SESSION SUMMARIES

II

DIGITALISATION AND PAYMENTS

DIGITAL FINANCE STRATEGY: IS THE EU PROPOSAL UP TO THE CHALLENGES?

1. Opportunities and challenges of digitalisation in the financial sector

1.1 Digitalisation trends and opportunities in the EU financial sector

The Chair introduced the session by emphasizing the transformational effects of digitalisation on societies and economies, including the financial sector and the acceleration of this trend during the pandemic. An industry representative stated that at their firm – a leading European bank - the number of digital customers has been steadily growing in the last five years and that Covid doubled the pace of this growth in 2020. Digitalisation is an irreversible trend and is now fundamental to financial services. More than 55% of their active customers are digital, which corresponds to about 50 million digital users of their systems, platforms and channels daily across a number of countries. Going forward, their objective is to continue providing customers with digital solutions that anticipate and fulfil their changing needs in a simple, personal and fair way.

An industry representative concurred that digitalisation is a key driver of the evolution and integration of the EU financial industry. New technologies have changed the ways that customers interact with market infrastructures in particular. Tech developments in relation to data analytics, cloud computing, machine learning, artificial intelligence (AI) and blockchain are all opening up new possibilities. The COVID-19 pandemic has accelerated digitalisation. For instance, exchanges operated remotely during the pandemic and performed extremely well despite the uncertain and volatile market conditions.

Tomorrow's markets will increasingly thrive in a digital economy, the industry representative believed. In today's markets, every exchange system is on premise for the most part. The rest of the ecosystem sits within the data centre as well, and connectivity operates in a hub & spoke model. There is an opportunity to lift all of these bespoke environments into the cloud and look at the industry on a broader basis in terms of having a universal platform for transactions. As the economy becomes increasingly digital the cloud will enable companies around the globe to connect in new ways through the formation of a mesh-style network that leverages modern APIs and actors will be able to scale communications more easily and quickly thanks to this.

1.2 Questions and challenges raised by digitalisation for the EU financial sector

An official noted that with digital finance it is sometimes difficult to distinguish the hype from real progress. Many of the issues now on the table were already discussed 20 years ago about the internet. Finance is an area that lends itself very well to digitalisation because almost all services can be delivered digitally, but other aspects such as trust are also important. The brick-and-mortar model has persisted particularly for banks, because meeting advisors physically still contributes to building this trust.

New technologies including big data, AI, the blockchain and the development of apps that provide a great deal of convenience offer new opportunities, but the current digital strategy of traditional banks is often not very advanced, the official believed. In many cases it boils down to enhancing payment and transaction services. The way traditional banks react to the development of new payment service providers challenging one of their few remaining segments is usually by creating their own payment service provider or optimizing their in-house solutions but it is not much more advanced than that. More fundamental evolutions as to how financial services can fit into the new digital ecosystems are being discussed but good answers have so far not been found in Europe. One idea would be that financial service provisions could be an add-on to a wider digital platform offering a variety of services ranging from booking holidays to buying music. With a payment function integrated into the platform the provider would have access to much more data than a traditional financial institution. Combining the data from the platform with financial data would allow the development of a range of models for evaluating credit risk or consumer preferences and would help to develop and offer services in a much more effective and profitable way than at present. The question of what that type of evolution means for traditional banking and the European financial system is still open however. That model exists in China, for example, but has not arrived in Europe yet, because there are regulatory implications that need considering such as GDPR and technology-neutrality. Attempts to create new currencies have also triggered strong reactions in Europe in particular, justified by the systemic questions they raise.

An industry representative observed that digitalisation is both an opportunity and a challenge for the traditional financial sector. Beyond facilitating the access of customers and businesses to financial services, digital transformation plays a critical role for European banks in adjusting economically to the new low interest rate environment. At the same time huge investments are needed to accelerate these innovations and new digital entrants are competing for banks' customers and businesses and their existing profit pools, including in payments. Digitalisation also entails huge challenges for financial institutions in terms of potential cyber security and data protection risks. Another industry representative observed that while new technologies may increase the risk of cyber-criminal activities, they also support the development of more effective tools for fighting financial crime.

An official noted that digitalisation also raises new questions in terms of supervision. Supervisory bodies are mainly populated with financial experts. They also have some IT experts but do not always have all of the competencies required to assess the operational risks

associated with new technologies and tend to outsource these assessments to independent experts. At present there are rarely enough people within the financial regulatory and supervisory authorities who can really understand for example how IT operational cloud risk or digital risk interconnect with traditional financial risks or the specific risks that sophisticated algorithms may create.

2. Expected impacts of the Digital Financial Strategy (DFS) on the acceleration of digitalisation in the financial sector

The Chair stated that the European Union is supporting the digital transition as a priority, and is encouraging in particular the financial sector to embrace these trends and seize the opportunities brought by the digital revolution. The European Commission aims to make the benefits of digital finance widely available to European consumers and businesses, based on European values and the sound regulation of risks. To do so, the Commission published the Digital Finance Strategy (DFS) last September 2020.

In this strategy the Commission set out four priorities. First is tackling fragmentation in the digital single market for financial services in order to help consumers access cross-border services and help European financial firms scale up their digital operations. The second objective is to ensure that the EU regulatory framework facilitates digital innovation in the interest of consumers and market efficiency. Then there is creating a European financial data space to promote data-driven innovation. Finally, there is the objective of addressing new challenges and risks associated with the digital transformation. The DFS is accompanied by two legislative proposals, one on crypto-assets, the Markets in Crypto-assets (MiCA) regulation, and one on digital operational resilience, the Digital Operational Resilience Act (DORA), as well as a strategy for retail payments, which is an area where the pace of innovation is particularly fast.

The panellists welcomed the proposals of the DFS, considering that they identify the right priorities for accelerating digitalisation in the financial sector, and highlighted certain priorities among the different proposals of the Digital Financial Package.

An official suggested that, when considering what is happening in other regions of the world, the European financial data space is probably the most crucial element, because what is needed to promote digitalisation is making better use of the vast size of the single market in terms of data. The European financial data space should provide an opportunity to really make use of that scale for financial innovation. That is probably the one area where other countries like China are performing better than Europe at the moment. In China this comes at the expense of other aspects such as data privacy, but Europe should be able to do this in a more trustful way.

An official considered that the main drivers that the DFS identifies for accelerating the digitalisation of the EU financial sector are quite relevant. Removing fragmentation in the digital single market is essential, as well as adapting the EU regulatory framework to facilitate digital innovation and fostering data-driven finance. At the same time the challenges and risks with digital transformation need to be tackled, particularly cyber-risk which could be the next biggest financial stability risk. There are some risks associated with digitalisation, but there is also the need to move forward and what the Commission has proposed is definitely the right direction.

The proposals placed on the agenda by the Commission as short-term priorities for 2021 also seem particularly relevant for facilitating digital innovation in the current context, the official added. On MiCA, work is progressing quickly in a context where cryptoassets are gaining attention. One challenge is finding the right balance between protection and not hindering innovation in this area. In addition there is an upcoming debate on the prospects of central bank digital currency which may affect the core of financial services and thus have significant consequences. On cyber resilience DORA is a major step forward because more investment is needed in cyber resilience. It was not an easy task, but there is now a significant consensus on this proposal that was very well designed. Finally the strategy on payments is heading in the right direction, the official considered. Pan-European instant payment solutions need to be improved and in this regard the European Payment Initiative[1] is of major importance because it proves that incumbents can support the improvement of cross-border payments. It is indeed important to be able to rely on both incumbents and newcomers for achieving this objective and to keep an ability to master the whole value chain in this regard, avoiding excessive fragmentation.

An industry representative agreed that the DFS and its strategic objective to embrace digital finance for consumers and businesses is very welcome and identifies the key critical areas. One of these is data and access to digital platforms. Everyone agrees that data is a core asset in the digital economy, and the benefits of the recent sharing of data on payments as part of the revised Payments Services Directive (PSD2) have been seen. There is no reason why non-financial data should not follow the same path. There needs to be work towards enhancing data sharing and openness across and within other sectors, always in compliance with data protection and competition rules. That openness will bring huge benefits. Large digital platforms should be required to give access to third-party providers under fair, transparent and objective conditions, with financial authorities ensuring that these conditions are respected within the financial ecosystem.

A second critical area is the direct supervision of critical third-party technology providers, in particular for cloud services, which have become essential for banks due to the flexibility and the time to market benefits that they offer. The Commission's DORA proposal which introduces a new framework for the direct supervision of critical third-party providers is welcome in this regard. In the absence of a cross-sectoral digital authority, the financial authorities will be better positioned with DORA to oversee the cloud service providers critical for the financial sector. This oversight can improve the

1. The "European Payments Initiative" is an initiative launched by 31 European banks/credit institutions and 2 third-party acquirers to create a new pan-European payment solution leveraging Instant Payments and cards. This solution aims to become a new standard in payments for European consumers and merchants.

overall resilience of the financial sector and ensure that financial services in Europe have access to the best technology available.

The third aspect that the industry speaker highlighted is the importance of ensuring a regulatory level playing field between non-financial players that are becoming an intrinsic part of the financial ecosystem, specialising in specific areas of the value chain, and more traditional financial institutions. Rules should be the same for the same activities and same risks. That principle is necessary to ensure a fair, competitive and safe landscape. It is important that the European supervisory agencies should assess whether to apply a more proportionate approach across the financial ecosystem activities in order to ensure consumer protection, fair competition and market integrity, and also safeguard the stability and security of the financial ecosystem. It is also important to ensure that traditional players should not have undue constraints from these new rules related to digitalisation.

Another industry representative stated that their organisation – a major stock exchange - welcomes the digital financial package published by the European Commission last year, which is moving in the right direction. It is indeed important that the EU financial services rules should be fit for the digital age, in particular allowing the uptake of new technologies such as cloud services, AI, distributed ledger technology (DLT) and crypto-assets. Allowing the testing of new technologies as with the DLT pilot regime is also important. The rules relating to these new technologies need to be well-designed and strike the right balance between safety, customer protection and innovative possibilities, as was highlighted in recent draft reports published by the European Parliament on these proposals. The speaker also concurred with the importance of ensuring a level playing field between traditional market players and technology companies and enforcing the 'same activity, same risk and same rules' principle in rule-making.

