

Point-of-sale payments in 2021

Results of the study by De Nederlandsche Bank (DNB) and the Dutch Payments Association into the use of cash and electronic payments at points of sale in the Netherlands in 2021

Use of payment methods

In 2021, consumers in the Netherlands made about the same number of payments at points of sale (POS) as in 2020.

The way they paid for their purchases at these points of sale also remained virtually unchanged. Where these payments involved debit card transactions, consumers more often paid by contactless debit card, mobile phone or wearable. Of all debit card payments (both contact-based and contactless), about 86% were made contactless. In 2020, this share was still 80%.

The number of cash payments fell by 72% between 2011 and 2021, from 4.13 billion payments in 2011 to 1.16 billion in 2021, while their total value decreased by 61%, from €52 billion in 2011 to €20 billion in 2021. The average cash payment amount was €17.34 in 2021, which is slightly higher than in 2020, when it was €16.40, and more than €5.50 higher than the average cash payment amount in 2011, which was €11.80.

The number of debit card payments¹ more than doubled between 2011 and 2021, from 2.29 billion to 4.49 billion.

The total value of debit card payments rose by 49%, from €83 billion to €123 billion. As in 2020, the average debit card amount rose again in 2021, at an almost unchanged number of debit card payments. The average debit card amount rose by 5%, from €26.07 in 2020 to €27.36 in 2021. This increase can be partly explained by inflation: in 2021 consumer prices were 2.7% higher on average than in 2020². In addition, it is likely that the purchasing behaviour of consumers has changed since the outbreak of the coronavirus pandemic in the Netherlands. In 2021, Dutch consumers were unable to make purchases in brick-and-mortar shops during several periods of shop closure, so the number of payments did not increase compared to previous years. They did on average pay higher amounts at brick-and mortar locations.

Figure 1a Total number of cash payments

EUR billions

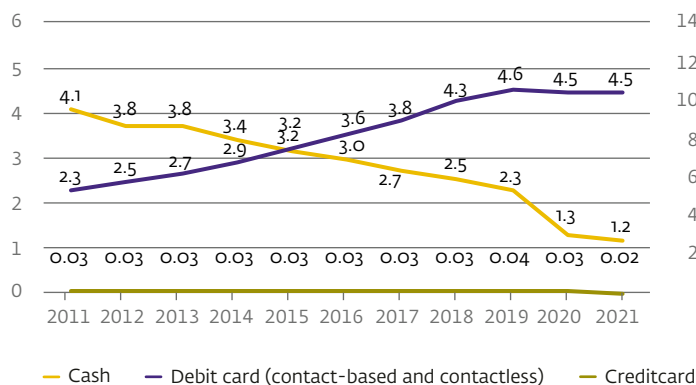
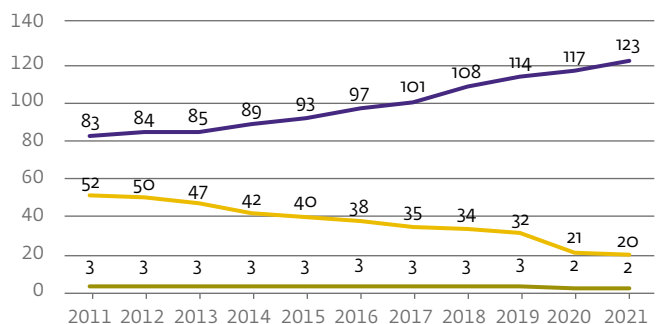


Figure 1b Total value

EUR billions



¹ The Dutch Payments Association has corrected (reduced) the figures for the number of debit card payments and the associated turnover for 2021. The figures on debit card payments in Figures 1a and 1b therefore differ from last year's figures.

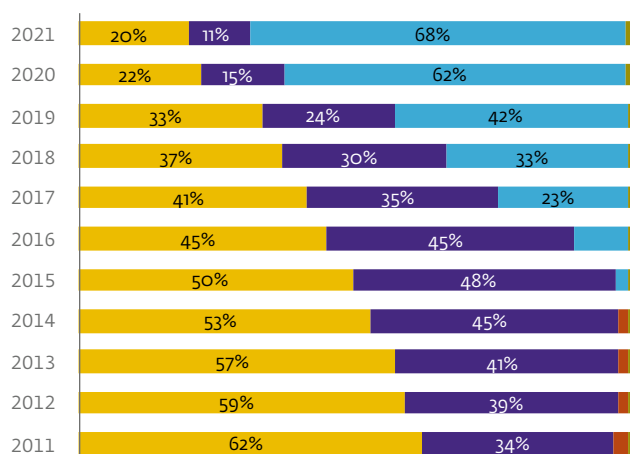
² Source: Statistics Netherlands (CBS).

