Innovation Hub | BIS

The financial system after Covid-19

Keynote speech by Benoît Cœuré
Head of the Innovation Hub, Bank for International Settlements

European Stability Mechanism fourth research seminar of the Regional Financing Arrangements

17 December 2020

Introduction

Distinguished guests, ladies, and gentlemen,[1]

Thank you for inviting me. It is a pleasure to join you virtually today at the fourth research seminar of the Regional Financing Arrangements. And, as a topic, the financial sector landscape post-Covid-19 could not be more timely.

The year 2020 will go down in history as one of the last century's most serious health crises and global economic contractions.

The swift response of governments, central banks, and supervisors to mitigate the immediate impact on the real economy has stabilised what could have been catastrophic for global markets.[2]

With mass vaccinations in sight, the policy focus is now shifting from liquidity provision and stabilisation to addressing the long-term scars of the crisis: enabling capital and labour reallocation across industries, and avoiding permanent output losses.[3] For such reallocation to happen, and to address longer-term sustainability challenges, we need a financial system which is fit for purpose. Could Covid-19 give us the chance to strengthen it?

In my remarks today, I will argue that we first need to draw the lessons of the crisis, and I will focus on two dimensions.

First, there are the known challenges. The reforms after the Great Financial Crisis (GFC) had the effect of pushing risks outside the banking system, as non-bank financial intermediaries (NBFIs) started to fill in the gaps. We knew it before Covid-19 and the crisis has confirmed it.[4] What does this tell us about the resilience of this new system?

Second, there are the unknown challenges. The crisis has speeded the digitalisation of our economies, accelerating shifts in how companies and individuals work, save and spend. How can technology support the digitalisation of the financial sector post-Covid-19, and can it help regulators make the sector safe and sustainable?

---

[1] As prepared for delivery. All views expressed are mine and not necessarily those of the Bank for International Settlements (BIS).

[2] See BIS, *Annual Economic Report*, June 2020, and the BIS Bulletins, www.bis.org/bisbulletins/index.htm.

[3] See D Rees, "What comes next? Recovery from an uneven recession", *BIS Bulletin*, no 33, December 2020, www.bis.org/publ/bisbull33.htm.

[4] See Financial Stability Board, *Global Monitoring Report on Non-Bank Financial Intermediation 2019*, January 2020, www.fsb.org/2020/01/global-monitoring-report-on-non-bank-financial-intermediation-2019/.

The lessons of Covid-19 for financial sector resilience

Spurred by regulators, banks have built capital and liquidity buffers, improved risk management practices and internalised the social cost of risk-taking. Thanks to these efforts, they were better prepared to cope with a shock in 2020 than they were in 2008.

The jury is still out as to whether all this will suffice to prevent the initial liquidity crisis from morphing into a solvency one. While the scale is unclear at this stage, economic growth and forward-looking indicators of default risk already suggest that bankruptcies will rise significantly by the end of 2021.[5] On the other hand, credit spreads are fairly tight, raising concerns about a possible disconnect with fundamentals.[6]

Looking ahead, it will be essential that banks make use of the available capital buffers to absorb losses without excessive deleveraging. As Carolyn Rogers, the Secretary-General of the Basel Committee on Banking Supervision, recently emphasised, it is too early for banks to take a victory lap over their response to Covid-19. Holding back on their discretionary distributions of capital makes sense.[7]

Even though the banking sector was not at the epicentre, the turmoil highlighted structural vulnerabilities in the NBFIs sector and the market structures supporting them. These vulnerabilities have become more important post-GFC, as the footprint of NBFIs has grown – accounting for almost 50% of total financial intermediation globally[8] – and as banks have retreated from certain activities, such as market-making, to preserve balance sheet capacity.

The first weeks of the Covid-19 crisis revealed that the matching and price discovery mechanisms were impaired in large swathes of the capital markets.[9] As conditions worsened, demand soared for cash and near-cash, or short-dated assets. In such circumstances, market liquidity can be as crucial to financial stability as bank solvency or bank liquidity.[10] As events unfolded, central banks had to intervene to ensure financial stability.

---

5 See R Banerjee, G Cornelli and E Zakrajšek, "The outlook for business bankruptcies", *BIS Bulletin*, no 30, October 2020, www.bis.org/publ/bisbull30.pdf.

