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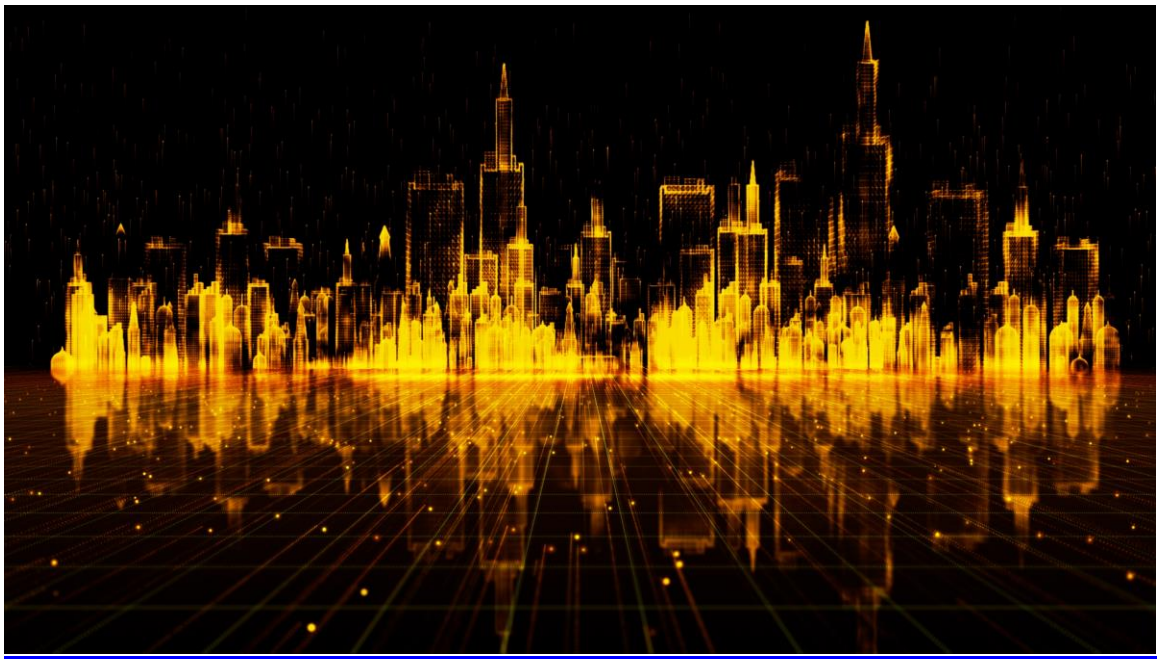


Basel iii News, January 2022

Dear members and friends,

We have an interesting report from the European Systemic Risk Board (ESRB) with title "Report of the Analytical Task Force on the overlap between capital buffers and minimum requirements".

Executive summary

Capital buffers are key macroprudential policy instruments. Regulatory capital buffers ("the buffers") were introduced after the global financial crisis to mitigate systemic risk. Buffers help to ensure the resilience of banks and to conserve their capital by placing constraints on distributions if buffers are breached.

Unlike minimum requirements, buffers can be drawn down when losses have to be absorbed during times of stress and are replenished thereafter. Using buffers may thus cushion the financial cycle, especially in the case of the countercyclical capital buffer (CCyB), which is designed to be released by the authorities in a downturn.

Banks might not always be able or willing to use their buffers. For the purpose of this report, the "usability" of buffers and excess capital means that banks are able to deplete their buffers without triggering a breach any parallel minimum requirement.

The minimum requirements include the leverage ratio (LR), the minimum requirement for own funds and eligible liabilities (MREL) or the risk-weighted capital framework for the upcoming leverage ratio buffer for global systemically important institutions (G-SIIs), also referred to as the G-SII buffer.

Even if buffers are usable from this perspective, banks might be unwilling to use them. Banks' willingness to use buffers is beyond the scope of this report and may also depend on factors other than buffer usability.

However, investigations into banks' willingness to use buffers need to take into account potential regulatory impediments that might be an important reason why banks do not use buffers. Thus, both the ability and the willingness to use buffers may limit the capacity for buffers to cushion shocks.

When buffers overlap with parallel minimum requirements, buffer usability is inevitably constrained. EU banking regulation ("the banking package") establishes three parallel frameworks, each with minimum capital requirements:

(1) the risk-weighted capital requirements framework aimed at increasing the resilience of banks;

(2) the supplementary leverage ratio requirements constraining the build-up of leverage, mitigating the risk of destabilising deleveraging processes and safeguarding against model risk and measurement error; and

(3) the framework to facilitate the resolution of failed banks without putting public funds at risk.

These three frameworks apply simultaneously, with each of them playing an important role in contributing to the resilience of the banking system. However, the banking package also allows multiple uses of capital across these three frameworks, which in some instances includes the buffers.

Where this is the case, only those buffer resources that do not simultaneously count towards a parallel minimum requirement are usable. This report examines the usability and effective releasability of buffers by analysing the interaction between the combined buffer requirement (CBR), the upcoming G-SII leverage ratio buffer and the minimum requirements under each of the three frameworks.

The regulatory framework is multi-restrictive by construction. The different minimum requirements have different purposes and their combined effect is to achieve a more resilient banking sector.

Without such multi-restrictiveness, each individual requirement would have had to have been set at a higher level to achieve the same loss-absorbing capacity in terms of capital in the system, i.e. a minimum capital.

With minimum restrictions in many dimensions and rules that allow the multiple use of capital for buffers and minimum requirements across the frameworks, one consequence is that buffers may not always be fully usable for all banks.

The conceptual analysis below gives a stylised overview of how the regulatory interactions could limit buffer usability.

The driving factors in limited buffer usability are:

(i) the legal provisions laying down which equity and liabilities can be counted towards the different minimum requirements and buffers;

(ii) the relative size of the different requirements in nominal terms; and

(iii) a bank's balance-sheet structure. Relevant balance-sheet characteristics in this regard are the composition of assets and liabilities, the risk weight density of assets and the size of off-balance sheet items.

This report is the first to look at the interactions within the regulatory framework from a macroprudential perspective, where usability of buffers is an important precondition for effective policymaking. Macroprudential authorities may need to bear these interactions in mind when deciding on the calibration of macroprudential buffers.

The conceptual analysis also reveals that the regulatory system has become complex. While the leverage ratio and MREL have made the financial system more resilient and safer, their addition alongside the risk-weighted prudential framework has also increased complexity due to regulatory interactions.

This report is the first to conceptualise and empirically assess the interaction among the three parallel frameworks. Reducing this complexity and increasing transparency, where possible, could facilitate the understanding and analysis of buffer overlap by regulators and market participants alike.

Any potential changes to the EU regulatory framework should comply with international minimum standards.

Still, for the macroprudential framework to be effective, facilitating the usability of buffers within the multi-restrictive framework is important,

not least when a macroprudential authority releases a buffer. The effectiveness of a buffer release depends on whether it translates into excess capital that banks can use to continue to provide credit to the real economy.

Banks drawing down released buffers are not subject to distribution restrictions as they would be if they breached buffer requirements. Under the current framework, the CCyB is intended to be released in a crisis.

A CCyB release is ineffective if the released capital is simultaneously tied up by a parallel minimum requirement. The same also holds true for any potential release of any other capital buffers.

Empirical analysis suggests that buffer usability could be limited in some EU Member States by the leverage ratio and may further decline once MREL rules apply. Depending on banks' portfolio adjustments in the years ahead, the analysis suggests that the usability of buffers may be considerably constrained for a material number of banks in several jurisdictions.

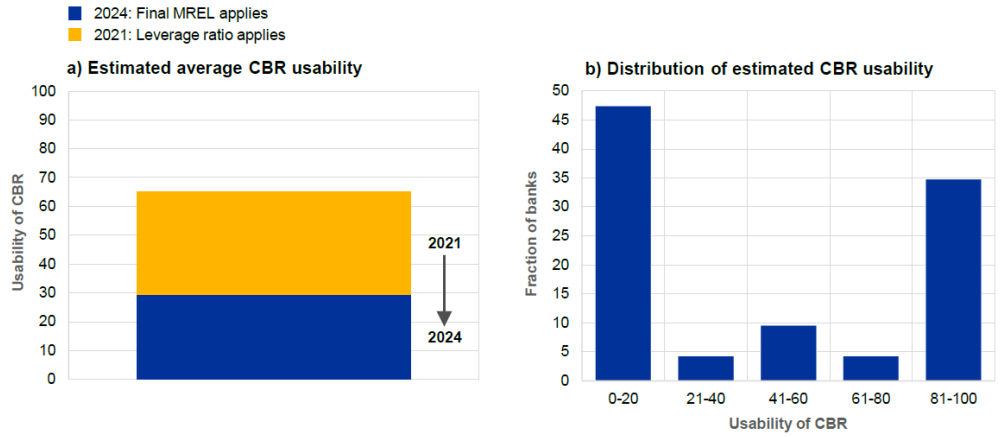
The analysis considers buffer usability from the perspective of CBR in the risk-weighted capital stack. This is a natural starting point for the assessment of impediments presented by parallel requirements.

The results show, however, substantial heterogeneity across regions, across countries and in particular across bank types. As regards regional and international heterogeneity, the leverage ratio tends to pose a greater constraint for buffer usability in western and northern European banks than in southern and central eastern Europe.

Chart 1

CBR usability – baseline scenario

(in percent)



Notes: In Panel A the usability of the CBR is weighted according to banks' nominal CBR. The baseline scenario assumes closed shortfalls and a minimum management buffer of at least 1% of risk-weighted assets in 2024 when the final MREL rules apply. Funding needs are assumed to be closed with the cheapest available funding source. Panel B shows the distribution of CBR

When the MREL is also factored in, aggregate buffer usability may decline further in all regions. Panel A in the chart shows the estimated average usability of the CBR in our baseline scenario. As regards bank heterogeneity, CBR usability varies significantly across banks (see Panel B).

Around one-third of the banks examined are estimated to have full or a very high level of CBR usability, but for more than half of the banks use of the CBR would seem to be substantially constrained if not totally impossible.

The report:
https://www.esrb.europa.eu/pub/pdf/reports/esrb.ATFreport211217_capitalbuffers~a1d4725ab0.en.pdf

IFC Report No 14 - Sustainable finance data for central banks

2021 survey conducted by the Irving Fisher Committee on Central Bank Statistics (IFC), December 2021

Executive summary and recommendations

Public authorities in general and central banks in particular are paying more and more attention to sustainable finance, defined as the integration of a wide range of environmental, social and governance (ESG) aspects when making investment decisions.

This increased interest in sustainable finance reflects widespread concern about the impact of climate change, inequality and various factors that can undermine economic resilience, as highlighted recently by the Covid-19 pandemic.

Likewise, it is also a recognition of the special role that the financial sector can play in sustainable development, both directly through its own actions and indirectly through its financing of external activities.

In this context, the Irving Fisher Committee on Central Bank Statistics (IFC) conducted a survey on sustainable finance statistics among its members.

It received 63 answers, with detailed information provided by 28 advanced economies (AEs) and 31 emerging market economies (EMEs).

The purpose was to identify ESG data needs, availability and gaps from the perspective of the central banking community.

This work, organised in close coordination with other international statistical initiatives, led to the establishment of a list of almost 80 ESG metrics considered of particular relevance by central banks when pursuing their policy objectives.

The exercise was complemented by a stocktake of core documentation references on ESG data issues identified by IFC members, which is available as a complement to this Report on the IFC website.

One main message from the survey is that statistics on sustainable finance are in growing demand from central banks in pursuing their core mandates.

The primary focus is on green finance, as a means to limit carbon emissions and address climate change risks: a large number of IFC members are

already facilitating stakeholders' awareness of the risks associated with climate change and of the need to decarbonise the economy.

Developing "green" capital markets and identifying sustainable investment are additional policy objectives reported in this context.