Relative use of payment methods

The share of cash payments in total POS payments fell by 2 percentage points in a year's time, from 22% in 2020 to 20% in 2021. The relatively large decline in 2020 does not seem to be continuing strongly. The share of contactless payments at points of sale is rising. This is mainly at the expense of contact-based debit card payments: the share of contactless payments increased by 6 percentage points, from 62% in 2020 to 68% in 2021, while the share of contact-based debit card payments fell by 4 percentage points, from 15% to 11%. The share of credit card payments in the total number of payments was 0.5%, which is comparable to previous years.

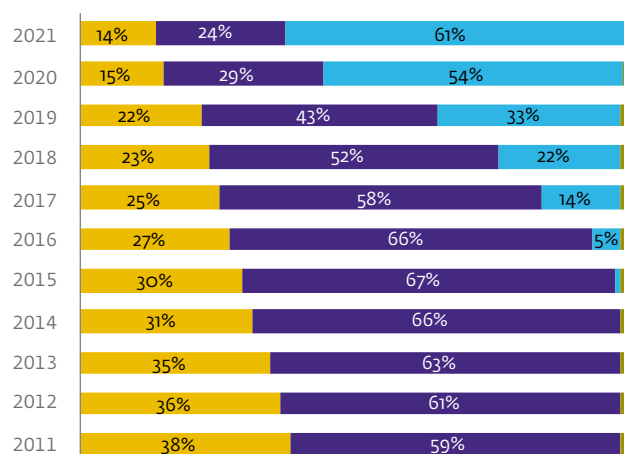
A similar picture emerges for the total value of payments at points of sale. In 2021, 14% of all purchases were paid in cash and 85% by debit card (24% contact-based and 61% contactless). The share of contactless debit card payments in the value of POS purchases increased by 7 percentage points, while that of contact-based debit card payments decreased by 5 percentage points. The share of credit card payments in terms of value is 1%.

Figure 2a Total number by means of payment



- Cash
- Debit card contact-based
- Debit card contactless
- Electronic purse
- Creditcard

Figure 2b Total value by means of payment

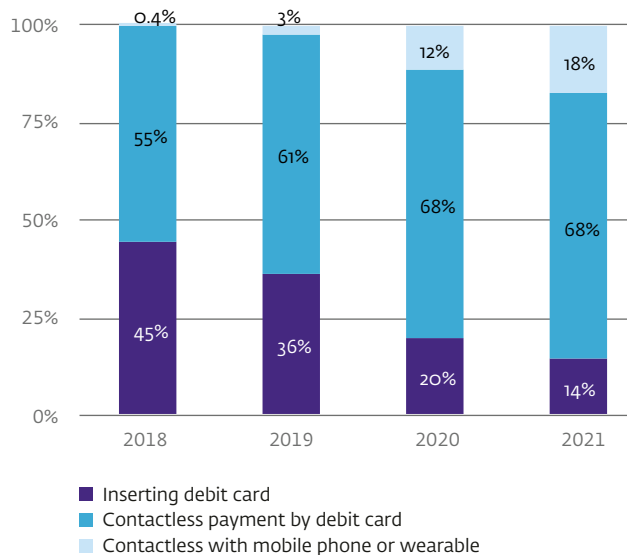


Shift from contact-based to contactless debit card payments

The share of contactless payments has increased significantly in recent years. Whereas in 2018 the distribution of contact-based and contactless debit card payments was still more or less balanced, contactless has gained the upper hand since 2019. It is striking that the increase of contactless payments in 2021 is mainly due to the fact that these payments were made more often with a smartphone or wearable. The share

of contactless payments without a debit card increased by 6 percentage points, from 12% in 2020 to 18% in 2021, for the first time surpassing the share of contact-based debit card payments. As in previous years, contactless payments by debit card are the most widely used: with 68% of all debit card payments, the share in 2021 is the same as in 2020.

