



Ten years after Lehman, is the financial system safer?*

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Reforms and regulatory changes have been implemented to strengthen the financial system and make it safer. This speech proposes an appraisal of the progress made and discuss the way forward that can also deal with new challenging risks. The conclusion is that we should not just assume that the significant strengthening of the financial system over the past decade is enough. It is vital that we remain vigilant, to face up to the risks threatening to undermine our financial stability. This means rigorous supervision, and the adoption of a multilateral and coordinated approach in order to implement and complete the reforms to our financial regulation. Safeguarding financial stability, to make the financial system more secure over the long term, is a global challenge and one that requires a global response.

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A little over ten years after the collapse of Lehman Brothers, and with the financial system facing new challenges, how successful have the reforms undertaken after the 2008 crisis been? Is the financial system now safer? In view of the magnitude of the work carried out by regulators and supervisors and the efforts of intermediaries to adapt to the resulting renewed regulatory and supervisory framework, at the international, European and national levels, the answer is undoubtedly yes. I would like to devote the first part of my presentation to developing the reasons why I believe this is the case. But I think we need to take a more in-depth look, which I propose to do in the second part of my presentation by asking the following question: is the financial system now safe enough? In view of the development of the sources of vulnerabilities in the financial system, it does not seem to me to be a given that the strengthening we have observed is sufficient and efforts therefore need to be pursued.

1. Ten years after Lehman Brothers, the financial system is now safer

The crisis that followed the Lehman collapse demonstrated the importance of a sound financial system that could withstand shocks without hampering the financing of the economy. The economies that, after a macroeconomic shock, suffer a financial shock because their banking sector is too fragile, experience more serious and protracted crises. This lesson led to a vast reform programme of financial system regulation and supervision in order to address the many shortcomings that led to the development of significant vulnerabilities.

1.1. Many of the shortcomings in the regulatory and supervisory framework have been reduced

A comprehensive reform was thus carried out, covering practically all the areas of the financial system, focusing on four main areas:

(a) Shoring up the resilience of financial institutions

For banks, under the impetus of the G20 and the Financial Stability Board (FSB), the Basel Committee has established new prudential rules, "Basel III", whose main features aim to enhance the level and quality of capital, limit the use of financial leverage and introduce new liquidity requirements. These rules must ensure that banks are able to cope with

short-term pressures on their refinancing and regulate their transformation activity. Lastly, the framework introduces for the first time a "macroprudential" component, consisting of a countercyclical capital buffer and a surcharge for global systemically important banks (additional capital and leverage ratio).

Most G20 jurisdictions have adopted this framework. In Europe, the Capital Requirements Regulation and the Capital Requirements Directive (CRR and CRD) transpose the Basel III agreement. When transposing this agreement, Europe also added additional components: a systemic risk buffer, "Pillar 2 capital measures" to cover risks not covered or not sufficiently covered by regulations (interest rate risk, governance risk, etc.), requirements on remuneration policies and practices, etc.

For the insurance sector, a harmonised prudential framework has been applied in Europe since 2016: Solvency II introduced the principle of risk-based regulation, and quantitative capital requirements have been significantly increased.

Beyond the regulatory framework alone the institutional framework has been strengthened in many countries. Macroprudential authorities have been set up (as in France, as of 2010) to ensure the stability of the financial system as a whole and to facilitate coordination between the various supervisors. In Europe, the creation of the three supervisory authorities (2011) has enabled progress to be made in the adoption of a Single Rulebook. Lastly, in the euro area, the introduction of the Single Supervisory Mechanism (SSM) in 2014 has allowed us to bring our prudential supervision of the banking sector in line with best practices.

(b) Put an end to "too big to fail", i.e. ensure that, in the future, a failing bank, even a large one, will no longer have to be bailed out by public funds. Since 2009, these institutions qualified as Systemically Important Financial Institutions (SIFIs) have been defined as those whose "disorderly failure, due to their size, complexity and systemic interconnection, would cause significant disruption to the financial system as a whole and to economic activity". Banks designated as systemic at the global level by the FSB, and in France at the national level by the ACPR, are subject to enhanced supervision measures. In addition to the capital surcharges already mentioned, systemic banks must comply with specific requirements for the preparation of recovery plans to deal with crises. A resolution strategy could be

implemented if recovery measures prove insufficient. This plan could include the use of bail-in mechanisms.

