

Report on the 13th Annual Financial Market Liquidity Conference*

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On 10–11 November 2022, Corvinus University of Budapest (CUB) hosted the 13th edition of the Annual Financial Market Liquidity Conference (AFML),¹ one of Hungary's most important international financial conferences. As in previous years, the conference was jointly organised by the CUB Institute of Finance and the Momentum Game Theory Research Group of the Centre for Economic and Regional Studies. In addition to the Foundation of the Department of Finance as the gold sponsor, KELER CCP, Morgan Stanley and OTP Bank acted as silver sponsors. In 2022, the conference was held in a hybrid format for the second time, allowing around 130 registered participants to take part online, while the majority were on campus in person. The AFML conference offers a unique opportunity to refresh and further develop the research network of participants from around the world, many of whom are regular speakers and attendees of this conference, providing an interactive atmosphere.

Both days of the conference started with plenary presentations, followed by parallel sessions focusing on different topics, and the first day also ended with a plenary presentation. The first day's parallel sessions covered the following topics: Market and Funding Liquidity; Banking and Counterparty Risk; Asset Management; Banking, Disasters and Systemic Risk; and Environment, Social and Governance (ESG). The topics in the parallel sessions on the second day were: Liquidity and Derivative Markets; Banking and Credit Risk; Market Quality; Empirical Asset Pricing; and Market Microstructure. For the parallel sessions, the scientific committee accepted 40 longer (30 minutes) and 15 shorter (15 minutes) talks. In addition, there were three keynote presentations, and invited experts also gave five presentations. Almost two thirds of the speakers came from abroad.

At the opening plenary session, the first presentation was given by *Darrell Duffie*, Professor at Stanford University Graduate School of Business, who addressed

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¹ https://www.uni-corvinus.hu/contents/uploads/2022/11/AFML_book_of_abstracts_final3.804.pdf

the liquidity of US Treasury securities and other government bond markets. As a motivation, he recalled that in March 2020, after the World Health Organization (WHO) declared Covid a global pandemic, all liquidity measures dropped dramatically in these markets. The problem was so serious that we had to admit that these markets had become dysfunctional. But how was it possible that the world's most liquid market, the US Treasury market, had become dysfunctional? Duffie mentioned several possible reasons, including the market structure and regulatory issues. One important feature was a difference between demand and supply developments. The outstanding Treasury amounts had been growing continuously. However, the amount of balance sheet space available in terms of total assets of the largest dealers had declined due to regulatory changes after the great financial crisis. An efficient supply-demand equilibrium can be obtained on a day of normal liquidity. However, this equilibrium cannot be achieved on a dash-for-cash day, because the quantity exceeds the amount the dealers' balance sheets can absorb. After the WHO's declaration, the Fed purchased vast amounts of Treasuries, but this might not have been an optimal solution, since it raised the question of moral hazard and might have raised tensions with monetary policy actions. The talk proposed several policies for improving the stability and capacity of government bond markets. For example, central clearing would eliminate daisy-chains in the Treasury bond market. Furthermore, the leverage ratio rule of banks could be revised without jeopardising the sector's stability. Making price information available to the public could increase the transparency and efficiency of these markets. Finally, central banks should distinguish quantitative easing purchasing (i.e. monetary policy) from market-function purchase programmes.

The afternoon sessions of the first day featured two invited speakers. *Thomas Walker*, Professor at Concordia University, joined the session on Banking, Disasters and Systemic Risk online. He presented a joint paper with *Yixin Xu*, *Dieter Gramlich* and *Yunfei Zhao*. Using a sample of 187 large-scale natural disasters in the United States between 2000 and 2014 and a sample of 2,891 banks, they examined whether and how disaster damage affects various indicators of bank profitability and solvency. Distinguishing between different types of banks (local, regional and national), a breakdown of their deposits at the state level was used to examine how these banks respond to damage, weighted by the GDP of the states in which they operate. They found that natural disasters have a pronounced effect on the net-income-to-assets and the net-income-to-equity ratio of banks, as well as on their impaired loans and return on average assets. A significant impact was also observed on the equity and tier-1 capital ratios (two solvency ratios). Interestingly, the latter was positive for regional banks, which appear to benefit from increased customer deposits related to safekeeping, government payments for post-disaster recovery, insurance payouts and decreased withdrawals. At the same time, disasters have a significant negative impact for banks that operate locally or nationally.

Rose Liao, from Rutgers University, also joined online for a Thursday afternoon session focusing on ESG.² She presented a joint contribution with *Xiaoxue Hu* and *Dongxu Li*, examining how multinational companies may propagate ESG practices through subsidiaries in foreign countries with stricter ESG policies. Using regulatory changes in a foreign country's ESG strictness as an exogenous shock, they find that multinational firms with subsidiaries in countries with stricter ESG policies significantly increased their R&D investments, created more green inventions in domestic operations and had higher ESG ratings. Cities with more multinationals exposed to foreign ESG regulatory changes experience a larger reduction in air pollutant emissions. Their results are consistent with the argument that multinationals promote and propagate ESG practices across countries, which phenomenon is likely to sustain access to finance in a foreign country with high ESG standards.

