

Payment Practice Paper

Instant payments: Providing the rails for new payment solutions

Received (in revised form): 15th December, 2023

Niels M. Pranger

Policy adviser, Dutch Payments Association, The Netherlands



Niels M. Pranger

***Niels Pranger** is a policy adviser at the Dutch Payments Association. His areas of specialism include, inter alia, instant payments, open banking and the revised Payment Services Directive. Niels graduated cum laude from the Vrije Universiteit Duisenberg Honours Programme with a master's degree in financial markets and regulation, having previously earned a bachelor's degree in economics and finance from the University of Amsterdam.*

ABSTRACT

In November 2023, European legislators reached an agreement on legislation to increase adoption of instant payments. Instant payments enable consumers and corporates to make transactions in real time and 24/7. These unique features allow for value-added services such as e-commerce and point-of-sale payment solutions that can compete with card payments. Through a discussion of a number of successful payment solutions built on instant payments, this paper explains how instant payments could help Europe in its quest to develop a home-grown payment solution. The analysis starts with a discussion of Brazil's Pix and India's Unified Payments Interface, providing interesting insights into the possibilities of instant payments. The paper then moves on to a description of the European Payments Initiative — the consortium of European banks that recently acquired iDEAL, the Dutch account-to-account e-commerce payment solution. The paper also shows how Swish — the Swedish payment solution — provides valuable lessons to Europe as regards the launch of a payment

solution, notably with respect to the importance of realising network effects.

Keywords: *instant payments, pan-European payment solution, payments sovereignty, European Payments Initiative, Pix, UPI, Swish*

INTRODUCTION

Numerous countries across the globe have launched or are in the process of developing instant payment systems. From Australia to Brazil, and from India to the continent of Europe, such systems are already live in 60 countries.¹ The Bank for International Settlement (BIS) defines an instant payment as 'a payment in which the transmission of the payment message and the availability of "final" funds to the payee occur in real time or near-real time on as near to a 24-hour and seven-day (24/7) basis as possible'.² Simply put, an instant payment is a credit transfer that arrives at the payee's payment account within seconds, regardless of the day or hour. While this paper uses the term 'instant payment', elsewhere the term is used interchangeably with 'immediate' and 'real-time' payments.

The three characteristics that set instant payments apart from regular credit transfers are speed, continuous availability and irrevocability. Unlike instant payments, regular credit transfers can take up to one working day to arrive at the payee's payment account and are only available during business hours. Instant payments therefore offer

Dutch Payments Association,
Gustav Mahlerplein 33–35,
1082 MS Amsterdam,
The Netherlands

E-mail: n.pranger@betaalvereniging.nl

Journal of Payments Strategy & Systems
Vol. 18, No. 1 2024, pp. 96–108
© Henry Stewart Publications,
1750-1806

important benefits compared with regular credit transfers, such as: (1) a convenient alternative to person-to-person (P2P) cash payments; (2) improved cash management for companies; and (3) faster transaction processing time, which in turn reduces the volume of funds locked in financial systems, delivering greater economic efficiency.³

While the above-mentioned benefits can largely be attributed to the speed of instant payments, the fact that instant payments are available 24/7/365 is also a very important benefit, and indeed was an important reason for Dutch banks to launch instant payments.⁴ During the 2010s, consumers started to expect credit transfers to arrive immediately and retail merchants wanted to receive their point-of-sale turnover every day of the week, regardless of whether it was weekend. Instant payments would enable payment service providers (PSPs) to live up to these demands.

In May 2015, the Dutch banks ABN AMRO, ASN Bank, ING, Knab, Rabobank, RegioBank and SNS, under the auspices of the Dutch Payments Association, launched a project to make instant payments the new

normal for individual transactions. Instant payments were set as default for individual transactions, with transaction fees set at the same level as for regular transfers. In 2019, instant payments began to filter onto the market and soon became the new normal for individual transfers (see Figure 1). Currently, more than 95 per cent of all Dutch bank accounts are accessible for instant payments.

PAYMENT SOLUTION BASED ON INSTANT PAYMENTS

When instant payments are rolled out across a payments market, it can facilitate new, value-added services. For instance, due to their continuous availability, speed and irrevocability, instant payments are ideal for facilitating point-of-sale (POS) or e-commerce payments. Compared with legacy payment solutions such as cash and cards, the main benefits of instant payments are the immediate availability of funds, lower transaction costs and low to zero settlement risk.⁵

There are various reasons why a country may wish to adopt a payment solution built on instant payments. For a start, many

