Analysis

Future of payments at hand

Money and payments, Digital euro | 31 May 2021 | Tuomas Välimäki, Päivi Heikkinen

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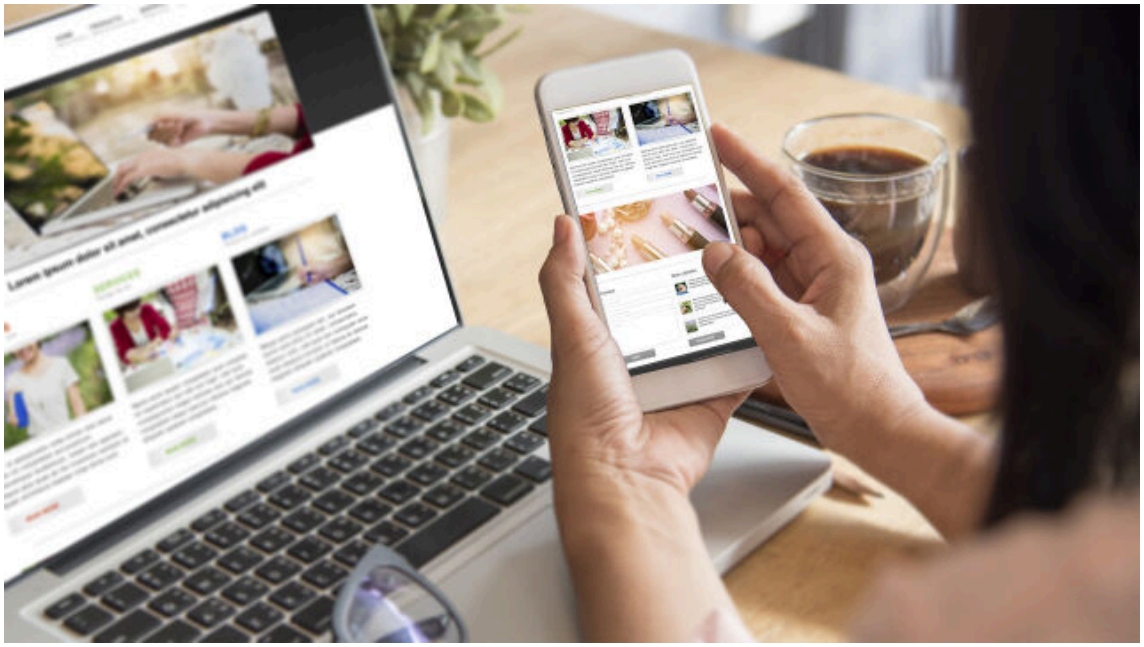


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Payments are a basic function in society, the lifeblood of economic activity; if disrupted, this could bring society to a total standstill. It matters how payment services and the systems executing these services are designed, how they are managed and what costs are involved. New types of services enabled by technological progress, increasing competition as a result of deregulation and risks related to the digital environment have an impact on both payment services and the underlying arrangements. The coronavirus pandemic has irreversibly changed how we live during the past year and has accelerated many long-brewing developments. The future of payments may arrive sooner than anticipated just one year ago.



In the same way that technological progress influences so many of the day-to-day activities of

households and businesses, it also affects how we make payments. Already for decades, the bulk of the euro volume of payments has moved in the form of electronic credit transfers between bank accounts, based on harmonised standards. Across the euro area, too, this has been the case for more than a decade already. Payment cards have largely replaced cash in daily payments. No-one is using a payment card imprinter anymore, as, within the course of two decades, payment card technology has moved first to magnetic stripes and then on to chips and then mobile applications, and even to accessories, such as smart watches. Recently, contactless payment without a PIN code has rapidly gained in popularity.

Year 2020 was a turning point in electronic payments. The pandemic changed people's behaviour rapidly, and this was also reflected in purchases and payments. The European Commission published a Retail Payments Strategy for the EU as part of its digital finance package, outlining a desirable path of development for payments to ensure benefits for consumers and businesses. The Eurosystem outlined similar objectives for retail payments already in late 2019. Recent developments also reflect payments regulation, in particular the requirement of strong customer authentication in payments, as well as the open banking practice, which requires banks to provide third-party financial service providers open access to payment interfaces. The purpose of regulation and retail payments strategies is to strengthen the efficiency, diversity and quality of European retail payment services. The payments revolution accelerated by the pandemic underlines the importance of the objectives and the urgency of the measures required to support the strategy.