Figure 3a Number of debit card payments by method

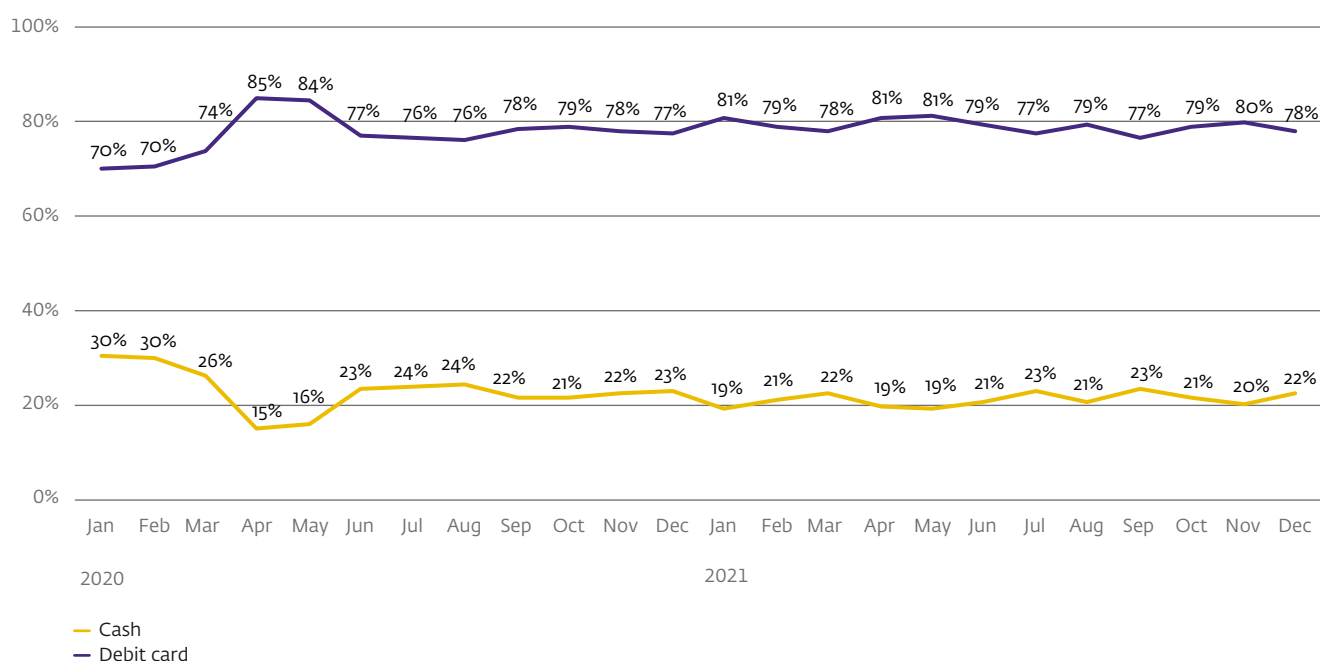


Relative use of cash and debit card in 2020 and 2021

While the coronavirus pandemic caused a major shift from cash to debit cards in early 2020, the impact of the pandemic in 2021 seems limited. The measures taken to prevent the spread of COVID-19 do not appear to have had any effect on consumers' payment behaviour in 2021. After the start of the first lockdown in the Netherlands, in mid-March 2020, consumers started to use contactless payment methods

significantly more often, and cash and contact-based debit card payments significantly less. Although the share of cash payments increased slightly to 24% in August after a dip to 15% in April, it appears to have stabilised since then at around 22%. The containment measures in the second half of 2020 and in 2021 have only had a very limited effect on payment behaviour.

