

## **Financial Stability Conference: New Challenges and Focuses\***

*Gábor Fukker – Gabriella Grosz – Evelyn Herbert – Márton Zsigó*

Organised by the Central Bank of Hungary (Magyar Nemzeti Bank, MNB) and the Official Monetary Financial Institutions Forum (OMFIF), the conference entitled ‘*Financial Stability Conference: New Challenges and Focuses*’ was held on 26–27 May 2022, with well-known international experts presenting their opinions on the short-term challenges and longer-term future of financial stability. In 7 main sections, partly in person and partly online, 29 speakers from 4 continents discussed current issues concerning financial stability and recent challenges affecting the financial system, such as the coronavirus crisis and the war between Russia and Ukraine, and they also reviewed questions regarding the future of the financial system, including the management of climate risks and digitalisation, which affects financial intermediation as a whole.

The conference was opened by *Barnabás Virág*, Deputy Governor of the MNB, and *David Marsh*, Chairman of OMFIF. In his opening remarks, Virág emphasised the importance of knowledge-sharing events like this one, which is made even more relevant by the recent shocks to the financial system and the further turbulences expected in the 2020s. Following the 2008 crisis, central banks and supervisory authorities have collected a lot of experience in a short time, and the Deputy Governor of the MNB viewed this conference as a great opportunity to share it, as this also allows us to be more prepared to face the challenges of the future. He noted that the changes brought into our lives by the 2020s, such as the coronavirus pandemic and the war between Russia and Ukraine, were previously inconceivable. In a situation like this, it is essential to ensure financial stability, and central banks play a prominent role in maintaining such stability. Central banks, market participants, FinTech and BigTech companies as well as governments must cooperate in strategic partnership for a sustainable future. Finally, he expressed his hope that this event would be the first step in a series of conferences where experts

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\* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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could regularly discuss current issues concerning financial stability, thus contributing to building a stable financial system, which is able to react to challenges.

In his opening remarks, Marsh pointed out that in light of the financial and geopolitical challenges facing the global economy we are all 'unconventional' today. In line with the broad theme of the conference, he emphasised that one of the most important tasks of central bank experts today is to recognise the constraints of their knowledge and to learn, in order to be able to perform their expanding responsibilities. Central banks deal with a much wider range of tasks than in the past, and thus their work has become better known for the public as well. In addition, a review of central bank operating models is taking place. Within that, the rethinking of expectations is continuous; cooperation with the private sector is also needed, along with learning from the mistakes of the past and recognising new avenues leading to the future. The Chairman of OMFIF closed his remarks by saying that the conference allows us to start the work to manage the above risks and learn from one another.

In his keynote speech, *Tobias Adrian* (IMF) presented an approach to the calibration of the countercyclical capital buffer (CCyB) in a stress testing framework, which – using up-to-date and parsimonious methods – would take into account the consequential effects of the losses of the banking sector on the real economy and further second-round interactions as well. Recognising the close correlation between real economy performance on the one hand and financial conditions and stress on the other, the speaker outlined a novel approach to financial cycles, which allows regulatory authorities to respond faster to financial turbulences and gain a better picture of the sometimes rapidly mounting risks to the financial system. The proposed method would allow the separation of potential bank losses caused by the direct real economic and financial stress from the losses caused by second-round interactions. Moreover, using such approach the regulator could make a choice according to its risk aversion preferences about the level of systemic crisis probability the calibration of the countercyclical capital buffer is based on.

### **The Russia–Ukraine war and elevated geopolitical risks**

In the first panel discussion of the conference, participants discussed the potential effects of the Russia–Ukraine war, focusing on the Central and Eastern European region. It was drawn as a conclusion that although financial stability is not currently in immediate jeopardy, geopolitical risks need to be paid attention to and be given greater importance in the long run in the midst of extraordinary crisis events, and financial stability tasks should also not lose their priority in the face of increasingly pressing economic policy problems.

The keynote speech on the topic was held by *Jon Danielsson* (London School of Economics, Systemic Risk Centre), who called attention to the fact that according to financial market indicators investors are not as pessimistic in the short run as they were at the beginning of the Covid-19 pandemic, although over the longer term of 10 years they already expect a major downturn in the market. In his opinion, in a narrow sense the war will not result in financial stability problems, because the financial system is resilient and stable, and it is not the war itself that represents a significant risk for the financial system, but the state in which it found the economy. According to his assessment, the recession caused by the coronavirus was in fact a V-shaped one, followed by a quick rebound, and thus the liquidity-expanding measures already had a procyclical effect in the ascending phase of the V-shape, resulting in an inflationary spiral. He emphasised as a longer-term effect that we may return to a period when real economy areas are preferred to financial stability, and highlighted that the political dimensions of crises also need to be considered when making financial stability decisions.