An official noted that the DFS is pointing to very important systemic elements, such as interoperability, and provides an appropriate focus on the digital transformation of the EU financial system, which is very relevant for this sector, where digitalisation is largely underway.

Answering a question from the audience about how digitalisation may help to tackle new requirements such as anti-money laundering (AML) or ESG, an official replied that legislators should endeavour to integrate digitalisation as much as possible in the way regulation is being designed. It would be useful to include in the review of the non-financial reporting directive (NFRD) for example, the idea of how such data should be gathered and with which access. This is also true for other financial requirements such as those concerning reporting, where there are many unnecessary or unwanted overlaps that may be reduced by digitalisation.

3. Expected impact of the DFS on the integration of the EU financial market

An official considered that the DFS should support the integration of the EU digital financial market to a certain extent, first, with the focus put on on interoperability aspects, specifically of data, while respecting data protection rules. A second important element is the emphasis on underlying fragmentation factors such as the barriers created by AML privacy protection and cross-border IBAN issues.

Another aspect is whether the DFS proposals can have an impact on the integration of the European financial market in general. Concerning the achievement of the Capital Markets Union (CMU), the DFS will contribute to this objective for example by helping existing EU capital market legislations such as MiFID and CSDR to adapt to the digital age or by supporting the CMU objectives such as the implementation of a European Single Access Point (ESAP) and the sharing of corporate data. Effective progress in the integration of EU capital markets measured by the effective reduction of cross-border costs however cannot be achieved solely by digitalisation, because the reasons behind this fragmentation are much deeper.

On the retail side, i.e. the capacity for consumers to access cross-border financial services, overcoming the current fragmentation and increasing the use of digital services requires increasing trust in digital financial services and institutions, the official believed. Cyber-security is an important factor here for a large number of customers and is rightly included in the DFS action plan. Interoperability is also important for integrating tools and processes that support the services provided for retail investors and allow a reduction of costs. The objective of developing financial literacy, which is another important element, is not included in the DFS but is part of the CMU.

An industry representative explained that their company is aiming to become the world's best open financial services platform with a strategy hinging notably on the development of a digital native retail consumer business and the launch of a disruptive payment company. At the core of this strategy is the ability to grow the business in a cost-effective way and improve customer experience, which require using automation and AI, while leveraging scale in a sustainable way. There are two very important areas in the DFS that will help to create synergies and economies of scale: the interoperability of digital identities and the principle of passporting across Europe, and one-stop-shop licensing. Those actions will simplify the cross-border operations and enable banks to provide better customer experiences for a larger number of customers, and at the same time create the size and economies of scale needed for growing the business. This will allow the leveraging of what technology and digital disruption bring for achieving a wider scale and size in the current environment.

EU FINANCIAL DATA SPACE AND CLOUD INFRASTRUCTURE

1. Opportunities and challenges associated with the development of cloud services in the financial sector

1.1 Current trends of cloud service use in the financial sector

An industry representative explained that there is momentum for cloud services adoption in Europe, particularly in the financial services industry. Cloud has generally evolved as one of the key enablers of digital transformation. Digital native and challenger banks were early adopters of cloud and are now followed by more traditional financial players.

There are several trends underway in the financial industry concerning cloud services. One is the ongoing transformation of the core IT infrastructure of financial institutions, with a movement away from legacy systems and a progressive adoption of cloud-based systems, which are proving to be more agile and often more secure and resilient. Second, moving to the cloud can help traditional players to facilitate and speed up innovation regarding their key processes. Third, cloud services can also support regulatory processes, allowing supervisors and regulators to receive more up-to-date information in a more structured and automated manner. Finally, there is a great deal of innovation happening in the know your customer (KYC) and anti-money laundering (AML) fields thanks to the cloud, where the industry is deploying artificial intelligence (AI) and machine learning solutions to move away from rules-based systems and address AML issues with a more risk-based approach.

The Chair noted that the speed of change is remarkable in this area. Until recently, the focus was mainly on cloud adoption and transitioning customers to the cloud. But now the cloud appears to have become a major driver of transformation at the heart of many key financial processes such as risk management and reporting, which also calls for greater attention from supervisors than before.

1.2 Main opportunities offered by the use of cloud services

A policy-maker stressed that cloud computing can boost the cost, efficiency and agility of data processing, and therefore make European businesses more competitive. It can also facilitate data sharing across different business actors of the same ecosystem and can foster the emergence of an innovative data system in different sectors. Cloud is therefore at the heart of the open banking evolution due to its potential for supporting commercial relationships between different types of financial institutions, including fintechs, which have often been operating in the cloud from the very beginning.

The cloud can also unlock access to a number of emerging technologies, such as AI and blockchain, thus helping to trigger a second wave of digital transformation in the financial sector and allowing the financial sector to remain at the forefront of this transformation. Operating on a pay-per-use basis, cloud can make these technologies easily accessible and scaleable, without having to use a traditional IT infrastructure. This can lead to major savings in terms of capital expenditure. A Commission study found that the average organisation can reduce its IT infrastructure cost by 30-50% when moving to the cloud. Cloud also facilitates access to important added-value services. Financial institutions are, for instance, running on the cloud AI systems for robo-advice, credit scoring applications and chatbots that engage with consumers. There can also be cloud-native running of DLT for digital currencies or DNS resolvers on the cloud that preserve privacy and help to reach a high level of security.

Finally cloud computing can help to address problems of interoperability between legacy IT systems and new systems which are multiplying with the speed of evolution of technologies. These problems often happen in large financial institutions where multiple pieces of software and multiple databases in silos co-exist. Cloud computing has the potential to change this paradigm by providing fully interoperable and, ideally, vendor-neutral solutions.

An industry representative stated that it is very important to consider the practical use cases of cloud in the policy discussion. Using cloud services enables a real reduction of IT costs. This is mainly true when using public cloud service providers (CSPs) and hyperscalers, because whilst setting up a private cloud might be a first step it will not provide the same benefits. Secondly, buying services out of the public cloud for data analytics or AI offers access to higher processing capacities, which allow for example the evaluation of more complex financial instruments requiring many calculations. Finally, another advantage of the cloud is its flexibility. With the pay-per-use model, computation power can be bought when it is needed and there can be a progressive revamping of applications and IT systems on the cloud. With this 'continuous development' financial institutions are able to provide clients with innovations on a more frequent basis.

A regulator explained that the supervision of companies with activities in the cloud has revealed several opportunities. On the industry side, these include a greater capacity to innovate and enhance products and customer experience with greater convenience. The use of cloud services can also increase competition, flexibility and choice in the financial sector, and can help financial institutions to transition from their legacy systems. Cloud services can also support regulatory and supervisory activities by facilitating access to supervisory and regulatory technology (SupTech and RegTech). These are innovative technologies that can be embarked on underlying cloud infrastructures and can ensure the continuity of regulatory and supervisory activities with the financial entities concerned.

1.3 Conditions and challenges associated with the development of cloud services

A policy-maker suggested that different factors of success need considering when moving to the cloud. First, financial institutions should be encouraged to adopt a multi-cloud strategy with a balance across multiple cloud providers in order to avoid putting all their eggs in the same basket. Second, proper attention should be paid when negotiating cloud contracts. There are many potential problems of asymmetry in negotiating power with CSPs and even fairly large financial institutions find it challenging to negotiate cloud contracts in some cases. That is why the European Commission is currently developing standard contractual clauses for cloud use by financial institutions. Another factor of success is to establish a cloud centre of excellence in the organisation. Organisations should adopt a central IT risk strategy with a multi-cloud element, as also mandated by the new Digital Operational Resilience Act (DORA) legislative proposal.

An industry representative noted that the broader uptake of cloud services raises several challenges for the financial sector. There is a skills challenge, because moving to the cloud is a relatively new journey which comes with many change management aspects. Although this issue is probably less acute in finance than in other sectors, the industry is still defining the optimal path for moving to the cloud in a safe way. There are also potential concerns related to concentration risk and vendor lock-in, which regulators are working to address. From an industry perspective, open-source technology and multi-cloud approaches that foster portability and interoperability are ways to address this problem and to insure financial institutions against the possible failure of the systems of one given provider. A third challenge is regulatory fragmentation. Whilst a very significant effort has been made by the European supervisory authorities (ESAs) in the past few years to define a harmonised approach to outsourcing rules, there is still fragmentation at the member state level in their implementation and supervision. It is hoped that further policy efforts, including with DORA, will help to alleviate these problems.

A regulator added that while the technological sophistication brought by cloud services delivers clear benefits to financial services firms and their customers, it also changes the nature of the operational risks that need to be managed and mitigated by financial institutions and may create new complexities e.g. in terms of data localisation. Concerning the further source of complexity brought by the variations that exist across regulatory requirements, the regulator confirmed that.it is one of the objectives of DORA to address this issue and create more convergence at the regulatory level.

A public representative observed that a further challenge that is not specific to cloud is that technological innovation is often faster than regulation. However, the EU institutions are conscious of this and are trying to improve the way regulations and frameworks are updated.

1.4 Main opportunities and challenges associated with enhanced data use and sharing

An industry representative stated that data access, data sharing and the cloud are the basis of a potential revolution in the insurance industry in particular. Insurance companies aim to move away from being perceived as just traditional claims-driven companies and reimbursement agents to becoming 'lifetime partners' of customers, providing a range of assistance and prevention services. This may be supported by the combination of insurance and technology, and in particular the Internet of Things which allows access to continuous flows of data that come on a real-time basis. Historically the industry has been based on single data points, especially for underwriting purposes, but this is now evolving. With continuous flows of data from customers, timely assistance and prevention can be effectively provided, above and beyond paying claims.

