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Money and payments in the digital age

Speech by First Deputy Governor Denis Beau

I'd like to begin by thanking you for inviting me here today. I'm delighted to have this opportunity to talk with you about money and payments, which are undergoing sweeping changes in the digital age. Part of our job as a central bank is to support the transformations that means of payment, that is, cash – banknotes and coins – as well as cashless instruments, are experiencing as a result of technological developments and societal changes. At the Banque de France, we are strongly committed to ensuring that payment instruments remain available, accessible and secure, while also protecting consumers' freedom of choice. So, what trends are we observing in means of payment, and what issues do these developments raise?

I. What trends are we seeing in the fast-changing retail payment ecosystem?

A. General trends in the payments ecosystem

- **Use of cash has fallen steeply in recent years**. Cash is still the number-one payment instrument and accounted for 50% of point of sale (POS) transactions in France in 2022 and 59% in the euro area.[1] However, this share is falling steeply and has declined by 7 percentage points in France over the last three years and by 14 points in the euro area.

- The decline is part of a **long-term trend**: with the impact of observed changes to consumer habits and technological innovation in the field of payments, use of cash in transactions has been on a steady decline, while the share of electronic means of payment has risen.

The Covid-19 crisis may have played a part by encouraging people to opt for cashless means of payment necessitating less physical handling and contact. The increase in the contactless

[1] Based on card payments only, POS payments accounted for 81% of payment flows, compared with 19% for card-not-present payments, versus 84% and 16% in 2019. Adding in estimates on cash payments from European SPACE surveys, online payments had a share of 10% in 2022, versus less than 8% in 2019, while cash accounted for around 45% of all consumer retail payments, down from 53% in 2019.

payment limit from EUR 30 to EUR 50 in May 2020 facilitated the adoption of contactless payments, which now ranks first in credit card usages. Lockdowns and travel restrictions likewise contributed to the rise of e-commerce: many purchases that would normally have happened in brick-and-mortar shops moved online, when physical points of sale were shut down or inaccessible.

- There was further evidence in 2022 of the overall increase in the use of cashless instruments (+8%) observed since the Covid-19 crisis.
  Payment cards top the list of cashless payment instruments used by consumers in France, accounting for over 60% of cashless transactions, at POS (contact or contactless) or online. As an illustration of **how payments are increasingly going digital**, ever more consumers in France are also using virtual cards stored in digital wallets on their mobile phones. Last year, mobile payments leaped by 137% to make up almost 6% of card transactions at POS. As you have no doubt noticed in your everyday lives, other special payment instruments such as public transport tickets, luncheon and gift vouchers, along with related invoices, receipts, and even tips are following the digitisation trend. New retail and business payment habits are thus encouraging the use of digital means of payment.

- This trend is the result of **new technologies** that have modernised payments. For example, the near-field communication (NFC) technology and QR codes have supported the deployment of contactless payments. Tokenisation[2] of sensitive payment data, whereby bank data are converted into a single-use token during the transaction process, has made online transactions safer. The use of biometrics, such as a fingerprint, retina or palm print, to identify the payee is another very innovative development.

- At the same time, a **proliferation of new stakeholders, whose value added is primarily tech-based,** has emerged in the payment ecosystem. These new entrants are competing with traditional market players, banks, and include not only FinTechs but also non-financial firms, such as telecom operators, ICT providers (e.g. specialised in tokenisation), subsidiaries of large retailers, and *BigTechs* (global tech giants whose core business models are not of financial nature, such as the US GAFAM[3] who dominate mobile payment markets with *ApplePay* and *Google Pay*, as well as Chinese and South Korean platforms[4], such as *AliPay,* or *WeChat Pay*).

[2] In the field of electronic payments, payment data tokenisation (as distinct from asset tokenisation) consists in replacing sensitive bank information, such as the card number, with a unique token in the routing messages. That token comprises a set of encrypted characters not containing any sensitive data, and can therefore be safely transferred across the payment chain.
[3] 'GAFAM' stands for Google, Apple, Facebook (now Meta Platforms), Amazon, and Microsoft. This term is commonly used in France to refer to these large global groups.
[4] Asian big techs include amongst others the Chinese BATX (Baidu, Alibaba, Tencent, Xiaomi), and the South Korean Samsung.

- All these participants, which are now active in one or more links of the payment value chain, are contributing to today’s vibrant payment ecosystem.

- **Payment solutions have thus become extremely diversified** in recent years, to the point that we now have access to many alternatives to more traditional payment means, such as cash, cards, and cheques. New instruments are up payments: for instance, an instant bank transfer enables to move funds in a matter of seconds. Contactless functionalities of credit cards and mobile payments have likewise made everyday **payments smoother and faster,** with less frictions.

