

EUROPEAN PAYMENTS STUDY 2022

European Payments

How banks are holding on to the vital business in a changing world



Key findings

1 Cash continues to go out of fashion as digital payments grow at way above GDP rates (at market prices). Countries with a significantly larger portion of cash prior to the COVID crisis profited from the delay in digitalization: their payment growth continued in 2020.

2 Despite the emergence of new digital payment options, debit and credit cards are not dead – and neither is the US dominance of the industry in Europe. However, the advent of local payment solutions could make business more challenging for Mastercard and Visa.

3 Consumer payments amount to a total EU payment fee pool of approx. EUR 100 bn of which ~88% still belongs to banks. We take a close look at 8 EU economies which make up 80% of the total EU fee pool.

4 Banks are profiting from the overall payment growth, but are gradually losing fee pool share to innovators. This is mainly due to stagnant payment initiation (payer bank) revenues, an effect not completely offset by the growth payee banks can generate from the overall payment market growth.

5 Banks must stay relevant and hold on to the payer fee pool as non-industry players look to “eat” into their share of the cake. They can still explore “embedded” or platform business models enabling closer integration with the growing worlds of mobile payments and e-commerce.

6 Economic uncertainty looks set to affect the industry in two ways – growth in transactions will slow down and enthusiasm to adopt new standards will wane.

7 Rather than imposing rules from above, we expect regulators will find new ways to work more closely with the industry. This will allow banks to keep their key role in payments.

What's in it for you?

After years of growth driven by increasing digitalization – a shift from cash to digital payment methods – the COVID crisis of 2020 brought the European economy to a slow-down. While digital payment methods continued to replace cash at an increased pace, European consumers were moving less and paying less frequently than before. With alternative payment methods emerging, the market became even more busy and the impact on the payment industry incumbents even more difficult to assess.

We asked ourselves: “Who is (still) earning in the European payment market?” **We set out to size the European retail (consumer) payment market based on eight representative economies and eight (arche)types of players – from banks to card schemes and from mobile wallets to payment providers.** Within our “fee pool” model we explain the COVID-driven shifts and provide a view on developments for each archetype.

Given the currently less predictable macro environment rooted in the war in Ukraine and sanctions on trade with Russia, the still unclear outlook on new COVID variants and finally looming inflation, predicting the future was not an easy task. Therefore, we decided to stick to our (mostly GDP-driven) forecast as the base case scenario, outlining potential risks and upsides to the same based on the three key factors mentioned.

We are convinced that this study provides a unique insight into the retail payment market and makes a significant contribution to ongoing discussions in regulatory and market bodies on new payment standards and their potential impacts. Furthermore, it can serve as guidance to each individual player in the market assessing their own growth options.

Happy reading!

Scope & Methodology

This study looks at trends in domestic and cross-border non-cash payments in the EU. It focuses on the use of credit transfers, direct debits and credit/debit cards for retail purchases (and excludes check, commercial and wholesale payments) in eight representative countries. Together, they make up ~80% of the EU's GDP. For GDP and other figures, values were included at current prices.









Alongside the economic heavyweights **Germany, France, Italy and Spain** sit four countries with features relevant to the payments industry: the **Netherlands** as a strong sourcing player; **Sweden** as highly digitalized; **Poland** as the largest Central and Eastern European (CEE) economy; **Austria** as a market located between Central and Eastern Europe and OeNB's domestic market.

The study defines a core, six-part payments value chain that includes: i. selection of a payment method, ii. provision of payment data, iii. payment delivery, iv. processing, v. clearing/settlement, vi. booking. It also identifies resulting value streams that flow to payments companies in the form of service fees, monetizable consumer data or a combination of both.

Each payments company is defined as one of eight “archetypes,” depending on which part or parts of the value chain it serves: 1. Card Schemes like Visa; 2. Mobile Wallets like Apple Pay, which depend on an underlying card or bank account; 3. Payment Enablers like PayPal, which serve both payer and payee, ensuring transaction delivery; 4. Payment Providers like Adyen, which merchants mandate to allow their businesses to accept payments; 5. Payer Banks; 6. Payee Banks; 7. Intermediaries like national or EBA clearing houses; 8. Outsourcers like Worldline, which serve the latter four.

→ More information about the study can be found in the chapter Scope & Methodology (see page 30)

Representative countries of this study

Country	GDP EUR bn, market prices 2020	Currency	Rationale for selection/representation of European payments
Germany	 3,368	€	Top 4 EU economies
France	 2,303	€	
Italy	 1,654	€	
Spain	 1,122	€	
Netherlands	 800	€	Benelux country; high sourcing degree
Poland	 524	PLN	Eastern European country; high degree of banking innovation
Sweden	 475	SEK	Scandinavian country; representative of cashless society
Austria	 379	€	OeNB's domestic market

Total EU-8 10,245

Total EU-27 13,393

Share of EU-8 ~80%

The European payments landscape today

Market development and status

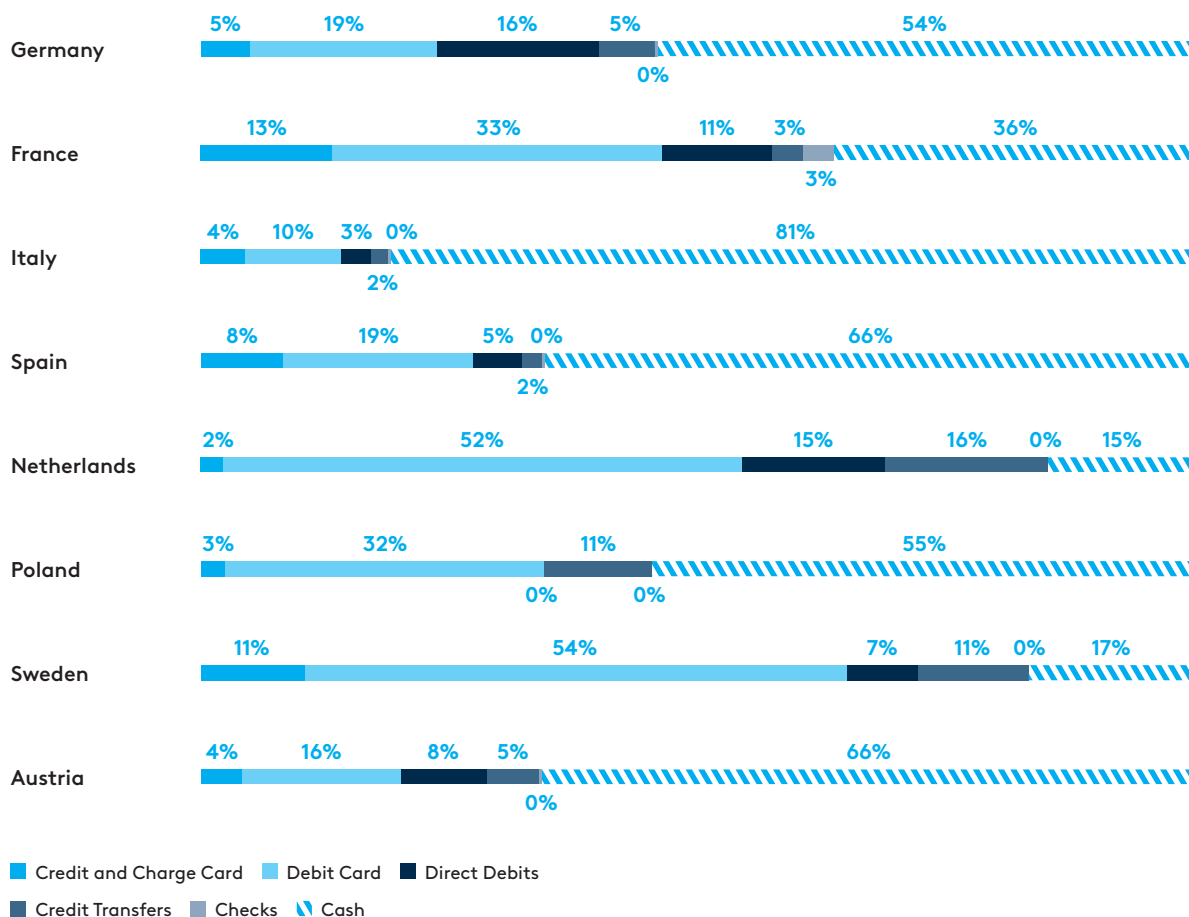
The market for **digital payments** in the European Union shows signs of returning to steady growth after the COVID-19 pandemic led to an initial slump in many areas of the retail sector. The number of digital payment transactions in 2020 increased by only 3% from the prior year as COVID lockdowns forced consumers to radically alter shopping habits. This increase was modest compared to previous growth rates of around 10% per year, but still impressive given that EU gross domestic product (GDP) shrank -4.4% at market prices in 2020, the first year of the COVID-19 crisis.

The increase in digital payments despite deep economic recession was in large part due to consumer behavior in the eight European countries at the heart of this study. Shoppers adapted to the pandemic by shopping online more often and paying by card, not with cash, as new hygiene rules came to high streets. And consumer confidence returned as the economy picked up again in 2021. While EU GDP jumped by 7.0% at market prices that year, preliminary payments data for 2021 suggest the number of transactions was 8% higher than the prior year, bringing the payments sector within reach of pre-pandemic growth rates of around 10% a year.

The continuing growth of e-commerce and increase in digital payment options suggest that the number of digital transactions will continue to grow by 8% annually in the coming years. But this baseline scenario has to be treated with a degree of caution in light of the economic uncertainty caused by Russia's war against Ukraine. If the conflict drags on and economic shocks spread, digital payments growth could slow slightly in the near term. But even these more modest rates would outpace growth in EU GDP, which the European Commission in winter 2021 forecast would reach 6.5% in 2022 and 4.2% at market prices in 2023 in its base-case scenario.