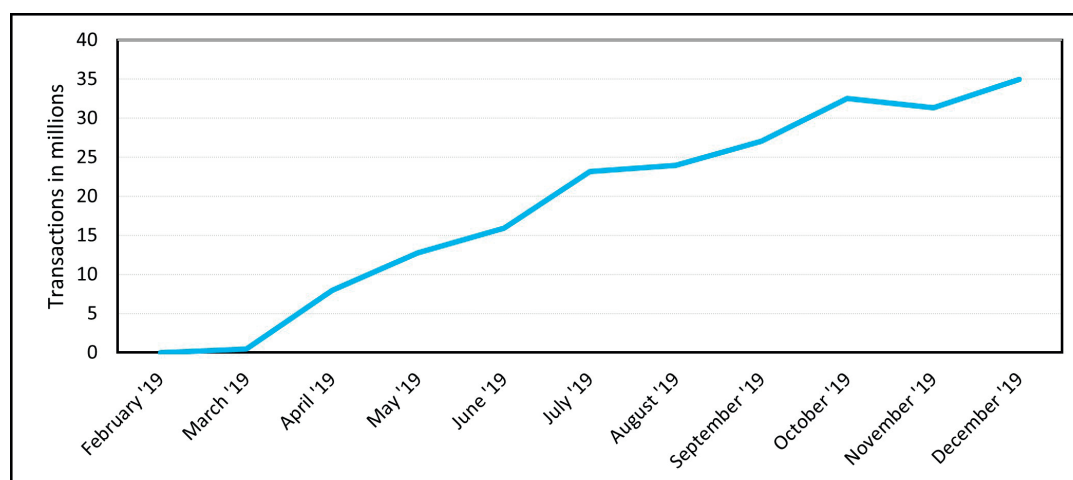


Figure 1: Adoption of instant payments in the Netherlands in the first year of introduction (2019)

Source: Dutch Payments Association (2019) 'Facts & Figures', available at: <https://www.betalvereniging.nl/en/latest-news/facts-figures/> (accessed 11th December, 2023)

countries lack a digital payment solution and rely heavily on cash for retail payments. In Brazil for instance, 77 per cent of transactions were made with cash in 2019.⁶ Digital payment solutions based on instant payments are relatively straightforward to roll out. Secondly, instant payments are usually low in cost and very competitive compared with cash and card payments. Transaction costs for cash are relatively high compared with digital forms of payments, while fees for card transactions account for more than 1 per cent of gross domestic product (GDP) in many countries.⁷ In 2020, a cash transaction in the Netherlands cost €0.49, while a contactless card transaction was only €0.17.⁸ Thirdly, the adoption of instant payments makes it possible for countries to develop their own payment solutions. This enhances a country's sovereignty, which could be important in the light of geographical tensions and reliance on foreign payment solutions.

Broadly speaking, any payment solution that enables PSPs to provide instant payment services requires a rulebook, system and service.⁹ The rulebook (or scheme) describes the rules, procedures and technical standards pertaining to the execution of instant payments, while the system performs the clearing and/or settlement. The service is the actual front-end solution that allows end users to execute instant payments, for instance an e-commerce or POS payment solution. This could, for instance, be offered in combination with a quick response (QR) code.

A simplified payment flow would work as follows:

- (1) The (online) retailer generates a unique QR code.
- (2) The customer scans the QR code with a smartphone, is redirected to a bank application and authorises the payment.
- (3) The payment is made via the instant rails and is carried out by means of an account-to-account (A2A) transfer.

- (4) Within seconds, the merchant receives the amount in his payment account.
- (5) The merchant releases the goods to the customer.

Both Brazil and India have developed successful instant payment solutions that include the use of QR codes. An important part of their respective strategies was the adoption of open connections to initiate payments — a practice known as open banking.

OPEN BANKING

For an increasing number of countries, open banking is a core part of the payment system. In open banking, licensed third parties are able to access the customer's payment account to initiate payments or provide account information services. A payment initiation service provider (PISP) can initiate a payment from a payer's payment account to a payee's payment account. The transaction is executed via the (instant) credit transfer infrastructure and the PISP never holds the funds.¹⁰ The PISP securely initiates the payments via open connections provided by the payer's bank, for instance via application programming interfaces (APIs). Open banking enables PISPs to provide value-added services on the (instant) credit transfer rails. The resulting competition results in better choices for consumers and merchants, and possibly lower prices, especially for e-commerce transactions. In some markets, PISPs can develop solutions that are more tailored to the specific needs of end users, improving user experience and reducing frictions.¹¹ Instant payment is an important element for open banking, because it ensures that the funds arrive in seconds and the transaction is final.

SUCCESSFUL SOLUTIONS BUILT ON INSTANT PAYMENTS

The successful adoption of any payment solution depends on its ability to generate

network effects. For the consumer, the benefits of using a new payment method increase as more merchants accept said payment method, and vice versa.¹² Two of the most successful payment solutions based on instant payment are India's Unified Payments Interface and Brazil's PIX, both of which successfully generated network effects.

Brazil's Pix

As discussed, Brazil's retail payment market relied heavily on cash.¹³ Brazil lacked an efficient and widespread digital payments solution, meaning that debit and credit cards, for instance, were not widely used. This was inefficient from a cost perspective and, moreover, the growing e-commerce market lacked an efficient digital payments solution.

The central bank of Brazil — the Banco Central do Brasil (BCB) — recognised the gap in the country's payments market and the potential of instant payments. In 2018, the BCB launched a project to modernise Brazil's payment system through the development of an instant payment solution known as 'Pix', which would drive down the cost of electronic payments and empower consumers to make instant transfers at any time of day, using mobile applications and internet banking, and thereby reduce the country's reliance on cash.

The BCB: (1) developed the rulebook that covers the rules and technical specifications; (2) provided a real-time gross settlement system called Instant Payments System (SPI); and (3) developed the front-end payment solution.¹⁴ The BCB is thus the scheme manager and operator of Pix.