The panel discussion that followed the keynote speech was moderated by *Barnabás Virág* (MNB), with *Ajay Rawal* (Ernst & Young) and *Paweł Szalamacha* (Narodowy Bank Polski) joining Danielsson in the panel. According to the participants, regarding the macroeconomic effects of the war, the golden era of economic stability preceding the coronavirus is expected to end, although the direct impacts of the war seem to be limited for the time being. The main problem may be high inflation, which is difficult to manage in view of the already exhausted fiscal and monetary toolkit. In relation to the efficiency of monetary transmission in Poland, it is seen that the transmission of interest rate hikes worked well in the mortgage loan market, but on the deposit side the prime minister's verbal intervention was necessary to make banks slowly increase the rates. Although the Polish government adopted various measures that protect debtors from the rise in interest rates, according to the assessment of the Polish central bank they are not needed for the time being; mortgage loans perform well due to the strong labour market and growing wages.

Although bank share prices declined considerably in the past period, the participants believe that this does not reflect any loss of confidence in banks. Banks continue to have an overly high amount of deposits, and it is a problem for them to place the excess liquidity. Therefore, they increasingly attempt to direct customers' money into asset management products. The participants in the panel proved to be rather pessimistic regarding the further spread of crypto-assets and central bank digital currency. In their opinion, accelerated by the war as well and in view of the increasingly strict regulation (e.g. regulations against money laundering), crypto exchanges are losing their main attraction, i.e. functioning without central control, relying only on technology. In their opinion, the main argument for the introduction of central bank digital currency is to allow the central bank to control payment

systems, but the already well-functioning payment systems and data protection concerns make its use questionable. In connection with the war, the participants in the panel do not expect any major impact concerning the green transition.

### **Experiences from the coronavirus pandemic in relation to financial stability and macroprudential policy**

In the next section of the conference, the experts analysed the effect of the coronavirus on financial stability. In his keynote speech, *Javier Suarez* (CEMFI, ESRB ASC) emphasised that the crisis caused by the coronavirus provided the first opportunity to test the micro- and macroprudential framework set up after the 2008 crisis, and, on the whole, it passed the exam with a good result. The reaction of regulators and other decision-makers was quick and determined, and, overall, the measures can be considered successful, as order in the market was restored, the number of corporate bankruptcies was extremely low, and banks also remained stable. Nevertheless, these measures may have contributed to inflationary tensions, the increase in government debt and to the overvaluation of real estate markets as well, which may pose risks in the future. One of the points to be corrected in the prudential framework may be the regulation concerning non-bank institutions, and money market funds within that, as in this segment significant vulnerability and quick, negative market reaction was observed, which spread over to several markets. Consequently, this vulnerability needs to be treated at the level of the system in the future. Another area to be corrected is that of regulatory capital buffers, which were not high and releasable or usable to the extent hoped by experts. Accordingly, countercyclical macroprudential measures were substituted by supervisory, microprudential interventions, but in order to manage future crises it may be worth reconsidering the framework of capital buffers.

The speech was followed by a panel discussion moderated by Suarez, with *Elena Carletti* (Bocconi University, ESRB ASC), *Stijn Claessens* (BIS) and *Jan Frait* (Česká národní banka) as panellists. Carletti highlighted the positive effects of the state credit guarantees introduced during the coronavirus pandemic. The guarantees introduced were widely used, and played a major role in supporting the real economy, and indirectly the financial system as well, even if they were partly used for the refinancing of previous loans. Nevertheless, they may have also had a negative impact on banks' incentives; due to the guarantees, the financing of non-viable, zombie companies may have continued for longer than necessary. She emphasised that government debt increased during the crisis, and banks' government securities exposure was also up, and thus the nexus between states, banks and companies may pose a risk in the future. According to Claessens' assessment, in connection with the capital buffers, the system-wide limitations on dividend payment proved to be useful, and according to the expectations banks

with smaller management buffers were lending less. In his opinion, cyclicity is an inevitable feature of the system, but it is important that the regulation should be formulated in a way to reduce procyclicality as much as possible. Frait presented the Czech macroprudential measures taken during the coronavirus pandemic. The Czech central bank behaved in a countercyclical manner: it reduced both the base rate and the countercyclical capital buffer (CCyB) rate, which have been raised since then. In 2020, the release of the CCyB was justified by high market pressure. Next time, however, they would prefer to wait for the losses to be realised before the release. They also eased the borrower-based measures, before restoring their pre-crisis state not long ago. In addition, he also emphasised that it is important to take account of fiscal policy as well: sovereign risks may increase, and for the management of sovereign risk the Czech central bank carries out public finance stress tests.