There are a number of challenges however that the insurance industry is facing in this context of increasing digitalisation. First is the risk of inertia that is common to large incumbent multinational companies facing legacy systems and localised regulations that constitute barriers to change. Another challenge is providing sufficient value to customers for sharing their data and also safeguarding the use of data when it is processed in the context of AI or aggregated with other data sources. A further challenge is the competition brought by big technology firms and new entrants that do not have the same legacy systems and operating models and which requires a level playing field to be established.

2. Priorities for the regulation and supervision of cloud services and data use and sharing

In the second part of the discussion, the panellists commented on the main regulatory initiatives underway related to cloud services and the use and sharing of data.

2.1 Digital Operational Resilience Act (DORA) and the ESA cloud outsourcing guidelines

A policy-maker stated that having an appropriate regulatory architecture for cloud services is important for ensuring legal certainty and is beneficial for both the financial services industry and cloud service providers (CSPs). The objective of DORA is to address the threats to operational resilience in the financial sector associated with the use of new technologies including cloud, by further harmonising and streamlining existing rules on ICT[1] risk management and ICT-related incident reporting. The risk-based approach taken in DORA is directly inspired by the Network and Information Security (NIS2) directive, which provides legal measures for improving cyber-security in the EU, but DORA looks at the specific requirements of the financial sector. DORA aims at addressing different issues mentioned in the context of cloud agreements - such as the risk of vendor lock-in, the imbalances in contractual negotiation, the exit strategy when a bank or financial institution wants to switch providers, or concentration risk - by introducing a certain number of high-level requirements for contractual agreements between

1. ICT: Information and Communications Technology

financial institutions and third-party IT providers. It also introduces oversight by the ESAs over critical CSPs.

In terms of implementation, DORA will be supplemented by Level 2 and Level 3 guidance at a European level. Level 2 will be materialised by the existing cloud outsourcing guidelines published by the ESAs in 2019 and 2020 that provide an appropriate basis for the implementation of DORA. The proposal is to also put in place Level 3 rules by developing standard contractual clauses for cloud outsourcing specifically for the financial sector, based on the Level 1 DORA guidelines and the outsourcing guidelines of the ESAs. It is believed that this more harmonised framework at the EU level will help to speed up the time to market for cloud projects in the financial sector and support innovation. This three-level architecture should also facilitate supervisory convergence for cloud outsourcing across the EU.

A regulator emphasized that the ESA cloud outsourcing guidelines were a pioneering work that gave the initial structure and perspective on how cloud service provision should be structured and on the issues that should be taken into consideration for its proper oversight in the financial sector. While there are three different guidelines from the ESAs, these enjoy a high level of convergence. For instance, all three guidelines mention general principles of governance, define requirements for an appropriate outsourcing policy (e.g. in terms of documentation, allocation of responsibilities) and describe how the outsourcing process should be carried out from the pre-outsourcing phase to the exit strategy. The guidelines also define risk management and due diligence requirements and the determination of whether a CSP is of critical importance for a financial entity. This therefore provides financial institutions with an appropriate basis for negotiating and structuring their cloud contracts and supervisors with guidelines for conducting the oversight of cloud-related risks. The DORA proposal builds on these guidelines to a large extent and has many aspects in common.

An industry representative stated that cloud is essential for the competitiveness of the financial sector and should be thought about not just from a risk standpoint but also from the standpoint of what is required to enable its effective implementation in Europe. Indeed the major CSPs invest a great deal in securing their operations, which may contribute to actually reducing operational risks in the financial system. In this regard DORA is a step forward because it provides a common framework and will help to reduce the current fragmentation of rules. It is necessary however to make sure that the specific risks associated with cloud (compared to the outsourcing to a data centre) are understood. The current proposals are also very focused on applying outsourcing rules to cloud services and could potentially be extended to any ICT services sold on a pay-per-use basis and which can be bought and terminated quickly.

A public representative emphasized that concerning cyber-security there are a number of intersections between DORA and NIS2. This is normal because DORA builds on NIS2 but the connection between the two legislations needs to be more clearly established. Further work and coordination is needed on a number of issues: for example according to the NIS 2 proposal, CSPs should be from now on classified as 'essential entities' and should thus be subject to both the requirements of DORA and NIS 2, but there is no clear hierarchy between DORA and NIS 2 requirements in that regard. This brings a clear issue of taxonomy in incident reporting and potential overlaps in the requirements for CSPs. The question is whether this redundancy is intentional because the regulator sees the need for increased oversight of CSPs or if it is unnecessary duplication. There is also an issue regarding the coordination between the lead overseer introduced in DORA and the national competent authorities (NCAs) defined in the NIS2 Directive. Strong coordination is needed between the EU and Member State level, otherwise that will lead to fragmentation.

An industry representative stated that DORA is a novel framework. Indeed, it is for the first time bringing ICT providers into the scope of financial services oversight and this must be done appropriately. DORA could create a genuine opportunity to enhance understanding, transparency and trust between ICT service providers, financial entities and regulators and ultimately stimulate innovation in the European financial sector. However, to ensure its effectiveness a certain number of issues need to be considered. The consistency of DORA with the NIS Directive is critical, the industry speaker stressed. DORA is not lex specialis for providers who may be subjected to other parallel frameworks and might end up being confronted with two packages that have conflicting recommendations, issued from different authorities that have not sufficiently coordinated. In this perspective there is a need for legislation to harmonise and deduplicate requirements, including between DORA and existing frameworks like the ESA Outsourcing Guidelines and the NIS Directive - in particular in the view of the new NISD2 proposal. Legislation must also be proportionate and fit-for-purpose, especially through the requirements that recognize the technological realities of evolving ICT services in the public cloud context - that are provided in a multitenant, one-to-many environment. There is a need to maintain technology neutrality and boost innovation, which is encouraged by open markets and the free flow of data, and also to protect the availability and integrity of digital services and cloud customers' privacy, whether they are subject to DORA or not. It is to be hoped that these issues will be addressed in the on-going legislative process.

2.2 Data Services Act (DSA)

A public representative noted that the DSA proposed in December 2020 could be of importance for data-related issues. The actual work is still on hold because some internal decisions are being waited for. This regulation builds on the principle of the e-Commerce Directive. It is going to touch upon the liability exemption and the general monitoring prohibition. In that matter, the regulation can be divided into two main aspects. The first one is guaranteeing data safety for customers and safety online in general. A second is how to regulate the industry and the main providers.

An interesting new insight, the public representative believed, is that it will be ensured that there is a proportional obligation depending on the size of the provider and the number of users the provider is serving. The objective with the DSA is to ensure by regulation that the fundamental rights of the users are

safeguarded. Usually this objective is in the hands of the providers and requires a great deal of effort with the pre-existing directives and frameworks. This remains a priority for the European Parliament, especially in the current environment where the exposure of online users in education and working spaces has increased in the last few months.

An industry representative noted that, generally speaking, with the pace of change that all observe in technological developments, the continued review of existing regulations and policies is essential. It has to be ensured they are up to the standards of the current technological developments and foresee any changes in the future. This is, for example, very applicable to GDPR, which is a great regulation that has set the standard on a global basis. Nevertheless, there should also be consideration of how other regulatory environments diverge from the EU, and from GDPR specifically, because this divergence may limit access to some potential developments that could be better exploited at a European level if GDPR was reviewed.

An industry representative added that for the data privacy and security issues there will be more practices going forward. There have been some discussions about whether someone putting their name on a video platform already presents a data privacy issue for example. Those kinds of things have to be settled, otherwise the application of these requirements becomes very difficult for the industry.

Conclusion

The Chair summarised that cloud services and data access and sharing are at the heart of the transformation of the banking and insurance sectors. Use cases show that cloud services are entering more into the core tasks and processes of financial institutions. On the one hand, this offers new opportunities to improve services and better serve customers. On the other hand, this implies important changes to business and operating models, which may raise new risks and financial stability issues. However, cloud outsourcing and other innovative technologies may also contribute to mitigating stability risks in the financial sector.

Everybody on the panel agreed that the initiatives of the Commission, in particular the DORA initiative are moving in the right direction. However some technical issues and potential inconsistencies between DORA, NIS 2 and the ESA cloud outsourcing guidelines need to be addressed for enabling the European financial industry to reap the full benefits of data, digital innovation and the cloud.

IS THE CURRENT EU FINANCIAL FRAMEWORK FIT FOR THE DIGITAL AGE?

1. Opportunities and challenges associated with digitalisation in the financial sector

1.1 Opportunities and conditions of success of digitalisation

An industry representative stated that adopting new technology can improve service delivery and customer experience while also enhancing resilience, security and meeting regulatory requirements. For example, cloud services and related analytical and artificial intelligence (AI) tools help financial firms of all sizes to innovate and differentiate themselves by redesigning their operating and business models and implementing more data-driven decision-making. In the past, the focus concerning cloud services was mostly on cost reduction. However, as financial institutions have become more familiar with the technology and as it has evolved, the emphasis is now more on agility, resilience and innovation gains. These are key competitive advantages in a constantly evolving environment where market participants are faced with new participants, products, value chains and also risks. Modern technologies can also be used by financial institutions for enhancing resilience and efficiency, leveraging globally distributed infrastructure to build redundancy in all components of the ecosystem and also standardising and automating processes. Technology can also be used to prevent and detect fraud or misuse of services to a degree that was not possible in the past.

Another industry representative noted that digitalisation is used in various ways in the asset management sector. AI and machine learning are increasingly used across various functions. For example, AI can support the assessment of issuers' annual reports, which helps portfolio managers to carry out their analyses. AI can also facilitate the handling of fund prospectuses, which are used for compliance activities.

A regulator considered that technologies such as AI, blockchain, big data or cloud computing can provide a significant contribution to the financing of the economy and also benefit investors and citizens. These technologies can for example be used to improve all steps of the capital market value chain such as custody, trading, clearing, settlement and asset management. Technology may also support the development of new asset classes and lead to a more decentralised financial system, which may help to improve future funding and saving opportunities.

An industry representative pointed out that the banking sector was quick to adapt to the digital revolution and promote its benefits to customers. There are four key high-level principles to be followed so that technology can benefit the industry and its clients. Technology must improve business efficiency without weakening resilience; improve customer outcomes without undermining protection; respect privacy; and be inclusive. These principles resonate with Europe's instincts on applying digital technology to banking. Reconciling them in the product and service offering is challenging, but also represents an opportunity.