As in the previous year, the evening plenary session started with a presentation by *Yakov Amihud*, Professor at the Stern School of Business at New York University, who has more than 42,000 Google Scholar citations. He gave an online presentation on his study with *Viral V. Acharya*, *Heitor Almeida* and *Ping Liu*. The research covers the evaluation of corporate financial policies, mergers and acquisitions, initial public offerings, objectives of corporate mergers, and dividend policy. He discussed the corporate choice between operational hedging (such as avoiding a failure to deliver on obligations to customers) and financial hedging and explained how this relates to liquidity. It is important to note that financial hedging here refers to corporate liquidity in terms of cash, as opposed to capital market liquidity, which refers to facilitating the trading of securities. A firm with higher default risk, reflected in higher credit spreads, spends less on operational hedging. Thus, there is competition for liquidity between averting financial risk or operational risk. According to their results, there is a positive relationship between the operational spread (markup) of the firm and its financial leverage; and also between the markup and the credit spread. The latter relationship is stronger for financially constrained firms. He presented empirical evidence supporting the relationship by employing two proxies for operational hedging, namely inventory and supply chain diversification, exploiting recessions and the global financial crisis as exogenous correlated shocks to operational and credit risks.

Similarly to last year's conference, the second day started with a presentation by *Jonathan Batten*, Professor of Finance at RMIT University in Australia. He called attention to a recent Nature editorial which argued that the topic of UN Social Development Goals (SDGs) was still not a priority research area in developed economies. Batten gave an overview of the key trends in financial markets over the last few years. These issues are discussed and analysed widely. However,

² Environmental, Social and Governance

he emphasised the need to reposition this research with broader implications, including the SDGs. The number of published papers mentioning the SDGs is increasing rapidly, but the share of economics, econometrics and finance is still very low. An illustrative case study of recent research trends on green bonds provided an example of how problematic the identification, the methods and the data can be in these novel fields. His presentation concluded by listing some SDG-related topics in finance that might, and hopefully will, motivate researchers to address.

The opening presentation in the plenary session was followed online by the final keynote speaker, *Mariassunta Giannetti*, Professor of Finance at the Stockholm School of Economics. She presented her research with *Nickolay Gantchev* and *Rachel Li*, which focused on the trade-off between sustainability and performance. She noted that investors often considered sustainability an indicator of good future performance. The Morningstar sustainability ratings (also called globe ratings) were used to analyse this aspect. Earlier studies had also found that funds with the highest globe ratings attracted an increased capital flow after the introduction of these ratings. Consequently, asset managers increased the proportion of sustainable equities in their portfolios to achieve a higher rating, which resulted in decreasing returns in this sector. This is the point where the trade-off between sustainability and performance becomes salient. Since, in the long run, performance seems to be more relevant for investors, asset managers' incentive to improve their globe rating diminished. As Professor Giannetti concluded, sustainability ratings might become irrelevant in investment decisions.

The plenary session was also followed by three parallel sessions on Friday. The Banking and Credit Risk session in the morning included two invited speakers. The first speaker was *Igor Lončarski*, Associate Professor of Finance at the University of Ljubljana, who presented his work with *Ursula Slapnik* using text-based evidence from credit rating reports. Looking at the literature on the determinants of sovereign ratings, these can be divided into two components. There is a part of the rating that quantitative data cannot explain. Is this a kind of bias because these ratings are given by people or rating committees? Or is it basically soft information that quantitative data from other sources cannot capture? Earlier research indicated that these biases manifest in two directions: developed or advanced economies are positively biased in terms of credit ratings, while developing economies are penalised and negatively biased. Two of the most important contributions of Lončarski's analysis to the financial literature are the methodology, textual sentiment analysis (this has been applied to credit ratings before, but not at the sovereign level) and a better understanding of the determinants of sovereign ratings. Data were collected from all three rating agencies, Moody's, S&P and Fitch. Using an ordered logit with random effects for 35 developed and 63 emerging countries ranging from investment to speculative ratings over the period 1996–2018, evidence

was found that the subjectivity score provides additional information that was not captured by previously identified determinants of sovereign ratings, even after controlling for political risk, institutional strength and potential biases. The results of the bivariate and multivariate analyses confirm the differences in textual sentiment and subjectivity between emerging and advanced economies, before and after the 2008 global financial crisis.

The next invited speaker for the Banking and Credit Risk session was *Alexander Szimayer*, Professor of Finance at the University of Hamburg, who also chaired the session. He presented a joint working paper with *Antje Berndt* and *Mick Schaefer*. In Szimayer's opinion, crises always bring something positive since they teach us how to avoid something similar happening again. From the government's point of view, one temporary forced solution to bank failures is to bail out the banks in trouble in order to preserve the stability of the financial system. Another option is early intervention, leading to a more resilient financial system. Of course, the measures must also be acceptable to the public, and thus the costs associated with the actions must be controlled, possibly limited or minimised in some sense. The 'too big to fail' principle would lead to the wrong incentives. The fundamental aim of the research is to find a solution to bank failure, not just with a bailout, but basically with early intervention. The key question is the appropriate policy for an early intervention system. The authors proposed a dynamic structural model for valuing bank debt and equity that allows for the possibility of government intervention both before and in the case of insolvency. They derive closed-form solutions for the optimal insolvency threshold level of bank assets and characterise the intervention scheme that minimises the cost to the government associated with potential pre-insolvency capital injections and bailouts at insolvency. Certain regulatory requirements, such as the capital ratio, must always remain above a given level. What happens if this is breached? Then early intervention can kick in and restrictions can be imposed: dividend payments can be reduced or even suspended. The authors documented that early intervention schemes, especially those requiring cost sharing between existing shareholders and the government, can lower the government's cost of bailing out an insolvent bank. Their model is basically suitable for characterising specific variants of intervention systems. The next step is to determine the optimal intervention system in which there is a balance between cost and benefit.

The 14th Annual Financial Market Liquidity Conference will be held on 9 and 10 November 2023 (<http://afml.uni-corvinus.hu>). This year, the Corvinus University of Budapest will host the conference offline only. The conference brings together financial professionals from around the world in Budapest, providing an exceptional opportunity to present and discuss research, generate and develop new ideas and solutions.