Pix is an open-loop payment platform that allows banks and payment institutions to join the scheme. Banks are required to provide standardised APIs to allow PISPs to initiate payments via Pix,¹⁵ and payments are mainly initiated via aliases and QR codes.

Since its launch in November 2020, Pix has been very successful, recording 2.1 billion transactions in August 2022, growing to 4.3 billion transfers in November 2023.¹⁶

Initially, P2P transactions were the main driver of adoption, accounting for 87 per cent of all Pix transactions, while person-to-business (P2B) transactions accounted only for 5 per cent. Retail payments grew rapidly, however, and in September 2023 had risen to 34 per cent of all Pix transactions.

Various factors have contributed to the success of Pix. First, banks and payment institutions that served more than 500,000 customer accounts were required to participate. This ensured a critical mass of users, thus starting the network effects.¹⁷ Other institutions rapidly followed. Due to the openness of the scheme, PISPs were able to initiate payments and serve different niche markets. Importantly, Pix transfers are free of charge to individuals and significantly cheaper for merchants than debit and credit cards, while PSPs are allowed to charge a fee to merchants. In the fourth quarter of 2022, the average Pix transaction cost merchants 0.33 per cent per transaction, compared with 1.13 per cent and 2.34 per cent for debit and credit cards respectively.¹⁸ Lastly, a major public awareness campaign was initiated via apps, websites, radio, television, influencers and public events.

According to the president of the BCB, Pix has not had a major impact on banks' revenue.¹⁹ The lower fees are offset by the reduction in costs associated with cash usage. Moreover, the client base for banks has grown significantly, as consumers require a bank account in order to use Pix. In the two years following the launch of Pix, the number of bank clients increased by over 40 million.²⁰

Despite the wide-scale adoption of Pix, certain obstacles remain.²¹ Most notably, some consumers are reluctant to change their payment habits and are yet to adopt Pix for their daily transactions. BCB intends to address this through educational actions and the introduction of new services, including batch payments and offline payments for Pix users. It is also exploring the use of other initiation methods, such as near-field

communication (NFC) technology and Bluetooth. This could allow new use cases to emerge. At a later stage, Pix might also allow integration with other international payment systems, to enable cross-border transactions.

India's Unified Payments Interface

Similar to Brazil, India lacked an efficient and widespread means for digital payments. In the 2010s, India relied heavily on cash, despite many consumers having a credit or debit card. In 2017, there were 910 million cards in circulation; among the nation's 20 million merchants, however, there were only 2.7 million POS terminals.²² Such a low level of digital payment acceptance was in no small part due to the prohibitively high cost of POS terminals.

For several years, the Reserve Bank of India (RBI) focused on promoting digital payments and making India less cash-dependent. As part of this programme, the RBI worked with the Indian Banks' Association to create the National Payment Corporation of India (NPCI) in 2008. All leading banks became shareholders in this new entity, which would be responsible for payments and settlement.²³

The organisation was tasked with creating a uniform and affordable payment system that leverages technology, while also enabling inclusiveness. The first step towards this goal was the launch of the Immediate Payment System (IMPS) — an instant interbank electronic fund transfer service that is available 24/7.²⁴ To leverage IMPS, the NPCI launched the Unified Payments Interface (UPI) in 2016.²⁵ UPI allows payments to be made without the need to enter account details. More specifically, it leverages the growing adoption of smartphones and mobile data to provide a means to make and receive payments via mobile telephone. This also allows small merchants and market sellers to provide a digital payment solution. UPI is a centralised API framework

controlled by the NPCI and works much like a platform, with a set of open APIs to enable PISPs to initiate payments. PISPs can access UPI indirectly through any bank that is a direct participant in UPI. The PISP then initiates payments via this sponsor bank.²⁶

The adoption of UPI has been incredible. From the 1st April, 2022 until 31st March, 2023, a staggering 83.7 billion transactions were made via UPI.²⁷ This accounts for 73 per cent of all digital payments in India, but does include P2P transactions. UPI shows a similar trend as Pix, whereby the percentage of P2B transactions has grown over time. In April 2022, the share of P2B transactions relative to all UPI transactions was 45 per cent, growing to 59 per cent in September 2023.

To support the adoption of UPI, as of 2020 the Indian government has required UPI transactions to be free of charge for consumers and merchants.²⁸ The government partly subsidises the UPI transactions and the remainder of the costs are borne by banks and other payment actors.

INSTANT PAYMENTS IN EUROPE²⁹

The EU currently lacks a pan-European payment solution developed by European actors. Instead, card payments are widely used in most European countries. From a purely digital perspective, this means there is less pressure to launch a new digital payment solution. For reasons of payments sovereignty, however, the European Commission and the European Central Bank (ECB) are still keen to develop a pan-European payment solution. Such a solution could be built on instant payments, with legislation to ensure pan-European reach. Before discussing such legislation, however, this paper provides additional context in the form of a brief history of credit transfers in Europe and an exploration of its dependence on non-European payment solutions.