As a consequence, central banks have become crucial consumers of relevant sustainable finance data to support their policies, financial stability (including macroprudential policy as well as microprudential supervision for those central banks that are directly in charge of eg banking supervision), asset and reserve management activities, the conduct of monetary policy (including collateral policies) and financial inclusion measures, as well as specific in-house risk assessment and statistical exercises in the context of these policies.

A second insight is the abundance of data to be considered in the area of sustainable finance.

Of key importance are the indicators needed to properly support progress assessment, in particular on sustainable financial instruments as well as environmental indicators related to physical risk, emission trading and energy use pricing.

However, as many indicators are backward-looking, it is useful to complement them with forward-looking data to track commitments towards a greener economy.

Leading indicators considered useful by central banks in this context are climate target indicators, followed by indicators on firms' scenario analyses and on transformation and enabling efforts.

Yet, while these forward looking metrics have become a new area of focus, and many jurisdictions plan to use them, actual implementation work is often still lagging in practice.

A third lesson is that central banks are also making significant contributions to setting up statistical frameworks for sustainable finance; for instance, they have been instrumental in facilitating the development of green taxonomies.

They are also closely associated with other key stakeholders involved in climate-related data work, including government authorities (in the areas of eg environment, finance and economic affairs), regulatory institutions and national statistical offices (NSOs).

The primary focus reported in the survey is on establishing statistical definitions, developing related taxonomies and conceptual work, setting up

reporting requirements, and dealing with data quality aspects and confidentiality issues (including those related to the impact of technology innovation).

However, while the availability of green finance data is in general on the increase, there are substantial differences across jurisdictions.

In particular, a large number of AE central banks report that they already have in place standardised definitions and taxonomies (or are close to implementation), while such work is still at an early stage in many other jurisdictions, especially in EMEs.

This disparity reflects a number of factors, including the diversity of central banks' mandates as well as different implementation stages in terms of taxonomies, conceptual work, reporting requirements, and data quality/confidentiality management processes.

Unlike for environmental indicators, the use of social and governance indicators remains fairly limited, although central banks are gradually showing more interest in these areas too.

The social indicators that are deemed the most relevant relate to financial inclusion as well as working conditions and human rights.

As to governance indicators, transparency and disclosure on the one hand and board diversity on the other are considered to be top priority, mainly to support macroprudential supervision.

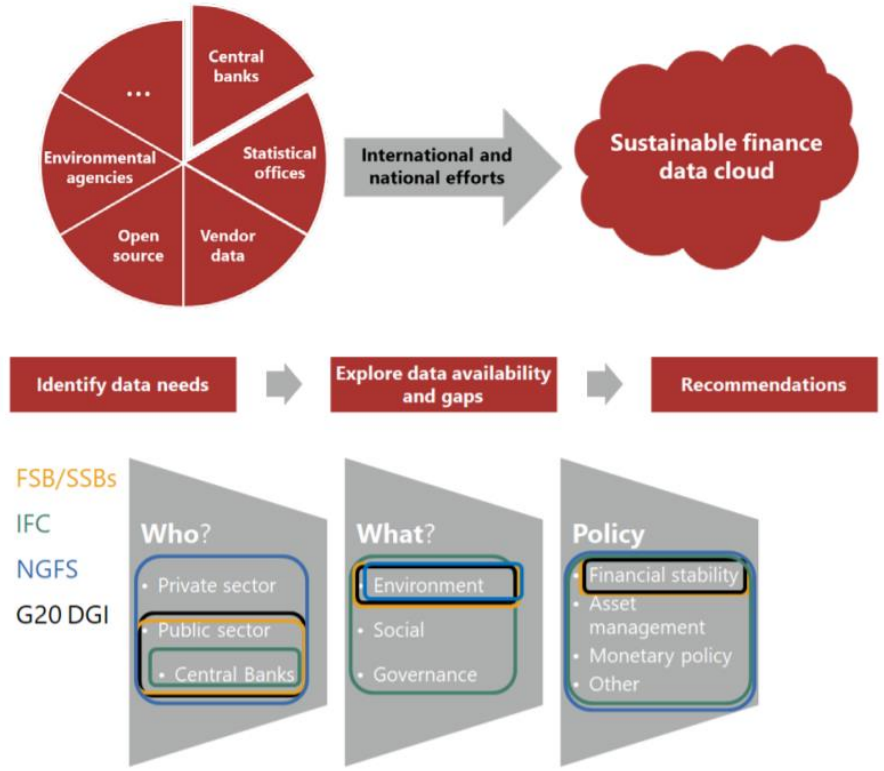
All in all, the survey results underline the growing recognition of the important role played by the large number of ESG data providers located outside the traditional perimeter of official statistics (such as commercial data providers as well as big data-based sources).

Hence, a key objective for central banks is to improve cooperation among the various stakeholders involved in sustainable finance data work.

Another goal is to support ongoing international statistical initiatives that aim at promoting a shared understanding of statistical needs (also by developing more unified taxonomies and regulations), developing conceptual aspects (eg how to assess financial stability risks arising from climate change) and addressing the related operational aspects of data management (eg data quality assurance processes, reporting requirements, and dealing with confidentiality/privacy issues).

The report: https://www.bis.org/ifc/publ/ifc_report_14.pdf

Overview of international initiatives on sustainable finance data — Graph 1



Source: IFC Working Group.[3]

BIS Board elects François Villeroy de Galhau as new Chair

The Board of Directors of the Bank for International Settlements (BIS) elected as its new Chair, François Villeroy de Galhau, Governor of the Bank of France. His term is for a period of three years, commencing on 12 January 2022.

Mr Villeroy de Galhau succeeds Jens Weidmann who served as Chair of the Board until the end of December 2021 when he concluded his tenure as President of the Deutsche Bundesbank.

Members of the Board of Directors expressed their sincere gratitude to Mr Weidmann for his excellent services to the Bank during his chairmanship.

The Board is responsible for determining the strategic and policy direction of the BIS, supervising its Management, and fulfilling the specific tasks given to it by the Bank's Statutes.

Board of Directors

The Board is responsible for determining the strategic and policy direction of the BIS, supervising BIS Management, and fulfilling the specific tasks given to it by the Bank's Statutes. It meets at least six times a year.

Composition of the Board

The Board may have up to 18 members, including six ex officio Directors, comprising the central bank Governors of Belgium, France, Germany, Italy, the United Kingdom and the United States.

They may jointly appoint one other member of the nationality of one of their central banks. Eleven Governors of other member central banks may be elected to the Board.

The Board elects a Chair and may elect a Vice-Chair from among its members, each for a three-year term.

Chair: François Villeroy de Galhau, Paris

Vice-Chair: Stefan Ingves, Stockholm

Roberto Campos Neto	Brasilia
Andrew Bailey	London
Shaktikanta Das	Mumbai
Thomas Jordan	Zurich
Klaas Knot	Amsterdam
Haruhiko Kuroda	Tokyo
Christine Lagarde	Frankfurt am Main
Juyeol Lee	Seoul
Tiff Macklem	Ottawa
Joachim Nagel	Frankfurt am Main
Jerome H Powell	Washington
Ignazio Visco	Rome
John C Williams	New York
Pierre Wunsch	Brussels
Yi Gang	Beijing

Digital currencies and the soul of money

Agustín Carstens, General Manager of the BIS, Goethe University's Institute for Law and Finance (ILF) conference on "Data, Digitalization, the New Finance and Central Bank Digital Currencies: The Future of Banking and Money".

I'd like to express my gratitude to the organisers for inviting me here today. It's an honour to deliver this speech at Goethe University. Of course, I wish I could have been in Frankfurt in person.

In a speech at this university four years ago, I addressed the growth and pitfalls of cryptocurrencies such as Bitcoin. Since then, the debate on the future of money has grown much broader, but it continues to touch on the very foundations of the monetary system.

Today I will take inspiration from your institution's namesake. The great Johann Wolfgang von Goethe was a well-travelled cosmopolitan and a true universalist. He was a poet and novelist, a playwright and theatre director, a scientist and statesman. Remarkably, his work anticipated some key economic issues of our time, including central bank independence.

Goethe's work confronts fundamental questions. In his masterpiece, Faust, he addresses the "Gretchenfrage" – a term that has become synonymous with a fundamental question of life.

For central bankers, the Gretchenfrage has always been: what is the soul of money? Today, technologists, innovators and futurists are offering new answers to this question. Some say that in the future, money and finance will be provided by just a few big tech corporations. Others dream of a decentralised system in which blockchains and algorithms replace people and institutions. And maybe, all of this will take place in the Metaverse.

My main message today is simple: the soul of money belongs neither to a big tech nor to an anonymous ledger. The soul of money is trust. So the question becomes: which institution is best placed to generate trust? I will argue that central banks have been and continue to be the institutions best placed to provide trust in the digital age.

This is also the best way to ensure an efficient and inclusive financial system to the benefit of all.

Let me elaborate on this theme, starting with the institutional foundations of money.

The institutional foundations of money

Money is a societal convention. People accept money today with the expectation that everyone else will accept it tomorrow.

At its core, trust in the currency holds the monetary system together. Like the legal system, this trust is a public good. Maintaining it is crucial for the effective functioning of societies.

Trust requires sound institutions that can stand the test of time. Institutions that ensure the stability of the currency as the economy's key unit of account, store of value and medium of exchange, and that guarantee the safety and integrity of payments.

Throughout a history measured not in years but in centuries, independent central banks have emerged as the key institutions that underpins this trust in money. Alternatives have often ended badly.

It is for good reason that most countries have established central banks with a clear mandate to serve society. As public policy institutions, central banks have proven successful in upholding trust while adapting to societal and economic change.

In pursuing these mandates, central banks have managed to constantly adapt to technological, economic and societal changes. This is why central banks are actively engaging with digital innovation. They are working on new central bank public goods such as wholesale financial market infrastructures, retail fast payment systems and central bank digital currencies.

Of course, in a market-based system, the private sector remains the main engine of the economy. In today's two-tier monetary system, deposits are by far the most prevalent form of money held by the public, since cash holdings are relatively small. Banks, in turn, place their own deposits with the central bank as "bank reserves".

In this case, central banks provide an open, neutral, trusted and stable platform. Private companies use their ingenuity and dynamism to develop new payment methods and financial products and services. This combination has been a powerful driver of innovation and welfare.

But we cannot take this successful symbiosis for granted. Some recent developments may threaten money's essence as a public good, if taken too far.

To illustrate this, let me offer three plausible scenarios for the future of money.

- In the first, big tech stablecoins compete with national currencies and against each other too, fragmenting the monetary system.

- The second relates to the elusive promise of crypto and decentralised finance, or "DeFi", which claims to offer a financial system free from powerful intermediaries, but may actually deliver something very different.

- The third realises the vision of an open and global monetary and financial system that harnesses technology for the benefit of all.

You can probably guess which vision I espouse. I will close by discussing what it will take to achieve it.

Big tech stablecoins

Let's start with stablecoins issued by big techs. Stablecoins are cryptocurrencies that base their value on collateral, often in the form of deposits with commercial banks or other regulated financial instruments. They thus piggyback on the credibility of sovereign currencies. Stablecoins are issued in this first scenario by big techs, or large companies whose primary activity is digital services.

Big techs have made important contributions to financial services. Their new and innovative products have allowed hundreds of millions of new users into the formal financial system.

In the process, they have also achieved systemic relevance in several major economies. For example, big techs channel 94% of mobile payments in China.

This trend could accelerate if one of these firms were to grow in an unfettered way and create a dominant, closed ecosystem around its own global stablecoin.

Once established, a company is likely to erect barriers against new entrants, leading to market dominance, data concentration and reduced competition. In addition, its stablecoin could disintermediate incumbent banks, which could even pose a risk to financial stability.

Moreover, if one big tech stablecoin takes hold, others will seek to imitate it. We may end up with a few dominant walled gardens that compete both with each other and with national currencies, thus fragmenting the national and

global monetary systems. As the initial benefits fade, the well-known problems of market concentration will quickly follow.