1.2 Challenges and risks raised by digitalisation in the financial sector

An industry representative noted that the pandemic has accelerated the speed of digitalisation. This raises new questions for regulators. Tech spending needs are increasing which is capital-dilutive, so there is a prudential aspect, and there is also a potential skills and knowledge gap with these new technologies for financial players and supervisors. A second challenge is related to the entrance of new players in the financial system and the potential unlevel playing field between them and traditional players, if they are not subject to the same requirements e.g. in terms of customer protection.

A regulator agreed that digitalisation may bring new risks. For example, technology can facilitate access to more information, but that does not guarantee its quality. It is increasingly common for investment decisions to be based on unreliable information such as opinions or informal recommendations e.g. seen on social media. This may create new speculative trends with risky bets, leveraged positions and possible gamification issues, with insufficient attention being paid by investors to the underlying economic features and risks of investment choices. Green washing and tech washing are other issues that may mislead investors. Empowering investors with digital tools provides many benefits but also comes at the cost of assuming possibly inappropriate investment choices. In addition to these micro-level risks, there are also more systemic risks potentially associated with digitalisation, including cyber and data protection risks. Technology may also accelerate the development of new competition from non-bank financial intermediation.

2. Regulatory and supervisory challenges associated with digitalisation in the financial sector

2.1 Challenges for regulators and supervisors

An official stated that the biggest challenge for supervisors in an environment that is rapidly changing with digitalisation is being able to provide appropriate guidance, particularly in areas with no EU legislation, or which are grey zones. Initial coin offerings (ICOs) was one of these areas, for which market participants were asking for more clarity before EU legislation was proposed. Some domestic regulators have run the risk of providing guidance even if they knew that it might not conform exactly with what would be agreed later at EU level. The same situation happened concerning crowdfunding, for which different legislations were implemented across member states. In order to

reduce regulatory uncertainty, the official's institution – a central bank - has decided to help proactively the financial institutions that are willing to engage in technological innovation. One successful example is a sandbox that has been developed for market participants willing to test new developments using DLT (distributed ledger technology).

A regulator agreed that with technological developments there is a risk for regulators of 'regulating the unknown', since the full implications and impacts of these new technologies cannot be fully envisioned or understood beforehand. The Chair observed that in such cases learning-by-doing and taking a proactive approach is the right way forward.

An official considered that regulators are still in a learning phase, when it comes to defining the right policy approach for coping with the emergence of new technologies and related impacts in terms of distribution channels, products, services and, particularly, new players. Supporting regulators and policymakers in this regard is at the core of the work conducted by the BIS Financial Stability Institute (FSI) on digitalisation.

2.2 Challenges for the industry

An industry representative emphasized that there are still structural issues in the EU regulatory framework that may hinder the digitalisation of banks and other financial institutions, such as the lack of a consistent regulation of underlying products. While regimes such as UCITS are unified at the European level, other prevalent financial products such as mortgages are still nationally regulated with regulations that differ across EU jurisdictions. The Capital Markets Union (CMU) and Banking Union initiatives will foster a more pan-European approach, providing more cost-effectiveness and resilience, but these projects are still to be completed.

There is also a lack of clarity in the regulatory framework concerning how emerging technologies such as blockchain or AI apply to financial sector use cases. Issues remain for example with respect to the reconciliation of the blockchain data storage approach with the right to be forgotten. There are also questions regarding the possibility of experimenting with AI using personal data without breaching GDPR data protection rules. These are important questions, as digitalisation is expanding in all sectors of finance. The development of innovation hubs and the work conducted by regulators in areas such as crypto-assets, DLT, AI and digital platforms should however contribute to addressing these issues.

An industry representative mentioned that globally cloud service providers (CSPs) face two main challenges. The first is supporting customers in their compliance with regulatory requirements so that cloud-based applications match supervisory expectations. The second is dealing with regulatory requirements that apply to CSPs, such as DORA (the Digital Operational Resilience Act proposed by the EU). In both cases, coherent and harmonized cross-border regulatory requirements are critical for the ability of firms to adopt technology including cloud, AI and machine learning. Financial frameworks must also evolve with on-going technological innovation. This is necessary for market participants and their customers to fully benefit from these innovations and for the European financial sector to remain competitive at the international level.

3. Existing and future policy actions related to digitalisation in the financial sector

3.1 Ongoing policy actions related to digitalisation at the international and EU levels

An official stated that the financial policy framework has not evolved significantly at the international level with the advent of digitalisation. Some sectoral regulations have been updated in areas with significant fintech penetration, such as wealth management, payment services or insurance, but rules have not been extensively modified. New players therefore compete with incumbent companies using rules that existed before they emerged. The creation of new regulatory categories, such as digital banks, is more an exception than the rule. Clearer and more determined policy action can be seen for cryptocurrencies. For example anti-money laundering and combatting the financing of terrorism (AML/CFT) rules have been adjusted by international standard setters, notably the Financial Action Task Force (FATF), the global AML / CFT watchdog, to incorporate crypto-asset service providers.

The Chair noted that the EU has gone through a learning phase regarding digitalisation, but there is now a move from learning to the implementation of regulatory policies as more is known about new technologies. The Commission has published a digital finance strategy, as well as proposals on operational resilience (DORA), cryptocurrencies (MiCA) and DLT (DLT pilot regime).

An official commended the European Commission for having put forward a clear digital policy agenda. If that agenda is delivered as planned, the EU will be in a leading position compared to other jurisdictions in terms of digital finance policy.

3.2 Areas where further policy work is needed

An industry representative suggested several areas of improvement related to the on-going EU digital policy initiatives. The first one concerns cybersecurity. Cybersecurity tools are increasingly used to strengthen resilience against attacks, which also means a greater use of third-party providers. The DORA regulation strengthens obligations on users to conduct due diligence on these providers, but this can be quite challenging because some of these providers are major global firms, possibly limiting access to information – which is made even more difficult if based in third countries. New powers should therefore be granted to users for ensuring that their own due diligence requirements can be fulfilled over third party providers. In addition, in the DORA proposal, the European Supervisory Authorities (ESAs) are made central, whereas the European Union Agency for Cybersecurity (ENISA) plays a secondary role. ENISA should play a greater role in particular regarding the reporting of critical cybersecurity incidents as it is better equipped to deal with them as well as avoid being hacked (as compared to sectoral financial authorities). A more stringent, clear and common

approach to cyber-resilience between existing financial players and new entrants is also needed. A common approach should also apply to AML rules.

A second area to consider is DLT/blockchain, the industry speaker emphasized. This is an area that will provide the fund industry in particular with huge opportunities and where EU harmonisation will be very beneficial. DLT may indeed increase the speed and reduce the cost of settlement of securities and asset transactions, as well as facilitate fund distribution. The DLT pilot regime aims to facilitate the safe testing of DLT solutions with lighter regulatory requirements in order to enable both existing CSDs and MTFs, as well as new entrants, to build new DLT-based solutions. It is important that the pilot regime should be implemented in a way that leverages the efficiency benefits provided by DLT and its decentralised nature, thus allowing new entrants to provide settlement services at a lower cost and with increased efficiency. A third critical area is crypto-assets for which a regulatory framework is needed at EU level, to ensure that there is a minimum level of safety before developing investment in that area.

A second industry representative emphasized that new technologies can support cross-border financial services, which are essential for the efficiency of the EU financial sector, but an effective cross-border coordination and dialogue is needed among regulators in order to reduce regulatory and supervisory friction across the EU and alleviate obstacles to digitalisation.

A third industry representative suggested that the maintenance of a level playing field between incumbent financial institutions and new digital entrants providing similar activities or products is an objective that deserves further attention. For example some products provided by new entrants such as e-wallets are substitutable for bank deposits, but do not offer the same protection because they are not subject to a deposit protection scheme. There is a question as to whether this is understood by customers and whether the level of protection and the regulatory requirements should be further aligned. The obligations in terms of interoperability placed on different institutions operating in the financial space should also be considered. Measures have been taken with the Revised Payments Services Directive (PSD2) to allow new payment providers to access bank accounts, but reciprocal access to the platforms of these new entrants should be part of the framework as well, because that is not the case at present.

An official considered that the main challenge going forward for the international regulatory community related to digitalisation is the treatment of big tech platforms offering an array of financial and non financial services. Big techs run a unique business model characterised by a 'DNA loop' – 'D' for data superiority, 'N' for network externalities and 'A' for the array of activities performed. Big techs are potentially disruptive as they can affect the functioning of financial markets in particular, providing benefits but also posing significant potential risks, including market integrity and financial stability risks. Adopting an appropriate regulatory approach to big techs is vital. It would be a mistake to adjust the regulatory perimeter only on specific policy domains, following a pure activity-based approach. The risks that big techs may generate as entities by the combination of the activities they perform and the DNA loop characteristics must also be tackled.

4. Key elements of the policy approach needed for tackling digitalisation developments

4.1 Adapting financial regulation and supervision to the new digital world

An official stated that it is difficult to find the right balance in regulation between innovation and protection. The evidence should always be under review to determine whether the right innovation is taking place in the financial system, whether market integration is sufficient and whether there is an appropriate level of competitiveness of EU tech players. At present, the balance is not quite right. Europe appears to be behind the curve in terms of tech development to a certain extent and needs to catch up. It should be determined whether that is a result of the EU regulatory and legislative environment and notably the stronger focus in Europe compared to other jurisdictions on values such as data privacy or consumer protection. A protective view towards consumers is necessary, but some of them are looking for more attractive opportunities or more return even if that means taking more risk. That is what happened in the US with the Robinhood episode, despite the regulations in place and the protections they offers. Investor education can help but it is also important to provide a framework in the main areas of retail finance that is adapted to customer needs and preferences. Otherwise consumers will look for a solution that suits them better and that might be more risky. This is why keeping a balance in protection rules is important. A regulator agreed that the challenge for regulators is protecting investors and savers from risks, without limiting their opportunities.