In the mid-2000s, each EU member state maintained its own credit transfer scheme. This created fragmentation in the market that was not consistent with the EU's desire for a single internal market. Therefore, in early 2008 the first European payment standard for national and cross-border credit transfers in euros was introduced.³⁰ The standard was composed by the European Payments Council (EPC) and described in the SEPA Credit Transfer (SCT) scheme rulebook. Later, in 2012, the SEPA Regulation required credit transfers in euro to comply with specific obligations that in practice only the SCT scheme complied with.³¹ This *de facto* made SCT the common scheme for credit transfers within the Single Euro Payments Area (SEPA).

As consumers and retailers in Europe started to demand faster payment services with continuous availability, however, the SCT scheme no longer sufficed. With several EU member states investigating or developing local instant payments schemes that would be non-interoperable with each other, in 2014, the Euro Retail Payments Board (ERPB) recognised the importance of avoiding fragmentation within the European payments landscape,³² and in 2015 invited the EPC to develop a pan-European instant

payment scheme that would take advantage of the harmonised SEPA region.

In November 2016, the EPC published the SEPA Instant Credit Transfer (SCT Inst) rulebook for instant payments. PSPs across the SEPA region, however, were not always able to reach each other instantly. This was because most settlement providers for instant payments operated on a local level. As PSPs had freedom of contract, EBA Clearing, which operated at the European level, could not guarantee full reach across the euro area. To address this, the ECB developed TARGET Instant Payment Settlement (TIPS) and, in 2021, obliged those PSPs that adhered to SCT Inst and were reachable in TARGET2 to become reachable in TIPS, thus solving the issue of limited instant payment reachability within the SEPA region. The adoption of instant payments remained low, however, as can be seen in Figure 2. In June 2023 15.4 per cent of all SEPA credit transfers were processed instantly. By way of comparison, in India this percentage was above 90 per cent in April 2022, although this is possibly the highest in the world.³³

Retail payment market in Europe

The payment system is a core part of any society as it provides the basic infrastructure

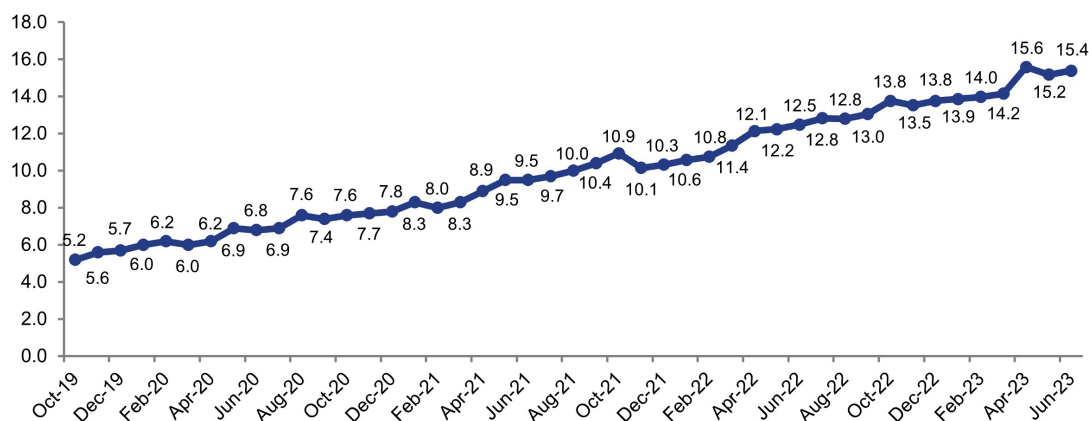


Figure 2: Adoption of instant credit transfers relative to all SEPA credit transfers

Source: European Central Bank (2023) 'What are instant payments', available at: https://www.ecb.europa.eu/paym/integration/retail/instant_payments/html/index.en.html (accessed 22nd November, 2023)

of the modern economy. It therefore concerns the European Commission that non-European payment solutions have a significant market share in the European retail payments market.

With respect to POS payments in Europe, these are dominated by debit card transactions from Mastercard and Visa.³⁴ Although some member states do maintain their own card schemes, such as Cartes Bancaires in France, these cards are co-branded with one of the two US card schemes to ensure cross-border reach.³⁵ The adoption of cards differs greatly among member states: in the Netherlands 80 per cent of POS payments were paid with cards in 2022, while in Austria and Italy respectively this was 25 per cent and 26 per cent.³⁶ The importance of card payments in the euro area, however, is growing fast. In 2022, 34 per cent of POS payments were paid with cards, up from 25 per cent in 2019.³⁷

As regards e-commerce payments in Europe, especially cross-border payments, these are dominated by PayPal and credit cards from Mastercard and Visa. A few member states have a local solution for e-commerce payments, such as iDEAL in the Netherlands. However, iDEAL can only be used by customers at a bank that participates in the scheme. These are mainly Dutch banks. Foreign consumers at Dutch e-commerce merchants usually rely on credit cards from Mastercard or Visa. Interestingly, many merchants outside the Netherlands offer iDEAL to their Dutch customers.