Figure 3b Monthly breakdown of POS payments by method



Use of payment methods by amount

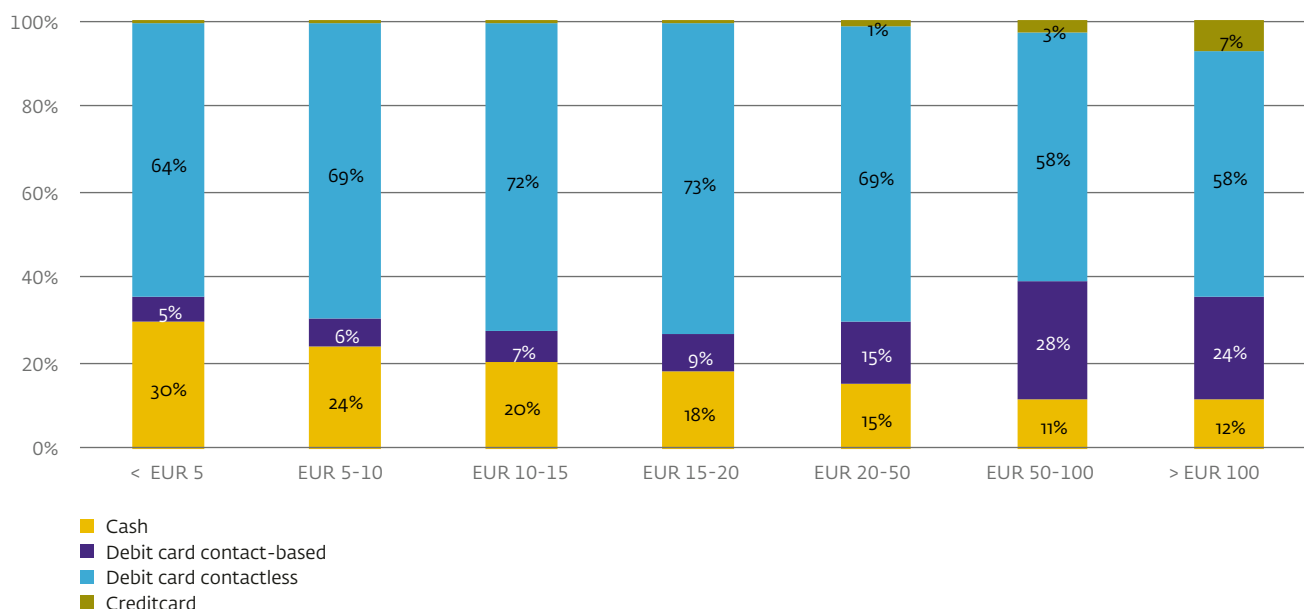
For all spending ranges, consumers most often opted for contactless payments in 2021. This was also the case in 2020. As in previous years, consumers were less likely to pay cash for larger purchases, preferring electronic payment methods instead. Notably, consumers relatively often tend to pay larger amounts in the traditional way, i.e. by inserting the debit card into the payment terminal. This may be because they expect to exceed the cumulative payment limit for these purchases. When contactless debit cards were introduced, consumers still had to insert their debit card when they reached the cumulative payment limits. Despite the fact that this has not been necessary for about two years, some still continue to pay this way.

The shifts in payment behaviour in 2021 are largely the same for the different spending ranges. For all spending ranges, consumers more often opted for contactless payments in

2021 compared to the previous year. This increase was greatest for purchases in the €10-15 and €20-50 ranges: the share of contactless debit card transactions in these ranges rose by 7 percentage points. The increase was largely at the expense of the share of consumers who paid for their purchases using the contact-based debit card method across all spending ranges. For purchases above €100 the decline was particularly steep: in 2020, 31% of transactions for the most expensive purchases were still paid by debit card, while in 2021 this share dropped by 7 percentage points to 24%.

The changes in the share of payments made in cash compared to 2020 are marginal. Purchases in the €50-€100 range decreased by 2 percentage points, from 13% to 11%. This is the biggest change that has been observed. Compared to the major shifts in recent years, the share of cash payments was fairly stable in 2021.

Figure 4 Breakdown of payment methods by spending range in 2021



Use of payment methods analysed by sector

In 2020, there was a shift from paying cash to paying electronically in sectors where cash was still predominant. This decline in the use of cash did not continue strongly in 2021. In most sectors, the share of purchases paid in cash either remained the same or declined only slightly. The shift from traditional, contact-based debit card payments (in which the card is inserted into the payment terminal) to contactless payments (using a debit card or smartphone) continued in 2021. In 2021, only 9% of purchases in the retail sector were paid for using the contact-based debit card method, compared to 15% in 2020. The total value of purchases made with the contact-based method also fell, from 28% in 2020 to 21% in 2021.