(c) Making OTC derivatives markets safer: the 2008 financial crisis demonstrated the strength of market infrastructures. In particular, central counterparties (CCPs) have held up well. These entities play a very specific operational role in ensuring the successful settlement of securities transactions or the execution of derivative contracts by acting as an intermediary between counterparties. As a result, they are key players in the financial system. The very cautious risk management applied by CCPs and the existence of mechanisms to handle the defaults of their participants limit contagion phenomena. The resilience of CCPs has led international regulators to: (i) confirm their central role in controlling risks in the financial system, with multilateral clearing by CCPs being considered safer than bilateral clearing between participants. This has resulted in an extension of the clearing obligation to all standardised OTC derivatives; (ii) improve their resilience by further strengthening their risk management framework, as the concentration of clearing among a small number of entities requires a particularly robust framework.

The principles applicable to financial market infrastructures have also been strengthened, with the publication in 2012 of the Principles for Financial Market Infrastructure (PFMI). This is still the reference text for market infrastructure regulation today. In Europe, these PFMI were translated into hard law through the European market infrastructure regulation (EMIR), which was adopted in 2014 and is applicable to CCPs and central trade repositories.

(d) Better regulate the non-bank financial system to enable sound market financing: the aim is to strengthen supervision of shadow banking as the financial crisis showed that the accumulation of risks on the periphery of the banking system, sometimes without effective oversight, could have devastating effects.

We now have a better understanding of the non-bank financial system, thanks to the FSB's mapping work, which makes it possible to measure its developments and the risks associated with it. The FSB has also worked to strengthen investment fund regulations to better manage liquidity risk – recent episodes of massive capital outflows by UK and French funds have demonstrated the importance of managing this

risk well – and leverage risk. With regard to money market funds, European regulations have made it possible to strengthen their resilience to the risk of a sudden and massive investor retrenchment, and increased liquidity and transparency requirements have been in place since January 2018. Securitisation, which in 2008 may have appeared to be a factor for crisis propagation (via subprime lending), has been subject to new prudential rules, making it possible to better mitigate its risks while promoting the sound development of this instrument. The new European framework creates a label to identify high quality securitisation transactions, which meet the criteria for simplicity, transparency and standardisation (STS label).

1.2. The implementation of these regulatory changes combined with financial intermediaries' efforts to adapt, have generated tangible signs of increased financial system resilience.

For the financial system, I would like to give three examples:

(a) Significant improvement in the solvency and liquidity of banks

The own funds of major French banks have almost tripled since the crisis. Their Common Equity Tier 1 (CET1) ratios increased from 5.8% to 13.6% between 2008 and 2018. European banks have improved their short-term liquidity ratios, catching up with or even outstripping their international peers as from 2015. The long-term liquidity ratio for European banks is changing more slowly but, at the end of 2018, stood at around 110%, a level higher than that required under Basel rules.

As regards insurance, the introduction of Solvency II has also resulted in an overall increase in the own funds of European insurers.

(b) Balance sheet consolidation and a reduction in NPLs

Continuing high levels of non-performing loans in some euro area countries pose a number of problems, since they constrain banks' profitability and generate provisioning needs that weigh on the level of own funds, and even a viability risk for the most fragile banks.

But since the introduction of the SSM, large European banks have overall significantly reduced their

outstanding NPLs. This outstanding amount reached EUR 587 billion in March 2019, compared with over EUR 1,000 billion at the end of 2014. French banks, for their part, have always outperformed their European peers: their NPL ratio has always been below the European average, now standing at 2.8% (against 3.1% for the EU). Furthermore, French banks consistently displayed an NPL coverage ratio of more than 50% over the December 2009-June 2019 period, well above the 45% average for European banks.