In short, Europe lacks a home-grown pan-European payment solution with cross-border reach. The European Commission recognises that instant payments could potentially solve this. One of the four pillars of the European Commission's retail payment strategy for the European union is 'increasingly digital and instant payment solutions with pan-European reach'.³⁸ Once rolled out across Europe, instant payments could lay the foundation for pan-European payment solutions. In its strategy, the

European Commission states that 'instant payments are suitable for many uses beyond traditional credit transfers, in particular for physical and online purchases, which are currently dominated by payment card schemes'.³⁹ Importantly, an instant payment solution would be pan-European due to Europe's internal payments market.

Legislation to boost instant payment adoption

On 26th October, 2022, the European Commission published a legislative proposal to spread instant payments across Europe, referred to in this paper as 'Instant Payments Regulation' (IPR).⁴⁰ The Council and the European Parliament reached a provisional agreement on 7th November 2023. The official final legislative text was not yet publicly available at the time of writing. The legislation directly addresses several key problem drivers that hindered the adoption of instant payments in Europe and thereby aims to improve the availability of instant payments to consumers and businesses:

- *PSPs will be obliged to offer instant payments:* While PSPs are obliged to offer traditional credit transfers under the SEPA Regulation, PSPs could voluntarily offer instant payments. As a result, in the second quarter of 2023, 71 per cent of PSPs in the euro area were connected to the SCT Inst scheme and therefore not all payment accounts are reachable for instant payments.⁴¹ An instant payment based payment solution will only be adopted if it has sufficient reachability. The IPR will oblige PSPs offering regular (SCT) credit transfers to be able to receive and send instant payments, including batch payments. While the exact implementation timelines depend on the moment of publication of the legislation in the *Official Journal of the European Union*, it is estimated that PSPs will be required to be able to receive instant payments late

2024 and send instant payments late 2025. It will probably be challenging for some PSPs to comply with these timelines.

- *Instant payments are not a premium product:* In several countries, instant payments are a premium product and more expensive than regular credit transfers. In these countries, consumers only use instant payments for urgent transfers. The IPR will prohibit PSPs from charging a higher fee for instant payments than for regular credit transfers.
- *Daily client screening on EU sanctions:* Between 0.4 per cent to 9.4 per cent of cross-border instant payments are flagged due to potential sanction list 'hits'; for regular credit transfers this is close to 0 per cent. According to PSPs, up to 99.8 per cent of flagged transactions are false positives.⁴² For SCT transactions there is sufficient time to verify whether the notification is correct, which is not possible for instant payments. To solve this, the IPR makes a shift from transaction screening to account-holder screening. PSPs will be required to screen their customer on EU-sanctions on a daily basis, instead of screening every single transaction. Transactions that belong to payment accounts from a person or entity on the sanction lists are not initiated, and funds made available to these accounts are frozen. This approach is already common for PSPs in some member states for domestic instant payments. This requirement increases efficiency and harmonisation of the screening process among PSPs in Europe, without harming the effectiveness of sanction screening or the tracing of transactions for anti-money laundering purposes.⁴³ As a result, the number of incorrectly rejected transactions should reduce.
- *Increase consumer trust:* Instant payments are attractive to fraudsters due to the speed and irrevocability, for instance for authorised push payment (APP) fraud. With this

type of fraud, a payment account holder is tricked into transferring money to a fraudster who — for instance — acts as a bank employee. IPR introduces the obligation to PSPs to offer a service to verify whether the payee's IBAN and name match, both for instant and regular credit transfers. This service is known as confirmation of payee (CoP). The PSP warns the payer in case of a 'close match' or 'no match'. It aims to reduce erroneous transfers — for instance, due to typing errors — and APP fraud. It is not clear how successful CoP is in combating APP fraud. Importantly, the PSP is not allowed to block a transaction; it is up to the payer to cancel the transactions upon a warning.

Towards a pan-European payment solution

The IPR solves several important issues for the rollout of a payment solution based on instant payments. Similar to Brazil and India, PSPs will be obliged to provide instant payments. Moreover, the revised Payment Services Directive (PSD2) requires banks in Europe to provide interfaces to allow PISPs to provide open banking services. Europe, however, takes a more market-led approach regarding the actual implementation of a payment solution based on instant payments, while in Brazil and India supervisors played a central role in the introduction of Pix and UPI.

The European Payments Initiative (EPI) is an industry initiative from a consortium of European banks with the aim to leverage the rollout of instant payments, with an initial focus on Germany, France, Belgium and the Netherlands. EPI aims to develop value-added services based on instant payments, such as P2P, e-commerce and POS solutions. Solutions such as EPI can learn valuable lessons from Brazil and India, such as not charging end users, and the power of a strong advertising campaign to create

trust and awareness. Moreover, the solutions were well supported by the banking sector. However, European parties will face different challenges in the rollout of an instant payment based payment solution across Europe, compared with Brazil and India. Unlike to these countries, Europe does not lack an efficient digital payment solution at the POS.