In addition, the same economic forces that foster inclusion can also cause discrimination, privacy violations and market concentration. One reason is that data are subject to large externalities. For example, one person's data can reveal information about others.

Moreover, it is possible that the data holder ends up knowing more about users' behaviour than users do themselves. Armed with exclusive access to data, big techs can quickly scale up and dominate markets.

Let me be clear: it is undesirable to rely solely on private money. Users may initially find great convenience in paying with a big tech global stablecoin. But in doing so they may be handing the keys to our monetary system over to private entities, driven by profits and accountable only to their shareholders and other insiders. Such an arrangement could erode trust. A public good like money needs oversight with the public interest in mind.

The elusive promise of decentralization

A second plausible scenario for the future of money has attracted a growing number of enthusiasts. This vision replaces institutions with distributed ledger technology (DLT), in principle allowing anyone to be a validator in a shared network. It is embodied in the growth of cryptocurrencies and applications that build on them, such as so-called decentralised finance, or "DeFi".

DeFi's enthusiasts hold out some very appealing promises: DLT will "democratise finance", cutting out middlemen such as big banks. More generally, new decentralised protocols will lay the groundwork for "Web 3.0", or simply "web3". In this world, data will be reclaimed from the big techs, and entrepreneurs and artists will keep a greater share of the value they create.

Decentralisation can be a noble goal. In many applications, governance improves when power is genuinely dispersed, with appropriate checks and balances. This principle is embodied in free and competitive markets.

But this principle is not what DeFi applications are delivering. There is a large gulf between vision and reality.

To date, the DeFi space has been used primarily for speculative activities. Users invest, borrow and trade cryptoassets in a largely unregulated environment. The absence of controls such as know-your-customer (KYC) and anti-money laundering rules, might well be one important factor in DeFi's growth.

Indeed, a parallel financial system is emerging, revolving around two elements.

The first is automated, self-executing protocols, or "smart contracts". But these contracts will never be smart enough to cover every possible eventuality, and someone must therefore write and update the code, and run the platform. In practice, there is a lot of centralisation in DeFi. BIS economists have discussed this "decentralisation illusion" in recent research.

The second element is, again, stablecoins. These grease the wheels of DeFi. As they aim to maintain a fixed value to fiat currencies, they allow transfers across platforms, and form a bridge to the traditional financial system. Stablecoins are the settlement instrument in DeFi, alongside governance tokens and other more volatile cryptoassets.

But stablecoins may not be sound money. One drawback is the fact that they have to tie their value to regulated assets to borrow their credibility. Their issuers have an inherent incentive to invest reserve assets in a risky manner to earn a return. Without appropriate regulation, issuers can diverge from full backing, or test the margins of what counts as a safe asset – as experience has repeatedly shown.

More fundamentally, decentralisation comes at a cost. Trust in an anonymous system is maintained by self-interested validators who ensure the integrity of the ledger in the absence of a central authority.19 So the system must generate enough fees, or rents, to provide these validators with the right incentive.

These rents accumulate mostly to insiders, such as Bitcoin miners, or those who hold more governance tokens. These rents are also a reason why DeFi platforms have been so attractive for venture capital investment.21 Many protocols entrench insiders, as those with more coins have more power.

Ultimately, high rents for insiders mean high costs for users. So, while insiders who have sold coins to new users have made spectacular returns, efficiency gains for average users have so far failed to materialise. And in the absence of regulation, fraud, hacks and so-called rug pulls have become rampant.

In addition, this structure makes it hard for fully decentralised systems to scale up. Achieving agreement in a large network takes time and effort, and consumes energy. The larger the ledger, the harder it becomes to update it quickly.

This is why many DLT systems can only handle a small volume of transactions to date, and often suffer from network congestion. This is also

the reason why Bitcoin requires so much electricity. There are a variety of technical proposals to address this trade-off, but they all lead to greater complexity. Indeed, the need for rents to maintain incentives in a blockchain is a feature, not a bug; it is a case of "the more the sorrier" instead of "the more the merrier".

And the growing proliferation of different blockchains means that many competing candidates aim to be a single arbiter of truth.

Meanwhile, DeFi is subject to the same vulnerabilities as are present in traditional financial services. High leverage, liquidity mismatches and connections to the formal financial system mean vulnerabilities in DeFi could undermine the stability of the broader financial system.

As with money market mutual funds, there is a risk that, during a shock, stablecoins could face runs. With automated protocols, there may also be unpredictable interactions, as liquidity dries up and losses cascade through the system.

Thus, there is a risk that this "magic", once launched, may spin out of control. As in Goethe's Zauberlehrling ("The Sorcerer's Apprentice"), DeFi applications could take on a life of their own, interacting with one another in unpredictable ways. When a crash happens and money is lost, users will inevitably turn to a trusted and experienced party – the public authorities – to tame the unleashed spirits and restore order.

A better approach is possible. Building on sound money, new applications could stand on a stronger footing. They should not be based on anonymity but on identification and trust. And they should comply with financial regulation that is designed to keep the system safe.

Wherever private stablecoins are issued, they need to be adequately regulated to address the risks that they pose, such as runs, payment system risk and concentration of economic power. We also need effective and consistent international policy on stablecoin arrangements.

Innovators should not fear regulators but work with them, to make their products more sound and more sustainable.

An open and global system as a public good

In a third scenario, incumbent financial institutions, big techs and new innovative entrants compete in an open marketplace that guarantees interoperability, building on central bank public goods. This means that end users can seamlessly interact across different providers – both domestically and across borders.

This would bring about continued innovation, and ever better outcomes for the economy as a whole. Trust in money remains the bedrock of stability. End users would see low costs and convenient services, with safety, privacy and a broad range of payment choices. This scenario harnesses the benefits of big data and DLT with market structures that foster competition and promote the public good nature of the monetary system.

In this vision, the monetary system is not fragmented into separate walled gardens, nor is it dominated by a few large corporations. There are also no high rents for insiders in anonymous networks.

At the core of this system are central banks. They do not aim for profits, but to serve society. They have no commercial interest in personal data. They act as operators, overseers and catalysts in payments markets, and regulate and supervise private providers in the public interest.

Working together, they can provide central bank digital currencies (CBDCs). Unlike stablecoins, CBDCs do not need to borrow their credibility. As they are directly issued by the central bank, they inherit the trust that the public already places in their currency. They can thus serve as a sound foundation for future innovation.

Central banks can provide this foundation domestically, but also on a global scale.

Imagine a global network of CBDCs. Different central banks would design and issue a new form of public money, tailored to their economies and societies' preferences.

Importantly, central banks could work with one another, and with the private sector, to ensure that these domestic CBDCs are interoperable across borders. This would require technical compatibility, the ability for systems to "speak each other's language" and agreement on rights and obligations.

To obtain this, central banks could choose whether to build a network of bilateral links, or they could adopt a hub-and-spoke model or a single common platform. DLT could be used to connect multiple CBDCs issued by different central banks. This would be useful as no single central bank could straddle all the different currencies in the system.

Such a network would be a global version of domestic monetary systems grounded in the trust placed in central banks. It could lower the cost of cross-border payments; increase their speed and transparency; and broaden access to users in different countries. Private providers could interact with clients, conducting know-your-customer and other compliance checks.

The private sector could build a host of financial services on top of such a system, from innovative payments to lending, to insurance and investment services. But safeguards can give users control over personal data. This does not require the selling of speculative coins that serve only to enrich insiders.

The BIS Innovation Hub is working actively to make this vision a reality, with several experiments involving cooperation between central banks and the private sector. What is notable is that many of these projects are based on DLT, where the central banks play the key role.

Based on trust instead of rents, these systems overcome the inherent issues with scaling up. They also offer greater safety and efficiency. Three important BIS Innovation Hub projects all make use of a DLT platform upon which multiple central banks issue their own wholesale CBDCs so that they can be traded between participants to enable faster, cheaper and safer cross-border settlements.

- In Project Jura, each central bank maintains individual control over its own CBDC on a single platform with separate subnetworks.

- In project mBridge, each participating central bank issues its own CBDCs and operates a validating node in a shared system.

- Project Dunbar explores the advantages and disadvantages of different DLT prototypes and validating mechanisms to support a common multi-CBDC platform.

Overall, these projects show that there is significant potential in new technologies, including DLT, if they are applied in a way that builds on the monetary system's existing institutional framework. Central banks, as validating nodes, are not there to make money by mining coins. Instead, they perform this role as part of their public service mandate.

Working in a controlled environment and with industry partners, the BIS and host central banks are developing public goods that can be thoroughly tested and ready to be rolled out in the real world.

Conclusion

Let me conclude. The future of money is ours to shape. While central banks share the excitement around digital innovation, we are aware of the potential consequences of some of its incarnations.

The design of money has consequences that concern all of society: the integrity and stability of money and payments, market concentration, consumer rights and efficiency. Hence, central bankers must work with

other public authorities and private stakeholders to make the vision I have described a reality.

Let's innovate in a sound, sustainable way, harnessing the benefits of digital technology in a way that is consistent with our shared values. In particular, let's ensure that our financial system builds on the existing governance of money, serves the public interest, and works cooperatively with the private sector.

So, let me go back to where I started, to Goethe. The answer to the Gretchenfrage has not changed: central banks and public authorities are still the glue that holds the monetary and financial system together. Private sector services and innovation are essential and should thrive on this foundation. But trust can never be outsourced nor automated.

Herzlichen Dank für Ihre Aufmerksamkeit!

You may visit: https://www.bis.org/speeches/sp220118.htm
The video: https://www.youtube.com/watch?v=YtC26lYhrQY

FSI Insights on policy implementation No 39

Gatekeeping the gatekeepers: when big techs and fintechs own banks – benefits, risks and policy options

Raihan Zamil and Aidan Lawson, January 2022

Executive summary

Over the past decade, big techs and fintechs began to provide a range of financial services to consumers, initially outside the confines of the highly regulated banking industry.

These services started with payments, but expanded to encompass consumer lending, insurance and wealth management. In their provision of financial services, some big techs and fintechs compete directly with banks, while others work in partnership with them through various arrangements, to fulfil their customers' banking needs.

From the perspective of big techs and fintechs, the main benefit of providing bank-like financial services without a banking licence is the limited regulatory oversight, which allows them to focus on enhancing their technology, improving product offerings and enriching the customer experience.

More recently, several big techs and fintechs have obtained a banking licence in various jurisdictions.

Despite the regulatory scrutiny that accompanies a banking licence, a number of big techs and fintechs see the value proposition that it confers. Asia, and in particular China, is home to the largest number of big techs that operate with a banking licence.

Numerous fintechs have also been granted bank charters in the United Kingdom and to a lesser extent in the European Union (EU) and the United States.

Access to low-cost deposits that complement their product offerings, the cost savings associated with eliminating the need for partner banks, the perceived trust and legitimacy that a banking licence bestows and the possibility that investors may reward such firms through higher market valuations more than offset the costs associated with operating as a bank.

These developments have been facilitated by an enabling regulatory environment.

Despite historical concerns regarding the ownership of banks by non-financial companies (NFCs), several banking authorities – particularly those with objectives that encompass financial inclusion and/or competition – have allowed technology firms to own banks.

This shift in approach reflects their view that technological innovations in the provision of financial services may help to improve consumer outcomes.

Several Asian jurisdictions have introduced digital bank licences, while others (UK) have streamlined their licensing process or expressed an openness to consider tech firms to obtain a banking licence (EU and US).

This paper assesses the benefits and risks of extending banking licences to big techs and fintechs.

The findings are based on publicly available information on applicable licensing requirements in seven jurisdictions covering Asia, Europe and North America.

A key focus of the paper is to compare the merits of bank ownership by tech firms in relation to ownership by commercial or industrial NFCs.