(c) Results of the recent stress tests

Prudential stress tests are simulation exercises designed to assess the impact of a given economic and financial scenario on an institution's prudential situation, in order to test its financial soundness. During the crisis, they were first used as a crisis management tool to identify the most vulnerable banks for which recapitalisation measures were needed. Their role then evolved into an essential and flexible tool for the supervision, oversight and management of risks and vulnerabilities of banks considered individually (microprudential supervision) as well as for financial stability purposes (macroprudential supervision).

Stress tests have thus contributed to an increased resilience of the financial system: (i) Stress tests shore up banks' capital positions by serving as a basis for calculating additional capital requirements ("Pillar 2 Guidance" or P2G); (ii) the publication of individual stress test results, which is accompanied by the disclosure of individual bank data, ensures transparency and enhances market discipline; (iii) regular stress test exercises under the aegis of the supervisory authority encourage banks to develop their internal risk management processes and information tools.

The comparison over time of the aggregate results of the stress tests conducted by the EBA and the ECB testifies to the increased soundness of European banks. In the event of an adverse scenario, the 2018 stress test showed that the banks' solvency ratio would be 9.9%, i.e. 100 basis points higher than the level obtained by the stress test conducted in 2016.

However, we must be careful not to become complacent: risks are increasing and, while some recent events have confirmed the relevance of the instruments deployed (see in particular the H2O incident), the fact that they ultimately proved benign does not mean that in a stressed market environment

the outcome would not be less favourable. It is therefore vital to continue to shore up the resilience of the financial system.

2. We should not take it for granted that the financial system has been sufficiently reinforced

2.1. Vulnerabilities are evolving and increasing

Global macroeconomic risks have increased markedly. World growth is slowing and is overshadowed by major uncertainties. According to the latest forecasts, world GDP should expand by 3.0% in 2019, down from 3.8% growth last year (IMF), largely as a result of the slowdown in emerging countries, especially China, and to a lesser extent in certain advanced economies. In the euro area, our forecasts are for 1.1% growth in 2019, down from 1.9% in 2018. The main uncertainties weighing on growth are the risks of an escalation in protectionist measures and of a no-deal Brexit which could lead to a tightening of financial conditions in Europe.

The rising tendency in macroeconomic risk is helping to maintain and reinforce accommodative monetary policies, as well as the "low-for-long" direction of and expectations for interest rates.

This low interest rate environment is fuelling **an increase in household and corporate debt, in both advanced and emerging economies**. In France, private sector debt reached 132.3% of GDP at end-2018 (+45 percentage points since 2000). Household debt has risen by 8 percentage points of GDP since the end of the crisis (59.8% of GDP).

In Europe, bank profitability is coming under increasing pressure from **a number of risks**:

- The first of these is the maintenance of a low interest rate environment for a long time. This is not just the fault of the central banks: an accommodative monetary policy is justified in light of the euro area's economic situation; but beyond this, low long rates also reflect a structural weakness in growth. What is more, monetary policy and low rates also have positive effects for banks, such as a reduction in their cost of risk and increase in their lending volumes. However, the fact remains that the current environment is compressing net interest margins for retail banks, which

finance themselves with deposits – and not at variable rates in the markets – and is lowering returns on insurers’ investments.

- The second risk, which is more structural, is the digital transformation of finance, which is revolutionising modes of use and bringing significant benefits to customers. However, adapting to this change requires huge investment by banks, to adjust their information systems and develop new, personalised service offerings. The digital transformation is also putting downward pressure on revenues due to increased competition from new market entrants (neobanks, GAFA, etc.). In response to this, financial institutions need to unleash new productivity gains, by exploring even further the possibilities of automation and artificial intelligence (AI), and adapting their branch networks on all levels (size, density).
- The digital transition is also leading to a rising threat of cyber risk and, more broadly, operational risks (large-scale theft, data corruption), to which financial institutions are more than ever exposed.
- Last, financial intermediaries also have to adapt to a new imperative – the need to take account of the risks linked to climate change, which I shall come back to later.

2.2. To consolidate the resilience of the financial system, we therefore need to complete the programme of reforms and adapt it to the new risks

2.2.1. “Finish the job”: complete the programme of reforms and ensure its coordinated implementation at the global level.