Cards are a widespread means of payment in Europe. A pan-European instant payment solution would therefore directly compete with cards. This is fundamentally different than in Brazil and India, where consumers, due to the lack of an efficient digital payments method, relied heavily on cash before the introduction of Pix and UPI. Due to their less digitised payment markets, these countries experienced a ‘leapfrog effect’ in the adoption of instant payments.⁴⁴ On the contrary, a high penetration of cards in a country could create a barrier for consumer’s demand for instant payments, described by the Bank for International Settlements.⁴⁵ The barrier is especially high when cards provide sufficient speed and convenience, such as contactless card payments do. QR codes do not provide the same seamless experience as contactless card payments, which makes it difficult for instant payment solutions to compete with cards. In Brazil and India, this was less of an issue, due to the low penetration of (contactless) card payments. NFC technology in smartphones to initiate payments could be a valid competitor to contactless payments, but is currently not accessible for third parties.⁴⁶

E-commerce payment solutions, on the other hand, could perhaps be more interesting for instant payment solutions. European A2A solutions such as Giropay in Germany, Bancontact in Belgium and iDEAL in the Netherlands only work locally. A pan-European solution could solve this. EPI has the ambition to target this market and recently acquired iDEAL.⁴⁷

From a merchant perspective, while instant payment solutions may be attractive due to, among other things, their speed and the transaction costs, they require sufficient consumer adoption. This is one of the key challenges for a successful introduction of a pan-European instant payment solution. Swish, the A2A solution in Sweden, could provide valuable insights. Swish has been able to reach consumer adoption and provide a viable alternative at the POS and online, despite the above-described challenges.

SWEDEN’S SWISH

Introduced by a consortium of Swedish banks in 2012, Swish is currently used by 80 per cent of the population. In September 2023, 85 million transactions were made with Swish, of which approximately 43 million were P2B transactions.⁴⁸ These transactions can be split into 10 million POS transactions and 33 million e-commerce transactions. The portion of P2B Swish transactions relative to all Swish transactions is increasing; a similar trend is observed with Pix and UPI.

Swish was initially created to make simple, low-value and instant P2P transfers via smartphone. Swish intelligently circumvented the two-sided market problem of consumer and merchant adoption. Instead, it focused on the simpler problem of network externalities among consumers.

Notably, when Swish was first introduced in 2012, there was no existing digital P2P solution for it to compete with; it was also provided free of charge. As the P2P solution created network externalities among consumers, its scope was expanded to P2B payments. In 2014, Swish payments were made possible for small businesses, charities and sports associations — organisations that are less likely to offer digital payment methods, and which typically pay higher card fees than large merchants.⁴⁹ These parties usually have a

smaller transaction volume and therefore less bargaining power. As smaller retailers realised the benefits of adopting Swish, this created further network effects. In 2017, Swish launched an e-commerce solution, and in 2018 a POS solution, integrated into cashiers' systems.

Swish's gradual and well-considered introduction ensured its attractiveness for consumers and merchants. Payment solutions in other countries, such as MobilePay in Denmark, have pursued a similar adoption strategy.⁵⁰

EUROPEAN PAYMENTS INITIATIVE

Back to Europe, EPI seems to have taken a similar strategy to Swish. It aims to introduce its P2P solution 'wero' mid-2024 in Belgium, France and Germany, followed by the Netherlands.⁵¹ These markets represent more than half of all digital payments in the euro area.⁵² After wero has obtained significant adoption among consumers, EPI will move into the P2B space. It aims first to introduce an e-commerce solution and later a POS solution.⁵³ Expansion to other European countries will follow later. Issuers and acquirers will be able to participate in the scheme, while PISPs will not be able to initiate EPI transactions.

With good reason, EPI appears to be copying Swish's strategy by focusing initially on consumer adoption. To ensure reachability of Wero, initially across the targeted countries, it will be important for EPI that issuers join the scheme. At the same time, EPI is already preparing for the launch of an e-commerce solution, with its recent takeover of the Dutch A2A e-commerce solution iDEAL. Next to the adoption strategy, consistent bank support and cooperation will be of critical importance. In this regard, it will be interesting when EPI is ready to launch its e-commerce solution and could potentially start competing with local A2A solutions, such as Bancontact in

Belgium. At the time of writing it is unclear how this will be addressed.

EPI will support a variety of transaction types in addition to one-off payments, including subscriptions, instalments and payments upon delivery. Moreover it will develop value-added services such as buy now, pay later and merchant loyalty programmes.⁵⁴

CONCLUSION

Instant payments can facilitate payment solutions that provide an efficient, competitive alternative to card payments, giving consumers and corporates the ability to transfer funds in real time and 24/7. This is interesting both for countries with existing digital payment solutions as well as for countries that rely on cash and wish to develop a digital alternative. While instant payment solutions in less digitised countries such as Brazil and India have enjoyed tremendous adoption, the adoption of instant payments in Europe has been relatively low. At present, a significant number of PSPs do not provide instant payments or offer it only as a premium service. As a result, it is less attractive to develop a payment solution based on instant payments. The Instant Payments Regulation addresses such low adoption by, among other things, requiring PSPs that offer regular credit transfers to offer instant payments and prohibiting additional charges on instant payments. It is expected that instant payments will be available across Europe by the end of 2025. This will provide opportunities to develop value-added services on instant payments, including a pan-European payment solution, in line with the European Commission's wish for greater sovereignty in payments.