To help differentiate their risk characteristics, this paper classifies tech firms into three distinct groups:

(i) standalone fintechs whose financial activities are conducted solely or primarily through their banking entity;

(ii) large diversified fintechs which engage in a broader range of (mainly) financial services through various channels, including the parent entity level, their subsidiary bank and other non-bank subsidiaries, joint ventures and affiliates; and

(iii) big techs with core non-financial businesses in social media, internet search, software, online retail and telecoms, who also offer financial services as a secondary business line.

The perceived benefits of allowing tech firms to operate with a banking licence are compelling, but require scrutiny.

Unburdened by legacy infrastructure, tech firms often offer superior technology and user-friendly apps that may allow them to reach more consumers and perform various aspects of the banking business (onboarding, deposit-taking, lending, payments) more efficiently than incumbents, including commercial or industrial NFCs that may own banks.

Collectively, their technology centric approach in the delivery of financial services is expected to advance some authorities' broader goals of fostering financial inclusion, promoting competition and delivering better outcomes for society.

Nevertheless, as part of the authorisation process – and subsequently through ongoing supervision – authorities need to examine the ability and willingness of tech firms to deliver on their stated objectives.

The inherent risks, however, differ markedly across tech firms, with big techs posing the greatest challenges.

To ascertain the underlying risks of bank ownership, we map five key risk factors across the three groups of tech firms specified in this paper.

The first four factors – conflicts of interest, concentration of power/anticompetitive behaviour, contagion and systemic risk, and impediments to consolidated supervision – are specific concerns that are typically cited when commercial or industrial NFCs seek to own banks, and thus can also be applied to tech firms that own or are seeking a banking licence.

The fifth factor, the ability of the parent or shareholders to support the bank in times of need, is a key element of the licensing process in all authorities. In aggregate, the risk profile of big techs, particularly across the first four factors, pose the highest risks among tech firms, followed by large, diversified fintechs.

Authorities impose a range of financial and non-financial requirements as a precondition for tech firms to operate a licensed bank.

Three critical provisions include the imposition of a financial holding company (FHC) structure to house tech firms' various financial activities to facilitate consolidated oversight (China and Hong Kong SAR); the application of higher risk-based capital requirements on digital banks, due their untested business models (Singapore) or the imposition of higher leverage capital ratios to tech-owned banks in relation to traditional bank startups (US); and bank ownership limits on NFCs, including more severe caps for any company that violates anti-monopoly rules (Korea).

To assess the parent's ability to support the bank, China requires the tech-owned parent of the FHC to be profitable for at least two consecutive years, while the US requires the parent (if it is an NFC) to pledge assets or to secure a line of credit to demonstrate its source of strength.

Key non-financial provisions include prior technology experience of bank sponsors; limitations on overlapping boards and shared officers between

the bank and (the tech) parent to minimise conflicts of interest; prohibition of predatory tactics used to gain market share; and a provision to develop an exit plan in case the bank fails.

In devising licensing requirements, authorities should consider the inherent risks posed by tech firms.

Among the three groups, the risk characteristics of big techs and large diversified fintechs pose the biggest supervisory concerns, with the former likely to require more onerous requirements than the latter.

While standalone fintechs present lower overall risks, they have less flexibility – in relation to other tech firms – to provide financial support to their banking entity if needed, which should be considered during the authorisation process. In this context, various aspects of the licensing regime can be tailored for and adapted to tech firms' unique risk profiles to mitigate the underlying risks, but supervision and enforcement may pose formidable challenges.

The question of whether to allow tech firms to operate with a banking licence has the potential to permanently alter the landscape of national banking systems.

Prudential authorities, as gatekeepers of the banking system, must decide whether to allow entry to these new gatekeepers of the digital economy and, if so, what requirements to impose on them. At one end of the spectrum is prohibiting or creating formidable barriers, while at the other is developing an enabling regulatory environment to facilitate their entry.

The space between these theoretical extremes provides scope for prudential authorities to consider policy trade-offs that are appropriate for their jurisdiction-specific circumstances.
To read more: https://www.bis.org/fsi/publ/insights39.pdf

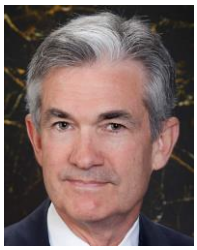
NFCs and bank ownership – potential risks — Table 2

	Conflicts of interest	Concentration of power and anticompetitive behaviour	Contagion and systemic risk	Complex organisational structure impedes consolidated supervision	Ability of parent (or main shareholders) to support the bank
Standalone fintechs	Low risk	Low risk	Low risk	Low risk	High risk
Larger, diversified fintechs	Moderate risk	Low to moderate risk	Moderate risk	Moderate risk	Moderate to high risk
Big techs	High risk	High risk	High risk	High risk	Low risk
Commercial and industrial firms	High risk	High risk	High risk	High risk	

Source: FSI analysis.

Nomination hearing

Chair Jerome H. Powell, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C.



Chairman Brown, Ranking Member Toomey, and other members of the Committee, thank you for the opportunity to appear before you today.

I would like to thank President Biden for nominating me to serve a second term as Chair of the Board of Governors of the Federal Reserve System.

I would also like to thank my colleagues throughout the Federal Reserve System for their dedication, perseverance, and tireless work on behalf of the American people.

Their commitment and expertise were essential to the Fed's response to the COVID-19 crisis and remain vital to the implementation of monetary policy as our economy continues to progress. Particular thanks go to my wife, Elissa Leonard, and our three children, Susie, Lucy, and Sam. Their love and support make possible everything I do. My five siblings are all watching, and we are thinking of each other and of our parents today with love and gratitude.

Four years ago, when I sat before this Committee, few could have predicted the great challenges that would soon become ours to meet.

On the eve of the pandemic, the U.S. economy was enjoying its 11th year of expansion, the longest on record. Unemployment was at 50-year lows, and the economic benefits were reaching those most on the margins.

No obvious financial or economic imbalances threatened the ongoing expansion. But this attractive picture turned virtually overnight as the virus swept across the globe.

The initial contraction was the fastest and deepest on record, but the pain could have been much worse. As the pandemic arrived, our immediate challenge was to stave off a full-scale depression, which would require swift and strong policy actions from across government.

Congress provided by far the fastest and largest response to any postwar economic downturn. At the Federal Reserve, we used the full range of policy tools at our disposal. We moved quickly to restore vital flows of credit to

households, communities, and businesses and to stabilize the financial system.

These collective policy actions, the development and availability of vaccines, and American resilience worked in concert, first to cushion the pandemic's economic blows and then to spark a historically strong recovery.

Today the economy is expanding at its fastest pace in many years, and the labor market is strong.

As always, challenges remain. Both the initial shutdown and the subsequent reopening of the economy were without precedent.

The economy has rapidly gained strength despite the ongoing pandemic, giving rise to persistent supply and demand imbalances and bottlenecks, and thus to elevated inflation.

We know that high inflation exacts a toll, particularly for those less able to meet the higher costs of essentials like food, housing, and transportation.

We are strongly committed to achieving our statutory goals of maximum employment and price stability.

We will use our tools to support the economy and a strong labor market and to prevent higher inflation from becoming entrenched.

We can begin to see that the post-pandemic economy is likely to be different in some respects. The pursuit of our goals will need to take these differences into account. To that end, monetary policy must take a broad and forward-looking view, keeping pace with an ever-evolving economy.

Over the past four years, my colleagues and I have continued the work of our predecessors to ensure a strong and resilient financial system.

We increased capital and liquidity requirements for the largest banks—and currently, capital and liquidity levels at our largest, most systemically important banks are at multidecade highs.

We worked to improve the public's access to instant payments, intensified our focus and supervisory efforts on evolving threats such as climate change and cyberattacks, and expanded our analysis and monitoring of financial stability. We will remain vigilant about new and emerging threats.

We also updated our monetary policy framework, drawing on insights from people and communities across the country, to reflect the challenges of conducting policy in an era of persistently low interest rates.

Congress has assigned the Federal Reserve important goals and has given us considerable independence in using our tools to achieve them. In our democratic system, that independence comes with the responsibility of transparency and clear communication, to keep the public informed and enable effective legislative oversight.

That duty takes on even greater significance when the Fed must take extraordinary actions in times of crisis. In order to facilitate that transparency, and to earn your trust and that of the American people, I have made it a priority to meet regularly and frequently with you and your elected colleagues. I commit to continuing that practice if I am confirmed to another term.

The Federal Reserve works for all Americans. We know our decisions matter to every person, family, business, and community across the country. I am committed to making those decisions with objectivity, integrity, and impartiality, based on the best available evidence, and in the long-standing tradition of monetary policy independence.

That pledge lies at the heart of the Fed's mission and is one we all make when we answer the call to public service. I make it here again, with force and without reservation.

Everything we do at the Federal Reserve is in pursuit of the goals set for us by Congress. I am honored to have worked in service to those ends since I joined the Fed in 2012, and as Chair for the past four years.

Thank you. I look forward to your questions.

Looking through higher energy prices? Monetary policy and the green transition

Isabel Schnabel, Member of the Executive Board of the ECB, at a panel on "Climate and the Financial System" at the American Finance Association 2022 Virtual Annual Meeting, Frankfurt am Main

EUROPEAN CENTRAL BANK
EUROSYSTEM

Looking through higher energy prices? Monetary policy and the green transition

Isabel Schnabel, Member of the ECB's Executive Board

Remarks at a panel on "Climate and the Financial System" at the American Finance Association 2022 Virtual Annual Meeting, 8 January 2022

In 2021 the global economy was shaken by a major energy crisis. Prices for oil, gas and electricity surged as our economies reopened after the shutdowns imposed in response to the coronavirus (COVID-19) outbreak.

Though last year's events were extraordinary on many levels, spikes in energy prices are a common phenomenon. Since the 1970s, sharp movements in energy prices have been a recurring source of economic dislocations and volatility.

And yet, the roots of today's shock are likely to go deeper. While in the past energy prices often fell as quickly as they rose, the need to step up the fight against climate change may imply that fossil fuel prices will now not only have to stay elevated, but even have to keep rising if we are to meet the goals of the Paris climate agreement.

In my remarks today, I will discuss the challenges that such prospects pose to both fiscal and monetary policymakers in an environment in which the supply of cheaper and greener sources of energy will only gradually be able to meet rapidly rising demand.

I will argue that governments will need to push the energy transition forward, while at the same time protecting the most vulnerable members of society from energy poverty.

Central banks, in turn, will have to assess whether the green transition poses risks to price stability and to which extent deviations from their inflation target due to a rise in the contribution from energy to headline inflation are tolerable and consistent with their price stability mandates.

I will explain that there are instances in which central banks will need to break with the prevailing consensus that monetary policy should look through rising energy prices so as to secure price stability over the medium term.

Fast rise in carbon prices helps accelerate the green transition

The world economy will have to undergo a far-reaching transformation to be able to live up to the Paris agreement to limit the increase in the global average temperature to 1.5° Celsius above pre-industrial levels.

At the heart of these efforts is the need to radically cut greenhouse gas emissions. According to the United Nations, global emissions would need to drop by 7.6% each year between 2020 and 2030 to reach the Paris target.

By way of comparison, in 2020, when global economic activity came to a virtual standstill, emissions fell by only 5.8%.

There is broad agreement that meeting these ambitious targets requires putting a global price on carbon, and it requires doing so swiftly.