The impact of COVID-19 on payments

The full impact of the pandemic on payments will become evident only when all the restrictions on the activities of businesses and members of the public have been lifted. Is the growth in e-commerce permanent, will mobile payment solutions continue to grow at a strong pace, will the use of cash in daily payments return to pre-pandemic levels? Research on consumer behaviour often notes that people's behaviour particularly in everyday use of services becomes automatic, and habits in, for example, payments are not easily changed. A crisis can however change behaviour rapidly. Recommendations and restrictions issued as a result of the pandemic have constrained the possibilities to consume and have directed consumption into new channels. Payment behaviour has been guided in many places directly, for example by urging people to avoid cash payments.

The Bank of Finland Bulletin article on how the coronavirus pandemic will change payment methods permanently analyses changes in payment methods relative to consumer demand. It is noteworthy that the recovery in consumer demand is reflected primarily in card payments.

Contactless payment, in particular, continued to increase, even though the EUR 50 upper limit per purchase is constraining its wider use. In mobile payment, there is no upper limit, which may have supported the strong growth in the use of this payment instrument. Its role in the total volume of daily payments is, however, still fairly small. Consumption and trade have increasingly moved to a multi-channel environment where an online shop and a traditional store provide services in parallel. This imposes additional requirements for the development of payment methods, as payment methods designed for face-to-face payment do not necessarily serve online payment in the best possible way. Risk management and a smooth payment process set different requirements for the various payment channels. The increasingly stronger position of e-commerce and electronic payments also underlines the importance of financial literacy. E-commerce independent of time and place and a payment transaction that is faded into the background may weaken consumers' perception of their financial position.[1] Consumer surveys show that during the pandemic the bulk of cash use has been in consumer groups that do not have access to other payment methods. If this trend persists, it means that national currency supply must adjust to smaller volumes. This would have an impact on the costs of currency supply, the availability and usability of cash, and national preparedness.

The Eurosystem and European Commission strategies for retail payments

The European Commission's retail payments strategy identifies the key areas in which the digital payment services of individuals and businesses should be developed. Services that are developed on market terms and in contestable markets can best meet the needs of end-users. Trusted, efficient and open payment systems are the foundation of the services to be developed. Europe's economic independence as well as financial sector independence require that retail payment services are generated with systems that comply with European legislation, consumer protection and data protection, as well as the principles of good governance. The European Union also supports the G20 initiative on the enhancement of cross-border payments, particularly remittances.

The transformation of digital payments to real-time payments follows the trends in the other sectors of the economy, towards 24-hour services. When real-time payment transfer is referred to as the new normal, it should be considered that real-time payment systems are a necessary but not sufficient precondition for services that benefit end-users. The Commission considers that a smart phone application based on instant payment and uniform rules, i.e. a mobile payment application, can effectively compete with the dominant position of the big tech companies located outside Europe, and thus create for Europe a necessary retail payments system of its own. While

the Commission wants to develop European digital payments, it is also examining ways to ensure that cash remains a true alternative in various payment situations.

The payment transmission infrastructure has been largely based on batch processing of invoices and payments. The credit transfer infrastructure has increased the number of daily settlement cycles, and so the transfer of funds has often taken place during the same day, but no later than the following day. Meanwhile, changes in payment systems were initiated only after calls for real-time payments as part of the real-time world. Real-time transfer of payments – primarily of credit transfers – is provided by actors in the private sector, such as EBA Clearing, as well as by the European Central Bank.

The Payment Services Directive (PSD2)[2] has already brought about competition in the development of payment services. New types of payment service providers have entered the market with the aim of catering for the needs of consumers and traders by providing alternative payment methods to replace or supplement banks' payment services. In the area of e-commerce, the market has seen the emergence of operators who combine different payment methods for consumer selection and also provide escrow services. New agile alternatives have widened the range of card acceptance solutions, and mobile phone apps have been developed for person-to-person payment. The traditional payment services production has been somewhat rigid, leaving room for new firms and business models.

