NBFI risks: are further measures needed?

Introduction

Non-bank financial intermediation (NBFI) comprises investment funds, insurance companies, pension funds and other financial intermediaries. The NBFI sector has grown to almost half of global financial assets, worth around \$218 trillion in 2023, and has become more diverse. As a result, the importance of NBFI for the financing of the real economy has increased.

Within the eurozone, the growth of NBFI sector accelerated after the global financial crisis, doubling from €15 trillion in 2008 to €31 trillion. The share of credit granted by NBFIs to euro area non-financial corporates increased from 15% in 2008 to 26% at the end of 2022. While they are differently regulated than banks, the EU is advancing the process of enhancing their prudential requirements (AIFMD, UCITS, IORPS, Solvency II). Nevertheless, also in the EU, NBFI intermediaries can continue being a source of or an amplifier to risks to financial stability, as the sector often combines liquidity, maturity mismatches and leverage.

The Chair remarked that the aim is to build up and support markets, and to ensure there is resilience and sustainability. Markets should develop, but there should not be reliance only on banks in the European Union and Europe as a whole.

The first part of the panel discussed the importance and the main challenges raised by non-bank financing. The second part was dedicated to the main risks stemming from non-bank financial intermediation and the ways to address them.

1. The features and challenges of NBFI

1.1 The rapid growth of NBFI

An official emphasised that there is a large amount of heterogeneity within the NBFI bucket. The NBFI sector is mainly composed of the other financial intermediaries, including hedge funds, money market funds, other investment funds, among others. According to FSB, these other financial intermediaries constitute 64% of the NBFI sector, pension funds are 19% and the insurance sector is 16% at year-end 2022.

An industry representative noted that Europe is behind the US in terms of where NBFIs are. Harmonisation and more unification around language, culture and legal aspects are needed for capital markets to develop. Capital goes where there is a bigger chance of returns and clarity of gain. The more complex the regulatory structure is, there is more opportunity for arbitrage, which is credit negative for the system. There is also less capital provisioning, because less capital will flow there. What is needed is clarity in terms of regulation, the intentions of the players and their role in the economy.

Provisioning into non-financial corporates by banks is only 20% in the US. In the 1980s, it was 60%. Finance companies, the collateralised loan obligation (CLO) market, business development companies (BDCs) and other private credit funds fill the space between those percentages. Meanwhile, Europe is at a roughly 52% bank market as provisioning capital. It is more onerous for banks when they have to retain that capital rather than distribute it. There is less capacity on the bank side to provision capital on a regular basis. However, it could be a demand issue rather than a supply issue. Diversification of supply and capital for different purposes is good, to avoid having the same type of risk on banks' balance sheets.

Moody's is focused on private credit¹. Private credit is almost the same as NBFIs. NBFIs can include pension funds, insurance companies, securities firms and funds of any kind. The focus is on provision of capital by nonbanks to non-financial corporates. The private credit market is deemed to be around \$ 1.7 trillion, up from 500 billion a few years previously.

1.2 The benefits of NBFIs

A Central Bank official highlighted that there are some areas where bank lending is not the right tool. There are some areas where non-bank lending is a substitute for bank lending. There is a stabilising nature to non-bank lending, so participants can come into markets in stress. Much of non-bank financing is fixed rate than floating, which has helped to smooth the impact.

A Central Bank official suggested that direct landing was an important area to develop. NBFIs could create viable alternative financing options for small and medium-sized enterprises (SMEs). Another viable option for the non-bank financial sector is financing the transition to a zero-carbon economy and the digital transformation.

A Central Bank official remarked that the non-bank sector in Europe is an enormously significant and potentially hugely beneficial asset. NBFI brings many

^{1.} Private credit is non-bank lending to mostly private-equity-owned, middle-market companies that are not publicly traded or issued. European private credit has been growing fast over the past several years. Some market participants define private credit differently, classifying it as a ~\$40-trillion market comprised of private, largely investment grade assets spanning a range of asset classes.

benefits. Enhancing capital markets broadens financing channels, reduces reliance on traditional banks to fund businesses, creates jobs and enables investors to access financial products that meet their savings and investment needs while also diversifying their portfolios.