(a) Finish the implementation of Basel III. On 7 December 2017, the Basel Committee adopted an important accord finalising the Basel III framework. The text completes the overhaul of the international prudential framework begun in 2009, by notably allowing financial institutions to continue using internal models, subject to strict conditions. This accord will gradually be rolled out as of 2022 with full implementation scheduled for 2027.

In the EU, the transposition of the Basel accords will result in a modification of the Capital Requirements

Regulation and Directive (CRR3/CDR6). The Commission has already begun this legal work by asking the EBA to analyse the impact of the reforms on the European banking industry and economy.

The Banque de France and ACPR support the principle of a full and faithful application of the Basel accords within the EU. This implementation has to be reciprocal and must be harmonised at the international level. This is a prerequisite for ensuring the stability of the global banking system, and for guaranteeing a level playing field among banks. The implementation will also need to take account of the specificities of the European economic and financial environment.

(b) Finalise the adoption of a European resolution framework for CCPs and insurers

The resolution of **CCPs** is the last major topic on the FSB’s work programme. By reinforcing the central role of CCPs in the markets, the new framework risks creating entities that are “too big to fail”: it is important therefore that we have tools to handle CCP crises efficiently, without resorting to a state bail-out that would ultimately leave taxpayers bearing the cost of default. As a result, after having set out strong expectations in 2017, the FSB is currently refining an international CCP resolution framework, which will be enshrined in a new European regulation.

In **insurance**, France is one of the first EU Member States to have put in place a recovery and resolution regime for insurers with the Sapin 2 Law of 9 December 2016. The Order of 27 November 2017 also gave the ACPR’s Resolution College the power to start resolution proceedings for failing insurers and take steps to maintain their critical functions or safeguard financial stability. The framework comprises a preventive arm, under which the largest insurers are obliged to draw up preventive recovery plans. At the European level, there is currently no shared approach to the resolution of insurers. However, there is clearly a need for such a framework to facilitate the resolution of insurers, in particular cross-border groups, and help strengthen the European insurance market for the benefit of policyholders.

(c) Finally, and most of all in my view, it is also “**time for macroprudential policy**”. The numerous instruments developed since the crisis should now be put to work in preserving financial stability. This is what is being done in France, for example, with the gradual activation of countercyclical capital buffers

or measures limiting the exposures of the main banks to large, highly indebted corporations.

2.2.2. Adapt the framework to new risks

In addition to applying the regulatory standards, the supervisor is also, of course, paying close attention to how business models evolve, in order to identify emerging risks, monitor them and devise possible solutions.

Several new areas of risk are coming under particular scrutiny:

- With regard to **cyber risk**, the planned solutions, especially to increase cyber resilience, need to be harmonised and coordinated at the international level to maintain a clear and coherent regulatory framework for all financial sector participants. The Banque de France made the rationalisation and harmonisation of current regulatory efforts a key theme of its G7 presidency this year. As part of this, 23 global authorities (finance ministries, central banks, bank supervisors and markets) took part in a cyber resilience exercise in June 2019, with the aim of strengthening their operational resilience to a major cyber incident impacting the global financial system. The exercise, which was by nature highly complex and the first of its kind in the world, marked a huge step forward in terms of global cooperation. Thanks to its success, G7 countries agreed to draw up a programme of exercises for the coming years.
- **The FinTechs and BigTechs** (especially the big US and Asian companies that are driving the digitalisation of the economy) offer new opportunities (new cyber security solutions, reduction in the cost of internal management for client entities, increase in financial inclusion, etc.), but are equally a source of additional vulnerabilities, notably in terms of cyber risk, the weakening of financial ecosystems and the development of questionable practices in the use of data. The Banque de France is working actively on these issues within international and European fora, to promote the sharing of experiences and harmonisation of rules and practices, and encourage efforts to make financial sector agents more resilient.
- We also need to continue **assessing the reforms** already put in place, to check that they deliver the expected effects and to identify any unintended consequences. The FSB's assessment shows that although certain measures have largely been implemented – requirements for systemically important institutions, clearing – other aspects still have to be finalised, notably with regard to the monitoring of non-banking financial institutions. Only when these reforms are fully implemented will the financial system be effectively protected.
- The **European integration projects** are also essential for increasing the EU's macroeconomic resilience. First we need to finalise **Banking Union** on an institutional level. **One positive contribution would be to work** towards a European deposit guarantee scheme. This could be based, at least initially, on covering liquidity requirements, with no permanent transfers between Member States. We also need to ensure the harmonised application of banking regulations in all Banking Union countries, and avoid the risk of fragmentation, which would reduce the expected benefits of a union. It is also vital to strengthen the integration of European financial markets. The action plan for the Capital Markets Union, launched by the Commission in 2015, has allowed a few advances to be made, with the creation of European cross-border funds and a pan-European retirement savings product. We must go even further on this, and create a genuine **Financing Union for Investment and Innovation**, that would better channel Europe's savings surplus (3% of GDP) towards productive investment, by shoring up companies' capital and increasing their ability to develop and innovate. For this, we need to (i) facilitate cross-border investment by harmonising accounting, tax and bankruptcy rules; (ii) develop incentives for equity financing; (iii) develop European securities and savings products (venture capital funds, green bonds, securitised portfolios, etc.) aimed at providing long-term, diversified financing to Member States.
- Finally, with its strong international commitment on climate issues, Europe must play its full role in initiatives to tackle the **risks linked to climate change**. The Banque de