The Bank of Finland Bulletin article on the future of European retail payments and the implications for the Finnish markets discusses the objectives of authorities for the path of development for payments and assesses how Finnish banks' development projects will implement these objectives. Finnish banks have joined payment systems that enable real-time payment, but their payment services to customers do not yet encompass all the opportunities offered by the infrastructure. Commitment to European standards will ensure that the benefits of European payment systems will be available for Finnish banks and their customers also in the future.

Digital euro

The fundamental difference between electronic payment methods and cash is that e-payments are carried out between deposit accounts or against debt. Bank deposits are the bank's debt liabilities to its customers and, depending on the payment method, entries between the payer's and the payee's deposit accounts are recorded separately from the payment transaction, sometimes even days thereafter. In the case of e-payments, the bank's liability to the payer becomes a liability to the payee. Cash, in turn, is a payment instrument issued by the central bank which in itself also serves as a means of transferring monetary value. The purchasing power of a

banknote passes on immediately from the payer to the payee without separate entries into account systems, and the central bank is responsible for the value of the banknote. The diminishing role of cash as a means of payment has brought about a discussion of the difference between central bank money and commercial bank money. Partly as a result of this, consideration has also been given to the introduction of a central bank digital currency (CBDC) for use by consumers. Central banks are extensively studying the criteria and models of CBDCs, and the first pilot projects have already been conducted.

The Bank of Finland Bulletin article on a digital euro draws on an analysis carried out within the Eurosystem and discusses the features required of a digital euro as a means of payment. At best, a digital euro could compete with the prevailing retail payment methods in such a way that the markets, which tend towards monopoly, would remain competitive for the benefit of consumers and businesses. A digital euro could also contribute to the European sovereignty of retail payments sought in the retail payments strategy. A digital euro must comply with the requirements of European regulation, as must the payment methods provided by the private sector, and must not impair financial stability. The creation of this kind of a digital means of payment which is based on central bank currency and is comparable to cash requires extensive analysis and also value choices. The Bank of Finland is participating in this work in the Eurosystem, but no decisions have been made on the introduction of a digital euro.

Central bank oversight

When a lot of changes take place in an industry and its operating environment, this emphasises the importance of oversight of the payment infrastructure. The particular purpose of central bank oversight is to assess payment and settlement systems and their operation. The objective is to ensure that system-level risks are under control and that any problems encountered by one operator will not spread through the systems to the entire sector (systemic risk). Central bank oversight complements institutional supervision conducted by financial and banking supervisors – in Finland the Financial Supervisory Authority.

Oversight covers both payment systems and securities settlement systems. The diversification and critical nature of electronic payments has also widened the scope of oversight towards different payment methods. For example, in addition to the traditional interbank payment systems, oversight also covers card payment services, electronic money and payment initiation services. Legislation on securities trading has been updated since the financial crisis, and the fulfilment of conditions for authorisation of these systems is evaluated on an annual basis. The Bank of Finland Bulletin article on the oversight of payment and settlement systems examines in detail what requirements are imposed on payment and settlement systems and how the fulfilment

of these requirements is assessed.

As a rule, financial markets are international, and the infrastructures important for the Finnish financial market are largely located outside Finland. The oversight of these systems is based on extensive and well-structured cooperation between central banks. Oversight activities are based on internationally agreed oversight principles, which have served as a basis for standards and recommendations suitable for evaluating various systems. Despite careful oversight, full dependence on international infrastructures means that there are significant risks to national preparedness in the financial sector. From the perspective of oversight, too, it is important that services critical to society are available in all circumstances.

Future of payments ever closer

There are long-term trends in retail payments, many of which accelerated during the COVID-19 pandemic. Finland and, indeed, the whole of Northern Europe have played a leading role in the digitisation and automation of payments. The prolonged pandemic may serve as a catalyst that pushes other euro countries onto the same path as Finland, in particular in regards to the use of cash.

Consumers can often choose between several payment method options. Many products can be paid by cash, card or bank transfers through online or mobile banking. The diversity of payment methods based on different infrastructures maintains competition and creates operational security. This is important because payments are in many respects a part of the network economy, in which economies of scale tend to lead to monopolisation of activities.

If the trend continues, the diminishing role of cash as a means of payment may significantly increase the cost of cash payments. This, in turn, could further reduce both the availability of cash and its acceptability as a means of payment. If uncontrolled, it would be an undesirable development, as cash still remains the main payment method for many Finns and holds a central role in, for instance, ensuring emergency preparedness. Therefore, the Bank of Finland closely monitors the development of cash payments and, where appropriate, the Bank's experts participate in working groups coordinated by the Euro Retail Payments Board and the European Commission, with the task to analyse developments in the acceptance of and access to cash. Ensuring the role of euro cash is a matter for both European and national authorities.