### **Introduction of central bank digital currencies and its impact on financial intermediation, financial stability and the macroeconomy**

The panel section discussing the central bank digital currency (CBDC) highlighted the worldwide interest in the new type of digital currency on the part of central banks, which face new consumer demands and the challenge posed by crypto- and digital currencies.

In the keynote speech, *Kimmo Soramäki* (FNA) first spoke about the main issues concerning central bank digital currency. Experiments with the introduction of CBDC are already underway in a number of countries in the world. The various options of introduction intend to answer different problems: national CBDCs, inter alia, aim at reducing the user cost of money, increasing financial inclusion as well as strengthening financial sovereignty and security, while cross-border, ‘wholesale’ CBDCs intend to minimise the costs and difficulties of international transactions. According to the speaker, the introduction of domestic retail CBDC will be indispensable for central banks in the future, and the main issues will arise in terms of technology, design and applicability.

The panel discussion that followed the speech was moderated by *David Marsh* (OMFIF), joined by Soramäki as well as *Tanja Heßdröfer* (Giesecke+Devrient) and *Ruth Wandhöfer* (Payment System Regulator Panel). In the discussion, they mentioned that people would like the financial system to offer availability and resilience, and this is what the new financial system should achieve, including through the introduction of CBDC. They also compared the issues of security and the possibilities of fraud as well as crime prevention with respect to digital currencies and cash. Digital currencies carry various risks, the management of which is crucial for successful operation, although they offer a number of solutions to problems

related to cash. Anonymity and monitoring of transactions are easier to handle in the case of digital solutions. According to the uniform position of the participants in the panel discussion, central bank digital currency may primarily appear in a complementary role alongside cash.

### **System-wide stress tests and stress tests for non-banking sectors**

The keynote speech of the stress test section was held by *Christoffer Kok* (ECB), who reviewed the latest developments and macroprudential uses of bank stress tests, emphasising the importance of their extension to actors outside the banking system. Macroprudential stress tests intend to assess risks and vulnerabilities in the financial system at the systemic level. Their results may be used for determining capital shortages in a stress situation as well as for the calibration of macroprudential instruments.

Market players' further endogenous reactions may also induce second-round effects, which may exacerbate the stress situation. Therefore, in stress scenarios it is difficult to draw the line between the triggering exogenous shocks and the endogenous reactions. Deleveraging, capital increase, reduction of credit supply and selling securities at discounted prices may be reactions like that. All of these reactions are affected by solvency and liquidity regulations. In addition to the presence of all of the above, potential direct or indirect contagion between institutions is an important channel to consider. Losses caused by fire sales of illiquid securities portfolios and endogenous price-reducing mechanisms arise in close relationship with these contagion channels, which is an area being actively researched. In addition to banks, the role of other financial sectors, such as investment funds, insurance companies and central clearing houses have also become very important in the financial system. The stress testing of these sectors is also developing; the subsequent speeches provided insight into such research projects.

*Antoine Bouveret's* (ESMA) presentation examined how money market funds can comply with regulatory criteria in stress situations. Money market funds are important backers of banks, and thus they are significant entities at the systemic level as well. In the event that these funds face high redemptions, they may sell liquid or less liquid assets, but in both cases they may breach regulatory requirements (net asset value and weekly liquid assets). The authors optimise this asset sales strategy and examine the effects of various regulatory reforms. *Matthias Sydow* (ECB) spoke about the development and principles of system-wide stress testing, and then went on to present the findings of a two-sector model (comprising banks and investment funds) using a Covid-19 stress scenario. The model contains most of the channels of contagion listed above. According to the findings, a major portion of the losses that are significant at the system level are caused by fire sales.

Within that, the sales of investment funds may increase banks' losses by as much as one percentage point as a percentage of their risk exposure amount.