A country-by-country analysis of digital payments trends for 2020 in comparison with the pre-COVID years 2014-2019 reveals two countervailing trends. Countries with a traditionally higher proportion of digital transactions – Sweden, the Netherlands and, to a lesser extent, France – saw the number of these transactions fall in the first year of the pandemic. On the other hand, countries still more reliant on cash saw the number of digital payments rise significantly, as consumers more regularly shopped online or paid by card in the high street. While the number of digital payments in Sweden was 4% lower in 2020 than 2019, it was 13% higher in Germany. Similarly, while the number of digital payments fell by 3% in the Netherlands, it rose by 8% in Austria. Of all “cash-heavy” countries, only Italy saw the number of transactions stagnate in 2020.

Shares in number of payment transactions by payment instrument



Looking ahead to 2025, the countries in which consumers still largely prefer cash to digital payments will drive the growth of digital transactions in the European Union as a whole. Poland and Spain are expected to lead this trend, with the number of digital transactions growing at roughly 12% per year in both countries. But other cash-

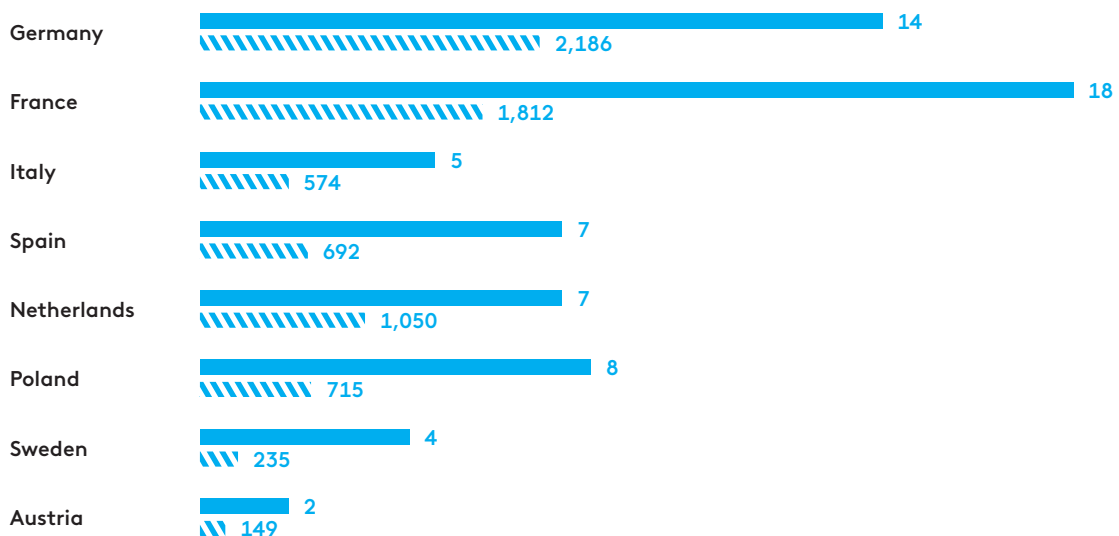
heavy countries will also see growth in excess of the average rate of 8% forecast for this study's sample of countries. Economic and geopolitical shocks aside, trends in cash-heavy countries will play a major role in determining whether digital payments growth in the EU will be consistent with our baseline scenario.

“The shift from cash to digital payments remains the key driver of growth. Digital payments are spearheading the innovation of the financial industry.”

Erwin Meichenitsch,
Partner, zeb



Number of digital transactions (bn) and value (EUR bn) of digital payments, 2020



■ Number of digital transactions (bn) ▨ Value (EUR bn)

Digital transactions are: credit transfers (CT), direct debits (DD) and card payments

Payment mix

The mix of digital payment instruments will continue to diversify in the coming years as the variety of services on offer keeps increasing. But the classic methods for digital payments will remain vital. Credit transfers (CT), direct debits (DD) and card payments are the payment instruments that have traditionally driven the bulk of digital transactions, and growth in transactions involving them will remain strong.

Account transactions

Account transactions involving CT and DD will remain a key driver of digital payments growth. The number of payments grew at a steady 6% per year from 2014 to 2019 – and so again in 2020, the first year of the pandemic. As a result, account transactions in the EU are expected to continue growing at this pace until 2025.

Italy, the Netherlands, Poland and Sweden have seen the strongest growth in CT and DD, some of these countries above 10% annually, and this trend is expected to continue. But Germany and France make up more than half of all account transactions, their highest combined share in any class of payment instrument. As the number of CTs and DDs in both countries grew by roughly 5% per year from 2014 to 2019 and only slightly more in 2020, we expect annual percentage growth in EU account transactions to continue resolutely at the customary single-figure rate.


Card payments

As important as account transactions are, card payments will remain the main driver of classic digital transactions. The number of payments triggered by cards rose by 12% every year between 2014 and 2019. Although growth slowed to 2% in 2020, this study's baseline forecast is that card payments will again grow by 10% a year until 2025.

From 2014 to 2019, most countries in the study saw annual growth close to the 12% average. Notable exceptions were Sweden, a pioneering country in digital payments, which saw the number of card payments grow by only 7% annually, and Poland, which saw 25% growth. The latter trend was driven by higher acceptance of cards by retailers, lower interchange fees, a program to support the buying or renting of point-of-sale (POS) payments terminals and the introduction of banking fees that rewarded the use of cards for transactions with lower monthly account charges.

In 2020, EU-wide growth in the number of card payments slowed by more than four fifths, presumably because of the sharp drop in high-street shopping. Sweden and other digital payments leaders even saw a decline in card payments. On the other hand, cash-heavy countries like Germany and Austria warmed to paying with cards, with annual transactions growing by 20% and 12%, respectively. Given current trends, our EU base case envisages percentage growth in the low double digits until 2025.

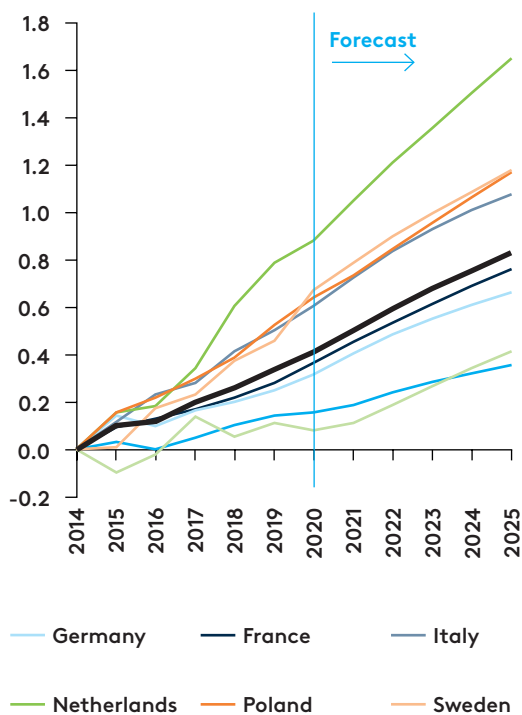
Card payments in Germany grew by 20% during the lockdowns of 2020



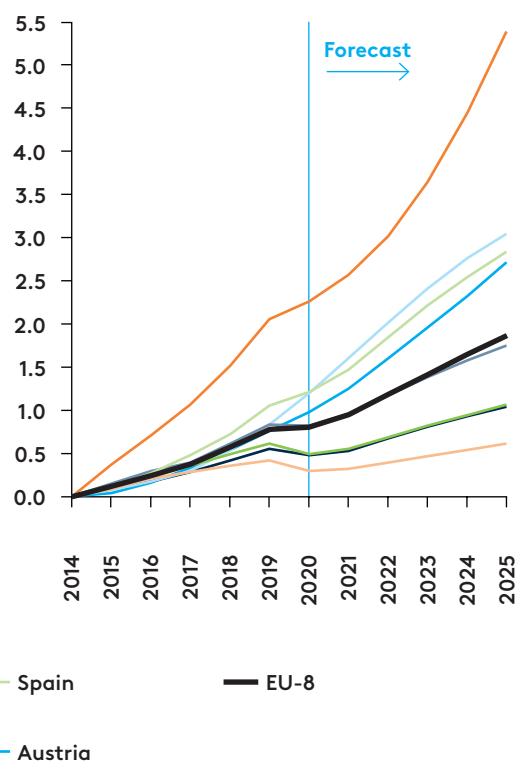
Changes in number of transactions

2014-2025, indexed

Credit Transfers & Direct Debits



Payment Cards



Alternative payment methods

Classic digital payments instruments are being flanked by ever more alternative payment methods. So-called APMs are continuing to broaden the digital payments universe, and the number of transactions triggered by APMs is growing significantly – even if these new instruments have not yet reached a critical mass in the market.

APMs are often digital triggers that initiate payments with CT, DD and cards. When consumers pay with PayPal, for example, they trigger payment with a credit card that is linked to the PayPal account, or when they pay with Klarna, they frequently trigger a CT from an underlying bank account. But APMs do not always rely on their payments forebears – consumers who receive payment into a PayPal account and use these funds to pay for something else are not using customary CT, DD or cards.

As a result, the comparison between APMs and classic payment instruments is blurry, as many APM transactions rely on an underlying card or account transaction.

APMs include globally prominent methods like PayPal, Apple Pay, Alipay and Klarna and lesser-known methods like Afterpay from Australia and PaySafeCard from Austria. In addition, many national players have sprung up across the EU, for example, GiroPay in Germany, Paylib in France, Satispay in Italy, Bizum in Spain, iDEAL in the Netherlands, BLIK in Poland, Swish in Sweden and Bluecode in Austria. In this study, the companies behind these methods will feature as “Mobile Wallets” and “Payment Enablers.”

To gauge APM trends across the EU, this study uses mobile-wallet transactions in Germany, France, Italy, Poland and Sweden as a proxy (data for Spain, the Netherlands and Austria was not

available). Growth in the use of wallets is high in all four countries. The number of transactions leapt by roughly 45% a year from 2014 to 2019 and still rose by 30% in COVID-19-battered 2020. However, some high-growth countries had seen growth rates slow even before the pandemic. As a result, this study's baseline scenario forecasts that the number of transactions triggered by digital wallets will grow by around 20% a year until 2025 – though disruptive new players or a pronounced change in customer behavior could push this rate up.

The likelihood of impressive growth rates is also high because the absolute number of wallet transactions is still small. Transactions triggered by mobile wallets made up less than 2% of all payment transactions in 2020. (The precise amount of 1.75% includes CT, DD, card and cash alongside “pure” wallet payments, as explained above.)