6 A divergence in the assessments of corporate vulnerabilities may be emerging. Credit spreads in advanced economies saw some volatility but ultimately compressed further, approaching pre-pandemic lows. On the other hand, banks have tightened lending standards. Investors' search for yield and the specifics of policy support appeared to underpin these contrasting developments. See BIS, "Search for yield sustains buoyant markets", *BIS Quarterly Review*, December, www.bis.org/publ/qtrpdf/r_qt2012.htm.

7 See Basel Committee on Banking Supervision, "Governors and Heads of Supervision commit to ongoing coordinated approach to mitigate Covid-19 risks to the global banking system and endorse future direction of Basel Committee work", press release, 30 November 2020, www.bis.org/press/p201130.htm, *Financial Times*, "Bank regulator calls for dividends to remain on hold", 17 November 2020, and L Gambacorta, T Oliviero and H Shin, "Low price-to-book ratios and bank dividend payout policies", *BIS Working Papers*, no 907, 2020, www.bis.org/publ/work907.pdf.

8 See R Quarles, "The Financial Stability Board's Roadmap for Addressing NBFI Vulnerabilities", remarks at the Securities Industry and Financial Markets Association Annual Meeting (via webcast), 20 October 2020, www.fsb.org/wp-content/uploads/S201020-1.pdf.

9 For definitions of financial market functioning, see Markets Committee, *Large central bank balance sheets and market functioning*, October 2019, www.bis.org/publ/mktc11.htm.

10 See J Cunliffe, "The impact of leveraged investors on market liquidity and financial stability", Speech given at the Managed Funds Association Global Summit, 12 November 2020, www.bankofengland.co.uk/speech/2020/jon-cunliffe-managed-funds-association-global-summit.

The mechanisms underlying the NBFI sector that lead to instability are well known. At their core is the interaction between liquidity mismatches and leverage with risk management practices, influenced in part by regulation.

Liquidity mismatches are quite common among NBFIs, in particular for prime money market and bond mutual funds. An inherent "first-mover advantage" creates incentives for investors in these vehicles to move money out before others do, akin to a bank run.

These mechanisms were at play in March 2020,[11] when prime funds hoarded liquidity rather than drawing down their buffers, in part for fear of reaching thresholds that would trigger the imposition of gates and fees. Similarly, discretionary sales of assets by bond funds exceeded the amounts needed to cover redemptions, thus adding to the funds' cash positions.[12] The collective reduction of investment maturities and outright sales led to a deterioration in overall funding liquidity conditions and was an important element in the "dash for cash".

As in previous episodes (eg the GFC and European sovereign debt crises), strains spilled over to offshore US dollar funding markets, affecting a vast amount of contracts around the globe. These spillovers again highlighted the close interaction of funding and market liquidity. They also underlined that currency mismatches and imperfect hedges (by banks and non-banks alike) can exacerbate market disruptions.

NBFI's use of leverage can also result in destabilising dynamics due to perverse feedback loops. This is in part because market prices not only reflect fundamentals, but may also trigger a response through the various constraints that NBFIs operate under. These effects were at play during March in the long-dated US treasury market.[13]

More generally, risk management strategies designed to preserve capital lead to individual retrenchment at times of high volatility and may amplify initial shocks. Such strategies are often incorporated into market practices. In March, concerns about counterparty credit risk were indeed allayed by such practices and served to limit the erosion of confidence. But by triggering a need to come up with cash to meet margin calls at short notice, they generated liquidity pressures elsewhere in the system.

Moreover, a dealer-centric market structure in certain crucial segments slowed the market's recovery, by making it harder for opportunistic suppliers of liquidity to step in.

Effective regulation was key to ensuring that banks could take on the role of "elastic nodes", supplying deposits through committed credit lines to clients, including to NBFIs, thus being part of the solution rather than acting as amplifiers.

But banks are as subject to private incentives as any other market player. As a result, they may not channel sufficient liquidity fast enough to the NBFIs most in need. And, as is common in such episodes,

---

[11] See E Eren, A Schrimpf and V Sushko, "US dollar funding markets during the Covid-19 crisis – the money market fund turmoil", *BIS Bulletin*, no 14, May 2020, www.bis.org/publ/bisbull14.pdf.