- Crypto-assets are another new feature of this evolving landscape. Although originally intended to be used as an alternative currency, they are sometimes wrongly referred to as “crypto-currencies”. Indeed, crypto-assets do not actually fulfil all three main characteristics of money: they are not truly an exchange instrument that can be easily used to buy and sell goods in everyday life; they are not a unit of account that can be used to compare the prices of different goods and services; and they are not a store of value. Moreover, their use as a payment instrument remains marginal, although that may change with the adoption of the European Markets in Crypto-Assets (MiCA) Regulation. MiCA represents a major step forward for the crypto-asset ecosystem, as it will provide a European regulatory framework for crypto-asset issuers and service providers that will address a number of major risks and build greater user confidence.

- Last but not least, **innovation and digitalisation, carried out within a controlled framework, have helped provide a host of benefits**, delivering means of payment that are more secure, faster, more convenient and user-friendly.

B. Rise of the digital economy: issues and challenges for a European payment union

- While changes to the payment sector have brought widespread benefits, the **observed market dynamics and the increasing fragmentation of the payment chain accompanying these developments are raising challenges that extend far beyond our own borders.**

- **Cash's special features,** especially confidentiality, universal acceptance and accessibility, are not currently available in the digital space. With payments increasingly moving to digital environments, we must therefore address the question of how to ensure that these essential characteristics are safeguarded in the future.

- Furthermore, expanding the use of digital solutions has steadily upped our **reliance over non-European entities** (particularly from the United States), which already leverage on significant network effects, thanks notably to their ability to harness extensive datasets and customer bases, and which control a number of widely used proprietary standards (Visa, Mastercard). Beyond the matter of operational resilience, this situation raises competition, strategic autonomy and data protection concerns.

- Lastly, **thanks to the impetus from European regulations, the rise of online payments has been accompanied by the introduction of strong customer authentication.** Strong authentication involves the use of two or more of the following three factors: possession (something only the payer possesses), knowledge (something only the payer knows, such as a password), or a biometric factor (such as a fingerprint). **While the widespread implementation of strong authentication ensures a higher level of technological security across the entire payment chain, this makes it consumers awareness and vigilance all the more important, for they are increasingly targeted by fraudsters.** In 2022, a rapid increase in fraud techniques involving scams and social engineering was observed, including spoofing techniques where fraudsters impersonate bank officers to put victims off their guard. The French Observatory for the Security of Payment Means (OSMP) noted that while the share of fraudulent payments with strong customer authentication remained contained in 2021, it reached a significant level in 2022, climbing to 30% of the total value of fraudulent online card payments.

- All of these aspects relating to the digitalisation of payments raise **regulatory and supervisory challenges**. Over time, the **payment value chain has grown more fragmented** due to the proliferation of stakeholders, some highly specialised, operating in different segments and offering increasingly diversified solutions which sometimes a limited interoperability. In this environment, it is becoming harder for regulators to develop a holistic overview of the sector's risks and interdependencies. Moreover, some unregulated – or less regulated – participants, such as mobile phone manufacturers and telecom companies, now play a critical role in the security of means of payment.

How are regulators tackling these challenges?

II. What are our goals for the future?

By providing complementary responses: regulate, support and innovate.

A. Regulation of payment instruments

- **We need to continually adjust our regulatory frameworks** both at national and international levels, to provide a framework of confidence conducive to innovation while safeguarding:
  - a level playing field for all market participants based on the "same activity, same risk, same regulation" principle,
  - consumer protection, and
  - a neutral stance on technological developments, which keep reshaping the retail payment landscape. We aim to regulate usage, rather than technology itself – in constant evolution.

- **Long-term retail payment strategies**, also elaborated at different jurisdictional levels (France, the European Union, Eurosystem, G20…), **are instrumental to identifying and implementing priority policy areas** in the longer term, as illustrated by communication campaigns and quantitative targets to measure progress.

- **Authorities are in parallel supporting several payments-related initiatives** (public, private projects, and public-private partnerships) that aim to promote an autonomous and competitive payment market in Europe. In particular, the Banque de France and the Eurosystem are actively backing the *European Payments Initiative* **(EPI)**. This new pan-European payment solution will allow consumers and businesses to make instant account-to-account payments via QR code. It will be integrated in the digital wallet *Wero*, on which other means of payment and payment-related services will be accessible, such as a digital ID or access to merchant loyalty programmes. This payment solution will help strengthen the sovereignty of the European payment market by providing an alternative to using foreign schemes such as Mastercard and Visa, while ensuring that payments and related data are processed by European organisations. Similarly, the Banque de France has backed the French bank consortium *Cartes Bancaires* since 1984 and Paylib since 2013. We have no doubt that EPI will enhance the know-how of European stakeholders and help to diversify use cases of SEPA instant payments. More generally speaking, this further development of instant bank transfers contributes to enhancing the Single Euro Payments Area (SEPA), which allows payments to be made under the same conditions across the entire European area. This is a key driver in achieving European integration and the convergence towards a single payment market.