On a country-by-country basis, Sweden stands out in terms of wallet-transaction growth – 100% on average every year from 2014 to 2019 (and even higher rates at the beginning of this period) –

“Payments are a key driver of competitive advantage for banks – not only in terms of customer experience, but also in terms of income.”

Nikola Jelacic,
Senior Manager, zeb



and wallets' share of all payment transactions, which, at around 14%, was a good seven times higher than the EU average. This is mainly due to the success of the Swedish digital wallet Swish. The four other countries saw growth rates close to the average, with the exception of Germany. It lags in terms of wallet growth and market share, not least because of German concerns about data security.

Instant payments

Instant payments (IP), which take only seconds, not days, to clear and settle, are still a novelty in the EU. But their use is rising, not least because European regulators are encouraging the financial industry to adopt the technology. As the pan-European Target Instant Payment Settlement (TIPS) system only went live in 2017, broad data about IP use is currently only available for 2019 and the year after.

The number of IP transactions appears to have almost doubled every year from 2014 to 2020. Some countries in the study sample offered IPs over that entire period – and have considerable amounts of data to draw on. It shows the number of transactions growing by around 90% a year from 2014 to 2019 – the same growth rate that all countries in the study also saw in 2020. This study's baseline scenario envisages high growth rates continuing. As IPs are still quite new in the EU, looking at growth on a country-by-country basis is only of limited value (small absolute numbers make for stellar growth rates). A look at payments mixes is a much better way to gauge IP use.

Instant payments in 2020 made up less than 2% of digital payments transactions in the eight countries this study considers. Two countries boast a significantly higher share than that – the Netherlands, with roughly a 6% share, and Sweden, with roughly 5%. (As with APMs, these shares are not mutually exclusive for example, when a credit transfer is executed via IP). Sweden's strong showing is again a result of the highly successful Payment Enabler Swish, which was founded in 2012 and is used by three quarters of all residents of Sweden. The situation is similar in the Netherlands. Thanks to a proprietary IP system and the popularity of Payment Enabler iDEAL, which was responsible for more than half of e-commerce payment transactions in 2020, instant payments cannot be overlooked.



Three questions for Christian Pirkner, Executive Chairman bluecode, EMPSA

Bluecode has become the standard solution for mobile payments in Austria, i.e. an Austrian Swish or TWINT. What do these success stories have in common?

Optical payment is growing in importance all over the world. From Asia (WeChat and Alipay) to the U.S. (e.g. StarbucksPay) and Europe, the trend is for optical payment to gain ground in mobile payments, as it offers significant advantages over traditional payment methods. It isn't tied to a (costly) terminal and allows for linking to loyalty and other value-added solutions on a much larger scale.

These advantages have made Swish and TWINT the predominant mobile payment methods in Sweden and Switzerland, respectively. We also see this trend in Austria and Germany, even if both countries certainly still have some catching-up to do.

Besides the similarities, there is the difference that Bluecode is not a construct of banks, but is financed by private investors. For the participating issuing banks, however, this is an advantage because they didn't have to make the initial investment and can now build on a ready-made payment and value-added services platform. At the same time, Bluecode's scheme rules ensure that there is an attractive business model for banks. This includes the fact that Bluecode doesn't charge participating banks a transaction-based scheme fee and cannot introduce such a fee unilaterally. This ensures reliable planning for participating banks.

“Digital leaders are creating new payment standards – solutions like Swish have become equals of cash and cards.”

Konrad Holtkamp,
Manager, zeb



Together with your peers, you have founded EMPSA to ensure cross-border acceptance. Where are you today with the project?

With Bluecode, we are trying to make mobile payments more attractive and easier to use for everyone. The European Mobile Payment Systems Association (EMPSA) currently links 14 local payment systems. At the moment, there is a pilot project for TWINT users that allows them to pay on the Bluecode network. Conversely, Bluecode users can pay on the TWINT network. The project is still in the friends-and-family phase, but we expect the joint TWINT-Bluecode network to go live soon. A solution for FX services is also available. However, we remain open to individual FX conversions. The next country is Italy with the BANCOMAT Pay system, which, together with TWINT and Bluecode, will form EMPSA's Alpine cluster.

We are taking a bottom-up approach. That is, we try to link existing accepted solutions to form a larger network. In many countries, the existing solutions work extremely well: Swish and TWINT are good examples. So why not make use of them? EMPSA's goal is to make existing European payment systems interoperable in order to establish a comprehensive European mobile payment network. Europeans should be able to pay via the mobile payment system no matter where they are in Europe.

Currently, despite pandemic-driven digitalization, cash and cards (including Apple Pay) dominate the payment mix. What will it look like in five years?

Money in the form of cash will slowly disappear as people increasingly pay with debit and credit cards and new mobile solutions. Here, we distinguish between institutions with active and passive card strategies: a passive card strategy relies on major card schemes such as Mastercard, Visa and Apple Pay. An active card strategy, however, envisages counteracting this with account-based systems and earning a share in the triggering of digital payments. Banks in Switzerland and Sweden understood early on where the journey of digitalization in payments was heading and therefore backed TWINT and Swish. In Germany and Austria, we want to be the payment partners for banks.

We believe that, in five years, institutions that only act passively will be reduced to compliance providers. By contrast, institutions with an active strategy will continue to make money at the customer interface.

Value of digital payments

The euro value of digital payments grew at 6% a year from 2014 to 2019. The same increase was seen in 2020, although there were big differences in growth rates among the countries included in this study. Italy, for example, saw a decline in the value of digital payments, presumably because it was initially hit hard by COVID-19.

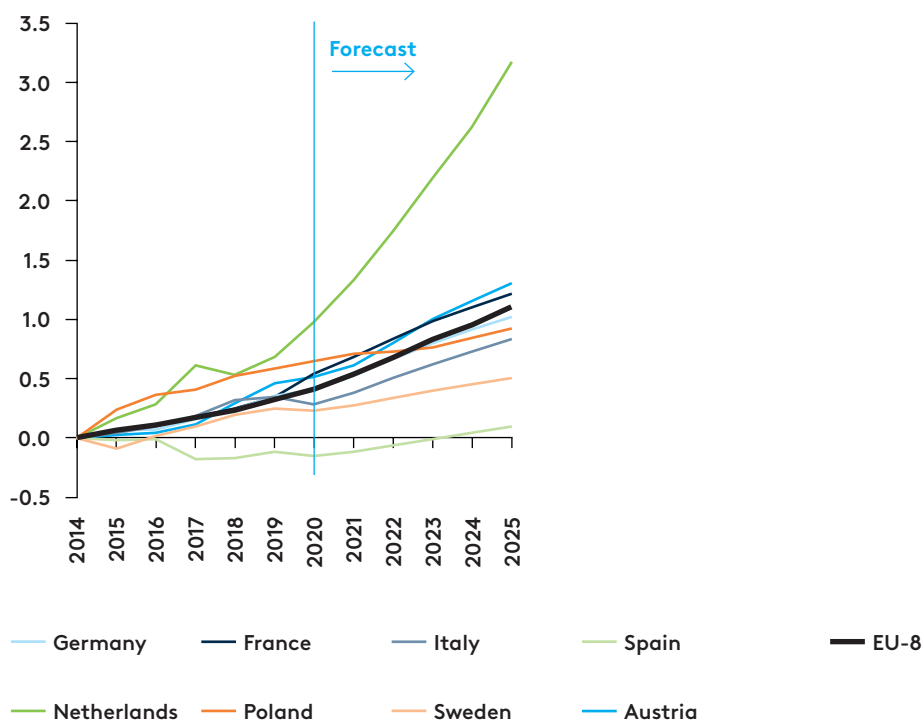
From 2014 to 2019, the number of digital payments grew faster than their overall value as CTs, DDs and cards became increasingly popular for

small or low-value transactions. But 2020 saw a clear shift to higher-than-average payment values – the average payment value per transaction grew in the first year of the pandemic.

Looking ahead to 2025, the study's baseline scenario expects the growth in the overall value of payments to catch up with the growth in the number of transactions.

Changes in digital payments' value 2014-2025, indexed

Credit Transfers, Direct Debits & Payment Cards



Payment fee pool in the EU

Payments companies in the eight countries considered in this study earned nearly EUR 80 bn in payments fees in 2020. Using GDP as a proxy, we estimate fee income for facilitating retail payments was about EUR 100 bn across the EU that year. From traditional account charges to more recent wallet fees, there are over ten types of fees that payments companies charge payers, payees and each other.

Fees generated annually in France and Germany are roughly equal in volumes and together account for more than half of the fee pool in the EU. Spain and Italy contribute another quarter of the total, with both generating similar fee volumes.

By far the largest share of the fee pool flows to Payer Banks and Payee Banks. Thanks to a diverse and reliable fee structure, these two archetypes receive roughly 88% of all fees. Payer Banks charge account fees and interchange fees, while Payee Banks generate income from account fees, the merchant service charge (interchange and card-scheme fees and a profit margin) and rental income from their POS terminals.

Payment Enablers come a very distant second, taking roughly 5% of the fee flow. But with this share, this relatively new archetype has a greater share of the fee pool than Card Schemes, which only secure about 4%. This shows how important Payment Enablers have become, which is in no small part the result of the rise of APMs. This can also be seen in transaction volume trends, as discussed above. Payment Providers take 2% of fees, the lowest properly discernable share. Intermediaries and Mobile Wallet providers do not have a significant share of the fee pool – the result of negligible pricing by Intermediaries and small volumes of transactions by Mobile Wallet.

Banks

Banks have a fee-pool share between 80% and 90% in all countries considered in this study. The bigger countries are at the top with Italy, France, Germany and Spain. But Austria is also among the top-5, just ahead of Spain. A country-by-country comparison reveals striking differences between the fee-pool shares of Payer Banks and Payee Banks.

In the countries in which digital payments are used most, Sweden, the Netherlands and France, the Payer Banks' fee-pool shares are smaller than those in any other country of this study. At the same time, the Payee Banks' shares are the largest. As banks are more digitalized in these countries, they offer payers more online-only services with lower charges, which in turn lowers these payments revenues.