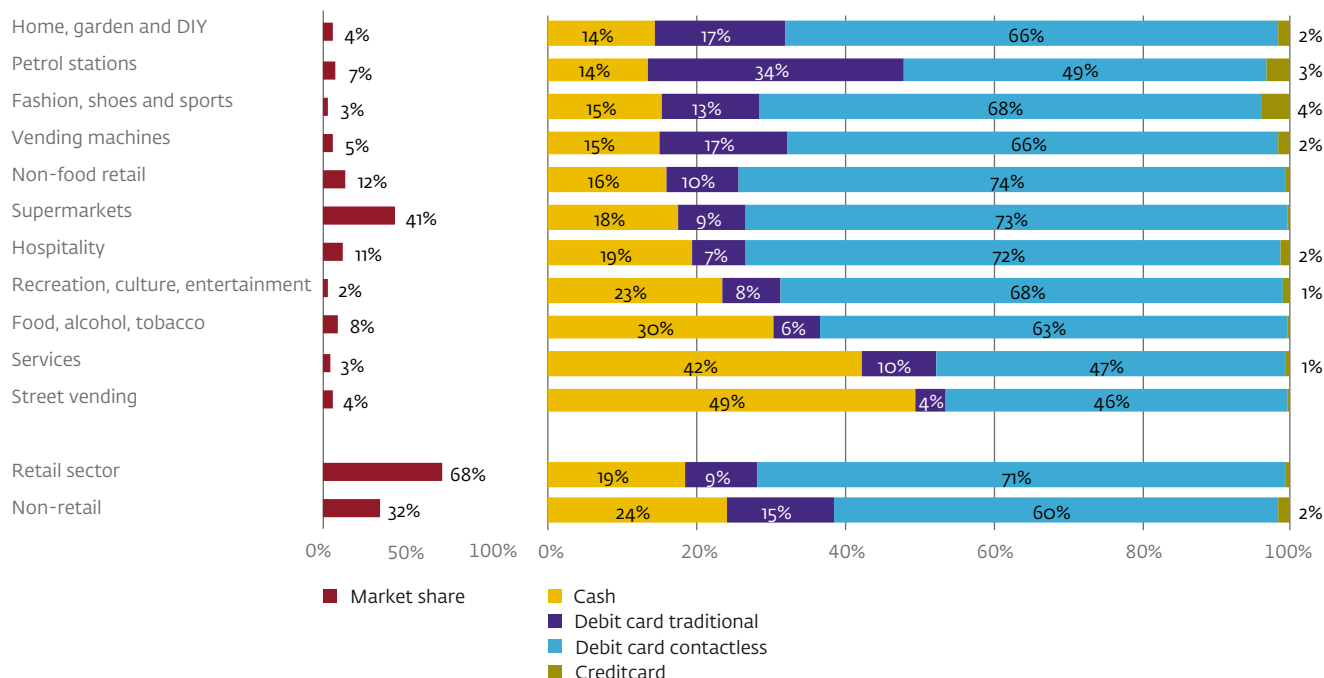
Most purchases are made in supermarkets. Since the coronavirus pandemic, this sector's market share has continued to increase. In recent years, there have been several periods

during which containment measures required physical shops to remain (partly) closed. These measures did not apply to the supermarkets: they were largely able to keep their doors open. In 2019, prior to the COVID-19 pandemic, the supermarket sector's share of total POS payments was 37%.

In 2021, this share had increased to 41%. The total value of purchases in the supermarket sector is also higher than before the pandemic: it rose by 2 percentage points from 30% to 32%. The share of supermarket payments paid in cash in 2021 was 18%, the same as in 2020. The share that was paid using the contact-based debit card method dropped from 14% to 9%. A similar trend could be seen regarding the total value of supermarket purchases, where the share of contact-based debit card payments fell from 24% to 15%.

The total amount of cash payments in supermarkets is about the same as the total amount of contact-based debit card payments.