At one time, an empty wallet forced consumers to reduce consumption. It offered a lesson in financial discipline. In a digital world, an increasing share of consumption is paid for and sometimes financed automatically, even unnoticed. This exposes consumers to new kinds of financial management needs. However, financial literacy does not emerge on its own. The Bank of Finland

has paid particular attention to this issue through measures such as launching a financial literacy project[3] at the beginning of 2020 and by drawing up a proposal for a national strategy to promote financial literacy,[4] which was submitted to the Ministry of Justice in January 2021. It is important that the promotion of financial literacy progress alongside the transformation of payments.

For years, enhancing the speed and internationalisation of payments have been key trends. The creation of the Single Euro Payments Area (SEPA) enabled rapid and low-cost bank transfers throughout the euro area several years ago. The TARGET Instant Payment Settlement (TIPS) introduced at the end of 2018 built on this trend by enabling almost real-time payments throughout the euro area, including cross-border payments.

Solutions based on instant payment currently appear to offer the most realistic alternative system for retail payments independent of the card payment infrastructure. Such development is necessary, in particular, to prevent the over-concentration of payments and ensure a sufficient supply of solutions to maintain a competitive balance – also with regard to the diminishing role of cash. Instant payments as an everyday payment method are not a utopian vision of tomorrow, but already a reality in some countries. In instant payment applications for consumers, Finland lags behind not only other Nordic countries but also, for example, the Netherlands, where payment behaviour is otherwise very similar to that in Finland. From the point of view of payment diversity, it is unessential whether the instant payment-based options would be based on domestic or pan-European solutions as long as they operate in accordance with European standards. In order to realise the strategic objectives of the Eurosystem and the European Commission regarding European payment sovereignty, their administration must in any case follow European policies and regulations.

A digital euro could be one way of ensuring access to a payment method that is generally accepted across the euro area as the role of cash diminishes. In such a situation, a payment method offered by the central bank could boost the development of private payment solutions, which would also prevent monopoly pricing in payments. A digital euro could also enable the use of digital payment methods for those who require a particularly high level of privacy or a payment method free from credit risk. In the Eurosystem's public consultation on a digital euro, respondents listed privacy and security as the features they most wanted from a digital euro.

The digitisation of payments has caused the risks to the infrastructure to shift to, in particular, information networks and cyber threats. The large volumes of assets handled by financial market participants and payment systems are attractive targets for cyber criminals and their constantly evolving operating practices. In cyber security, physical security and information security are typically interlinked. This, in turn, challenges the central banks' traditional oversight of payment

and settlement systems to broaden its perspective. The Bank of Finland has actively promoted the introduction of a new way for financial sector actors to test their cyber security. In April 2020, the Bank released the threat intelligence-based framework for red team security testing (TIBER-FI) and its implementation guideline.[5] The first tests indicate that the framework is a useful and highly effective tool for supporting corporate cyber security.

The central bank participates in maintaining the reliability and efficiency of the payment system and overall financial system, and therefore must be able to offer a broad response to changes in payment trends. For example, ensuring the availability and acceptability of cash and fostering the use of diverse payment options serve the development of the entire national economy. From a macroeconomic and social perspective, it is essential to ensure the adequate functioning of critical services such as payments in all circumstances. Critical disturbances under normal conditions and national preparedness also require that adequate contingency plans for payment systems are in place. Contingency planning must be an integral component in the development of payments.

Notes

1. For a more detailed analysis, see Suomalaisten talousosaaminen: Analyysi 2000-luvulla tehtyjen tutkimusten ja selvitysten perusteella (in Finnish only). ↑
2. PSD2 – Regulatory framework, Financial Supervisory Authority (finanssivalvonta.fi/en). ↑
3. Financial literacy, Bank of Finland (bof.fi). ↑
4. Learn economy. Financial literacy project, Bank of Finland (bof.fi). ↑
5. TIBER-FI implementation guideline. A method for improving cyber security. ↑

Keywords

COVID-19 pandemic, digital euro, digitalisation, payment systems, payments