As shown by Pix in Brazil and UPI in India, with a clear strategy, instant payments can be a viable alternative to cards in countries with less digitised payment markets. It is important to ensure that a large community of PSPs participate in the same

instant payments network and that instant payments are adopted among consumers. To achieve the latter, it is important to provide instant payments free of charge to consumers, develop attractive and easy-to-use front-end solutions and to raise consumer awareness via advertising campaigns. Swish in Sweden provides a good example for countries that have a more digitised retail payments market. It shows how to generate network effects, by starting with a P2P solution. It will be interesting to see whether EPI will be able to successfully roll out a pan-European payment solution on instant payments. Its first step with the introduction of wero will be crucial in the further rollout of its strategy towards a pan-European payment solution.

AUTHOR'S NOTE

The opinions expressed within this paper are solely those of the author and do not necessarily reflect the opinion of the Dutch Payments Association.

REFERENCES

- (1) Bank for International Settlements (BIS) (2023) 'Enabling instant cross-border payments', available at: <https://www.bis.org/publ/othp62.pdf> (accessed 12th November, 2023).
- (2) Bank for International Settlements, Committee on Payments and Market Infrastructures (2016) 'Fast payments — Enhancing the speed and availability of retail payments', available at: <https://www.bis.org/cpmi/publ/d154.htm> (accessed 12th November, 2023).
- (3) European Commission (2022) 'Impact assessment report instant credit transfers in euro', available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022SC0546> (accessed 12th November, 2023).
- (4) Van Beers, F. and Dijk, I. P. J. H. van (2020) 'Experience from the Dutch instant payment project: From 0 to 289 million in one year', *Journal of Digital Banking*, Vol. 5, No. 3, pp. 240–254.
- (5) Khiaonarong, T. and Humphrey, D. (2022) 'Instant Payments: Regulatory Innovation and Payment Substitution Across Countries', IMF Working Papers, WP/22/228, available at: <https://www.imf.org/en/Publications/WP/Issues/2022/11/18/Instant-Payments-Regulatory-Innovation-and-Payment-Substitution-Across-Countries-524032> (accessed 12th November, 2023).
- (6) Banco Central do Brasil (2022) 'Pix Management report', available at: https://www.bcb.gov.br/content/estabilidadefinanceira/pix/relatorio_de_gestao_pix/pix_management_report_2023.pdf (accessed 12th November, 2023).
- (7) Alfonso, V., Tombini, A. and Zampolli, F. (2020) 'Retail payments in Latin America and the Caribbean: present and future', *BIS Quarterly Review*, December, available at: https://www.bis.org/publ/qtrpdf/r_qt2012f.pdf (accessed 12th November, 2023).
- (8) Van Marwijn, M., Ruiter, M. de and Zeijden, P. van der (2021) 'Kosten van het toonbankbetalings-verkeer in 2020', available at: <https://www.betalvereniging.nl/wp-content/uploads/Definitief-rapport-kosten-van-het-toonbankbetalingsverkeer-2020-Fysiek.pdf> (accessed 12th November, 2023).
- (9) Bank for International Settlements, Committee on Payments and Market Infrastructures, ref. 2 above.
- (10) World Bank Group (2023) 'Open banking in the context of fast payments', available at: https://fastpayments.worldbank.org/sites/default/files/2023-09/Open%20Banking%20and%20FPS_Final_August%2028.pdf (accessed 12th November, 2023).
- (11) Banco Central do Brasil, ref. 6 above.
- (12) Arifovic, J., Duffy, J. and Jiang, J. H. (2023) 'Adoption of a new payment method: Experimental evidence', *European Economic Review*, Vol. 154, 104410, available at: <https://www.sciencedirect.com/science/article/pii/S0014292123000399> (accessed 12th November, 2023).
- (13) Banco Central do Brasil, ref. 6 above.
- (14) World Bank Group, ref. 10 above.
- (15) Banco Central do Brasil, ref. 6 above.
- (16) Banco Central do Brasil (2023) 'Pix Statistics', available at: <https://www.bcb.gov.br/en/financialstability/pixstatistics> (accessed 5th January, 2024).
- (17) Duarte, A., Frost, J., Gambacorta, L., Wilkens, P. K. and Shin, H. S. (2022) 'Central banks, the monetary system and public payment infrastructures: Lessons from Brazil's Pix', *BIS Bulletin*, No. 52, available at: <https://www.bis.org/publ/bisbull52.pdf> (accessed 12th November, 2023).
- (18) Banco Central do Brasil, ref. 6 above.
- (19) Reuters (2022) 'Brazil banks do not lose money with Pix, says central bank', available at: <https://www.reuters.com/world/americas/brazils-central-bank-chief-says-banks-do-not-lose-money-with-pix-payment-system-2022-08-11/> (accessed 22nd November, 2023).