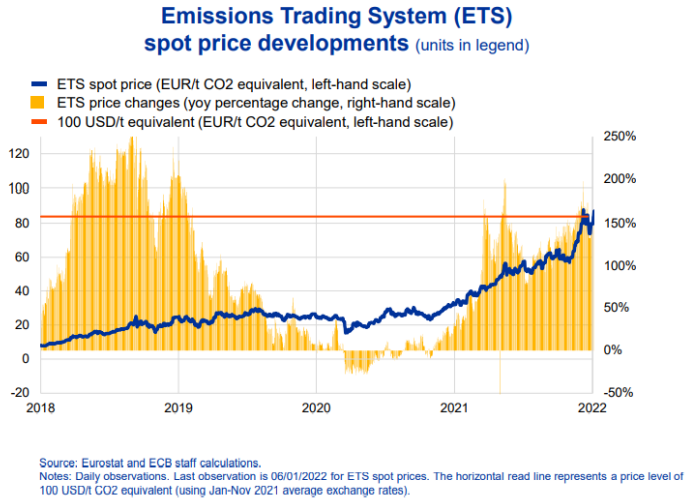
At present, only 21.5% of global emissions are covered by carbon pricing instruments and only 4% are covered by a price of more than USD 40.

According to a recent survey, most climate economists think the price of carbon should be above USD 75 to reach net zero emissions by 2050.

The median response of USD 100 is consistent with what Nicholas Stern and Joseph Stiglitz recently estimated to be the carbon price in 2030 necessary to achieve the goals of the Paris Agreement.

In the EU, prices under the Emissions Trading System (ETS) have recently started to rapidly approach these levels, in part reflecting expectations that the EU is committed to delivering on the clean energy transition (Slide 2).

EU carbon price increased sharply in 2021, accelerating the green transition



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In early December, ETS prices reached a new record high of nearly €90 per tonne of carbon, almost three times as high as at the beginning of 2021, and a multiple of their level a few years ago.

The measurable rise of carbon prices will help accelerate the green transition. If persistent, it strongly disincentivises new investments in fossil fuel energy carriers.

Two parallel developments are reinforcing the effects of a higher carbon price.

One is the European Commission's Fit for 55 package – an ambitious set of reform proposals, which was presented in July last year.

It includes a recommendation to significantly strengthen the ETS and widen its scope, which currently covers only around 40% of the EU's greenhouse gas emissions.

The Fit for 55 package also proposes a review of the EU Energy Taxation Directive, with the aim of raising the minimum tax rate for inefficient and polluting fuels, and lowering those for efficient and clean fuels.

The second development is the ongoing transformation in financial markets.

Sustainable investment is no longer a "nice to have" policy but has become an essential ingredient in most investor portfolios. Many institutional investors have started to materially reduce their exposures to fossil fuel energy producers and have redirected capital to more environmentally acceptable low-carbon alternatives.

ECB analysis shows that financial markets are increasingly serving as a corrective device.

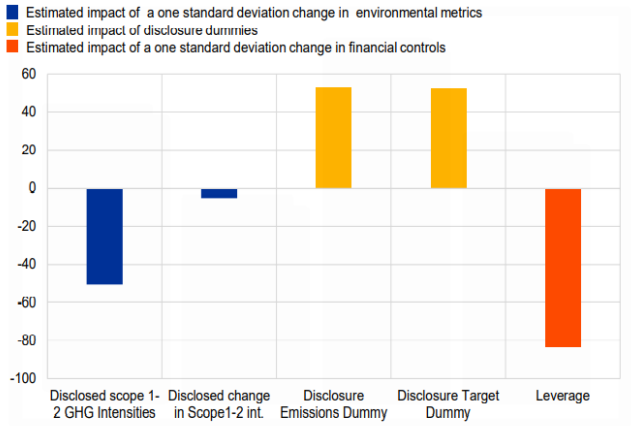
It finds that market prices have started to reflect the premium demanded by investors for exposures to climate-related risks. There is a positive relationship between the greenhouse gas emissions resulting from a firm's operations and credit risk estimates, as measured by credit ratings and market-implied distance to default.

The magnitude of the effect is economically relevant. On average, it is comparable to that of traditional determinants of credit ratings, such as leverage (Slide 3). The analysis also finds that disclosing emissions and emission reduction targets helps lower credit risk premia.

Financial markets as a corrective device, with high emissions implying higher credit risk

Impact of transition risk metrics on credit ratings vis-a-vis leverage

(y-axis: percentage of a credit notch)



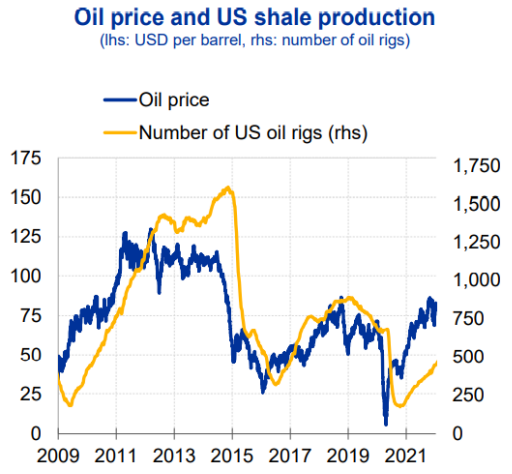
Source: Carbone, Giuzio, Kapadia, Krämer, Nyholm and Vozian (2021), "The low-carbon transition, climate commitments and firm credit risk", ECB Working Paper No 2631.
Notes: The first two columns represent the estimated magnitude of a one standard deviation increase in disclosed Scope 1 and 2 GHG intensities and disclosed changes in Scope 1 and 2 GHG intensities, respectively. The third and fourth columns reflect the impact of the decision to disclose GHG emissions and make a forward-looking commitment, respectively. The fifth column shows the impact of a one standard-deviation increase in leverage. The coefficients are obtained via a panel regression of credit ratings on environmental variables, firm-level, sectoral and country controls as well as time fixed effects. Ordered logit estimators lead to similar results.

3

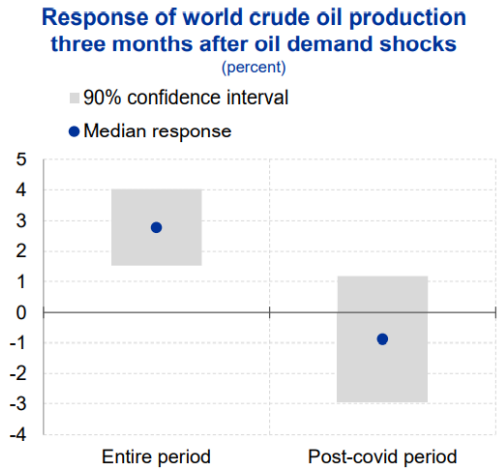
Since financial markets are global, these developments seem to have started to produce tangible climate-related effects even in countries that do not yet have a national carbon price, such as the United States.

Last year's strong economic expansion, for example, was characterised by an atypically slow response of US shale oil production to rising oil prices, as such investments may no longer prove profitable to investors over the medium term – at least not to the same extent as they have done in the past, or as returns may become even more volatile (Slide 4).

Oil production is responding more slowly to rising oil prices



Sources: Bloomberg and Baker Hughes.
Latest observation: 06/01/2022 (oil price), 31/12/2021 (rig count).



Sources: Bloomberg, Refinitiv, IEA and ECB staff calculations.
Notes: "Entire period": 06/2015 – 08/2021, "Post-covid period": 06/2020 – 08/2021.
Latest observation: August 2021

4

In other words, even in the absence of a global carbon price, which remains essential, there are growing signs that the green transition is accelerating around the globe.

Transition phase may bring protracted period of higher energy inflation

While such relative price changes are desirable and intended, they may weigh on the economy if firms and households cannot substitute more expensive carbon-intensive energy with greener and cheaper alternatives.

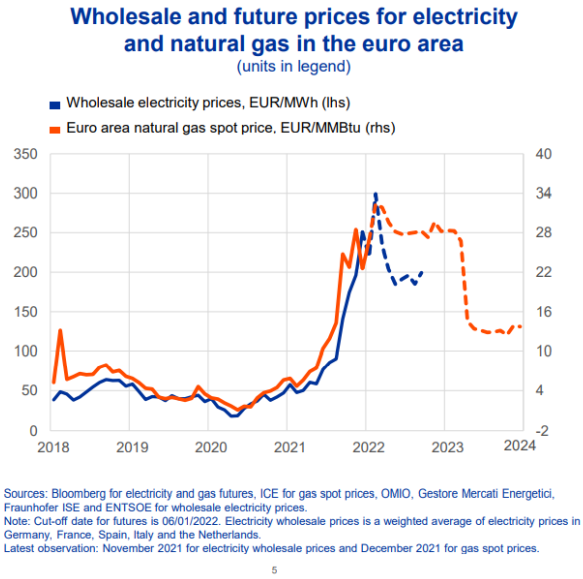
Higher carbon prices work in part by stimulating investments and innovation in low-carbon technologies. But these investments will take time. At present, renewable energy has not yet proven sufficiently scalable to meet rapidly rising demand.

In the EU, renewable energies currently account for only around 20% of energy consumption. The Fit for 55 package proposes increasing this share in the EU to 40% by 2030.

The combination of insufficient production capacity of renewable energies in the short run, subdued investments in fossil fuels and rising carbon prices means that we risk facing a possibly protracted transition period during which the energy bill will be rising.

Gas prices are a case in point.
Last year's adverse weather conditions, which constrained the production of renewable energy, have led to significant demand and supply imbalances in the gas market as global growth accelerated, pushing gas prices to new record highs (Slide 5).

Gas and electricity prices may stay elevated as green transition accelerates



The green transition may reinforce these imbalances in the future. In many countries, especially in Asia but also in the euro area, gas – being half as polluting as coal – is seen as a stopgap solution in the secular shift to a greener energy system.

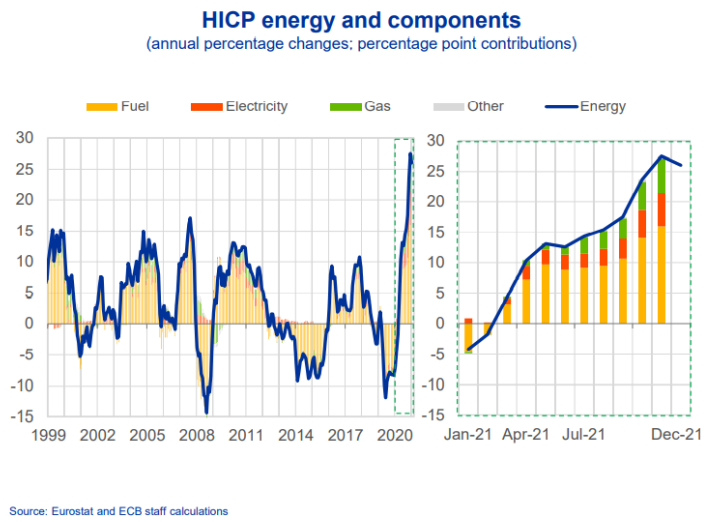
In the EU, rising gas prices have a direct and immediate impact on wholesale electricity prices, which are linked to the short-run marginal costs of gas-fired power plants.

In November, wholesale electricity prices in the euro area reached €196 per megawatt hour, nearly four times as much as the average in the two years preceding the outbreak of the pandemic (Slide 5).

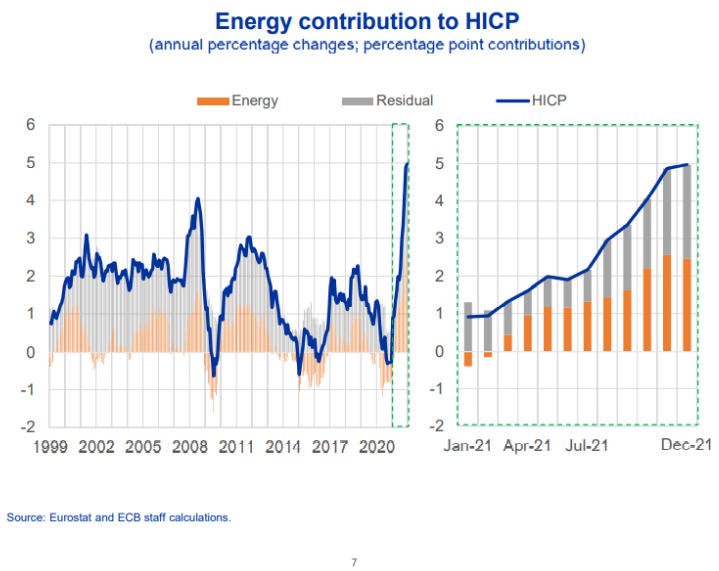
As a result, energy price inflation in the euro area, as measured by the energy sub-index of the harmonised index of consumer prices (HICP), reached a historical high in November last year, with electricity and gas jointly accounting for more than a third of the total increase, also a new historical high (Slide 6).