France was one of the founders of the NGFS or Network for the Greening of the Financial System, and provides secretariat services for the platform which now has 42 members and 8 observers, representing 5 continents. The NGFS aims to share best practices and make recommendations to central banks and supervisors on how to better integrate climate-related risks into their financial stability monitoring and microprudential supervision. Within the framework of the NGFS, the ACPR and Banque de France have begun looking at ways to conduct climate-related stress-tests. In parallel, and in line with the energy transition law, the ACPR has published two reports on the climate risks facing the French banking and insurance industries, and has set up a Climate and Sustainable Finance Commission tasked

with monitoring financial institutions' commitments and publishing its findings in an annual report prepared jointly with the AMF.

My conclusion, therefore, is that we should not just assume that the significant strengthening of the financial system over the past decade is enough.

Now more than ever, it is vital that we remain vigilant, to face up to the risks threatening to undermine our financial stability. This means rigorous supervision, and the adoption of a multilateral and coordinated approach in order to implement and complete the reforms to our financial regulation. Safeguarding financial stability, to make the financial system more secure over the long term, is a global challenge and one that requires a global response.

About the author

Denis Beau has been Deputy Governor of the Banque de France since 1 August 2017. He has also been appointed by the Governor to represent him as Chairman of the Autorité de contrôle prudentiel et de résolution (French Prudential Supervision and Resolution Authority – ACPR). He is a member of the college of the Autorité des marchés financiers (French Financial Markets Authority – AMF), of the Supervisory Board of the Caisse des Dépôts, and of the Supervisory Board for the European Central Bank's Single Supervisory Mechanism. Denis Beau has also been appointed Chair of the Committee on Controlling (COMCO) of the ECB since 9 January 2018 and Chair of the Analytical Group on Vulnerabilities (AGV) of the Financial Stability Board (FSB) since March 2019. Born in 1962, he joined Banque de France in 1986 after graduating from l'Institut d'Etudes Politiques de Paris. He subsequently received a Master degree in Business Administration from INSEAD. His career path at the Banque de France led him to hold management positions in the Financial Markets, Payments and Market Infrastructures and Economics and International Relations departments. He was seconded to the New York Fed (1997-1998) and served at the Bank for International Settlements as secretary of the G10 Committee on Payment and Settlement Systems (2007-2008). He was then appointed Director General of Financial Stability and Operations and a member of the Executive Committee of Banque de France. In this capacity he was a member of European and international committees dealing with monetary policy and financial stability issues and prudential regulation of banks (Euro Retail Payments Board, Committee on the Global Financial System, Basel Committee on Banking Supervision – co-chair of the Macroprudential Supervision Committee).

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