1.3 The challenge of quality data

A Central Bank official emphasised the need for data. The non-bank sector is global, interconnected, and diffuse, which necessitates international approaches. There have to be definitions, metrics and modalities for sharing data. Within Europe there is a single set of requirements, and the data situation is relatively good, but there is still more to do, particularly on the differences between regulatory reporting and statistical reporting.

A Central Bank official remarked that there is too much to monitor, not enough of the right data, and the data cannot be added up across borders. It is very difficult to know whether multiple banks are exposed to the same types of NBFIs, which is true even for the banks themselves. It is also difficult to get data on, or to be able to understand how risks will evolve under stress in the non-bank sector. The fastest growing area is private equity and private credit, which is where the least data is available.

An official noted that the BIS has identified some non-bank financial intermediaries and is focusing on open-ended funds (OEFs) because there is information there. However, there is a large area with very little information. The capacity to process the data is being built up. The European Systemic Risk Board (ESRB) has invested a great deal.

An industry representative noted that their firm, which is principally in credit and insurance, wants to provide data, but it is difficult to know who to provide it to and in what format. NBFI is a relatively new category, and it is not well defined across sectors. The infrastructure is set up with different terminology, different companies and different types of risk.

1.4 Potential systemic risk implications

A Central Bank official commented that the risks in the non-bank sector are different from those in the banking and insurance sectors. In investment funds and the asset management area, the risks are specifically around liquidity mismatch, leverage and hidden leverage, and the interconnection with the broader financial sector.

An industry representative remarked that the development of private credit has been very helpful recently, particularly as capital markets shut down in the leveraged finance space in the US. However, as asset managers continue to grow their private credit portfolios, their investment, risk management and funding decisions could reverberate more strongly throughout the financial system and the broader economy. Asset managers are typically subject to lighter prudential regulatory oversight than the banking sector, and there is a lack of transparency about the growing importance of the financing they

provide to the real economy. As a result, it may be difficult to see where bubbles of risk are forming. Although liquidity risks are modest, considering the absence of overnight liquidity demands for these funds relative to the liquidity difficulties of risky structures formed in previous cycles, banks are still the largest lenders to private credit funds, and therefore the linkage with the banking system should not be ignored.

2. There is still much progress to be made in tackling the risks associated with NBFIs

2.1 Getting appropriate information for understanding of the whole underlying chain in NBFIs and identifying where the risk lie

2.1.1 Identifying where risks reside

An industry representative noted that the first consideration, in terms of where risk resides in the financial market, is structural risk, which means asset and liability management (ALM). Policymakers are thoughtful in identifying the acute risk of liquidity runs in vehicles that were not historically prudentially regulated, such as funds.

For leverage, there is significant focus on how much leverage is in the system, but there also needs to be focus on the quality of leverage. Is it term funded? What is the optionality? Is there collateral? Is it daily margin? Things that are good for the borrower are bad for the lender; things that are good for the lender are bad for the borrower. It is a zero-sum game. Therefore, there has to be diligence in the market. The commercial activity from NBFI, inclusive of insurance, provides a level of diversification and resilience, but it needs to be better understood.

A Central Bank official stated that the question is about who to worry most about at the current juncture. One approach is to ask which participants on the non-bank side have not fully adjusted to the new interest rate environment and what is still to come through in terms of higher interest rate transmission. That means the corporate bond market, private credit, private equity and real estate. The second approach is to ask, in a world with much more risk of volatility and liquidity risks crystallising, which participants are most exposed. In the UK, work is being carried out on system-wide stress testing, involving 50 participants from across the market, and looking at how stresses evolve in the sterling rates market. Many participants are guite well buffered currently in response to past stresses. One question is how to lock in some of that protection.