Energy, in turn, has been the prime factor behind the sharp rise in overall consumer price inflation in the euro area, with the HICP standing at 5.0% in December 2021 according to Eurostat's flash estimate, which was the highest level recorded since the euro was introduced in 1999 (Slide 7).

Energy price inflation reached record high in 2021



More than half of the recent rise in HICP inflation reflects higher energy price inflation



Between April and December 2021, energy contributed, on average, more than 50% to HICP inflation.

Governments need to advance the green transition and protect the most vulnerable

These developments pose significant challenges to policymakers – both governments and central banks. On the fiscal side, many governments have responded to rising energy prices by imposing tax cuts, price caps or rebates to shield the most vulnerable households from the sharp rise in gas, fuel and electricity prices.

Because energy expenditures are typically highly inelastic and constitute a particularly large share of income for less well-off households, carbon taxes tend to be regressive.

Already in 2020, 8% of the population in the European Union (EU), or around 36 million people, said that they were unable to keep their home adequately warm.

Energy poverty is a serious threat to the cohesion of our society and to the support for climate-related policies. Compensation measures are therefore important.

But such measures need to be designed in a way that does not reduce the incentives to lower carbon emissions.

It would be a serious mistake if governments, faced with rising energy prices, would backtrack from their commitment to reduce emissions. Governments should also not slow down the pace of the transition or delay the phasing out of fossil fuel subsidies.

Two recent proposals by the European Commission go in the right direction.

One is the introduction of the Social Climate Fund, which aims to address the social impact of higher energy prices resulting from the proposed broadening of the scope of the ETS towards the building and transport sectors, both of which will affect households in particular.

The other is the proposed system for EU countries to jointly procure strategic reserves of gas that can be released in the event of supply shortages. At present, capacity utilisation of gas storage facilities in Europe is just under two-thirds, almost 20% below seasonal norms. Energy buffers will help limit the volatility of gas prices.

Green transition poses upside risks to medium-term inflation

For central banks, the challenges are equally profound. In the past, central banks have typically looked through energy shocks, for good reasons.

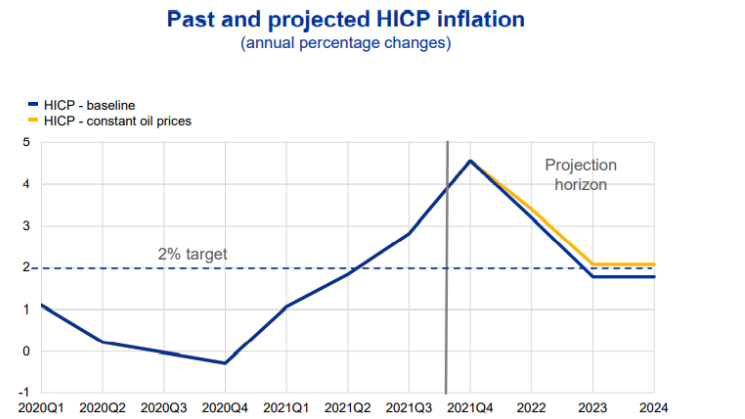
Most of the time, such shocks have been short-lived, meaning that a policy response would have amplified the negative effect of rising energy prices on aggregate demand and output and, given the long lags in policy transmission, exerted downward pressure on inflation at a time when the shock is likely to have already faded.

Temporary supply-side shocks therefore typically warrant a deviation from the target in the short run, provided price stability is restored over the medium term and inflation expectations remain anchored.

This insight also motivates our policy response today. In our baseline scenario, the current energy shock is expected to fade over the projection horizon.

The Eurosystem staff projections are based on gas and oil futures prices, which suggest that energy prices should decline measurably this year, thereby significantly contributing to the projected decline in HICP headline inflation over the medium term (Slides 5 and 8).

Medium-term inflation projected to be near target, with upside risks from energy prices



Source: Eurostat, Eurosystem staff projections (December 2021) and ECB staff calculations.
Notes: Quarterly values are reported until 2021Q4, annual values from 2022 onwards. The vertical line indicates the start of the projection horizon.

8

Such technical assumptions, however, are surrounded by significant uncertainty. In the past, futures prices have often significantly under- or overpredicted energy price inflation. These risks are arguably even larger today.

To see this, it is enough to look at the profile of the projected inflation path: the decline of headline inflation to levels below 2% at the end of the projection horizon hinges on the assumption, derived from futures curves, that in 2023 and 2024 energy is not expected to contribute to headline inflation.

History suggests that such a profile would be unusual. Since 1999, energy has contributed, on average, 0.3 percentage points to annual headline inflation. Sensitivity analysis conducted by Eurosystem staff suggests that it is enough for oil prices to remain at November 2021 levels for HICP inflation in 2024 to reach our target (Slide 8).

The scale of the energy transition, and the political determination behind it, implies that these estimates could be conservative.

Potentially protracted supply and demand imbalances related to "transition fuels", such as gas, as well as the fact that carbon prices are likely to rise further, and to extend to more economic sectors, mean that the contribution of energy and electricity prices to consumer price inflation could be above – rather than below – its historical norm in the medium term.

The energy transition therefore poses measurable upside risks to our baseline projection of inflation over the medium term.

At our Governing Council meeting in December, such risks were one factor in deciding on a step-by-step reduction in the pace of asset purchases over the coming quarters.

The pace of the adjustment, with net purchases under our asset purchase programme (APP) falling back to €20 billion by October, is consistent with what Alan Greenspan previously called a "risk-management approach" to monetary policy.

It prescribes that central banks should not only consider the most likely future path of the economy, but the entire distribution of risks around that path with a view to keeping sufficient optionality to address all inflation contingencies.

Rising energy prices may require a departure from a "looking through" policy

The question, then, is: if energy inflation were to prove more persistent than currently anticipated under our baseline scenario, at what point could we no longer afford to look through such a shock?

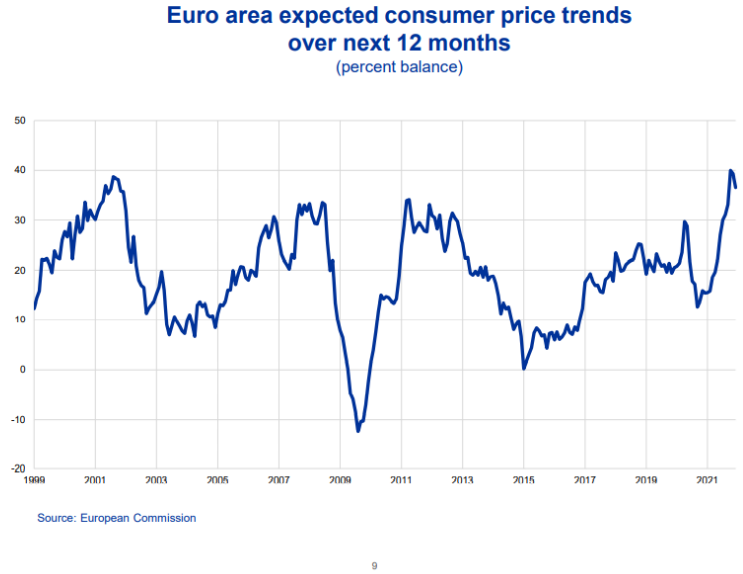
I see two scenarios where monetary policy would need to change course.

A deanchoring of inflation expectations

The first would occur if we were to detect signs that inflation expectations have become deanchored. Consumer price expectations are particularly susceptible to changes in the prices of goods that we purchase frequently. Energy, and petrol in particular, are part of this basket of goods.
Over the past year, consumer price expectations for the next 12 months have increased sharply (Slide 9). In October, when energy accounted for more than half of the rise in measured inflation, they reached the highest

level since the euro was introduced in 1999 and have remained close to record highs since then.

Consumer price expectations hit record high in 2021



The experience of the 1970s, when rising energy prices triggered a harmful price-wage spiral, emphatically demonstrated that allowing inflation expectations to drift away from the target makes it significantly costlier to bring inflation back to target, both in terms of lost output and higher unemployment.

So far, however, there are no signs of broader second-round effects. Wage growth and demands by unions remain comparatively moderate. But in an environment of large excess savings and protracted supply disruptions, the energy transition may lead to inflation remaining higher for longer, thereby potentially raising the risks of inflation expectations destabilising.

In this case, monetary policy would need to respond to, rather than look through, higher inflation to preserve price stability over the medium term.

Not all energy shocks are alike

The other scenario in which policy would require adjustment is if the nature of the shock were to change.

More than a decade ago, the seminal paper by Lutz Kilian established that not all oil price shocks are alike. Their effects on the economy critically depend on the underlying source of the shock.

Rising oil prices due to stronger aggregate demand, for example, are associated with an increase in real economic activity, calling for a different

monetary policy response than if oil prices were to rise in response to supply disruptions in the oil market.

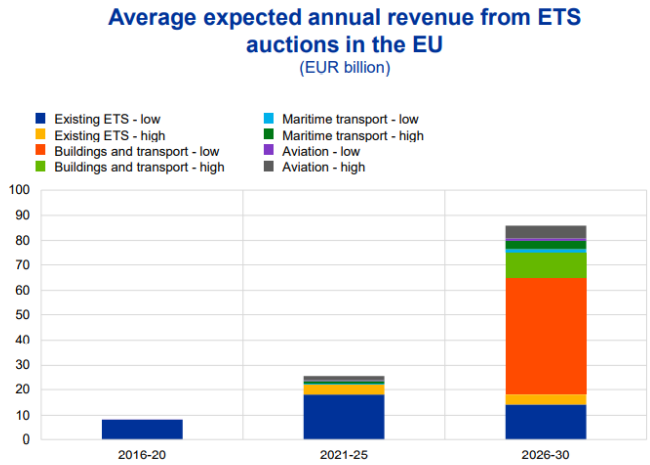
A carbon tax may share some of the characteristics of an adverse oil supply shock. Higher energy prices could weigh on economic activity and thereby put downward pressure on consumer price inflation in the medium term. In this case, monetary policy should "look through" temporary deviations of inflation from its target.

But a carbon tax differs from an adverse oil supply shock in two fundamental ways.

One is that the transformation of our economies through large-scale public and private investment programmes and the subsequent adoption of more efficient and greener technologies is expected to boost, rather than weigh on, economic growth and thereby support wages and aggregate demand.

The second aspect is that, for an energy-importing economy such as the euro area, oil supply shocks are negative terms-of-trade shocks, raising inflation and transferring wealth abroad. But a carbon tax is ultimately a domestic levy that shifts financial resources from the private to the public sector.

Revenues from higher carbon price are expected to increase measurably



Source: ECB calculation based on European Commission impact assessments.
Note: Low stands for the lower bound of the estimates, high indicates the additional revenue for the upper bound of the estimates.