[12] See S Morris, I Shim and H S Shin, "Redemption risk and cash hoarding by asset managers", *Journal of Monetary Economics*, vol 89, 2017, pp 71–87, for a conceptual analysis of the mechanism.

[13] See A Schrimpf, H Shin and V Sushkov, "Leverage and margin spirals in fixed income markets during the Covid-19 crisis", *BIS Bulletin*, no 2, April 2020, www.bis.org/publ/bisbull02.pdf, A Hauser, "Seven moments in Spring: Covid-19, financial markets and the Bank of England's operations", speech at Bloomberg webinar, 4 June 2020, www.bankofengland.co.uk/speech/2020/andrew-hauser-speech-hosted-by-bloomberg-via-webinar, L Logan, "Treasury Market Liquidity and Early Lessons from the Pandemic Shock", remarks at the Brookings-Chicago Booth Task Force on Financial Stability (TFFS) meeting, panel on market liquidity (delivered via video conference), 23 October 2020, www.newyorkfed.org/newsevents/speeches/2020/log201023.

the central bank may have to provide claims with the highest security and degree of "moneyness", thereby satisfying the demand for liquidity by making its own balance sheet available.[14]

The unprecedented policy actions taken by central banks alleviated market stress. Announcement effects appear to have been particularly important in restoring confidence and shaping the expectations of market participants. However, some previous red lines were crossed with the substantial intervention of central banks,[15] entailing material financial risk-taking. This in turn can generate moral hazard, as private entities do not build enough self-insurance against liquidity risk, anticipating emergency interventions by the central bank.[16]

It took us a decade after the GFC to curb moral hazard in banks. We should not let too-big-to-fail come back through the window – that is, in NBFIs.

In an increasingly market-based financial system, within which NBFIs have taken over key intermediation functions, a pertinent question is whether the toolkit is (still) appropriate. Market-based finance is a clearly identified gap in the macroprudential framework. The main challenge in applying prudential-type regulation, and in calibrating it so that it applies in a proportionate way, lies in quantifying the systemic costs at times of stress.

Proposals to address this are starting to emerge, and they deserve further thought.[17] Let me suggest three areas of regulation that warrant further analysis:

1. Revisit the regulatory approach to money market funds (MMFs) and their role in the financial system, to ensure that central banks do not need to rescue them;
2. Make margin requirements higher in normal times, so that they rise less during stress episodes; and
3. Ensure that the core of the system remains robust and acts less procyclically: there may be further scope for addressing the interface between banks and NBFIs, so that banks can restrain NBFIs' risk-taking in good times.

The provision of liquidity services could be made more robust by strengthening key nodes and making intermediation less dependent on dealers' balance sheets.

Stress-testing approaches could also be revamped for individual funds or sectors. More ambitious system-wide stress tests using frameworks that account for interlinkages among players (eg banks, MMFs, bond and equity funds, hedge funds and other critical nodes such as central counterparties (CCPs) could also be explored). For this to happen, the transparency of the NBFI sector needs to be enhanced, as does that of its interconnections with banks and market infrastructures.

The March turmoil has clearly underlined the need to strengthen resilience in the NBFI sector – a topic the Financial Stability Board (FSB) has taken up in its 2021 work programme.

---

[14] Also an interesting example in this regard is the historical antecedent of modern central banking represented by the Bank of Amsterdam, see J Frost, H Shin and P Wierts, "An early stablecoin? The Bank of Amsterdam and the governance of money", *BIS Working Papers*, no 902, 2020, www.bis.org/publ/work902.pdf.

[15] See BIS, *Annual Economic Report*, Chapter II, "A monetary lifeline: central banks' crisis response", June 2020, www.bis.org/publ/arpdf/ar2020e2.htm.

[16] See Financial Stability Board, *Holistic Review of the March Market Turmoil*, 17 November 2020, www.fsb.org/2020/11/holistic-review-of-the-march-market-turmoil/.

[17] See I Schnabel, "COVID-19 and the liquidity crisis of non-banks: lessons for the future", speech at the Financial Stability Conference on 'Stress, Contagion, and Transmission' organised by the Federal Reserve Bank of Cleveland and the Office of Financial Research, 19 November 2020, www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201119_1~4a1ff0daf9.en.html.