2.1.2 The links between banks and non-banks

A Central Bank official highlighted that there is extensive literature on the cases that shook the financial markets in recent years: such as the collapse of Archegos in 2021, and the fire sale of UK gilts by investment funds using liability-driven investments (LDIs). Three underlying problems can be identified:

poorly managed and excessive leverage, defects in the governance structures and a lack of transparency.

It is vital to have an understanding of the magnitude and exact nature of the interlinkages between the NBFI sector and the traditional banking sector. The Capital Requirements Regulation 3 (CRR3) is a major step forward. However, further enhancements are needed.

A Central Bank official remarked that non-banks are playing a bigger role in markets intermediation and core markets compared to before the global financial crisis. Banks' footprints have not grown as markets have grown. Non-banks also play a great role in direct lending to non-financial organisations. In the UK, it is about 50/50 non-bank financing versus bank financing. Since 2008, all of the net increase in corporate financing has come from the non-bank sector. There can be an amplifying effect as well. Leveraged participants will go the other way in stress. They will have to step out of markets, and some non-bank participants are quite leveraged.

An industry representative stated that the regulation proposed by the International Organization of Securities Commissions (IOSCO) has been very helpful in terms of thinking about the underlying illiquidity of an asset and the kind of funding it matches. Liquidity risk and mismatches can apply to any asset class or any financial institution. Around 450 to 500 billion of the private credit market (estimated at 1,7 trillion) is in Europe. Having good transparency and regular evaluations is very important. When a bank's line of reporting says exposure to non-bank financials, having an exposure to a mortgage lender that lends traditional mortgages to Fannie and Freddie is very different from commercial real estate that is leveraged six times.

It would be very beneficial for the system to understand matters from the bank's perspective, break down the NBFI line and understand how much is private equity, how much is hedge funds or CLO securitisation of vanilla assets.

2.2 Mitigating the risks

2.2.1 The potential systemic risk posed by investment funds

Thie Chair stated that the Alternative Investment Fund Managers Directive (AIFMD) was recently finalised. A Central Bank official remarked that the objective, in dealing with the risks, is the collective outcomes of activities. How funds act together in a crisis, or a stressed situation, is a collective problem. The risks are very flow-type, so it is very dynamic. They are also heterogenous and include leverage, liquidity mismatch, and excessive risk taking at an aggregate level across the financial system. Concentrated and over-lapping market positions can lead to spillover effects to other parts of the financial system and real economy, but they have also been instances where a single entity has caused a systemic event.

In February/March 2020, the first mover dynamic very clearly emerged in high-yield funds. If matters had not stabilised, that dynamic would have led to a spiralling effect in those asset classes. Stress would not be

expected in gilt markets and liability-driven investments, but it was seen because of the high levels of leverage.

The issue with liquidity risk is the mismatch between assets and liabilities. The specific nature of that concerns the first mover dynamic. In the funds context, when there is daily dealing around less liquid assets, there is first mover advantage to get out, and that creates the dynamic of systemic risk.

The FSB and IOSCO have spoken of the importance of liquidity management tools that work, and about requiring a degree of matching between the liquidity of the assets and the redemption requirements. If liquidity management tools can work better, and swing pricing can be well calibrated, not only to individual funds but also in the collective context, then the situation would be better to address some of those, somewhat crude, measures.

2.2.2 Liquidity risks in open-end funds (OEFs)

A Central Bank official stated that the OEF space should have the benefits of investing collectively with the experience of investing individually. What should be avoided is a situation where, if other investors leave a fund in stress first, they get a better deal than those after them and are not paying the price of the liquidity that they should be. The risk in the fund sector is greater where the mismatch is greater, where the assets are less likely to be liquid, particularly in stress. The risk is also greater where there are fewer tools to ensure that investors pay the right price for the liquidity.

The FSB has done well by focusing on two elements. One is making sure funds categorise where the risk is likely to be bigger, and the other is making sure that funds have a set of tools to price the liquidity. However, some jurisdictions do not have all of the tools, and some funds do not have all of the tools in place. Where they do have the tools, they might not be using them to the best possible standards; there is divergence across the sector in terms of best practice.

