

Report on card schemes and processors

Executive summary

Card payments have emerged as the dominant electronic payment method in the EU, accounting for 70 billion payments – 54% of all non-cash transactions – in 2023.

In 2022 international card schemes accounted for approximately 61% of euro area card payments, with national schemes making up the remaining 39%. If we include transactions outside the euro area, national schemes' market share was slightly lower at 36-37%.

There are currently only nine national card schemes active in the EU. This is fewer than in 2018, which is due to the reclassification of one previously reported card scheme in Spain as a clearing system and to the exclusion of minor card schemes in France. In the euro area, 13 countries rely on international card schemes entirely for all card transactions. In the remaining countries, the already small number of national card schemes are facing a broader trend of declining domestic market shares.

In the area of card processing, there are four major cross-border companies in the market, out of a total of 80 providers across EU Member States (excluding subsidiaries). Processors are for the large part owned by entities located in the Member States. Germany and Sweden have the largest number of processors owned by investors located in the United States.

While processors operating in a single Member State are mostly EU-owned, those operating across multiple Member States are typically also owned by non-EU investors.

These findings raise questions about the EU's strategic autonomy in payments, particularly given the dominance of international schemes. The trend of declining national schemes suggests that the European payments market continues to consolidate. Combined with the foreign shareholders' presence in the major processors, the report shows dependencies that affect Europe's payment sovereignty. This underscores the importance of monitoring and addressing these trends to ensure Europe's strategic autonomy in the sector of payments at the point of interaction.

1 Introduction

Following on from the 2019 report "Card payments in Europe – current landscape and future prospects", this publication provides an updated outlook of the evolution of two key areas presented in that report, namely card schemes and processing

entities in EU Member States.¹ This has become topical given the rapidly changing market dynamics in the European card industry observed in recent years. This "Report on card schemes and processors" provides an up-to-date analysis of the state of Europe's strategic autonomy, in line with the Eurosystem's goals set out in its retail payments strategy². This investigation is relevant given the sizeable share of card payments in all European electronic payments and its implications for the strategic autonomy of the EU.

This report has a more specific and narrower focus than the previous one. First, concerning national card schemes, it investigates whether the changing conditions in the market over the years have allowed national card schemes to remain viable. Second, the report looks into the processors' distribution across European countries and the extent to which foreign ownership may create conditions of dependence from abroad. This is because processors represent key components in the card payments process and in the years following 2019 they have been affected by substantial changes.

This report relies on data retrieved through a consultation with the European System of Central Banks, including all 27 national central banks. The aim of the consultation was to take a snapshot of the current conditions on the market for card schemes in Europe and processors' activities. The data discussed in the report reflect the market conditions and were submitted on a best-effort basis as at February 2024.

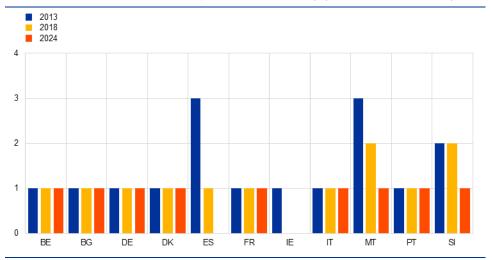
See Card payments in Europe – current landscape and future prospects.

See ECB (2023), The Eurosystem's retail payments strategy - priorities for 2024 and beyond. The Eurosystem's primary goal is strengthening the European payments market through the creation of pan-European payments solutions at the point of interaction to mitigate the strong reliance on international card schemes (see section 2). The retail payments strategy also aims at increasing the resilience of retail payments (see section 6).

2 Card schemes

Since 2019 the rate of card usage in the EU has grown significantly. With nearly 70 billion payments in 2023, payment cards are the most widely used electronic payment instrument, already totalling more than half (54%) of all non-cash transactions, with credit transfers accounting for 22%, direct debits for 15% and emoney payments for 7%.³

Chart 1
Number of national card schemes per individual country (2013, 2018, and 2024)



Source: ECB survey with 2024 data.

Note: The chart shows the distribution of national card schemes across European countries, comparing the results reported in the survey in 2024 with those from the surveys published in 2019 and 2014.

Note that in the case of France the number of national card schemes reported for 2018 and 2013 differs from the previous publications (respectively seven and six schemes reported instead of one). This difference between 2013, 2018 and 2024 results from a change in interpretation. The additional card schemes previously reported were all subsidiaries of large French banking groups, operating as three-party private schemes, so they were not considered national schemes in the 2024 survey due to lack of relevance in the specific national context.

Data concerning the national card schemes indicate that among the respondent countries there is a total of nine active national card schemes. All reported schemes are grouped by the model they operate on:

- eight national card schemes operating with a four-party model (Belgium, Bulgaria, Denmark, Germany, France, Italy, Portugal and Slovenia);
- one Member State operating a three-party scheme as its national card scheme (Malta).