As banks dominate the fee pool, it is pure math that Payee Banks compensate for a smaller share of Payer Banks and vice versa. For example, if one side of banks' business (e.g. the Payer's end) decreases in the future, most of that shift will go to the other side of banks' business in terms of market share. Among other things, this phenomenon makes it hard for other archetypes to grasp market share in the short to medium term, as our analysis shows. However, absolute revenues are still very much at stake.

100 bn Size of the European (EU) retail payment market

Payment Enablers

At roughly 10%, Payment Enablers in the Netherlands have the highest share of any fee pool. While the country's residents are not the heaviest users of e-commerce, they use Payment Enablers in e-commerce more than any neighbors (mainly because of the popularity of iDEAL). Residents of Austria and Sweden are big users of e-commerce, bringing Payment Enablers significant shares of the countries' fee pools. Germany, on the other hand, is average in factors contributing to Payment Enablers' fees.

Card Schemes

Naturally, Card Schemes are particularly strong in countries with high card usage. Germany and Poland have particularly low card usage, which leaves Card Schemes in these countries at the bottom of the fee pool (even if that means that both countries have lots of potential). Remarkably, the Netherlands have a low card usage, but are among the top countries in terms of the fee-pool share of Card Schemes. This can be attributed to the weakness of the other archetypes, especially Payer Banks.

Payment Providers

Payment Providers take a fair share of the fee pool in nearly all countries. But in Poland and Spain, they are responsible for a much greater share of transactions. Polish Payments Providers Elavon and EVO and Spain's Comercia Global Payments have asserted themselves – especially against home-market banks – and raised revenues substantially. This shows how threatening this archetype is to banks.

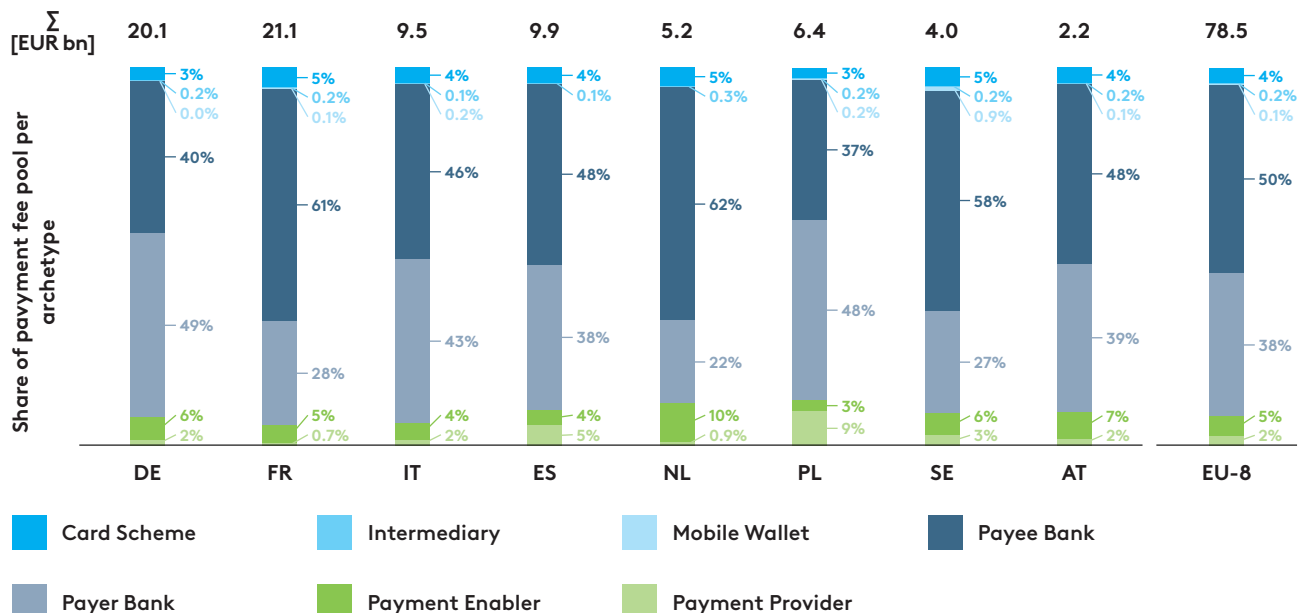
Intermediaries

Intermediaries have low intermediation fees, so their fee-pool shares hardly register. The archetype is crucial for the infrastructure of the payments market, but cannot be seen as a profit-maximizing market participant (e.g. ECB and EBA).

Mobile Wallets

Mobile Wallets currently account for a low number of transactions and, as a result, a low share of the fee pool. This share is all the smaller given that mobile-wallet fees are lower than a full merchant service charge or interchange fees. Mobile wallets have the largest fee-pool shares in digital "early adopter" countries like Sweden.

Payment fee pool 2020



Single European payments market – distant goal or within reach?

A single European payments market is still a moving target. Payment instruments developed by SEPA are helping the industry hone in on it. But they are not enough to establish everyday relevance for consumers. New payment methods are needed to fill the gap. A European Card Scheme with international reach is the obvious answer, as recognized by the European Payments Initiative (EPI). But it has failed to get off the ground because it remains unclear whether it makes sense to invest in a European Card Scheme to compete with established global players like Mastercard and Visa.

But there is a class of mostly national mobile payment solutions that are beginning to show signs of converging. The European Mobile Payment Systems Association (EMPSA) is building bridges between Bluecode, which operates in Austria and Germany, and TWINT in Switzerland. Its ultimate goal is to connect 14 national, account-based mobile payment solutions to create a pan-European service.

Self-regulated up until now, PSD2 application programming interfaces (API) developed after the launch of the EU Revised Payments Services Directive (PSD2) are now becoming subject to European regulation. Building on the popular Berlin Group standard, this will further lower the hurdles for Mobile Wallets to authorize payment initiation and Payment Enablers to gain access to European account holders.

The launch of the ECB's digital euro is a long way off. But as it will provide a true digital alternative to cash (with all its qualities, including anonymity), it is destined to contribute significantly to the development of the European single market in payments.

With the collapse of Wirecard, many shares of the European payment market were up for grabs. Many major banks, for example, Deutsche Bank, came back into the payment market after almost two decades of divestment.

In addition, cross-border M&A and outsourcing deals have consolidated the European payments landscape:

- Worldline incl. SIX, Ingenico and other subsidiaries is Europe's leading processor and acquirer
- Nexi incl. subsidiaries like Nets and Concardis is one of Europe's leading acquirers

M&A deals are driven by the promise of international scale in an increasingly competitive payment processing and acquiring market. As a result, legacy backend business models are being consolidated by a few major players – allowing incumbents to focus their attention on the innovative frontend of the business.

Banks and payments services providers looking to maintain or grow their share of the fee pool need to invest or buy into Payment Enabler and Mobile Wallet solutions. There have been a number of investments pursuing precisely that goal, for instance:

- As a consortium: TWINT, Swish – looking to preserve the competitive edge of the local industry incumbents
- Individual: e.g. in the BNPL specialists like ratepay (Nexi), cashpresso (RBI)... – looking to differentiate and quickly develop new capabilities. As a result, EU-international payment solutions emerge (Klarna is no longer alone).

We expect to see more top-down convergence driven by regulation and M&A/concentration – and more bottom-up convergence as regional players combine to form networks and more self-regulation. By 2025, consumers will be able use their preferred payment method internationally much more often and easily than today – and the competitive landscape will be more concentrated than in 2022.

Payment fee pool – development and trends

The war in Ukraine and sanctions on trade with Russia, the possibility of new COVID variants and rising inflation have destabilized the macro-economic environment and made forecasts no easy task. As a result, this report uses a mostly GDP-based forecast for its baseline scenario and highlights the potential risks and upsides it faces from the three factors mentioned above.

Future development of the payment fee pool

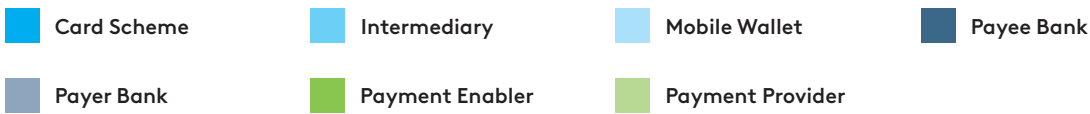
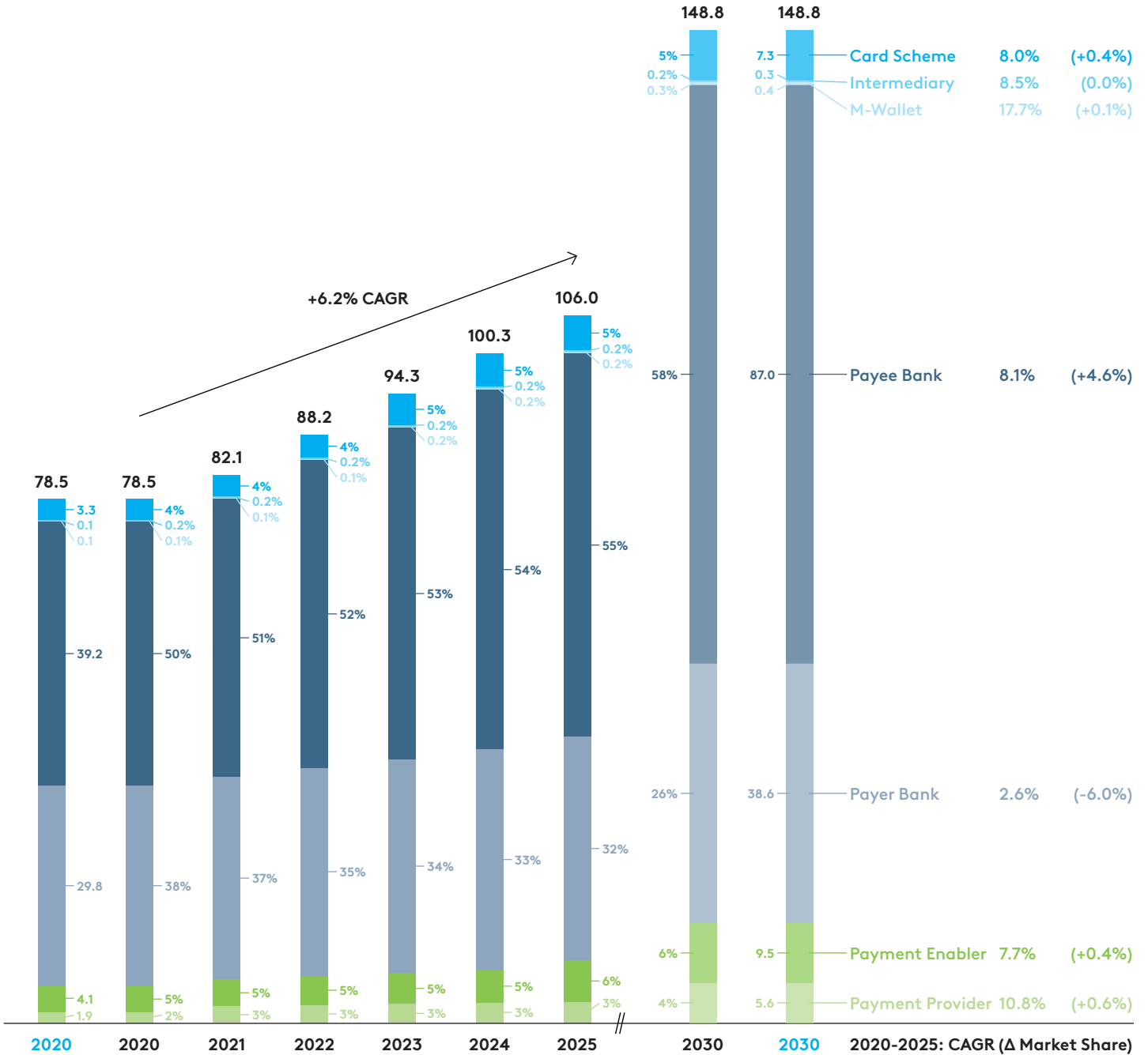
The study projects the payment fee pool in the eight countries under consideration to grow from roughly EUR 80 million today to EUR 100 bn in 2025 and EUR 140 bn in 2030. Assuming that GDP grows as currently forecast, this would mean the fee pool for the payments industry across the EU would grow to EUR 125 bn and then EUR 175 bn over the next eight years.