- (20) Tombini, A. (2023) 'Digital payments as a boon to financial inclusion', speech at the International Finance Forum, Guangzhou, 27th–29th October, available at: <https://www.bis.org/speeches/sp231029.htm#:~:text=Pix%20has%20also%20contributed%20to,lowered%20the%20cost%20of%20payments> (accessed 22nd November, 2023).
- (21) Banco Central do Brasil, ref. 6 above.
- (22) Gochhwal, R. (2017) 'Unified Payment Interface — an advancement in payment systems', *American Journal of Industrial and Business Management*, Vol. 7, pp. 1174–1191.
- (23) Fahad, A. and Shadid, M. (2022) 'Exploring the determinants of adoption of Unified Payment Interface (UPI) in India: A study based on diffusion of innovation theory', *Digital Business*, Vol. 2, No. 2, pp. 1–14.
- (24) National Payment Corporation of India (2023) 'IMPS (Immediate Payment Service)', available at: <https://www.npci.org.in/what-we-do/imps/product-overview> (accessed 12th November, 2023).
- (25) *Ibid.*
- (26) World Bank Group, ref. 10 above.
- (27) Reserve Bank of India, Department of Payment and Settlement Systems (2022) 'Discussion Paper on Charges in Payment Systems', available at: <https://www.rbi.org.in/DPSDDISCUSSIONPAPER5E016622B2D3444A9F294D07234059AA.PDF> (accessed 12th November, 2023).
- (28) *Ibid.*
- (29) Pranger, N. M. (2023) 'Instant payments — straks ook het nieuwe normaal in Europa', *Tijdschrift voor Financieel Recht*, Vol. 1/2, pp. 5–12.
- (30) European Payments Council (2023) 'SEPA Credit Transfer — Scheme Rulebook', available at: <https://www.europeanpaymentscouncil.eu/sites/default/files/kb/file/2022-05/EPC125-05%202023%20SCT%20Rulebook%20version%201.0.pdf> (accessed 12th November, 2023).
- (31) European Commission, ref. 3 above.
- (32) European Central Bank (2014) 'Pan-European instant payments in euro: definition, vision and way forward', available at: https://www.ecb.europa.eu/paym/groups/erpb/shared/pdf/2nd_eprb_meeting_item6.pdf (accessed 22nd November, 2023).
- (33) European Commission, ref. 3 above.
- (34) *Ibid.*
- (35) *Ibid.*
- (36) Dutch Payments Association (2023) 'Facts and figures on the Dutch payment system in 2022', available at: <https://factsheet.betalvereniging.nl/en/> (accessed 23rd November, 2023).
- (37) European Central Bank (2022) 'Study on the payment attitudes of consumers in the euro area (SPACE) — 2022', available at: https://www.ecb.europa.eu/stats/ecb_surveys/space/shared/pdf/ecb.spacereport202212~783ffdf46e.en.pdf (accessed 20th November, 2023).
- (38) European Commission (2020) 'Retail Payments Strategy for the EU', available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0592> (accessed 12th November, 2023).
- (39) *Ibid.*
- (40) European Commission (2022) 'Proposal for a Regulation of the European Parliament and of the Council amending Regulations (EU) No 260/2012 and (EU) 2021/1230 as regards instant credit transfers in euro', available at: https://ec.europa.eu/finance/docs/law/221026-proposal-instant-payments_en.pdf (accessed 12th November, 2023).
- (41) European Payments Council (2023) 'SEPA Instant Credit Transfer', available at: <https://www.europeanpaymentscouncil.eu/what-we-do/sepa-instant-credit-transfer> (accessed 24th November, 2023).
- (42) European Commission, ref. 3 above.
- (43) *Ibid.*
- (44) Bech, M., Shimizu, Y. and Wong, P. (March 2017) 'The quest for speed in payments', *BIS Quarterly Review*, available at: https://www.bis.org/publ/qtrpdf/r_qt1703g.pdf (accessed 12th November, 2023).
- (45) Bank for International Settlements (2016) 'Fast payments — Enhancing the speed and availability of retail payments', available at: <https://www.bis.org/cpmi/publ/d154.htm> (accessed 12th November, 2023).
- (46) European Commission (2022) 'Antitrust: Commission sends Statement of Objections to Apple over practices regarding Apple Pay', available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_2764 (accessed 24th November, 2023).
- (47) European Payments Initiative (2023) 'EPI Company announces acquisitions, additional shareholders and the coming launch of its new instant payment solution', available at: <https://www.epicompany.eu/epi-company-announces-acquisitions-additional-shareholders-and-the-coming-launch-of-its-new-instant-payment-solution/> (accessed 12th November, 2023).
- (48) Swish (2023) 'Swish stats September 2023', available at: https://assets.ctfassets.net/zrqoyh8r449h/6LFBvUa3iLAIA7PdFepiEV/98132120834947ee26de89095a430995/Swish_stats_september_2023.pdf (accessed 12th November, 2023).
- (49) Payment Systems Regulator (2021) 'Market review into card-acquiring services', available at <https://www.psr.org.uk/media/p1tlg0iw/psr-card-acquiring-market-review-final-report-november-2021.pdf> (accessed 12th November, 2023).
- (50) Danmarks Nationalbank (2022) 'Denmark is

among the most digitalised countries when it comes to payments', available at: <https://www.nationalbanken.dk/media/mujcrjnf/analysis-nr-2-denmark-is-among-the-most-digitalised-countries-when-it-comes-to-payments.pdf> (accessed 11th December, 2023).

- (51) European Payments Initiative (2023) 'European Payments Initiative selects "wero"

as commercial name for its innovative digital wallet', available at: <https://www.epicompany.eu/european-payments-initiative-selects-wero-as-commercial-name-for-its-innovative-digital-wallet/> (accessed 12th November, 2023).

- (52) European Payments Initiative, ref. 47 above.
(53) *Ibid.*
(54) *Ibid.*