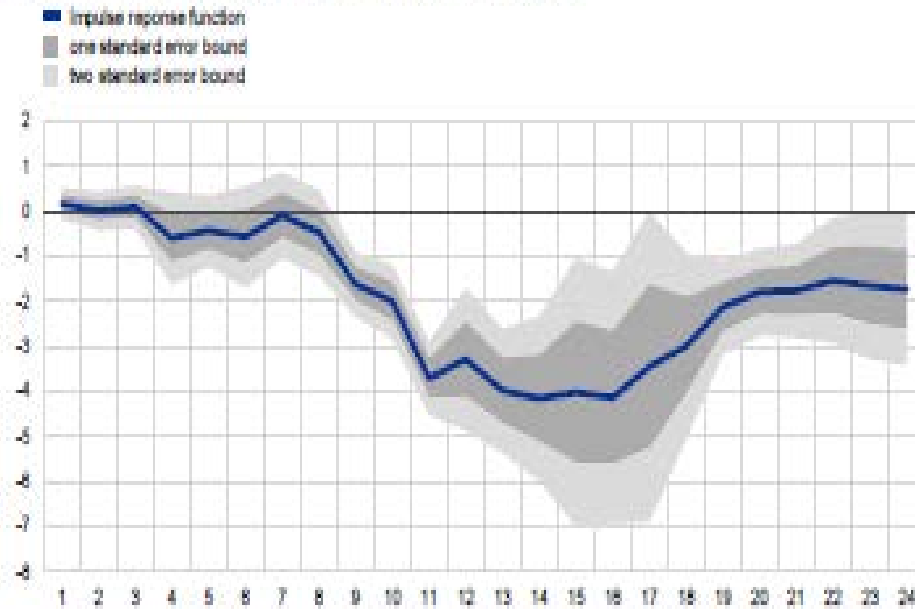
Notes: The grey shaded area indicates the interquartile range of the CSRI across euro area countries during the 24 quarters before and after systemic financial crises. The orange line indicates the median of the CSRI across euro area countries in 'normal times' within +/- 8 years of the start of a systemic financial crisis. The dating of systemic financial crises in the chart is based on the ECB/ESRB EU crises database described in Lo Duca et al. (2017).

The domestic d-SRI achieves an AUROC of 0.88 for a prediction horizon of 5 to 12 quarters while the total credit-to-GDP gap reaches an AUROC of 0.67

# The CSRI

## Local projection impulse response of future real GDP growth to current values of the CSRI

(x-axis: forecast horizon in quarters; y-axis: one-year-ahead real GDP growth rate)

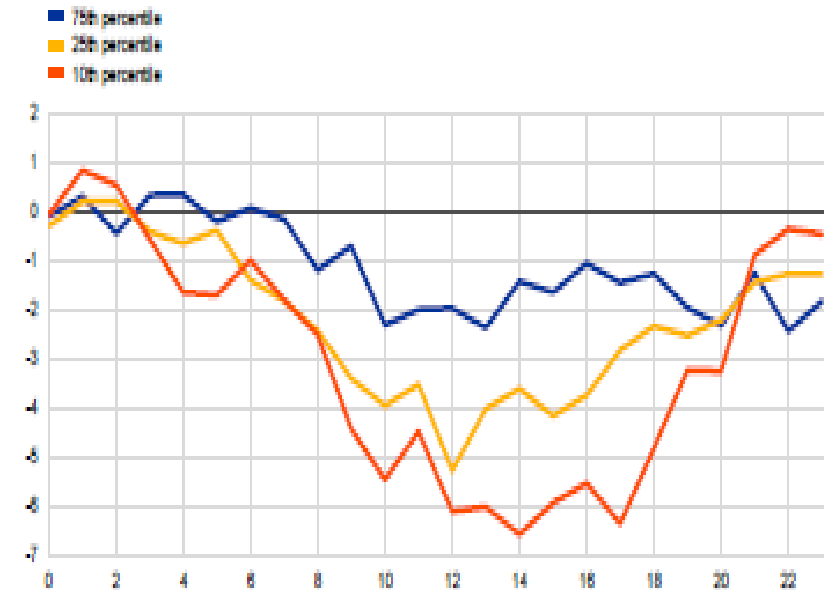


Source: ECB calculations based on various data sources.

Notes: The chart displays the impulse response function (IRF) of one-year-ahead real GDP growth to a one standard deviation shock in the CSRI. The IRF is obtained from local projections as proposed by Jordà (2005), controlling for ten lags of one-year-ahead GDP growth rates, ten lags of the CSRI, and country fixed effects. Yellow areas indicate the one and two standard error bounds.

## Quantile regression impulse response of real to current values of the CSRI. Predictive power specially for the lower quantile

(x-axis: forecast horizon in quarters; y-axis: one-year-ahead real GDP growth rate quantile)



Source: ECB calculations based on various data sources.

Notes: The IRF is obtained via local projections based on quantile regressions with ten lags of one-year-ahead GDP growth rates and ten lags of the CSRI.