In a growing market, everyone's a winner. Banks will profit from providing backend processing infrastructure and compliance services for a growing number of transactions, regardless of whether it is CT, DD or card. The market share of Payee Banks will grow as a result.

While banks will grow in serving payees, they will continue losing market share when serving payers. Their transaction numbers will stagnate in the face of growing Mobile Wallets, Payment Providers and Payment Enablers. Banks have to become more than just a home for bank accounts if they want to protect their market share. Otherwise, as this study forecasts, their share of payments transactions will decline from 88% in 2020 to 86% in 2025 and to 84% in 2030. This is a conservative estimate that assumes remaining cash payments will be replaced by CT, DD and card payments that use existing fee structures and business model archetypes. The projection does not account for any disruptions, e.g. if a digital currency were to go mainstream in a very short time frame.

1/3
of banks will lose payer fees to innovators

Payment fee pool forecast EU-8 (EUR bn, %)



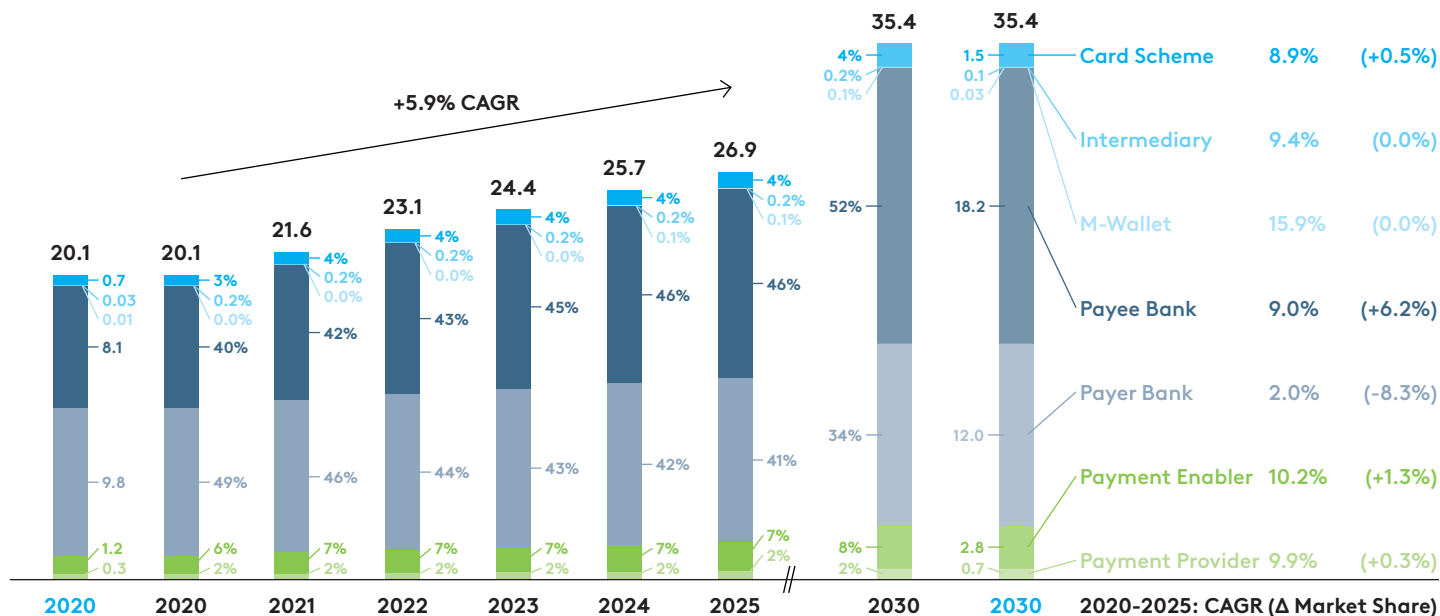
Are ApplePay and PayPal taking over?

Conventional wisdom says banks are turning into compliance providers and losing payments market share to Payment Enablers and Mobile Wallets, in particular PayPal and ApplePay. This view is largely driven by the high growth in the number of transactions initiated using these newer channels. Fee-pool developments in Germany and Austria show this to be only part true:

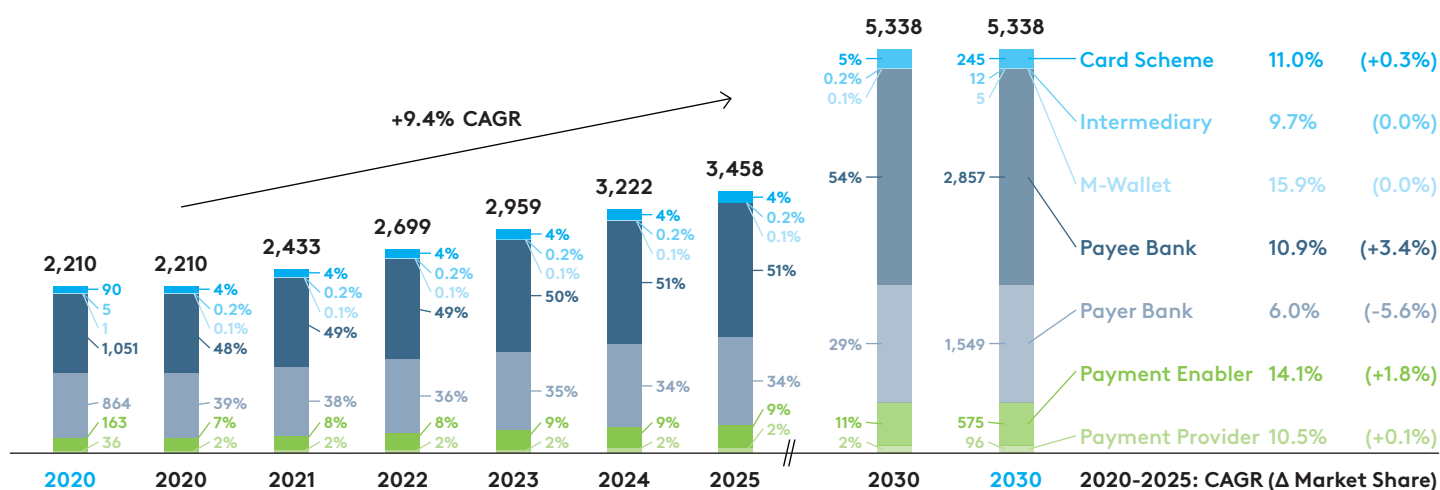
- The overall fee pool is growing at an annual rate of 6% in Germany and 9% in Austria, allowing all players to profit from higher payments values.
- Mobile Wallets and Payment Enablers are growing much faster (16% and 10%, respectively, in Germany; 16% and 14% in Austria). These rates mainly come at the expense of Payer Banks, which grew by only 2% in Germany and 6% in Austria.
- As a result, the fee share of Payer Banks will drop from 49% to 41% in Germany and from 39% to 34% in Austria.

The perception that banks are being reduced to compliance providers is not fully true. But the trends show that Payer Banks keen to stay in the payments business need act to protect their traditional share of the payer fee. They need to invest in new payment products like mobile payments; open banking; buy-now, pay-later (BNPL); request to pay (R2P) and so on.

Payment fee pool forecast Germany (EUR bn, %)



Payment fee pool forecast Austria (EUR m, %)



Drivers of growth, risks, upsides – and possible implications

The growth in payments volumes in each of the eight countries surveyed will be driven by the GDP growth of each economy. But even downward corrections of EU GDP growth for 2022 and 2023 would still see payments grow by more than 2% a year. Macroeconomics aside, continuing digitalization and the substitution of cash with non-cash transactions will drive volume growth.

The overall value of payments will be driven by consumer spending and inflation trends – expected to be largely similar in all eight countries. Economic uncertainty could hit consumer spending, in spite of the post-COVID drop in people saving money. But inflation will lift the average transaction value for basic necessities and raise prices by well above 5% in 2022.