An industry representative referring to the challenges raised by the ever-changing ecosystem and possibly 'regulating the unknown', suggested that financial regulation and supervision should follow certain principles in order to support the digital transformation of the financial sector. A first principle is taking a customer-centric view, as proposed by a previous speaker, since the customer will ultimately shape the ecosystem, products and services. Secondly, in order to be effective, regulatory frameworks and supervisory practices should be adapted to the digital world and its evolutions. For example, some regulators will argue that localisation of data is needed to ensure resilience and security, but in reality localisation has no bearing on data security or the ability of a supervisor to oversee the institutions which control the data. What is important is having regulatory requirements in place for ensuring that technology is used in a safe way and that data is protected. Having sufficiently harmonised rules and coordination in terms of supervision is also important and more could be done in this respect.

4.2 Activity-based vs entity-based regulation

A regulator stated that mixing activity-based and entity-based rules is necessary for promoting and controlling innovation in the digital era. Although the big techs' footprint is still limited in most EU financial sectors, despite a presence that is already significant in

the payments sector, it is wise to consider entity-based rules that might deal with the possible impacts of their huge market power on financial stability, operational resilience, data protection and competition, together with activity-based rules that are essential for ensuring a proper level playing field between incumbents and newcomers. It is also important to ensure that the true nature and implications of new technologies such as AI, big data, cloud services and DLT and their interconnections are clearly understood before tying them to specific activity rules.

An official considered that the risks posed by the emergence of big tech platforms offering a wide array of financial services with the specific 'DNA loop' business model require comprehensive policy reform and potentially adopting an entity-based approach. Different jurisdictions have started moving in this direction, including the US (in the context of the House of Representatives report on competition in digital markets) and China (with the measures taken by the market regulator and the central bank to force Ant Group to restructure as a financial holding company). This is also the case of the European Commission whose Digital Services Act and Digital Markets Act proposals put forward specific entity-based rules for big techs.

The regulatory framework should try to minimise competitive distortions to the extent possible and promote a level playing field but not at the expense of essential policy goals such as financial stability or market integrity. Sometimes in order to meet such public policy objectives or preserve public interest, it is necessary to treat players differently, because they can generate different types of risks when performing the same activity. In such cases an entity-based approach will be warranted, rather than applying the same rules to all players in a given market segment according to the 'same activity, same regulation' principle of the activity-based approach.

For example regarding AML/CFT or consumer protection, it is agreed that all players should have comparable rules, and this is broadly the case in most relevant jurisdictions, as shown in a paper published recently by the FSI. The situation is different for financial stability risks, which can emerge from the combination of activities that a given institution performs, rather than from a given activity. In the case of banks, the main risk comes from maturity transformation, which is a combination of deposit taking, investment and underwriting activities. It is generally agreed that a prudential regulation imposed at entity-level is needed in this case. Big techs can also generate important risks to market stability and that can only be addressed by imposing specific constraints on big techs concerning for example data use, data portability or the way their platforms are managed. There are other areas where an entity-based approach and therefore specific rules for big techs could be warranted, such as fair competition (given the potential effects of the DNA loop) or operational resilience.

Therefore, contrary to what is often said, more and not less entity-based rules are needed in addition to activity-based regulation. Entity-based rules could help not only to achieve and preserve primary policy objectives such as financial stability, but also to minimise competitive distortions between different types of competitors, in particular between banks and non-banks, the official concluded.

CRYPTO-ASSETS AND STABLECOINS: PROSPECTS AND WAY FORWARD

1. Multiple private and public initiatives underway on diverse parts of the payment value chain

A representative of the public sector stated that, at the back end of the system, central banks have moved to fast payments architectures and are now working on connecting their fast payments architectures between themselves. More recently, new private closed-loop solutions have emerged, using, in particular, stablecoins. At the front end of the system, there are new interfaces, mobile payments, face recognition and QR codes, and new means of payment through stablecoins and possibly crypto. Initiatives may lead to faster, cheaper payments, an improvement in the customer experience and more efficient ways to support the economy, but may risk instability or harm to the investor, maybe from fragmentation. The new world of payments and money can be summed up by a quotation from Antonio Gramsci: 'The old world is dying and the new world struggles to be born. Now is the time of monsters.'

2. Current international coordination and initiatives regarding innovation in payments

The representative informed that the Bank for International Settlements (BIS) is part of the current coordination around innovation in payments. There is a G20 mandate on enhancing cross-border payments. There has been active work on stablecoin regulation at global level, at the Financial Stability Board (FSB) and in each jurisdiction. Practical initiatives are being launched by different central banks. BIS is active in its convening role, creating an innovation hub and innovation network to produce proofs of concept and prototypes meeting problem statements identified by central banks and regulators.

3. The current challenge for banks is to preserve the efficiency of existing payment means while contributing to reassuring and providing trust in the uncertain context of the many possible (r)evolutions in the area

An representative of the industry commented the institutions have probably changed more in the last 10 years than it did in its first 189 years. In addition, the institutions have changed the way they think much more in the last 14 months than in the 10 years prior to that. As traditional banks, attacking the future is all about optionality. A bank needs to continue to evolve, ensuring that what already works for society continues to work, but also to see "how deep the loophole goes". In 30, 20 or maybe 10 years, it is not unreasonable that payments will take place without middlemen, because the recipe is out there. Experimentation and always being on the edge to provide for optionality is important. The future is uncertain, so a portfolio of options is the best choice. Change should be seen as an opportunity, not just a threat.

4. Covid has brought payments trends and infrastructures beyond convenience improvement

An industry representative commented that Covid has changed human behaviour and payments behaviour. People plan so that they do not have to touch things. Use of cash is declining. Experimentation with pay with your face and pay with your voice is underway. In addition to convenience, there are now deeper drivers for these changes, such as anxiety. This might change the adoption curve of new technologies. Subscription-based and pay-as-you-go offerings have been accelerated due to the pandemic. The first glimpse of micropayments is being seen and, subsequently, machine-to-machine payments. That is relevant in terms of shaping the payments system to cater for emerging trends.

5. Incumbent banks and infrastructure focus on their distinctive added value on payments

An industry representative stated that the finest characteristic that the banking and finance industry has to offer is trust. There should be control, not anarchy, in the new payment world.

An industry representative commented that international card networks are one of the original disruptors, or the oldest fintechs. The institution represented was indeed built on the electronic movement of money. Now money is evolving through stablecoins, retail central bank digital currency (CBDC), emergence of new networks and underlying technologies. The international institution will evolve with it as a payments network, but also as a technology provider to other networks. The transactions handled are a promise of a secure payment and international acceptance and, as such, a promise that goes beyond the mere movement of money.

A representative of the public sector noted that substitution between CBDC and bank deposits could undermine deposit banking. Central banks are working on possible mitigants such as caps on CBDC holdings.

An industry representative stated that these concerns should be left to industry banks.

A Central Bank official added that there is the possible danger of an outflow of the deposits of the banks. In the case of a possible CBDC, there is a liability directly against the central bank and this must be addressed from a central bank perspective.

6. The role of policy makers regarding trust, security and resilience is essential to enable stablecoin initiatives

An industry representative indicated that their institution has decided to allow for the settlement of USD Coin (USDC) over its network. USDC is a regulated stablecoin backed by the US dollar and transacted over the Ethereum blockchain network. It is expected that both stablecoin and regional CBDCs will be part of the changing payment landscape. New use cases have emerged around stablecoins, notably with respect to cross-border business-to-business payments, trade settlements and remittances. Stability should be considered. New forms of digital money will only be widely used if they can maintain a stable value. Visa welcomes the focus of regulators on

consumer protection aspects of stablecoin. Appropriate anti-money laundering (AML) and safety checks are needed across this new ecosystem.

7. International and EU cooperation for removing technical and regulatory obstacles and improving the operational and cost efficiency of existing and future cross-border payment avenues is a key contribution to the necessary innovation which enables further interoperability and competition

The industry representative commented that the FSB roadmap notes that stablecoins are one avenue to make cross-border payments faster, cheaper, more transparent, and inclusive. However, they are just one avenue. Their institution supports work being done to remove regulatory and technical obstacles. Visa continues to innovate on the infrastructure side. Visa has a real-time payments platform that pushes digital remittances and has allowed for the cost of remittances to drop below the 3% target for 2030. The institution has also launched a non-card platform, B2B Connect, which is an alternative to correspondent banking and allows banks to connect directly.

There is a risk that different jurisdictions will use different technologies and technological protocols. The institution would like to contribute to the interoperability of new payments systems through universal payment channels. There should and will be a multitude of different payment systems, technologies and solutions for cross-border payments and it is welcomed that regulators and central banks focus on ensuring payment systems are open and interoperable. The institution does not want to rely on any one solution.

International cooperation is key. AML and countering the financing of terrorism (CFT) laws are often seen as an obstacle for efficient cross-border payments. There is new momentum at the European level, and it is hoped that this extends to the international level, with respect to regulation of stablecoins.

8. Regulators have no choice but to address the regulatory challenges – consumer protection, AML, liability sharing in the value chain, reliability, etc – of the whole landscapes regarding digital currencies and assets

A public sector representative noted that there has been a great deal of discussion about stablecoin regulation. Recently, there have also been many developments in the crypto world. Decentralised finance is vibrant and lots of new financial services are being provided. From a regulatory perspective, that could represent a new shadow banking emerging.

A policymaker commented that the developments in crypto markets, with the currently exploding valuations that by now also attract serious business, are mostly in the non stablecoin area. The current global market valuation recently exceeded $2 trillion US and is now at around €2 trillion. Only a small fraction of that market, probably less than 5%, is made up of crypto-assets that have a stabilisation mechanism. Crypto-assets are mostly not used for payments. The policymaker added that the Commission's proposal on markets in crypto-assets covers the entire crypto asset space and not just the area of stablecoins. Stablecoins are covered by the proposal, but the proposal is not limited to them. The Commission aims to provide legal certainty and an enabling framework for crypto-asset markets. Should crypto-assets in general, or stablecoins more specifically, become a significant feature in payments in the European Union, opportunities and risks can be addressed through payments legislation.