It must be noted that the identification of a national card scheme within this report is fully dependent on the national context. Therefore, in some cases three-party schemes are considered because of their relevance in the respective national market, while in other instances, three-party schemes were not included due to their limited use at domestic level.

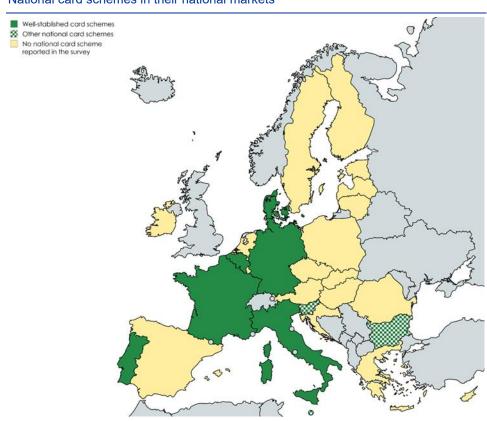
In comparison with the previous report published in 2019, two changes regarding the national schemes are noticeable. Spain has relinquished its national scheme and in

³ See Payments statistics: first half of 2023.

France card schemes with a negligible market share have not been included for the current analysis.

In the case of Spain, there were three active national card networks⁴. Before the 2019 report, these three entities had merged, creating STMP (Sistemas de Tarjetas y Medios de Pago S.A.), and temporarily reported as a national card scheme in Spain in 2019 according to the oversight framework in force at the time. Subsequently, the portfolio of activities undertaken by STMP was classified as being more in line with criteria defining a clearing system, which resulted in its classification being changed. Consequently, Spain is now considered a country without a national card scheme.

Figure 1
National card schemes in their national markets



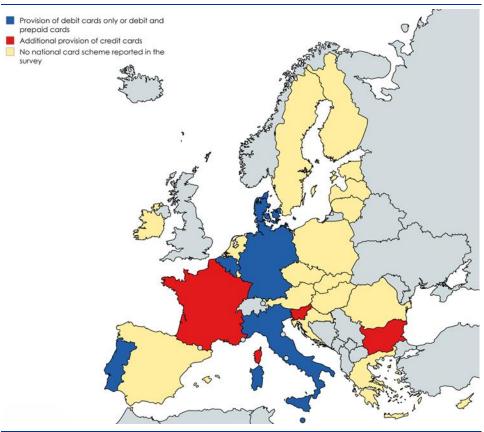
Source: ECB survey.

Note: The map shows the geographical distribution of national card schemes in 2024.

National card schemes are divided into those providing debit cards only (Belgium, Denmark, Germany and Malta), debit and prepaid cards (Italy and Portugal), credit cards only (Slovenia) and all types of cards (Bulgaria and France).

⁴ Sistema 4B, Euro6000 and Servired.





Source: ECB survey.

Note: The map shows the geographical distribution of national card schemes according to the combination of the type of service they provide among credit, debit and prepaid cards in 2024.

National branded cards accounted for around 39%⁵ of all card payments within the euro area in 2022. It must be noted that this figure is calculated considering only card payments where both issuance and acceptance occurred within the euro area, not including cross-border payments outside the euro area. Furthermore, there has been a decline not only in the number of national card schemes but, in most cases, also a decline in their domestic market shares.

The analysis considers both domestic and cross-border payments in euro area countries. Cross-border payments across euro area countries only account for a small share of all card payments and are therefore not the only source of international card schemes' dominance. The significant market share of international card schemes in internal euro area card transactions (around 61%) stems from their prevalence in domestic card payments in countries where national card schemes are either not major or non-existent.

When also taking into consideration the transactions with issuance in a euro area country and acceptance outside the euro area, the share of national card schemes was approximately 37% in 2022 and 36% in 2023.

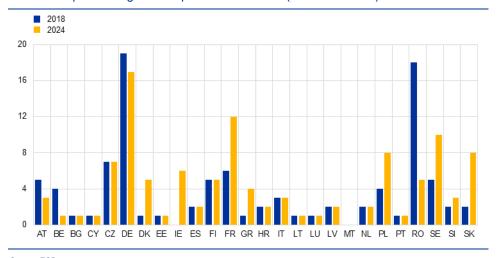
⁵ Source: European Central Bank survey and European Central Bank PAY dataset.

The ECB has recently reported the latest market share of the international card schemes as being a few percentage points higher than 61%. This figure refers to a market which includes transactions of cards issued in the euro area but acquired worldwide, i.e. in any non-euro area country. This report, on the other hand, refers to the market comprising transactions acquired in the euro area only. Because the reference market of this report is narrower, the cumulative share of national card schemes is higher. Card transactions with euro area cardholders and non-euro area merchants are performed by international card schemes only. National card schemes can execute card transactions within their country only.

3 Card payment processing entities

In this section, the report investigates the distribution of processors across European countries and their ownership. Card processors are companies positioned in the card transaction chain between the merchant's acquirer and the card issuer. They perform critical tasks involved in authorising and processing a card payment. Given the fundamental role of processors in card usage and the growing market of card payments, this analysis aims at mapping processors and identifying the extent to which foreign-owned processors may create conditions of dependence from abroad.