Increases in payments volume and value allow this study to project 6.2% compound annual growth until 2025, although downside risks remain in 2022 and in part of 2023. If the war in Ukraine drags on or escalates, further barriers to trade come into force and global supply chains “localized” on a grand scale, EU growth may be lower than currently forecast across the entire projection period. But with a slight positive bias, this study will stick to its baseline scenario.

The distribution of the fee pool over the coming years will be based on the same value chain, the same fee types, structures and flows and the same payment instruments as today. New payment standards introduced by regulators and incumbents, including the digital euro, stand to equally benefit incumbents and new entrants. But the market environment could be different in one key way – payment volume growth and payment value growth could slow for the first time in 15-20 years as one-off profits from digitalization and cash/non-cash substitution decline.

Trends in payments

The payment market is booming and there are trends that could even accelerate growth or shake up its distribution throughout the market. This section takes a closer look at trends in consumer preferences, standards, regulations and technology trends.

Consumer preferences

Fast, seamless and secure – consumers still expect this core trio of features when it comes to payments, even if their emphasis on each one could change. As instant payments move from the margins into the mainstream and standard APIs make the initiation of account payments easy, Payment Providers at some point will struggle to offer consumers any added value to a supremely fast and seamless customer experience. But consumers will continue to worry about the security and resilience of digital payments, playing into the hands of the banks that are keepers of their primary accounts.

Standards & regulations

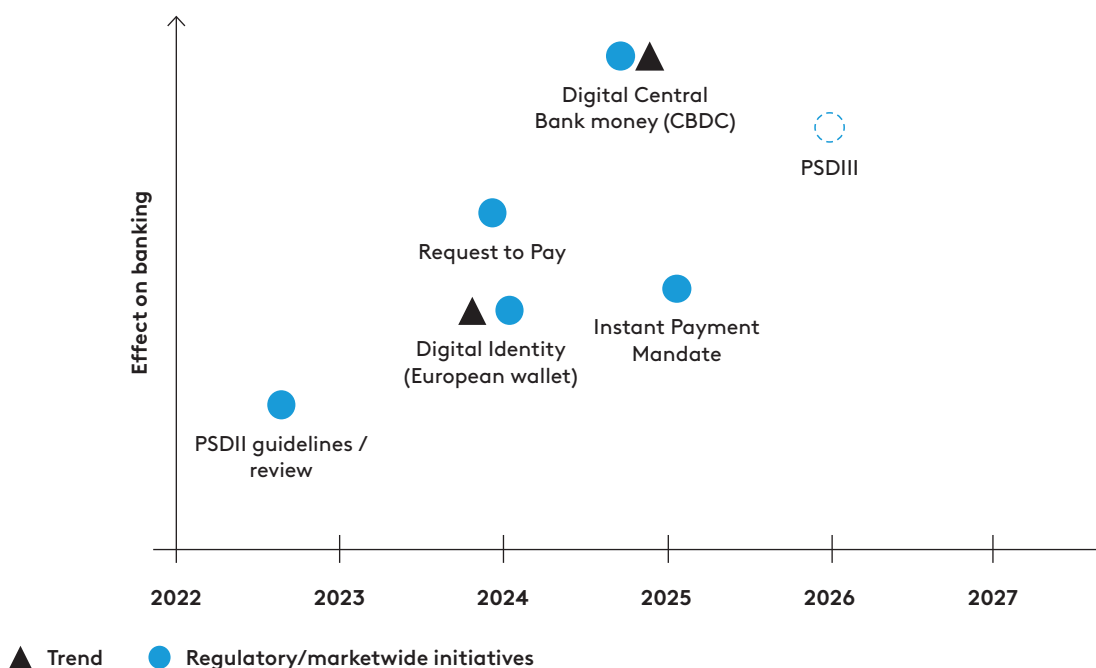
European standardization and regulation are expected to develop. PSD2 will deepen, PSD3 will come as a next step, the regulatory push will continue for the adoption of instant payments in addition to the established standard. With the digital euro and the European Digital Identity Framework, there are also new instruments in the works. Also, the SEPA Request-to-Pay (R2P) standard came into effect in June 2021.

“OeNB is dedicated to promoting competition, transparency and European autonomy in payments. We believe that the right incentives for market participants help to achieve these goals and strengthen innovation.”

Petia Niederländer,
Director Payments, Risk Monitoring
and Financial Literacy,
Austrian National Bank (OeNB)



Overview of relevant initiatives in payments



PSDII guidelines / review

The European Commission is expected to publish a review of the Revised Payments Services Directive (PSD2) in July 2022. Apart from assessing the implementation of existing rules, the Commission will also suggest possible revisions to PSD2 by the end of 2022 – and follow up with amendments and an impact assessment in the first half of 2023. The review will mainly focus on adjustments to PSD2 and indicate what measures might come in the medium term, for example, an instant payment mandate. But any “PSD3”-style legislation is still a long way off. The review is unlikely to have any effect on consumers and will have only minor ones for financial institutions.

Instant payment mandate

Instant payments are possible with European SEPA Instant Credit Transfers (SCT Inst), launched in 2017. The European Payment Institutions Federation (EPIF) and the European Commission believe that greater adoption of instant payments would strengthen the Euro’s role. As a result, further regulation is likely, especially one fixing

transaction costs at the price of classical SEPA credit transfers. This move, which is not expected to take effect before 2024, would increase consumer interest in instant payments and boost non-cash transfers, especially peer-to-peer payments. The financial industry would see a faster transition away from cash and growth of digital transaction volumes and the associated fee pools (included in the study’s forecast).

CBDC

The ECB is currently looking into the possibility of introducing a digital euro as a cash equivalent in retail transactions. It is expected to make a final decision in 2023. The digital currency could be built on distributed ledger technology, allowing the direct transfer of assets between participants, without the presence of a third party like a clearing house or a settlement institutions. The digital euro would boost consumer interest in digital peer-to-peer payments. It would also not have to rely on the likes of Card Schemes and Intermediaries, depriving some archetypes of revenues.

European Digital Identity Framework (European wallet)

The European Digital Identity is meant to give EU citizens, residents and businesses the ability to identify themselves digitally. A European secure “digital wallet” app could be used to gain access to eGovernment, eHealth, financial services and many other services. The Digital Identity Framework will simplify the authorization process for access to financial services, including payments. This could significantly reduce “know your customer” (KYC) processing costs for financial institutions and increase the security of KYC checks for consumers. But adoption of the same would require a major effort from the EU and its member-state regulators and agencies – and EU consumers would benefit only if a unique or a highly interoperable solution were introduced, something which is by no means certain. Banks would benefit from such an essential common and non-competitive solution, being allowed to divert their attention from compliance to consumer value.

Request to Pay

The new SEPA Request-to-Pay (SRTP) scheme is a messaging function. It is not a payment instrument per se, but a way to request a payment initiation. Payment initiation can be rejected by the payer, accepted for immediate transaction (Pay Now) or scheduled for a later date (Pay Later). SRTP will work with classic SCT and SCT Inst. SRTP can thereby be a feature of any payment process. It can reduce the processing cost of an invoice by 50-75%.

The public sector could also benefit. SRTPs could catapult invoice processing from old fashioned paper to RTP, for example, in the case of tax refunds or tax bills. European consumers stand to gain from more streamlined processes and less paperwork when communicating with businesses and public authorities.

The measures outlined above are European solutions that are undoubtedly contributing to the creation of a single European payments market. The ECB’s retail payment strategy states its main goals to be adding value for consumers and increasing the global reach of European payment methods and payment services providers. The central bank rightly wants to avoid increasing the cost burden of the industry without adding value for consumers and merchants. At the same time, authorities should leave room for industry self-regulation beyond a common set of standards. This would allow payments players to fit innovation and investment to their needs.

Technology trends

A multitude of technology trends ranging from wearables and IoT to announcements of stable coins and the growing role of crypto assets as payment vehicles continue to push the frontier of where payments can go. We will dedicate future publications to technology-driven opportunities for the payment industry.

Scope & Methodology

Transaction types and countries

This study takes a payment to be the transfer of non-cash funds from payer to payee, using credit transfers, direct debits and card payments (checks are excluded alongside cash). It focuses on foreign and domestic transactions in the retail sector (C2B, C2C) and does not look at wholesale payments (B2B, B2C). A transaction is counted only if it is denominated in a European currency, including payment derivatives and complementary currencies. Money drawing, money remittance and ATM-network services are part of the cash-provision value chain and do not fall within the scope of this study. Key terms do not necessarily correspond to standard legal terminology and are capitalized – Payment Providers, for example – to indicate the specialized use to which they are being put.

Eight representative EU countries are the focus of the study: the four largest economies, Germany, France, Italy and Spain; and four regional representatives, Austria, the Netherlands, Poland and Sweden. They make up ~80 percent of the EU's non-cash transactions by number. The study draws on data for the years 2014 to 2021, subject to the availability, and a wide array of sources – national central banks, the ECB, national statistics agencies, studies in the public domain, corporate reports, zeb expertise and research.

The study defines the payments value chain and corresponding payments value streams. The value chain is made up of eight consecutive parts. While the first and last cover setup and maintenance activities (e.g. product management and ex-post invoicing), parts two to seven depict the transaction process: selection of a payment method, provision of payment data, payment delivery and processing, clearing/settlement, booking.