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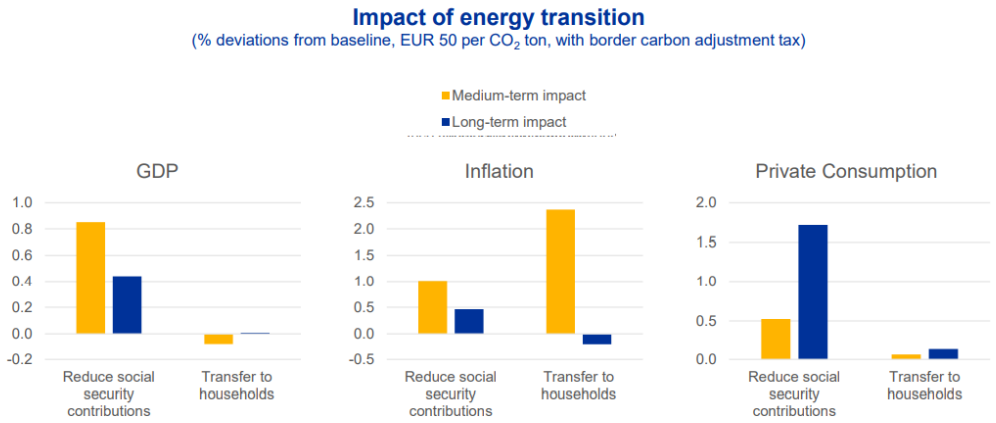
In the EU, for example, the coming years are expected to see significant increases in ETS revenues. ECB calculations, based on European Commission data, suggest that they will rise from €14 billion in 2019 to up to €86 billion annually in the period 2026-30 (Slide 10).

The proposed carbon border adjustment tax, which will put a carbon price on selected imports, as well as higher minimum tax rates on fossil fuels and other national tax initiatives, will further raise revenues.

Eurosystem economists show, based on the example of Spain, that what governments would do with such revenues will shape the response of the economy to the energy transition.

For example, lump-sum transfers to households and electricity bill subsidies, as currently implemented by many governments, can largely cushion the negative short-term effects of rising energy prices on consumption and GDP (Slide 11).

Energy transition does not necessarily weigh on growth and inflation in the medium term



Source: Estrada, A. and Santabárbara, D. (2021), "Recycling Carbon Tax Revenues in Spain. Environmental and Economic Assessment of Selected Green Reforms", Banco de Espana Working Paper No 2119.

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Alternatively, if revenues are used to cut other distorting taxes, such as social security contributions, thereby reducing the labour tax wedge, a carbon tax may in fact boost economic activity, even in the short term. And since new activity will likely arise in greener sectors, part of the increase in GDP will be permanent, potentially raising inflation both over the short and medium term.

These findings are not just hypothetical. An emerging strand of empirical evidence finds no robust negative effects of carbon taxes on GDP growth and employment. If anything, the evidence is consistent with a modest positive impact.

As such, if the future path of energy prices threatens to push headline inflation above our target in the medium term, and if growth and demand prospects remain consistent with firm underlying price pressures, monetary policy needs to act to defend price stability.

Conclusion

Let me conclude.

Carbon prices in the EU and elsewhere increased sharply last year, reinforcing efforts to reduce carbon emissions as fast as possible and accelerating investments in green technologies.

As the shift in the energy mix towards cheaper and less carbon-intensive fuels will take time, a rising carbon price, higher tax rates across a range of fossil fuels, and relatively inelastic energy demand may lead to continuous upward pressure on consumer prices in the transition period.

These developments pose challenges to both fiscal and monetary policy.

Governments will have to protect the most vulnerable parts of society from higher energy prices in a way that does not delay the green transition. Monetary policy, for its part, cannot afford to look through energy price increases if they pose a risk to medium-term price stability.

This could be the case if prospects of persistently rising energy prices contribute to a deanchoring of inflation expectations, or if underlying price pressures threaten to lift inflation above our 2% target as rising carbon prices and the associated shifts in economic activity boost rather than suppress growth, employment and aggregate demand over the medium term.

Thank you.

Introducing Privacy Center

Meta

- We're introducing Privacy Center, a new place to learn more about our approach to privacy across our apps and technologies.

- Privacy Center provides helpful information about five common privacy topics: sharing, security, data collection, data use and ads.

- Privacy Center is now available to a limited number of people using Facebook on desktop in the US, and we plan to roll it out to more people and more of our apps in the coming months.

Today, we're introducing Privacy Center to educate people on their privacy options and make it easier to understand how we collect and use information. In Privacy Center, you can learn about our approach to privacy, read up on our Data Policy and learn how to use the many privacy and security controls that we offer.

To start, Privacy Center is now available to some people using Facebook on desktop, and we will roll it out to more people and apps in the coming months. We've built a number of privacy and security controls across our apps and technologies over the years, and our goal is for Privacy Center to serve as a hub for those controls and privacy education.

The current version of Privacy Center has five modules, each containing guides and controls related to a common privacy topic:

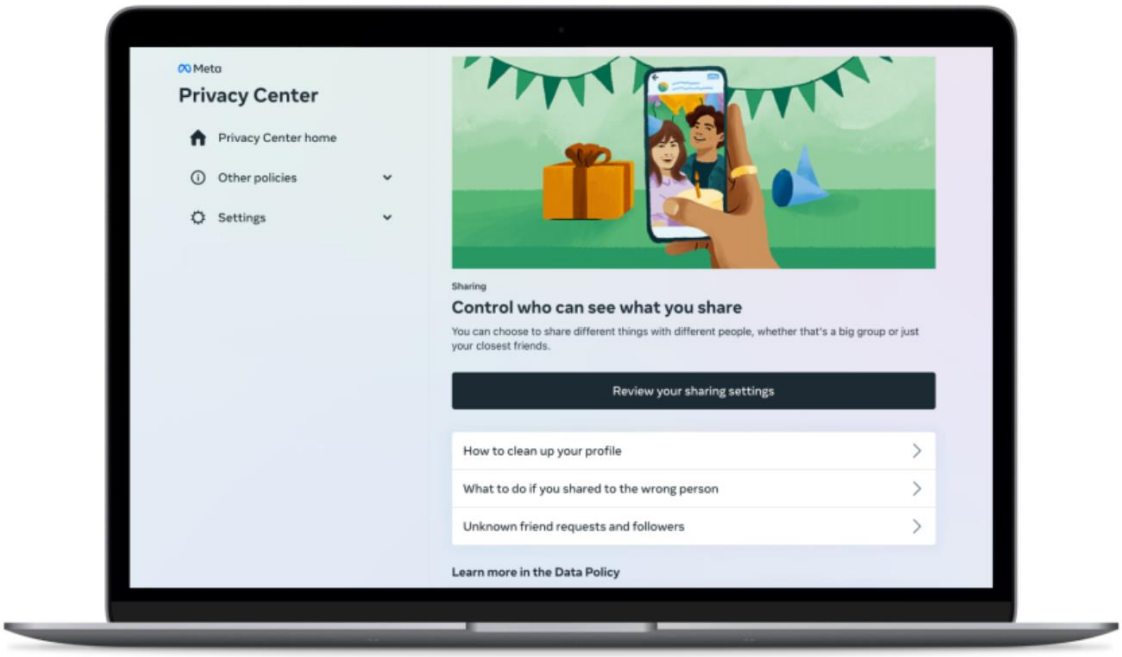
- Security: You can brush up on account security, set up tools like two-factor-authentication or learn more about how Meta fights data scraping.

- Sharing: You can visit this guide if you have questions about who sees what you post, or how you can clean up old posts on your profile using tools like Manage Activity.

- Collection: Learn about the different types of data that Meta collects, and how you can view that data through tools like Access Your Information.

- Use: Learn more about how and why we use data, and explore the controls we offer to manage how your information is used.

- Ads: Learn more about how your information is used to determine the ads you see, and make use of ad controls like Ad Preferences.



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https://about.fb.com/news/2022/01/introducing-privacy-center/

Asset quality has further improved, but cyber risk remains a source of concern for EU banks

- Bank capital ratios remain well above regulatory requirements.
- Asset quality has further improved, but there are concerns for loans that have benefited from moratoria and public guarantee schemes not least due to general uncertainty due to Covid-19 variant, Omicron.
- Profitability has stabilised at levels above those seen before the pandemic.
- The majority of banks expect a rise in operational risks mainly due to elevated cyber risks.

The European Banking Authority (EBA) today published its quarterly Risk Dashboard together with the results of the autumn edition of the Risk Assessment Questionnaire (RAQ).

The NPL ratio declined to 2.1% and the stage 2 ratio contracted to 8.7%.

Return on equity (RoE) was reported higher than pre-pandemic levels at 7.7%.

RAQ results show that around 50% of banks cover their cost of equity (CoE) with more than 70% of banks estimate a CoE range between 8% and 12%.

It remains to be seen to what extent the Omicron-related wave of infections will affect asset quality and profitability.

The CET1 ratio reached 15.4% on a fully loaded basis in Q3 2021. It declined by 10bps due to a small decrease in capital combined with a slight increase in risk weighted assets (RWA).

There is however significant variation in CET1 ratios across banks with the interquartile range spanning from 14.1% to 20%.

The leverage ratio remained unchanged at 5.7% on a fully loaded basis.

The decline in the NPL ratio (20bps QoQ) was driven by a 5% decrease in NPLs to EUR 419bn and was broad based.
The NPL ratio for household exposures declined to 2.5% (2.7% in Q2) and for loans towards non-financial corporates (NFCs) to 4.2% (4.4% in Q2).

The sectors more vulnerable to Covid-related measures continue to have higher NPL levels but have also shown improvement.

For example, the NPL ratio of accommodation and food service activities decreased by 20bps to 9.5% and for arts, entertainment, and recreation by 50bps to 7.7%.

The rising trend observed in the volume of forborne loans since the beginning of the pandemic halted at around EUR 383bn (2.0% of total loans).

Loan volumes under current moratoria decreased further. The volume of loans under existing moratoria was EUR 50bn (around EUR 125bn in Q2), with around a third (33.6%) of them classified as stage 2 (28.1% in Q2) and 6% as NPLs (4.5% in Q2).

23.9% and 4.9% of loans with expired moratoria were reported under stage 2 and as NPL respectively (24.5% and 4.7% in Q2).

The total volume of loans under public guarantee schemes (PGS) reached EUR 378bn in Q3, unchanged compared to the last quarters.

20.1% them were under stage 2 and 2.4% were classified as NPLs (18.5% and 2% in Q2 respectively).

Low impairments supported profitability which is higher than pre-pandemic.

The RoE was reported at 7.7% (2.5% in Q3 2020 and 6.6% in Q3 2019).

Cost of risk was 0.47%, substantially lower than at the same period last year (0.74%) and at the same level as December 2019.

The downward trend of the net interest margin (NIM) stopped.

Net interest income (NII) continues to be the main contributor to banks' net operating income (55.4%), yet net fee and commission income has an increasing relevance (31.9%, up from 30.2% in Q3 2020 and 28.5% in Q4 2019).

The latter remains one of banks' key target areas to improve profitability in future, according to RAQ results.
The questionnaire's results also show that the share of banks charging negative rates to NFCs continued to rise (60% vs 55% before) whereas the share of banks charging negative rates to households remains stable at around 15%. The liquidity coverage ratio (LCR) stood at nearly unchanged 174.7%.

The decreasing trend of the loan to deposit ratio was uninterrupted and the ratio was 108.2% (108.9% in Q2 2021), driven by a higher rise of deposits towards NFCs and households rather than loans.

On banks' funding, RAQ results indicate that banks will focus on senior non-preferred/senior HoldCo (more than 50%) and preferred senior unsecured debt (35%) over the coming 12 months.

A smaller share of banks (25%) reports their intention to draw secured funding (covered bonds). Related to operational risks, a significant share of banks (55%) expects its increase, in line with previous surveys.

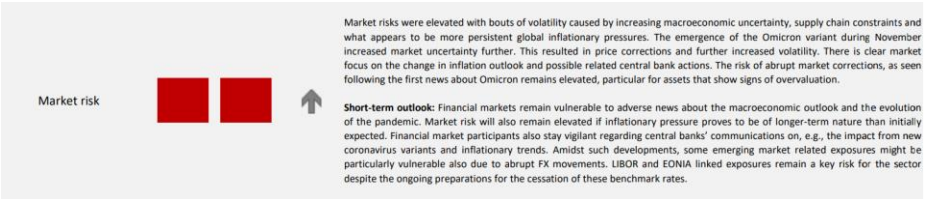
Of these banks, 90% consider cyber risk and data security issues, and around 40% cite conduct and legal risk as the main reasons for the expected increase in operational risk.