- Finally, **promoting targeted and concretes actions** raises consumer awareness. The National Committee for Payment Means (CNMP, the French retail payments forum), whose secretariat is managed by the Banque de France, has for example established a charter to make payment services more accessible to people with disabilities. Meanwhile, the Observatory for the Security of Payment Means, under the auspices of the Banque de France, is elaborating – together with industry representatives – recommendations to constantly improve the security of payment instruments in the face of increasingly sophisticated fraud techniques.

B. Innovating through the digital euro

- Central banks are not only supporting innovation: they are also driving. This aspect is epitomised by the digital euro initiative, which is a public response to the challenges I mentioned earlier.

- The digital euro will be a new form of central bank money, issued by the Eurosystem and available to the general public. It will complement, not replace, cash and other means of payment.

- **First and foremost, the digital euro will preserve the most valuable features of cash in the digital space**, making it a true "digital banknote". As legal tender, it would be usable throughout the euro area in all contexts, including e-commerce. Its offline mechanism will provide a cash-like level of privacy and increase our resilience. It will be free of charge for individuals. Its characteristics will support digital financial inclusion, including for people without bank accounts or smartphones.

- **With these unique features, the digital euro will strengthen consumers' freedom of choice**. I would like to dispel a few unfounded fears about the digital euro. First, the central bank will never be able to see the personal data of the digital euro end-users: the idea is not to create some kind of European "Big Brother", but rather to provide a new means of payment that can offer an unprecedented level of privacy in the digital space. Second, the digital euro will never be programmable money, i.e. the central bank will never be able to restrict its use, either over time or in terms of the goods and services that can be purchased. Also, like banknotes, the digital euro will not bear interest, either positive or negative. Finally, the digital euro will not replace cash: the Eurosystem is committed[5] to ensuring that cash remains widely

[5] See the Eurosystem's cash strategy.

accessible and accepted and plans[6] to design a new series of banknotes. Meanwhile, the European Commission has published a proposal for a regulation to support the legal tender status of cash within the EU. And the Banque de France has announced the construction of a new banknote factory in the *Puy-de-Dôme* region. This new facility is set to be the most modern, efficient and environmentally-friendly public banknote manufacturing centre in Europe. We have made a clear commitment: cash will continue to be widely accessible throughout the euro area.

- While offering these unique features and strengthening consumers' freedom of choice, **the digital euro will also support sovereignty, competition, innovation and integration** in the European payments sector. The distribution of the digital euro will be entrusted to private intermediaries and will be governed by a scheme rulebook governed by the Eurosystem. These rules will lead to the emergence of open and harmonised acceptance standards that will reduce our dependence on non-European entities and enable private companies to offer their services throughout the euro area. In this way, the digital euro will foster the development of private solutions, under European governance, that can be used everywhere across the euro area and in any context, including in shops, online and peer-to-peer. Currently, most solutions are restricted to certain countries or use cases. Finally, wherever possible, the digital euro will reuse existing infrastructures, such as payment terminals and cards, to facilitate its integration into the payment ecosystem.

- While Europe's digital currency initiative is well advanced, there is still a long way to go before people can actually consider paying with the digital euro. The Governing Council of the European Central Bank recently announced the **launch of a preparation phase,** following the investigation phase that began in 2021. The new phase will allow us to (i) finalise the design, (ii) experiment some functionalities and (iii) lay the foundations for the development of the architecture by selecting potential providers. We will also continue to dialogue actively with market participants, as well as with merchant and consumer representatives, to ensure that the digital euro meets their needs.

- In June, the European Commission published a proposal for a regulation, which is now being discussed by the European Parliament and the Member States, marking the start of an important democratic debate on this project. Let me stress that the decision to issue a digital

[6] See the process of designing a new series of banknotes. During summer 2023, European citizens were asked to share their opinions on the theme of the new series.

euro has not yet been taken, and will not be taken until the co-legislators have finalised and voted on the legislation.

Money and payments have strategic importance that raises new challenges in the digital era. As the guardians of monetary and financial stability, central banks must be able to anticipate and respond to the risks and vulnerabilities associated with these developments. In a fast-evolving payment ecosystem comprising a large number of diverse players, the goal is to strike the delicate balance between supporting innovation, maintaining a high level of payment security and nurturing competitiveness. All of these ingredients are needed to ensure that users can choose from the widest possible range of modern, safe, reliable, accessible and economically and environmentally efficient means of payment.

Thank you for your attention. I will now take questions.