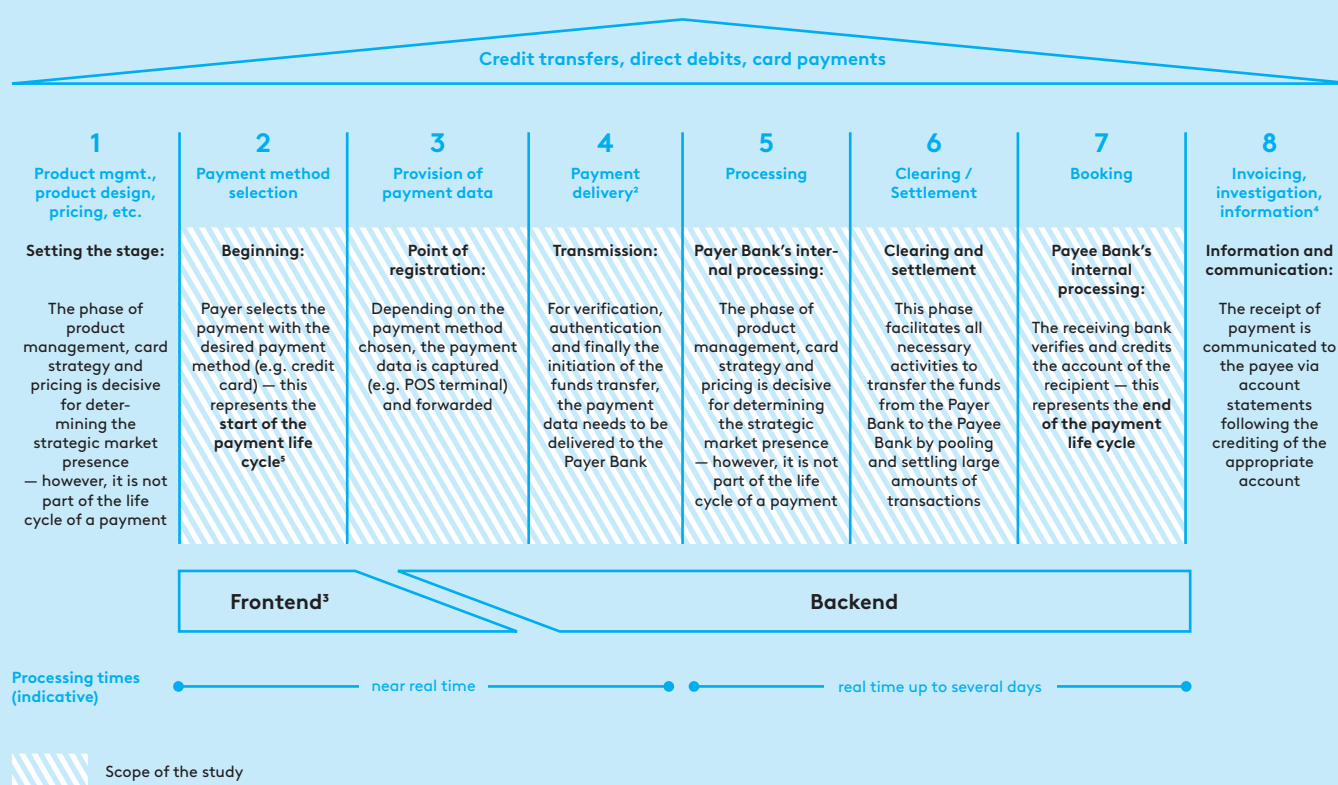
The study defines each payments company as representing one of eight “archetypes,” depending on the parts of the payments value chain it serves. An archetype can span several value-chain links, with all companies of one archetype following a similar business model: Card Schemes (e.g. Visa, Carte Bancaire, etc.); Mobile Wallets (e.g. Apple Pay), which depend on an underlying card; Payment Enablers (e.g. Swish), which serve both payer and payee and ensure delivery of transactions; Payment Providers (e.g. Adyen), which are appointed by merchants so that e-commerce and brick-and-mortar businesses accept payments; Payer Banks; Payee Banks; Intermediaries (e.g. national or EBA clearing houses); Outsourcers, which serve Payer/Payee Banks and Intermediaries.

The most important representatives of each archetype in each country were identified using criteria like market and balance-sheet size. Lastly, various value streams – fees and payments data flowing between archetypes – were quantified. Data for each archetype is based on overall transaction numbers and volumes (and/or numbers of current accounts) and an assessment of what proportion each payment method contributes to this total. For instance, a Card Scheme's holding company processes only card payments, whereas other archetypes process a mix of card transactions, direct debits and credit transfers. Company-specific data was used to calculate the typical payments mix for each archetype. Data gaps are acknowledged, unless they could reasonably be filled in.

The value chain

One of central insights of this study is the breakdown of the overall payments value chain into its component parts. The actual payment process takes place from parts two to seven, from the provision of payment data by payers (e.g. selection of payment method at the point of sale by a payer) to crediting the accounts of recipients.

Overview of payments value chain¹⁾ process steps



1) Note: terms reflect a neutral description of the process elements, they are to be understood in a non-technical and non-legal way; 2) Payment delivery is also part of the processing step and also takes place between step 6 and step 7 – not repeated for clarity of presentation; 3) Visible to payer, front-to-back handover and specific scope depending on payment method; 4) This step is not part of the payment process itself, but is nevertheless part of a payment transaction. Confirmation to the payer takes place at different steps of the value chain, depending on the payment method; 5) Defined as the steps happening between steps 2 and 7

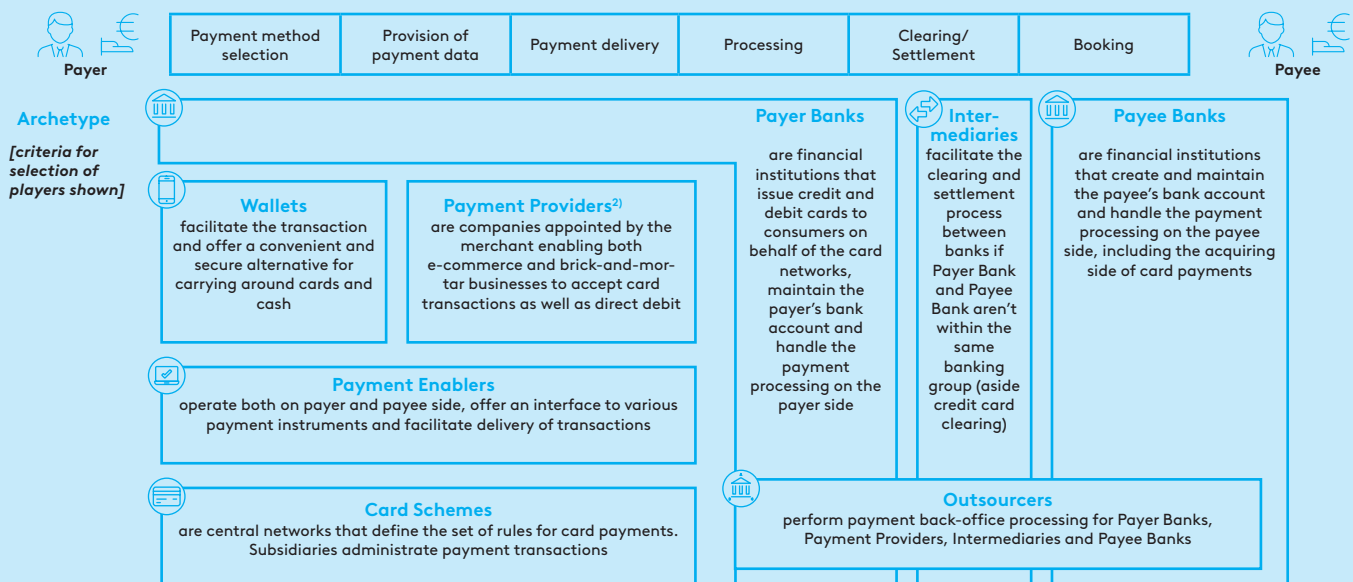
Archetypes – general perspective

Each payments company is defined as one of eight archetypes based on three criteria:

- **Business model:** Archetypes have to be active on the same parts of the payments value chain and follow similar business models reliant on similar value streams.
- **Differentiation:** The business model of one archetype cannot have significant overlaps with those of the other archetypes – although one company can correspond to more than one archetype (e.g. Mastercard after buying Payment Provider Nets).
- **Completeness:** The archetypes should cover the entire value chain in each country.

Archetypes are active in one or several areas along the payments value chain. For example, PayPal is classified as a Payment Enabler, an archetype active in three distinct areas of the value chain; Adyen is classified as a Payment Provider, active in two; Mastercard as a Card Scheme, active in three; and Worldline as an Outsourcer, active in three other areas.

Archetype business models across the payments value chain¹⁾



1) Note: Terms reflect a neutral description of the archetype and are to be understood in a non-technical and non-legal way 2) May also include majority of independent sales organizations & payment facilitators since they offer their services mainly to merchants

Card Schemes

Card Schemes are payment networks that link to credit and debit cards. Financial institutions can join the Card Scheme and issue cards that operate on its network. The Card Scheme and its subsidiaries manage the operation and clearing of card payment transactions according to the Card Scheme's rules. The study identifies the major Card Scheme players in each country – most have a strong national scheme (e.g. Girocard, Carte Bancaire) alongside big international ones (e.g. Visa, American Express, etc.).

Payer Banks

Payer Banks maintain the payer's bank account and issue credit and debit cards on behalf of the Card Schemes. Their core responsibilities include operating online banking portals, setting credit limits, fraud prevention and data security, activating and renewing cards, authorizing and transferring funds during card payments. Their main sources of income are account fees and monetizing payer data. Major Payer Banks in each national market are identified on the basis of total assets and relevance to the retail sector – the study ignores large banks with no retail offerings (e.g. German Landesbanken).

Intermediaries

Intermediaries are responsible for clearing and settlement. Clearing is the process of transmitting, reconciling and, in some cases, confirming transfer orders prior to settlement. Settlement is the actual exchange of money between the parties involved in a payment transfer. Depending on the payment type, clearing and settlement is handled in a decentral manner by a clearing house, multilaterally through correspondent banks, bilaterally between two banks, or intra-bank. Intermediaries generate income by charging parties involved in a payment transactions fees. Major Intermediaries are national central banks (e.g. the Deutsche Bundesbank) and international players (e.g. EBA Clearing). In some countries, intermediaries' tasks are provided by other players (e.g. Iberpay in Spain).

Payee Banks

Payee Banks maintain the payee's bank account and handle the payment processing on the payee side. Their primary role is to credit the payee's bank account once a payment is received. With card transactions, some Payee Banks may also act as Payment Providers, while others contract Payment Providers to ensure verification and authorization. Payee Banks' main sources of income include account fees and point-of-sales (POS) terminal rent. Major Payee Banks in each national market are identified on the basis of total assets and relevance to the retail sector – the study ignores large banks with no retail offerings.