Banks reported in the RAQ that ESG factors are widely considered in their risk management. 80% of banks are taking them into account in credit risk, while more than 70% of banks consider them for reputational and operational risks.

The metrics most used by banks to assess their exposures to climate-related risks are carbon or greenhouse gas (GHG) financed emissions and environmental scores/ratings of counterparties (both indicated by 45% of banks).

They are followed by the share of green exposures (40%) and the share of environmentally harmful exposures (30%).

To read more:
https://www.eba.europa.eu/sites/default/documents/files/document_library/Risk%20Analysis%20and%20Data/Risk%20dashboard/Q3%202021/1025829/EBA%20Dashboard%20-%20Q3%202021%20v2.pdf



Project Helvetia Phase II: Settling tokenised assets in wholesale CBDC

Project Helvetia was a multi-phase investigation by the BIS Innovation Hub, the Swiss National Bank (SNB) and the financial infrastructure operator SIX.

Project Helvetia Phase II was concluded in January 2022. It demonstrated that a wholesale central bank digital currency (wCBDC) **can be integrated** with existing core banking systems and processes of commercial and central banks. Furthermore, it showed that issuing a wCBDC on a distributed ledger technology (DLT) platform operated and owned by a private sector company is feasible under Swiss law.

The experiment – conducted together with five commercial banks – explored the settlement of interbank, monetary policy and cross-border transactions on the test systems of SIX Digital Exchange (SDX), the Swiss real-time gross settlement system – SIX Interbank Clearing (SIC) – and core banking systems.

Project Helvetia is purely experimental and does not indicate that the SNB intends to issue wCBDC.

BIS Innovation Hub

"Tokenisation and distributed ledger technology (DLT) could bring significant changes to the financial system.

Phase I of Project Helvetia showed that wholesale central bank digital currency (wCBDC) can be used to settle tokenised assets in central bank money.

Phase II – as described in this report – expanded on the practical complexities, legal questions and policy implications of issuing wCBDC.

Phase II showcased the continued collaboration between the Swiss National Bank, SIX and the BIS Innovation Hub, together with five commercial banks. Building on earlier work, it successfully demonstrated how infrastructures based on DLT can integrate and interoperate with a range of existing systems.

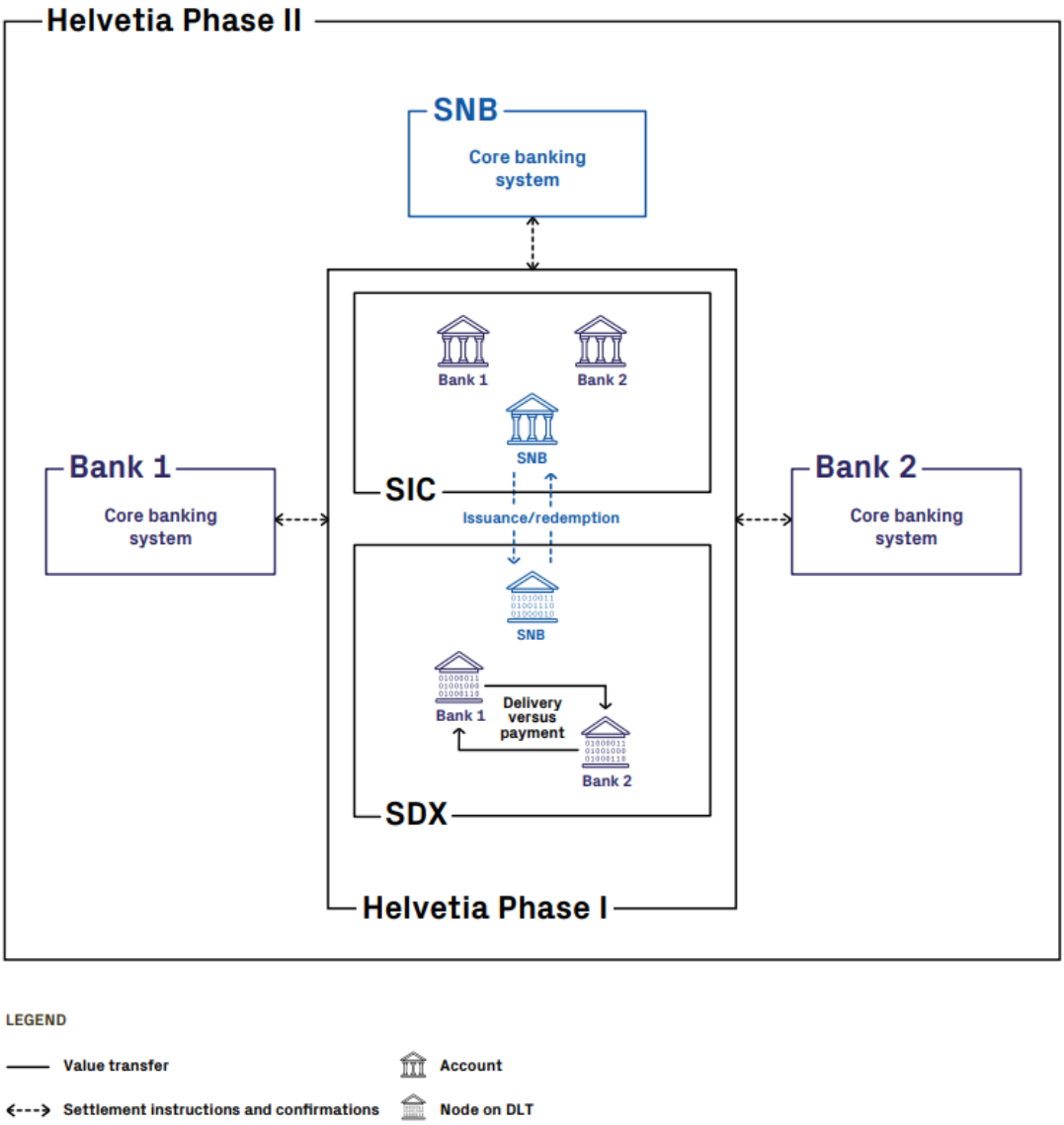
In this way, innovation is harnessed to preserve the best elements of the current financial system while also unlocking potential new benefits. As DLT goes mainstream, this will become more relevant than ever.

I wish to thank our partners for their excellent teamwork. The opportunities and challenges of innovation and interoperability in the financial ecosystem can only be addressed cooperatively.

Project Helvetia continued our demonstration of what the future could look like – and how we can work together to get there."

Benoît Cœuré
Head, BIS Innovation Hub

Graph 1: Overview of wCBDC experiment in Phase I and II



To read the paper: https://www.bis.org/publ/othp45.pdf

Shaping fair pay

BaFin Federal Financial Supervisory Authority

The amendment to the Remuneration Regulation for Institutions (Institutsvergütungsverordnung – InstitutsVergV) is in force, transposing further key remuneration provisions of CRD V into German law.

The amended Remuneration Regulation for Institutions entered into force on 25 September.

The primary purpose of the revision was to transpose into German law the remuneration rules of the fifth EU Capital Requirements Directive (CRD V) that the German Risk Reduction Act (Risikoreduzierungsgesetz – RiG) had not already transposed into the German Banking Act (Kreditwesengesetz – KWG) (see info box). As well as the provisions of CRD V, it also contains several clarifications and editorial amendments.

BaFin put the third and fourth regulations amending the Remuneration Regulation for Institutions (Institutsvergütungsverordnung – InstitutsVergV) out for consultation in November 2020.

The majority of the provisions implementing the remuneration requirements of CRD V are in the amending regulation that has now entered into force. The planned fourth amending regulation concerns only section 7 of the InstitutsVergV.

This is in connection with the new section 10j of the KWG, which will govern the leverage ratio buffer requirement. The plan is for the fourth amending regulation to enter into force at the beginning of 2023.

Key changes

A key reform is to remove leasing and factoring firms from the scope of the Remuneration Regulation for Institutions (section 1 (1) sentence 2 of the InstitutsVergV).

Furthermore, certain non-significant institutions that meet the criteria laid down in section 1 (3) sentence 2 of the InstitutsVergV are now required to apply specific requirements from the special section of the InstitutsVergV to the remuneration of their risk takers.

These criteria are based primarily on Article 4(1) no. 145(c) to (e) of the EU Capital Requirements Regulation (CRR), which contains the definition of small and non-complex institutions. This extension was inevitable due to the requirements of Article 94(4)(a)(i) of CRD V.

General requirements

A new requirement for appropriate remuneration systems in accordance with section 5 (1) no. 6 of the InstitutsVergV is that these must now be gender neutral. There can be no gender-based pay discrimination for equal work or work of equal value. This is likewise a requirement of CRD V.

The disclosure requirement under section 16 of the InstitutsVergV was also modified to reflect the fact that all institutions are now required to identify risk takers.

As a result, institutions that are not classified as significant in accordance with section 1 (3c) of the KWG are required to disclose quantitative information on the total remuneration of all employees in addition to the disclosures to be provided under Article 450 in conjunction with Articles 433b and 433c of the CRR.

Institutions that in accordance with Article 433b(2) of the CRR are not required to disclose information under Article 450 of the CRR are likewise not subject to the disclosure requirements under section 16 of the InstitutsVergV.

Special requirements

Changes have also been made to the specific requirements of the Remuneration Regulation for Institutions.

For example, the deferral periods for the variable remuneration paid to risk takers were increased to a minimum of four to five years from a minimum of three to four years (section 20 (1) of the InstitutsVergV).

The deferral periods for management board members and management levels directly below them remain a minimum of five years.

Further amendments were made to the rules for groups of institutions. The new section 27 (1) sentence 1 of the InstitutsVergV requires that the group's parent undertaking establish a group-wide remuneration strategy.

This includes determining principles for remuneration systems that are appropriate, transparent, gender neutral and geared to the group's long-term development.

The remuneration strategy also applies to subordinated undertakings that are exempted from the specific remuneration provisions of the German Banking Act and the Remuneration Regulation for Institutions.

Section 27 (2) of the InstitutsVergV stipulates that significant institutions and non-significant institutions subject to one of the specific requirements under section 1 (3) sentence 2 of the InstitutsVergV must also identify group risk takers and apply the remuneration requirements to them in the applicable scope.

CRD V specifies that subsidiaries within the prudential scope of consolidation which are subject to sector-specific remuneration requirements may be excluded from the specific remuneration provisions.

This includes asset management companies, which to date in Germany had been exempted from applying the Remuneration Regulation for Institutions.

Under the new version of section 27 (3) of the InstitutsVergV, all other subsidiaries with sector-specific requirements can now be excluded, as can subsidiaries domiciled in a third country that would fall under sector-specific law had they been established in the EU.

To prevent institutions from transferring staff to such group entities in order to circumvent the Remuneration Regulation for Institutions, the new section 27 (4) of the InstitutsVergV prohibits exemptions from the remuneration requirements for staff whose professional activities have a material impact on the risk profile of an institution within the group.

Risk Reduction Act

The German Risk Reduction Act (Risikoreduzierungsgesetz – RiG), which entered into force at the end of 2020, transposed the remuneration rules of CRD V into the German Banking Act (Kreditwesengesetz – KWG).

A key change in the KWG was to expand the identification of risk takers to cover all institutions.

Now, institutions that are not classified as significant under section 1 (3c) of the KWG must also identify specific employee categories as risk takers (see sections 1 (21) and 25a (5b) sentence 1 of the KWG).

However, the duty to identify risk takers in accordance with Commission Delegated Regulation (EU) 2021/923 continues to apply solely to institutions classified as significant in accordance with section 1 (3c) of the KWG (see section 25a (5b) sentences 2 and 3 of the KWG).

To read more:
https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2021/fa_bj_2110_InstitutsVergV_en.html

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