It is still too early to talk about flourishing private initiatives regarding stable-coins. Stablecoins on the market have proven to be relatively stable but are still very small compared to the overall size of the crypto asset markets and are used mainly as settlement coins on crypto-asset trading venues. CBDCs, including a potential future digital euro, could enable future developments. There are opportunities for plenty of innovation and competition, for example between wallet providers. The Commission is working closely with the European Central Bank (ECB) to explore the best way to issue a potential digital euro. The roles existing financial institutions might play are being explored. Crypto-assets and the potential CBDCs of the future are complementary, not mutually exclusive.

The existing EU AML framework is currently under review. The framework should leave the internal market intact and allow for the free movement of capital for legitimate purposes while ensuring an effective fight against money laundering and terrorist financing.

9. A swift adaptation, in the EU and globally, of central banks to the blockchain developments in the payments and security transaction settlement areas, is necessary

A public sector representative noted that there has been very fast progress on CBDC globally, with the Bahamas as the trailblazer and China moving fast with pilot projects. In its work on CBDC, the Bundesbank recently tested the interface between a blockchain platform and the conventional real-time gross settlement (RTGS) system to settle securities in central bank money. The Bundesbank can settle tokenised assets without CBDC, but the digital euro project is also underway.

A Central Bank official explained that the recent experimental project built a technical bridge between the blockchain technology and the TARGET2 system. Security transactions on a private distributed ledger technology (DLT) system were settled in central bank money. This is a so-called trigger solution: the security transaction on DLT automatically triggers the corresponding payment via the trigger chain operated by the Bundesbank into TARGET2. There is a strong demand in the market for a solution that enables the settlement of the cash leg of DLT-based transactions. In the context of CBDC, this provides an additional way to bring efficiency and innovation into the market for securities settlement and could be complementary to the digital euro. The solution uses infrastructures that are already in existence. As such, the Eurosystem could implement such a solution in a relatively short space of time.

The public sector representative stated that the Swiss centre of the BIS innovation hub has compared settlement with a central bank token that is a wholesale CBDC and settlement through the traditional RTGS.

10. The digital euro is another form of the single currency intended to ensure safety (KYC, AML, CFT) and privacy, as well as systemic financial and operational resilience, while supporting innovation in the retail digital landscape

The public sector representative noted that privacy is a priority for consumers when considering a CBDC.

A Central Bank official commented that central banks have developed centralised systems and are now moving towards decentralised infrastructure. Interoperability between decentralised and centralised infrastructure will be needed. Developing a token-based CBDC is a possibility. The Eurosystem and the ECB are working on the development of a retail CBDC. The outcome of a consultation demonstrated the importance of privacy and security for users. The systemicity of digital euro infrastructure must be considered, aiming to ensure resilience by design. Implementation through different technologies or infrastructures avoids a single point of failure. Financial security of a digital euro will be substantial, since it will be a perfectly safe central bank liability. It will be another form of the single currency.

Compliance with know your customer (KYC), AML, CFT and tax evasion regulations is also necessary. Privacy does not imply anonymity. Digital euro transactions could be visible to intermediaries in order to allow them to comply with AML CFT requirements while ensuring the protection of data. DLT is a potential solution in this area. Selective privacy could be applied for low value payments.

An industry representative commented that an offline supported CBDC might address issues around privacy and anonymity.

11. Defining the appropriate timeline and shape of a digital euro is a complex pragmatism challenge, the solutions to which involve both innovative technology and existing intermediaries and infrastructures

A Central Bank official commented that there should be a readiness to swiftly issue a digital euro should the need arise to safeguard monetary sovereignty. However, a digital euro could pose risks to the financial system and impact financial intermediaries. The benefits and risks must be measured holistically. Mitigation measures can be considered as regards the risk of bank deposit substitution, but these measures could have consequences for the attractiveness of a digital euro. Some risk might be mitigated with proper design and calibration. It is important to preserve the role of private intermediaries as interfaces in the distribution of a digital euro. The digital euro will be discussed at governing council level by mid-2021.

An industry representative agreed with the need to preserve the role of existing private intermediaries. Integration of a potential digital euro with the existing payment system will be important for acceptance.

12. The technical solution and arrangement architecture underpinning the digital euro will depend on priority use cases still to be chosen

An industry representative stated that initial reflections on offline usage rely on using existing payments systems. A digital euro could be additive to a digital payment mix if it is viewed as a digital equivalent to cash. Visa can also envisage a tokenised digital euro.

A public sector representative emphasised that offline capability is very important for retail CBDC.

A Central Bank official stated that an offline capability for CBDC is an important aspect. A digital euro will have to include such a function. This will help that people have the same degree of trust in a digital currency as they have currently in cash.

Another Central Bank official commented that a cash-like digital euro will need to have offline capability. Offline capability will be less important for some other use cases. As such, a step approach for the development of the digital euro might be necessary, with not all use cases being accommodated from the beginning. Cross-border payments are among the envisaged use cases, but more understanding is needed around interplay and interoperability. Another interesting use case relates to smart contracts. Private monies could provide these types of services. This is also true for wholesale payments. There could be complementarity between private commercial money, or even stablecoin payments, and CBDC payments. Banque de France has experimented with issuing CBDC on blockchain in order to settle securitised tokens.

13. A digital solution that plays the same role as cash is required

An industry representative commented that offline support of a digital euro is a key design characteristic. Customers will likely require a digital parallel to cash. Otherwise, there is a position to be taken by the free-floating cryptocurrencies of the world, which might not be in the interest of the greater good. In Scandinavia, very little cash was used before the pandemic, and it has now almost disappeared. If digital is a person's preference, they will use some kind of digital alternative to physical cash. It is necessary to develop a solution that is backed by central banks.

A public sector representative noted that all central banks have stated that they want to retain banknotes in light of their importance for some use cases and some communities.

14. Possible consequences of digital money on the international monetary system

A Central Bank official commented that the digital transformation is also a way to move flows, maybe of currency. The distribution of stablecoins through big techs is concerning for regulators, because it could be very powerful through the social network. There is a question of monetary sovereignty. Big techs are either American or Chinese, so there is a link with the question of the international monetary system and international competition. Europe does not have any big techs, so it is important to support the international role of the euro, develop pan-European solutions and be ready to issue a CBDC if needed.

CROSS-BORDER PAYMENTS GLOBAL ROADMAP

1. The challenges faced by cross border payments and related players globally

A central bank official observed that cross-border payments are seated at the heart of international trade and economic activities. Several shortcomings hamper their efficiency in terms of cost, delay, transparency, and accessibility.

An official stated that enhancing cross-border payments has become a central theme of the Central Bank Committee on Payments and Markets Infrastructure (CPMI). Europe does not either have one monolithic, cross-border payment channel and there are doubts that it ever will. In addition, developing competition and innovation is needed to deliver the multiple services that are going to match the diverse needs.

2. Significant cross-border payment initiatives

2.1 Private and public sector solutions

An industry representative noted that cross border payments are more complex than domestic ones. Time zone differences contribute to delays. Payments following the sun are more quickly executed than those travelling against the local operating hours. Straight through processing and 24/7, real-time operating capabilities will reduce the impact of time zones. New technologies like APIs can already support speed. Improved compliance checks and data standards such as ISO 20022 will greatly ease the flow. A great deal of work has already been done by the financial industry over the past five years to address frictions in cross-border payments, mainly through the Global Payments Innovation (GPI) SWIFT initiative. Regulatory barriers and capital controls are the most significant friction. The regulations, processes and everything related to compliance will require much more collaboration notably to improve the level of harmonisation.

2.2 The SWIFT-led GPI initiative triggered a strong adhesion, and steep progress will soon be perceived

A Central Bank official stated that in the payments industry the unprecedented pace of change is driven by innovations in technologies and business models.

An industry representative noted that transformation is well underway, even though the industry has not done what it should have done regarding cross-border payments over the last decade.

An industry representative stated however that the GPI initiative required a change in thinking, with the SWIFT-led platform strategy leveraging the corresponding network by a coalition of the willing taking the lead. Over time, what will be seen is more and more players joining that journey, and then the superior experience that is being created will become the standard.

2.3 Key success factors to make significant progress are de-risking, harmonisation, and cooperation, which enable competition and innovation

An industry representative stated that global customer expectations on safety and security in the cross-border payments space are changing at a very fast rate. Significant investments have been made in recent years, both on the cash side but also on the areas of pay-out to wallets, cards, and also regarding Bank Management Systems (BMS) of bank accounts and access to real-time payment systems. The current fragmented payments landscape is no longer fit for customers' expectations. The main objective of the project is the harmonisation of cross-border payments across all dimensions. A much more solid and harmonised foundation will generate the desired effects like enhanced competition, more transparency, reduced costs and increased qualities. Resolving these issues requires exactly the comprehensive approach that is suggested and will only be successful if it is done in a very close collaboration between the regulators, policymakers, and the private sector.

An industry representative observed that the payment models are being disrupted and that this is driving change. The trick to thinking about this transformation is how to replicate the superior client experience that is available in a closed loop ecosystem. It is very important that the industry learns from the disruption that is going on. In the last 10 years cross border payments have not evolved in the way that they have needed in order to meet the increasing expectations of clients. The industry has not taken the advantage offered by technology as it has evolved over the last number of years. One critical reason is the very team sport nature of cross border payments, which are dependent on many players in the ecosystem. The end user experience is always going to be impacted by the weakest link in that chain.

A Central Bank official stated that beside the set of building blocks on addressing de-risking and the cause of de-risking, the common theme that can be identified in the CPMI 19 building blocks is competition and innovation. Both incumbents and new players need to feel welcome and should obviously be subject to the same compliance rules. Three application of these rules needs to be made more efficient to make entry into the market easier and to stop the de-risking trend.

An industry representative highlighted the issue of legal barriers, and the fact that progress may be difficult to achieve in a cross-border context when there are different laws and different implications.