Technology and the financial sector post-Covid-19

Let me now turn to the unknown challenges brought about by Covid-19.

The pandemic's immediate consequence has been a change in the way we work. We are experiencing, at first hand, global collaboration through technology and platforms. Covid-19 has also accelerated trends in digital innovation that were already well under way. Consumers in many countries have stepped up their use of contactless payments, and as physical stores temporarily closed, e-commerce activity surged.[18]

Yet, the pandemic has highlighted both progress and shortcomings in areas such as payments. There is certainly no silver bullet, but what is clear is that international collaboration is essential – to underpin technological capabilities, ensure interoperability between national systems, enhance cross-border payments and remittances, support financial inclusion, and prevent geographical and social fragmentation. This is the essence of the roadmap from the FSB and the Committee on Payments and Market Infrastructures (CPMI) for enhancing cross-border payments, as endorsed by G20 finance ministers and central bank governors in October and actively supported by the BIS.[19]

In the past few years, some big techs have entered credit markets, either directly or in partnership with financial institutions.[20] The expanded use of digital payments brought about by Covid-19 could fuel a rise in digital lending as companies accumulate consumer data and enhance credit analytics.[21] This in turn presents new and complex trade-offs between financial stability, competition and data protection.[22]

To identify these trade-offs, design sound regulatory answers and continue to fulfil their mission in a rapidly changing environment, central banks need to be at the cutting edge of technology.

It is for these reasons that the BIS has established its Innovation Hub to spearhead the central bank response to digital innovation. Reflecting the global nature of innovation and technology, the Innovation Hub has centres across Europe, the Americas and Asia. It builds on the efforts of central banks that have already made significant advances in key areas. The Hub catalyses collaborative efforts among central banks and cooperates, when appropriate, with academia, financial service providers and the broader private sector.

Our work programme is built around six key themes of critical importance to the central banking community: (i) suptech and regtech; (ii) next-generation financial market infrastructures (encompassing capital markets projects, foundational digital infrastructures, tokenisation of assets, cross border payments and payment infrastructures); (iii) central bank digital currencies; (iv) open finance (encompassing application programming interfaces in the open banking context and related data issues); (v) cyber security; and (vi) green finance.

Across these six themes, we are building a portfolio of projects – typically as proofs of concept to be delivered to central banks. In doing so, we will help them to ride the tiger of technology and, in their

---

[18] See R Auer, G Cornelli, and J Frost, "Covid-19, cash, and the future of payments", *BIS Bulletin*, no 3, April 2020, www.bis.org/publ/bisbull03.pdf.

[19] See Financial Stability Board, *Enhancing Cross-border Payments: Stage 3 roadmap*, 13 October 2020, www.fsb.org/2020/10/enhancing-cross-border-payments-stage-3-roadmap/.

[20] See G Cornelli, J Frost, L Gambacorta, R Rau, R Wardrop and T Ziegler, "Fintech and big tech credit: a new database", *BIS Working Papers*, no 887, 22 September 2020, www.bis.org/publ/work887.pdf.

[21] See U Eriksson von Almen, P Khera, S Ogawa and R Sahay, "Digital financial inclusion in the times of Covid-19", *IMF Blog*, 1 July 2020.

[22] See BIS, *Annual Economic Report*, Chapter III, "Big tech in finance: opportunities and risks", June 2019, www.bis.org/publ/arpdf/ar2019e3.htm.

role of catalysts, overseers, operators, and regulators in a changing technological environment, to make global financial markets safer.

Conclusion

Finding solutions to complex problems, such as the ones I have just described, is essential for the successful functioning of central banks, and also to strengthen the financial sector.

This imperative resonates strongly in Europe, given the twin objectives of creating a capital markets union and advancing the digital agenda. There is clearly a strategic complementarity between these two objectives, to improve the resilience and efficiency of the European economy. The Next-Generation EU instrument, finally approved last week, should further contribute to this digital push.

Multilateral collaboration and proactive initiatives will also be essential for building a financial architecture that is future-proof against a large range of shocks. Adaptation to new financial structures as well as to technology and innovation will be front and centre as we move forward into this new world.

I wish you a very fruitful seminar.