Chart 2
Number of processing entities per Member State (2018 and 2024)



Source: ECB survey.

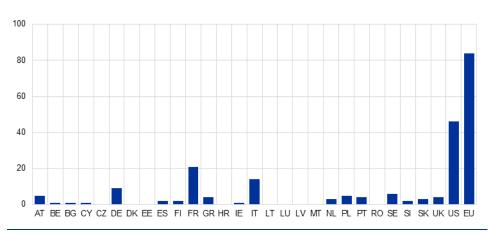
Note: The chart shows the number of processing entities reported by the national central bank in the Member State. Repeated entities are counted according to the number of mentions.

In 2024, 111 processing entities were reported by national central banks in EU Member States. Most of them are marked as private listed companies. Although the overall number of processors reported in Europe is only slightly higher than in 2018, there are two countries that show sharp increases in the number of processors: Slovakia and Denmark. In Slovakia, the market was initially concentrated among few players but following the release of processing solutions by commercial banks for their branches, competition increased, allowing several players to enter the market.

In Denmark, in 2018 Nexi controlled a large portion of the market as the owner and processors for the national card scheme Dankort. With a decrease in the use of Dankort, the share of Nexi in processing activities also declined, allowing other players to gain traction in the market.

Among the processors there are four (Nexi, Adyen, Global Payments and Worldline) which are active in multiple countries. Excluding the subsidiaries of these processors as separate entities, the number of effective processors in EU Member States would be eighty. However, for this exercise, they are accounted for separately.

Chart 3
Subdivision of reported processors by country of origin (2024)



Source: ECB survey

Note: The chart shows the number of processing entities reported according to their country of origin. Some processors are owned by entities with a seat equally or almost equally split across two countries – in those cases both countries are accounted for. EU refers to the aggregate of the individual Member States mentioned.

It must be noted that the country-based overview offers an approximate picture of the European market for processors. Its limitations are due to the complexity of establishing a clear country of origin for privately held companies. In the assessment, the country of origin is defined according to the type of owner. If it is a natural person, the country of origin is the legal seat of the considered processor, whereas if the owner is another enterprise, the country of origin is that of the seat of the owning entity. For cases in which the processor is owned by multiple entities with different locations, the country or countries of origin are identified according to the criteria used by ECB Banking Supervision in qualifying holdings procedures where it assesses significant shareholders in publicly listed companies with complex ownership structures. A case-by-case analysis is carried out using this methodology to identify significant shareholders and for each significant shareholder the country of origin is determined. Where investors are equally divided among two countries of origin, both have been indicated as countries of origin.

The ownership of the processors indicated in the survey is diverse. Processors are for the large part owned by entities located in EU Member States (see the last column of the above figure). Considering each country individually, most owners of processors are located in the United States. Among all EU Member States, Germany

ECB (2023), Guide on qualifying holdings procedures.

and Sweden have the largest number of processors owned by investors located in the United States, six and four respectively.

A notable feature of this ownership dynamic is the prevalence of non-EU entities' shareholding presence among processors which are active in several EU Member States. On the one side, no publicly listed processor operating across multiple EU Member States is fully owned by EU investors. On the other side, it can also be noted that local processors operating in a single EU Member States are mostly EU-owned.

4 Conclusions

Compared with 2018, the number of national card schemes in Europe reported by central banks has decreased. This development is mostly due to the fact that in Spain the operator of the card scheme was reclassified as a clearing system according to its actual business and that card schemes with a negligible market share have not been included in France for the current analysis. Additionally, the analysis shows that there were some changes between 2018 and 2024, although they did not significantly affect the market for card schemes. The analysis shows that in each country that has a domestic card scheme, there is no more than one national card scheme and it alone faces competition from international card schemes. Furthermore, in 2022 national card schemes accounted for roughly 39%, and international card schemes for the majority of card transactions within the euro area.

The number of processing entities are increasing overall. In terms of ownership investigation, it can be noted that most of the processors active in the EU are at least partly EU-owned, although their market shares in their national markets are not public and thus no clear conclusion on operative reliance can be drawn. Nonetheless, non-EU-owned processors are widespread. Specifically, none of the processors operating across EU borders can be identified as fully EU-owned. This consideration highlights a possible source of fragility for the operational resilience and strategic autonomy of digital payments. Regardless of the technical soundness of the operating processors, their geographical ownership can hinder strategic autonomy of a core part of card payments provision, especially as there is high concentration and interrelation among processors and other entities from the supply side.

To conclude, EU relies heavily on non-EU solutions to operate card payments, including both card schemes and processors. This analysis highlights the importance of implementing an EU solution at the point of interaction to ensure operational resilience and strategic autonomy of the European payment systems.

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For specific terminology please refer to the ECB glossary (available in English only).

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