3. The ambitious G20 roadmap is a pragmatic and cooperative approach which is intended to be technology and business model neutral

A Central Bank representative noted that the multidimensional set of frictions at the root of existing shortcomings have recently been given a strong

political impetus under the aegis of the G20 in view of a matter arising of significant progress. Agreeing on such a roadmap was an incredible success. It is important to move from design to implementation. Momentum is there to improve, but the G20 roadmap is an opportunity to move forward.

An official stated that there are two additional challenges. A comprehensive programme is needed to ensure the improvements sought in this area are broad based, and to make sure that further multiple channels can be developed and enabled to work together. The overall objective is to improve in four key areas: faster, cheaper, more transparent, and more accessible, while maintaining the safety and security across both wholesale and retail payments at the same time.

A Central Bank official observed that the G20 roadmap do not represent another risk factor or additional risk. It is a great opportunity because it is neutral and the roadmap does not endorse any specific model or solution or technology, so it is neutral. The roadmap is a multi pronged action plan targeting a whole range of frictions and inefficiencies. It tries to build on existing approaches, arrangements, and systems in order to get some practical results over the short-term. However, there are also more ambitious targets that can be achieved only over the medium term. The roadmap implies a close involvement of the private sector. The aim is to get to a new equilibrium in which all stakeholders can be better off.

4. Specific wholesale challenges

4.1 Payment Versus Payment (PVP) is an essential arrangement to address wholesale cross border payments' foreign exchange risk

An industry representative stated that examining PVP in the cross-border payment area is very important as very often, particularly for wholesale activity, cross-border payments implies an foreign exchange transaction in two different currencies almost by definition. PVP increases efficiency and safety of financial markets, and also mitigates principal risks. Regarding the systemic dimension of those transactions, a December 2019 BIS report suggests that the current volume of settlement that does not benefit from a PVP mechanism is over $8 trillion USD equivalent per day.

4.2 Despite ever-growing globalisation, many currencies still do not benefit from PVP

An industry representative highlighted the fact that there are still several major currencies that do not benefit from PVP protection, and therefore transactions in these currencies remain exposed to settlement risk. The share of the transactions in these currencies is growing as globalisation is growing.

5. Change management success factors

5.1 Preserving the soundness of existing systems and arrangements, requires 11,000 institutions across the globe to evolve at the same time

An industry representative noted that further evolution and transformation of the legacy and the existing systems are needed, but recognition is needed of the assets and the strengths of the existing system. The safety and soundness element needs to be part of the future, as well as the ubiquity, openness and reach of the existing systems, with payments across 200 countries.

An industry representative added that his institution has been very supportive of the SWIFT GPI initiative which will be launched in November 2022. The SWIFT correspondent banking model is ubiquitous across the world. If the change can be executed by building on the existing ubiquity and existing integration, then there is a much higher chance of success in terms of executing change at scale in a way that could deliver consistent end-user experience. There is a challenge of getting 11,000 institutions to make a transformative change at the same time. Everybody was fearful of leaving; the industry did not want to disenfranchise the players in the system that were not ready to make that change.

An industry representative noted that to be successful in that area there needs to be good collaboration between the public and private sector. For example, a strong public-private partnership of banks and central banks was key to CLS's creation following the failure of Herstatt bank, and that partnership continues today.

6. Cross-border payment efficiency is expected to benefit from CBDCs provided they are compatible with domestic payment systems and that there is international coordination including on regulation and supervision from the outset

6.1 Any international payment arrangement must be interoperable across borders and with national payment systems from the outset

A Central Bank official explained that the ECB worked with Riksbank and Banca d'Italia on implementing instant payments, cross currency, cross border, relying on its infrastructure Target instant payments settlement (TIPS) and achieving payments-versus-payments (PvP). Also here compliance issues need to be revisited: Instant payments have a higher rejection rate cross border than domestically even within the euro area.

A Central Bank representative moved the conversation onto new infrastructures and how they can contribute to driving change in cross border payments. One candidate was the central bank digital currency (CBDC).

An official stated that CBDCs are the 'shiny new car' and everybody has a great deal of interest in them. A BIS CPMI survey showed that that cross border payment efficiency is an important motivation for CBDC issuance by many central banks. There is real value in creating CBDCs that are interoperable and based on compatible domestic systems. There needs to be international coordination from the outset, but these arrangements have not been implemented broadly. The development of existing payment systems and infrastructures requires significant progress in the more traditional areas of payment systems and arrangements in the G20 roadmaps.

6.2 Inefficiencies resulting from frictions due to regulations and supervision must be fixed in various areas such as KYC, AML, and data protection at the EU and international levels

An official stated that technological changes alone are not going to deliver the improvements that are being sought. Europe also needs better regulatory alignment

between jurisdictions. The prospect of stablecoin proposals is a completely new payment rail outside the banking system. Analysis is ongoing regarding how the existing Principles for Financial Market Infrastructures (PFMI) could apply to the governance arrangements of stablecoin arrangements. CPMI and IOSCO have been reviewing the applicability of the BIS's standards and stablecoin arrangements.

An industry representative observed that the financial sector has made huge investments in compliance in the last few years at an enormous cost, mainly driven by the levels of fragmentation Europe currently has. Elements like suspicious activity reporting and similar regulations are under local implementations and are not harmonised. New entrants are not encouraged.

A Central Bank official stated that the G20 roadmap would not necessarily imply an increase in regulatory costs. Europe has already committed to reducing compliance costs. The private sector is closely involved, so market forces can do the job of addressing inefficiencies and friction. The roadmap also enhances cooperation among public authorities.

CURRENT EU RETAIL PAYMENT INITIATIVES: STAKES AND CHALLENGES

1. Retail payments in the EU: context and stakes

1.1 Most national retail payment solutions lack scale in the EU

An official noted the dramatic changes in the European payment landscape fuelled by COVID-19, the waning use of cash and new technologies like instant and crypto, in addition to the growing market dominance of digital platforms. Most payment solutions are still domestic. National cards or digital solutions for e-commerce or peer-to-peer (P2P) payments lack scale to compete with big techs from outside of Europe. There is a risk of a growing dependence on those.

1.2 Payments digitalisation has been accelerated by lockdowns

An industry representative highlighted the acceleration in payment digital alternatives and digital payments. This is primarily due to e-commerce, driven by the lockdown, and a change in customer behaviours, driven by a desire for a more secure experience at the point of sale. There has been an acceleration of the previous, already significant, growth in e-commerce. Cards in general have gained share at the expense of cash and bank notes. Use of contactless has been driven by the health authorities recommending usage and an uplift in the threshold. P2P payment system payments are also increasing in some markets. These changed behaviours will likely continue after the health crisis.

An industry representative commented that the last year would have been very different if digital payments had not been available. Economies need to be resilient, and payments play a vital role in this.

1.3 Regulatory challenges in the EU retail payment area to reduce existing fragmentation

A policymaker commented that the pandemic has accelerated change in the payment sector. The regulatory framework must remain fit for purpose. Despite the progress made on the harmonisation of the regulatory framework for payments in recent years, in particular the single euro payments area (SEPA), the retail payments markets in Europe remain fragmented along national borders. International card schemes are dominant in the cross border EU payment world, reinforced by the arrival of big techs. Risks of crypto-assets include issues of consumer protection and possibly even financial stability and monetary sovereignty if they are not properly regulated.

2. EU policy priorities

2.1 Eu policymakers are currently focused on fostering competition and innovation, EU payment autonomy, consumer protection, resilience, AML and instant payments

An official noted that legislators, central banks, regulators, and competition authorities are working towards a more appropriate framework for a resilient, innovative, diverse, and competitive payments landscape. This includes supporting emerging pan-European payment solutions, such as the European Payments Initiative (EPI). The market power of big techs, international card schemes and payment markets is increasing.

A public decision maker stated that fair competition and European autonomy are a priority. The impact of the Digital Markets Act (DMA) and Digital Services Act (DSA) is ongoing. The aim is to be fully aware of how services, including payment services, are used in the EU and to act to mitigate any dependency. The Payment Services Directive (PSD2) demonstrated that opening segments of the financial markets can be positive for consumers. Competition must be fair and should not disadvantage incumbent players relative to newcomers. For example, reciprocal access to relevant data should be pursued. New fintech solutions should respect European values and rules on consumer protection and anti-money laundering (AML). At the European level, action is being taken around dependency, for example the EPI and the Digital Operational Resilience Act (DORA). DORA ensures supervisors increase their awareness of their dependence on information and communications technology (ICT) providers outside the EU.

A policymaker stated that the specific and targeted measures in the retail payments strategy aim to create an innovative, integrated, and competitive retail payments sector in Europe. Instant payments play a key role in this strategy and can become the new normal in Europe. Enablers include adequate consumer protection measures, effective ways to address instant fraud and a smooth sanctions screening process. The European Commission does not intend to simply impose a date for the introduction of instant payments but takes a holistic look at the issue. A targeted public consultation is ongoing. The European Commission will then consider the possibility of a legislative proposal. A comprehensive review of PSD2 will be carried out.

2.2 Achieving an effective level playing field across the EU and developing the EU retail payment market agility, require further political efforts

An industry representative stated that driving the level playing field and ensuring competition has been a key objective of the latest batch of EU regulation on retail payments, such as PSD2 and IFR; however, it has not yet materialised, so it is important to get it right this time around.

2.2.1 Simplified licencing rules in the single market

An industry representative noted that the removal of the exception acknowledged by legislators in PSD1 on open access rules, led American Express to exit the licensing partnership in 16 European member states. The rules make it more difficult for innovative fintech players to enter the space and compete with dominant four-party schemes, which has directly contributed to

less competition in the sector and was acknowledged in EY's IFR report last year. A one-size-fits-all approach does not make sense. The open access rules issue is important as it links to EPI, since a combination of parties might be required in order to make EPI work outside of Europe.

An industry representative stressed that openness is essential as the future is unknown and resilience is a key concern. Permanent pieces of kit that have the seeds of their own obsolescence in them should only be built very cautiously. Visa Europe used to be owned by 441 banks. There were no fintechs on board. There are now 200.