### **Quantifying the effects of climate risks on financial institutions and possible regulatory responses**

In the keynote speech of the section organised in the topic of stress tests specialising in the assessment of financial risks caused by climate change, *Irene Monasterolo* (EDHEC BS) concluded that, in spite of initial scepticism, the stress tests processing the risks of climate change have become popular among regulators, academics and market institutions as well, all over the world. One of the most important findings of Monasterolo and her fellow researchers is that well-planned, timely-implemented regulatory responses to the increasingly pressing problems of climate change can significantly reduce the potential losses of the EU's credit institution portfolios compared to late, shock-like climate policy and regulatory corrections. The speaker emphasised that climate change is a current problem; significant progress needs to be achieved in green technological transition in the next five years already, and thus the development of risk analysis methods is not only an issue for the distant future.

The possibilities and challenges of prudential regulatory responses to the financial risks of climate change were examined in a presentation by *Hugh Miller* (LSE), with a special focus on the identification of large exposures of financial institutions vis-à-vis vulnerable sectors, companies or financial assets. The presenter suggested that authorities should develop the reporting and disclosure obligations on the basis of 'soft' large exposure thresholds with a monitoring objective, expecting additional reporting from the credit institutions that finance exposures in the sectors and companies that are the most vulnerable due to green transition risks in a high concentration. *Remco van der Molen* (DNB) presented his and his colleagues latest findings exploring the risks of real estate exposures. According to their estimate, the value of some 40 per cent of the real estate exposures of Dutch financial institutions may be significantly affected by the impacts of climate change by 2030 already. About one half of Dutch households are unable to find the means to cover the renovation costs on their own in the case of unfavourable climate change scenarios, and many of them would be unable to have access to sufficient financing even through lending. At the same time, it is possible to significantly reduce the aforementioned risks by embarking on an organised, optimal green transition path in a timely manner.

*Paul Hiebert* (ECB), moderator of the roundtable discussion on the systemic risk and regulatory consequences of climate change, pointed out that without large-scale adaptation implemented in the short run it has to be accepted as a baseline scenario that the 1.5 degrees Celsius climate policy objectives set out in the Paris Agreement



will not be met, and that the global economy will face a combination of physical and transition risks. In his opening remarks, he outlined that the vulnerabilities caused by climate change, which is expected to become increasingly intensive, may amplify systemic financial risks and may thus pose serious tasks to macroprudential policy as well. *David Carlin* (UNEP FI) emphasised that the expansion of transparent and reliable information reaching market investors about the impact of the financed economic activities on the climate and about corporations' strategic and risk management attitude is crucial to enable market investors to make green, environmentally conscious decisions. In his contribution, he called attention to the present state in which even in the European Union too few entities are able to provide too little information to satisfy the needs of policy makers and investors seeking sustainable options. In his comments, *Gábor Gyura* (UNEP FI) noted that Hungarian banks are not yet adequately prepared for the assessment of these risks and that a substantial adjustment of their portfolios has not yet occurred. Moreover, lack of data is also a serious problem. Nevertheless, in order to launch and facilitate the green transition of credit institutions, the MNB has issued a recommendation in connection with the identification, measurement, management, control and public disclosure of environmental risks. In addition, it provides a housing, corporate and local government preferential capital requirement in proportion to the financing of sustainable, green loan purposes and economic activities. *Wang Xin* (PBoC) explained that, in the process of rapid industrialisation and urbanisation, China already counts for around one third of the global GHG emissions and thus the Chinese central bank also handles the potential consequences of climate change as important risks. Accordingly, various programmes aim at reducing these risks; the environmental sustainability of loans, bonds and other relevant exposures of banks has been assessed every quarter for years. The PBoC also started the climate stress testing of larger banks and is continuously developing its stress analysis methods and tools. The supervisory work is complemented by the planned development of banks' green disclosure requirements and monetary policy instruments that support the green transition.

### **Overly complex financial regulation and advanced data analysis methods**

In his keynote speech in the penultimate section of the conference, *David Aikman* (Qatar Centre for Global Banking and Finance) dealt with questions related to the increasing complexity of financial regulation, driven by two processes. Firstly, the idea that complex financial systems require complicated regulation and the fear that non-risk-based regulation may create bad incentives. Secondly, continuous adjustment of the framework in small steps as well as lobbying and the search for compromises may also have played a role in regulation becoming complicated. According to Aikman, this excessive complexity represents a clear problem, as



(1) it results in direct compliance costs on the side of market participants; (2) it hinders competition, because the understanding and application of the rules entail high fixed costs; (3) it is often less efficient; and (4) it makes the assessment of compliance difficult for the regulatory authorities.