Payment Providers

Payment Providers are companies appointed by merchants to enable their e-commerce and brick-and-mortar businesses to accept card transactions and direct debits. A go-between, Payment Providers are responsible for communicating transaction information between the merchant, the Card Scheme, the Payer Bank and the Payee Bank to verify and authorize the payment. Payment Providers' main sources of income are merchant service charges and POS terminal rents. Major players were identified on the basis of revenues. Between seven and twelve players are relevant in each national market.

Mobile Wallets

Mobile Wallets are an alternative to carrying cards and cash. These wearables' applications store the user's credit or debit card data, becoming another layer of the card. Mobile Wallets rely on near-field communication (NFC) and QR code technology to link POS terminals and the user's smartphone or smartwatch. They offer two layers of protection: passcodes and biometric authentication on the user side; encryption and tokenization on the Wallet side. Main sources of income include Wallet fees from the Payer Bank for making the bank available via the Wallet app and monetizing payer data. Major players have been identified on the basis of their relevance for national markets.

Payment Enablers

Payment Enablers offer payers a single interface with various payment methods and authorize so-called card-not-present transactions. Their aim is to make transferring money easy and safe for the payer and convenient for the payee – and to establishing a relationship with both. Their main sources of income include merchant fees from payees and data about the payer's purchasing behavior. Major Payment Enablers were identified by revenue, with four to six players deemed relevant for each national market.

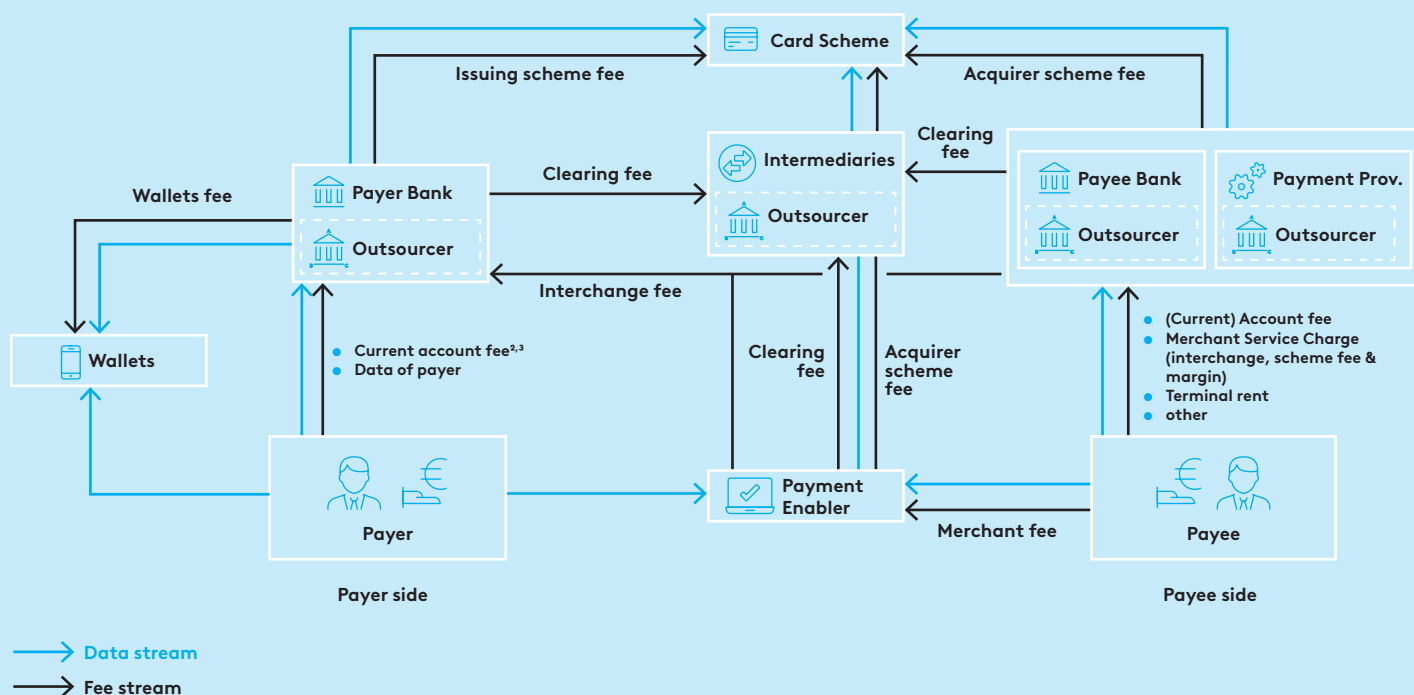
Outsourcers

Outsourcers are responsible for back-office processing for Payer Banks, Intermediaries and Payee Banks. As payments specialists, they offer clients several advantages: lower costs through economies of scale, resources freed up to focus on core business, latest technology without big IT investments. Outsourcers have various relationships with their clients, making income streams diverse. Major players were identified on the basis of revenue in national markets, with two to six relevant players being chosen for each one.

Value streams

Value streams consist of fees and payment-generated user data. The figure shows the ultimate beneficiaries, although not the actual flows or underlying processes.

Overview of value streams¹⁾



1) This representation is not a process or cash flow 2) Current account fee comprises fixed and variable costs (recurring account fee, card fee, transaction fee) 3) Transaction-based fees like liquidity fees (e.g. for overdrafts) not included

The payment value streams have two obvious entry points – the payer side and the payee side. All archetypes receive direct value – i.e. fees and/or data – from one or both of these parties. But value also flows between archetypes. This transfer is interlinked and intensive as more services and data are monetized – the rise of Mobile Wallets and Payment Enablers testifies to that. Payer Banks and Payee Banks receive most of the fee flows. But they have in recent years passed on a rising share to Card Schemes and other players – while bearing most of the associated costs for things like payment delivery and processing (client management, anti-money-laundering/fraud check, settlement, etc.).

The data generated by each player depends on the business model and differs from archetype to archetype. For instance, data used to calculate the scoring model have value and data that are used to improve communication measures are associated with quite different (potential) payoffs. In the following, we have provided general descriptions of the different fees and data – the means by which the different archetypes benefit from the various value streams.

Wallet fee

Payer Banks pay a fee to Mobile Wallets for any card-based payment initiated by the Wallet. Wallets are an additional feature for Card Schemes and increase their attractiveness. In Europe, Apple Pay takes a wallet fee of up to 0.15 percent of a transaction, while Google Pay is (still) free of charge to Card Schemes.

Issuing fee

The Payer Bank pays the Card Scheme for the provision of physical cards. This issuing fee is generally passed through and not kept at the Payer Banks level (e.g. for the provision of additional services such as insurance services, additional benefits at airports, etc.) that offer the services which are linked to the card. These services are typically not linked to the card itself and represent additional benefits not necessary for the card itself to complete its initial intention: the payment service. As the issuing fee is typically forwarded for the provision of non-card-related services, this issuing fee is not included in the payment revenue calculation in the figure.

Clearing fee

Clearing fees are paid by Payer Banks and Payee Banks to Intermediaries – European clearing systems like EBA Clearing or national clearing systems (central banks or automated clearing houses). Bilateral clearing agreements and intra-group clearing arrangements are also possible. Clearing fees usually have a fixed price per transaction and are the same for credit transfers, direct debits and card payments.

Interchange fee

Interchange fees are paid to Card Schemes by merchants for the privilege of accepting cards from a scheme. Interchange fees in Europe are capped at 0.3 percent of the transaction value for credit cards and 0.2 percent for debit cards. The size of the fee depends on variables like the credit-card provider and the type of card being used.

Account fee

Payers and payees pay regular (e.g. monthly) fees for the maintenance of accounts. They can also be obliged to pay fees for owning cards and for every transaction they initiate. Account fees differ considerably from country to country.

Data from payer or payee

Data from payers or payees can be used to drive other business opportunities. Payer and payee data can be used to map the purchasing behavior of customers and can readily be monetized for advertising purposes (e.g. for special offers and promotions).

Acquirer scheme fee

Acquirer scheme fees are paid to Card Schemes by Payee Banks for access to its network. Fees vary in size and type – annual rates, fixed rates, percentages. They are determined by factors like the card type and transaction volume generated by the Payee Bank.

Merchant service charge (MSC)

A payee pays a merchant service charge for card transactions to the Payee Bank or the Payment Provider. The MSC is composed of the interchange fee, card-scheme fee and a margin for the Payee Bank or the Payment Provider. Clearing fees are not directly associated with card transactions, so not part of the MSC pricing model.

Sourcing fee

A monthly, annual or flat-rate sourcing fee is paid to Outsourcers for their services by Payer Banks, Payee Banks and Intermediaries. An Outsourcer can also work for a Payment Provider, when the latter uses a third party to control more of the value chain.

Terminal rent

Terminal rent is the rental fee paid by the merchant for card acceptance terminals at the point of sale.

Card fee

The card fee is a non-transparent fee that the Payment Enabler needs to pay to Card Schemes for the privilege of using card-based payments for goods and services.

Merchant fee

Payment Enablers charge merchants for enabling the merchant to accept common payment methods. Fees owed by the Payment Enabler (e.g. for clearing) are included.



As a leading strategy, management and IT consultancy, zeb has been offering transformation expertise along the entire value chain in the financial services sector in Europe since 1992. We have five offices in Germany – Frankfurt, Berlin, Hamburg, Munich and Münster (HQ) – as well as 11 international locations. Our clients include European large-cap and private banks, regional banks, insurers as well as all kinds of financial intermediaries. Several times already, our company has been classed and acknowledged as “best consultancy” for the financial sector in industry rankings.



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Our study is based purely on publicly available data sources of European financial institutions, regulators and statistical offices. This publication has been prepared for general guidance only and does not take into account the reader's individual investment objectives or risk tolerance. The reader should not act according to any information provided in this publication without receiving specific professional advice. zeb.rolfes.schierenbeck.associates gmbh shall not be liable for any damages resulting from any use of the information in the publication. No part of this document may be reproduced, copied, distributed or transmitted in any form or by any means without written permission from zeb.rolfes.schierenbeck.associates gmbh.

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