2.2.2 An effective ability of payment services providers to issue credit lines across the EU

An industry representative noted the disadvantage and unlevel playing field caused to non-bank PSPs by the restriction in PSD2, which says that Payment Institutions (PI) can only issue credit up to 12 months in their home member state. This severely restricts and places PIs at a serious disadvantage compared to banks when offering personal loans and credit cards, and further limits customer choice. Furthermore, consumers tend only to seek credit in their home market and not shop cross-border for credit. The lack of a cross-border credit market also undermines one of the Consumer Credit Directive's main goals and EU's vision. The upcoming review of the CCD is a good opportunity to fix this. How non banks or cross-border firms can access national debt registers should also be explored.

2.2.3 A swifter on-going adaptation of payment-related regulations to actual progress, technology, business models and markets is necessary

An industry representative commented that, since legislation started around 15 years ago, including PSD2 and Interchange Fees Regulation (IFR), the payment landscape has evolved. There are still some opportunities to be optimised, such as those around competition, transparency, choice for the customer, rules, and harmonisation.

2.3 It is also necessary to address the consequences of the Wirecard scandal regarding citizens' confidence in EU financial supervisors and regulators

A public decisionmaker stated that the Wirecard scandal has had a devastating effect on the reputation of the EU in the fintech space. Strong action is needed to ensure consumers retain trust in financial institutions, supervisors and legislators. The governance of the European supervisory authorities should be reviewed, not just the powers. Wirecard has cast serious doubts on what was thought to be an adequate architecture for supervision and cooperation at European level. The main message to the soon-to-be-chosen new leaders of the European Securities and Markets Authority (ESMA) is that the European Supervisory Authorities (ESAs) should be more ambitious and feel confident asking challenging questions of national authorities.

3. Respective roles for the private and public sector

An industry representative suggested that payments can be considered in a similar way to Maslow's hierarchy. Maslow talks about water, air and security. Security is also discussed in payments. The second level of Maslow's hierarchy is love and belonging. In the context of payments, it can be thought of as openness and access, which is what engenders competition. The last level of Maslow's hierarchy is about self-esteem or self-actualisation. The equivalent in payments is the things different people want from payments and how to engender the innovation that enables that. All use cases are different. The top of Maslow's hierarchy is where the private sector needs to thrive. At the bottom of the hierarchy, the public sector needs to be deeply involved in conversations around resilience, security, and fraud prevention.

3.1 Central banks are partnering with the private sector to close existing infrastructure gaps on the payment area

3.2 Wholesale payments are essential to make effective monetary policies

An official noted the role of central banks as providers of market infrastructure. A Central Bank official (Juan Ayuso) commented that market infrastructures are in some respects, like real-sector infrastructures as there are fewer than socially needed and usually the best way to fill in the gap is collaboration between the private sector and the public sector. Central banks however use central bank money to build the infrastructures. This material is the highest possible quality. The soundness of the infrastructure has a direct effect on the central banks' ability to fulfil the tasks they have been assigned. Wholesale payments are at the core of the monetary policy transmission mechanism, which may be why many central banks provide the infrastructure for wholesale payments.

3.3 The current fragmentation of retail payments in the EU requires Central Bank action

A Central Bank official stated that retail payments are not so crucial in the monetary policy transmission mechanism, but the Eurosystem has also been assigned the task of promoting the smooth operation of payment systems. When economic and monetary union (EMU) was launched, most retail payments took place within the boundaries of the different countries. As such, fragmentation at the end of the 90s was not a big challenge. It was more of a problem with the advent of the SEPA initiative. The current degree of fragmentation in retail payments in Europe is a serious obstacle.

3.4 While TIPS targets helping to achieve the European reach of instant payments and supporting cross currency retail payments, the private sector focus is on value-added services

A Central Bank official commented that central banks are better equipped to provide the rails, leaving to the private sector the provision of the value-added services. This is the principle behind TARGET Instant Payment Settlement (TIPS), the market infrastructure that Eurosystem provides for instant payments.

A Central Bank official stated that central banks are aiming to ensure pan-European reach for instant payments through the TIPS infrastructure by the end of 2021. All payment service providers in TARGET2 that adhere to the SEPA Instant Credit Transfer (SCT Inst) scheme will be reachable in TIPS. In addition, Automated Clearing House (ACH) instant payments settlement

will move from TARGET2 to TIPS. The intention is to support the G20 roadmap on cross border payments. The Eurosystem is investigating what role central banks can play, for instance investigating the use of TIPS for cross-border instant payments in Swedish krona and euro together with the Swedish central bank.

A Central Bank official commented that payment service providers should offer instant payments under attractive conditions rather than treating them as premium services, and also with additional functionality being provided.

4. Data is a major issue for an efficient digitalisation of the EU economy

An official commented that data opens a wide range of new business models, but also drives the market power of digital platforms. Personal data must be protected while data monopolies are broken up.

A policymaker commented that data is an issue for competition policy. Potential data usage has increased exponentially, and data has already become an essential input for many activities. Those holding data may become gatekeepers. Big tech companies have access to increasing amounts of data and are attempting to gain a foothold in the payment market with this. In addition, platforms create network effects that may be detrimental to consumers.

4.1 Emerging strong network effects and data portability asymmetry and interoperability issues exist

A policymaker commented that data portability can be an effective remedy for anti-competitive conduct. The General Data Protection Regulation (GDPR) includes the principles of purpose limitation and data minimisations. In the context of open banking, PSD2 limits the kind of data and the purpose for which it must be provided. Competition and data protection concerns are complementary. Competition authorities have started using data protection as a benchmark for assessing competition.

The policymaker noted in addition the perceived asymmetries in regulations around data portability. Fintechs and big techs are not subject to the same requirement that banks are under PSD2. Interoperability is important so different ecosystems can provide access to data to different operators.

4.2 Private stablecoins require close monitoring to ensure populations benefit fully from them

A policymaker commented that the main advantage of private stablecoins from a competition perspective is that they bring efficiencies to payments. Consumers will benefit from more competition, leading to lower prices and more innovation. Populations that are currently unbanked may get increased access to payment methods. Private stablecoins may raise issues related to financial and monetary stability, AML and combating the financing of terrorism (CFT). EU legislation aims to embrace innovation through regulating and supervising crypto assets and to address security threats, for example in the proposal for DORA. Regarding competition between private stablecoins and central bank currencies, private stablecoins need to be monitored. There is currently no competition enforcement, but products such as Diem and Novi are being reviewed proactively.

5. EPI

5.1 EPI is an essential EU initiative

An official stated that EPI will better balance competition and contribute to European autonomy. European standards could be integrated throughout the payment chain.

5.1.1 EPI challenge for banks and success factors

An industry representative commented that interlinking existing national payment solutions has been found not to work. European or international players have more money for innovation and to convince merchants and people to use their systems. The European banks understand that there is a need to invest together to compete with the big players.

A Central Bank official stated that a main goal of the Eurosystem retail payments strategy is the development of a pan-European solution for payments at the point of interaction (POI). Other goals include the full deployment of instant payments, the improvement of cross-border payments and support of innovation and digitalisation in the European payments' ecosystem. Concurrently, the case for a digital euro is being explored.

5.1.2 The ECB and the Eurosystem have welcomed the launch of the EPI

A Central Bank official noted that EPI meets all the European Central Bank's (ECB) objectives. The ECB remains open to other initiatives that would meet its objectives. It is crucial that EPI extends beyond the current set of the participants.

The CEO of the EPI Interim Company commented that international competition is the biggest challenge in the retail payments space. Banks are being disintermediated, not just in payments but now in financing. European players cannot easily compete on innovation and new technology in payments but also in financing. The European market is still very fragmented, which does not allow European players to compete with international players. The business model for banks no longer enables the substantial investments that are necessary. Dependency is another challenge. EPI can address these challenges and aims to be a competitive European solution. EPI will bring the size to invest collectively in innovation. Aligning will overcome fragmentation, helping European players to become independent.

5.2 EPI's key success factors

5.2.1 Addressing first consumer and merchant needs and efficient decision making

The CEO of the EPI Interim Company stated that EPI includes 'the rules', the 'rails' and the standards, but also a value proposition that is meaningful enough to compete for the interest of the consumers and merchants. This will only work if the banks respect the needs of the merchant and the consumer. Alignments will provide efficiency and the synergies that are crucial to become more competitive. TIPS is already present, but the front-end side is also needed. EPI can contribute

to the e-commerce and m-commerce spaces, where banks are underdeveloped and there is no European solution, and in the cross-border space. The evolution of EPI is a massive process. It is difficult and complex to align different markets coming from heterogeneous environments, potentially with diverging priorities, leading to some kind of nationalism.

5.2.2 A wait-and-see attitude of too many banks and payment service providers hampers swift progress regarding instant payment and EU autonomy, and weighs on the role of EU banks on e commerce

A Central Bank official commented that the attitude of 'If it is not broken, let us not fix it' leads to complacency. Europe has become dependent on international card schemes and banks have missed an opportunity to develop a presence in the e commerce space.

An industry representative stated that EPI needs help to develop a viable business model and reduce investment uncertainty. The regulator should prevent any attempts by market players to unfairly limit the rollout of EPI across Europe, as some of the big market players oppose EPI, and underline the importance of adopting the open international standards.

5.3 EPI's timetable

The CEO of the EPI Interim Company indicated that new members will be welcomed to EPI by the end of the year. A market launch is expected in the current year. The aim is to go live in 2022, initially in the P2P space and then in e commerce and face-to-face retail transactions. There will be a migration phase of a couple of years.

6. CBDC

6.1 CBDC should also support future evolutions of an EU digitalised economy

The Chair indicated that the Eurosystem and a growing number of central banks worldwide are considering the potential issuance of central bank digital currency (CBDC). CBDC could provide future proof payment solutions.

6.2 Among the various scenarios requiring Central Banks to issue CBDC many feature negative developments in retail payments

A Central Bank official noted that a recent ECB report on CBDC identifies seven possible medium-term scenarios, many of which include elements related to negative developments in retail payments. The back end part of CBDC infrastructure could or should be provided by central banks. The private sector could then focus on providing the front-end part of the service.