Following the presentation, the topic was analysed by the other invited experts, *Andres Alonso* (Banco de España) and *Malcolm Kemp* (Nematrian), within the framework of a panel discussion moderated by Aikman. Alonso presented the risks that may be caused for regulatory and supervisory authorities by the fact that banks use increasingly advanced data analysis methods, such as artificial intelligence and machine learning, for credit risk analysis. These methods have numerous advantages for banks and are coupled with declining capital requirements as well as wider and deeper access to customers. At the same time, various risks arise, starting from the issue of data protection through the increase in model risks to the difficulty of interpreting the results. Kemp pointed out that the regulatory framework is complex indeed, but the financial system itself and the shocks to it are also very wide-ranging. In order to manage them, the *Advisory Scientific Committee* (ASC) has elaborated guiding principles to be followed. Macroprudential regulation is able to increase the security of the functioning of the financial system, inter alia, through the flexible use of capital buffers. In addition, activity-based rules may ease the complexity of regulation. He mentioned digitalisation as the latest challenge, as in addition to classical financial risks new ones originating from it also arise, including, for example, CBDC or BigTech companies, which – depending on the regulatory responses – may already pose a serious risk to institutions already in the market. Audience remarks included that the advanced data analysis methods may put supervisory authorities in a very difficult situation, as the increasingly complex models envisage lower and lower capital requirements, while it will be a challenge for the authorities to assess whether they really took the results closer to the actual capital requirement or simply those models are applied that are the most suitable for justifying the lowest capital requirement. Accordingly, authorities may set higher capital requirements as a precaution, but this may lead to counter-selective portfolio composition and higher pricing on the side of financial institutions as a second-round effect.

### **Bank business model transformation: non-bank, shadow bank competitors and the technological competition as well as its financing**

In the last panel discussion of the conference, moderated by *Sopnendu Mohanty* (MAS), panellists *Leonardo Gambacorta* (BIS), *Jesper Berg* (Finanstilsynet) and *Gergely Gabler* (IBCE) pointed out that in the long run the new digital market players (FinTech and BigTech companies) may widen their market presence in close cooperation with ‘traditional’ financial institutions, although this may raise

questions in a number of areas, such as competition, credit risk management and data security. The experts agreed that data will play a prominent role in the financial system of the future, and both the financial institutions and the authorities must prepare for the related risks (including cyber risk, data quality and developed data analysis methods).

There was consensus in the discussion that without digitalisation neither the traditional nor the new market participants will survive – not even in the medium term. Among the financial stability aspects of the appearance of new technologies, it was mentioned as a significant risk that regulators are unable to react to a new technology as fast as it appears in the market. Neobanks and FinTechs quickly find the less regulated pathways, thus creating regulatory arbitrage. According to the participants, however, new entrants will sooner or later be subject to bank regulation in line with their respective activities.

One of the key areas of technological innovations is the provision of cloud services, which jeopardises financial stability directly and indirectly. Cyber risk, for the avoidance of which steps were already taken through the development of the national infrastructure, was identified as direct risk, whereas the concentration of services at BigTech companies was identified as an indirect risk. The experts considered the role of data in the financial system a key issue. Although the data-based provision of services by BigTech companies is not yet clear-cut, it can clearly be stated that they have the greatest knowledge and technological advantage, followed by FinTech firms, whereas banks' data processing technology may be considered obsolete. In the discussion, the experts touched upon the cooperation of banks and FinTech firms, highlighted BigTechs' practice aiming at the acquisition of small banks as a new business model, by way of which the new entrants may obtain bank licences. These developments may also result in the distortion of market competition, the evolution of monopolistic positions of new entrants, bringing a risk into the financial system. With regard to the next five years, they mentioned that the technological achievements of decentralised finances may appear in practice as well. An example for this could be the case of smart contracts, while they do not forecast any bright future for crypto-assets. In the case of digital currencies, they think the appearance of central bank digital currency is more conceivable in view of the trust in central banks. Moreover, they believe that it is possible to build a well-functioning, successful digital structure on central foundations as well.

Further information on the conference is available on the event website (<https://www.mnb.hu/web/en/financial-stability/financial-stability-conference-2022>); the presentations and panel discussions are available on the MNB's official YouTube channel (<https://www.youtube.com/user/MagyarNemzetiBank>).<sup>1</sup>

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<sup>1</sup> <https://www.youtube.com/watch?v=vhYBWBltPJs>, <https://www.youtube.com/watch?v=IQxLkoWPh8I>