An industry representative agreed that significant structural risk exists in open-end funds. Funds have \$10s, sometimes \$100s, of billions in longer duration assets while offering daily investor liquidity. Even the best risk overlays may be outmatched when faced with a structural liquidity mismatch such as this. Policymakers are understandably reviewing regulatory measures, including enhancements to risk management, swing pricing and fund reporting.

2.2.3 Enhancing the resilience of OEFs and money market funds

An official stated that there has been significant progress in terms of the two very deep reports on the risks that OEFs and money market funds are exposed to and the policy options to address those risks. One major step that lies ahead, and something that was learned from the banking regulations, is that after agreeing on what good policy options would be, there should be a peer review to take stock of which of the options have been implemented. The money market fund reform assessment is currently ongoing, and for the open-

ended funds one will have to be completed in 2026, and then in 2028 there will be an assessment.

It is very important to ensure that entities manage their liquidity risk, but they cannot be asked to manage systemic liquidity risk. Something that has been seen in the liquidity assessment of investment funds is that each individual fund manager takes a very prudent look at the liquidity of the portfolio, but it is not known what the others are doing, and they cannot anticipate what everyone else will be selling at that particular point in time. This is where the systemic dimension needs to come in, and that is where there will need to be much more progress on the policy side, in order to develop clear expectations about what can be done, and to come up with tangible results.

The recommendations at the international level will always only be minimum standards. There is a clear expectation that, at the jurisdiction level, they are topped up to fully address the risks that are specific to the relevant industry.

The Chair suggested that money market funds are the most important issue to address. Europe has to do better with them. A Central Bank official replied that, in their jurisdiction, few matters cause as many headaches for the population and policymakers as real estate investments. A considerable portion of the population still believes that real estate is the safest possible investment. Something has to be done about that. Effective and usable liquidity management tools are needed for the real estate investment funds.

A Central Bank official added that the Commission's macro-prudential review has three key items: the implementation of the FSB recommendations mentioned, money market funds and buffer usability.

A Central Bank official stated that policy development has occurred twice with money market funds and OEFs. There is a need to move forward and show that can be implemented nationally.

2.3 Addressing insurance risks in a changing world

2.3.1 The IAIS's Global Monitoring Exercise (GME)

An official detailed that insurance is well-regulated and has a large amount of data available. In many jurisdictions, there are public disclosure requirements. There is the IAIS' global monitoring exercise, as part of its systemic risk framework, which is data driven. Data is collected from 60 of the largest internationally active insurance groups, as well as from IAIS member supervisors. Interconnectedness is a key component of the global monitoring exercise.

Areas for improvement were identified in the IAIS' Global Insurance Market Report (GIMAR) report. There are two specific structural shifts for which monitoring will be strengthened going forward. The first is the increased shift to alternative placements such as private placement and structured products, and the second is the increased use of asset-intensive reinsurance, which will mean a change to the liquidity profile of insurer balance sheets. For both, the monitoring will be enhanced, to support global supervisory discussions.

2.3.2 Insurance sector resilience

An official remarked that the IAIS has assessed, in its global monitoring exercise and GIMAR report, that the insurance sector has proven to be resilient in recent years. There are solid levels of capital adequacy and solid liquidity ratios. However, in the previous year's GME, there were slight declines in liquidity positions and solvency positions. The sector is still very resilient, but it is not immune to movements in financial markets. Key risks are interest rate and inflation risks, credit and liquidity risks, cyber and climate risks, and geopolitical tensions.

2.3.3 Higher credit and liquidity risk for insurers

An industry representative noted, regarding the concept of illiquid assets and where they are best housed, one of the benefits of the private credit funds, particularly the largest and most established ones, is that they are funded with permanent capital, and, if there is leverage, it is well-distributed. If there is bank leverage, it is not single bank reliance. An investment grade rating cannot be achieved for a debt fund that, by nature, has illiquid SME-leveraged assets, unless it has characteristics of this kind. Permanent capital is critical. Regulation should match those characteristics.

Insurers gain incremental returns by moving into higher-yielding private investments that, while largely structured as investment grade assets, include more speculative investments. However, the increased yield also brings higher credit and liquidity risk. The insurance capital charges that were introduced after 2022, to increase the capital charge and assume a 40% run of policies, was a particularly positive step. Permanent capital, particularly for insurance companies that have more long-term liabilities, might be a good match for these assets. However, it has to be well-structured.

There was a firm in Italy, that experienced, a run-on policy withdrawal (Eurovita). There was low capital, high investment risk and a bad distribution channel. Insurance companies can indeed run. In particular, in a higher rates environment, there is greater competition for competing products. That risk is well managed in Europe.

An industry representative remarked that it is rare for an insurance company to have a run, but it is nonetheless possible. His firm spends a great deal of time on product features, surrender charges, market value adjustments and taking into account tax disincentives, because it has long-term guaranteed products. It has highly stable products relative to some policies. It also has non-surrenderable policies, which account for about 25% of its portfolio. It does not use private credit in its liquidity stress assumptions, which is an advisable approach. Products are tailored to target assets to the extent possible. However, that type of thinking has to occur both at a company level and a supervisory level, to ensure there is a rational insurance company that is taking good risks for policyholders.

Although not all players do that, it is a microprudential issue on the liability side for supervisors to understand exactly what is going on in each individual company. At the macro level, the European Insurance and Occupational Pensions Authority (EIOPA), national regulators and the National Association of Insurance Commissioners (NAIC) in the US have had a significant focus on this in the last year, as a result of mass lapse assumptions. A mass lapse is the equivalent of a run on an insurer.

On the asset side, the markets are not necessarily what they used to be. There have been treasuries and gilts with low liquidity. Dealer bond inventories are at an all-time low. Corporate bond issuers are concentrated in massive companies with fewer issuers than is assumed. Liquidity is a relative term, though private credit is less liquid than treasuries. There has to be particular focus on the liquidity of the assets paired with liquidity of the liabilities.

In other words, product design and ALM are not the end of the story. The investments for funding liquidity demands are also subject to a range of factors impacting liquidity risk. Certain asset types may no longer be as liquid, and therefore as reliable, for stress situations as they once were. As seen in the UK LDI situation, market illiquidity can occur with assets that are considered the safest and most liquid.

2.3.4 Measuring liquidity risk

An official agreed that a run on insurers is a key liquidity risk to monitor and manage, both on the insurance company side but also on the supervisory side. For insurers, it is very important to establish robust governance of liquidity risk, to monitor and stress lapse risk, and to also develop effective contingency funding plans. It is equally important for supervisors to ensure that they have the necessary tools in place, for instance, to be able to step in if a

mass lapse risk occurs, so that they can temporarily pause that event and allow the insurance company time to come up with the liquidity sources to meet the liquidity needs.

A second liquidity risk to which additional attention has been paid is the risk of margin calls. Derivatives exposures are quite heterogeneous across insurers. Some have almost none; others have more significant exposures. If an entity has more derivatives exposures, it makes sense to make sure that, in its liquidity risk framework, it takes into account potential liquidity outflows from margin calls in the form of additional cash or collateral postings.

The IAIS has been focusing extensively on liquidity risk over the past years. In 2022, it developed liquidity metrics, which consist of an insurance liquidity ratio (ILR), where the liquidity sources are compared to the liquidity needs, including under stress, and it has taken an asset/liability perspective, with asset/liability matching and management. Secondly, the IAIS liquidity metrics consist of a cash flow approach, whereby the cash inflows versus the cash outflows under stress are mapped. As an integral part of its standard setting work, in the insurance core principles there are also specific standards that address liquidity risk, with a focus on governance and liquidity risk management, for example.

An official highlighted the importance of asset liability management and stress testing for all of the NBFI sectors. An industry representative stated that there should be clarity around private credit concerns from policymakers. An industry representative (Ana Arsov) added that there should be more clarity around banks' exposures to NBFIs.