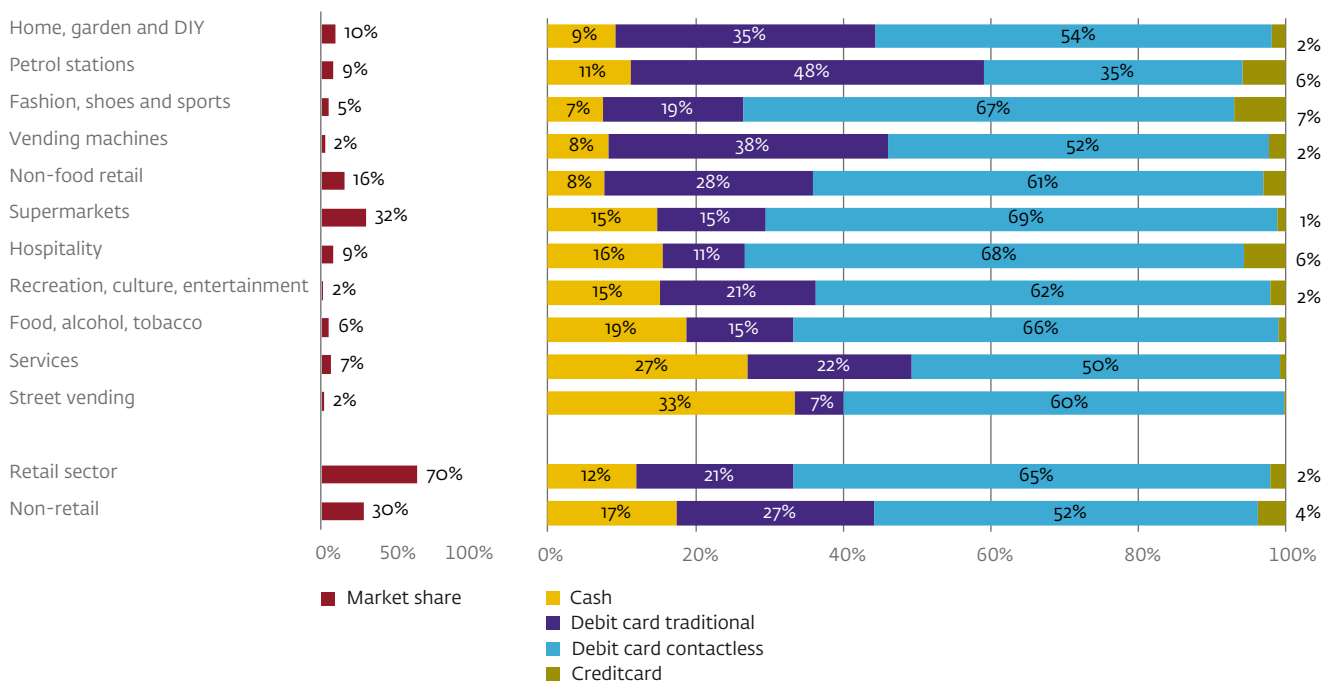
Figure 5a Shares of payment instruments by place of purchase (number of payments)



Cash is still relatively widely used in street vending. About half of all purchases in this sector in 2021 were made in cash (49%), making it the sector with the relatively highest percentage of cash payments in 2021. In 2020, this was the services sector. Of all street vending debit card purchases, the vast majority was contactless. Only 4% of these purchases were paid using the contact-based debit card method. This is the lowest share of all sectors. Traditional contact-based debit card payments are most common at petrol stations, i.e. 34% of payments. This is partly due to the fact that contactless payment is not yet available at most unattended petrol pumps. Nevertheless, the share of contactless debit card payments in this sector rose from 44% in 2020 to 49% in 2021.

The impact of the measures to combat the pandemic on the hospitality sector was again significant in 2021. The market share of this sector's total POS turnover decreased from 11% in 2019 to 8% in 2020, and only slightly increased to 9% again in 2021. This is because in 2021 the hospitality sector still had to remain largely closed for several periods. As in other sectors, consumers are more likely to opt for contactless payments for their purchases (72% in 2021 compared to 65% in 2020) rather than cash (19% in 2021 compared to 25% in 2020) or the contact-based debit card method (7% in 2021 compared to 9% in 2020). The share of contactless debit card payments in hospitality sector turnover has increased by 7 percentage points to 68%, at the expense of the share of the traditional debit card method (11% in 2021 compared to 17% in 2020) and cash payments (16% in 2021 compared to 19% in 2020).

Figure 5b Shares of payment instruments by place of purchase (value of payments)

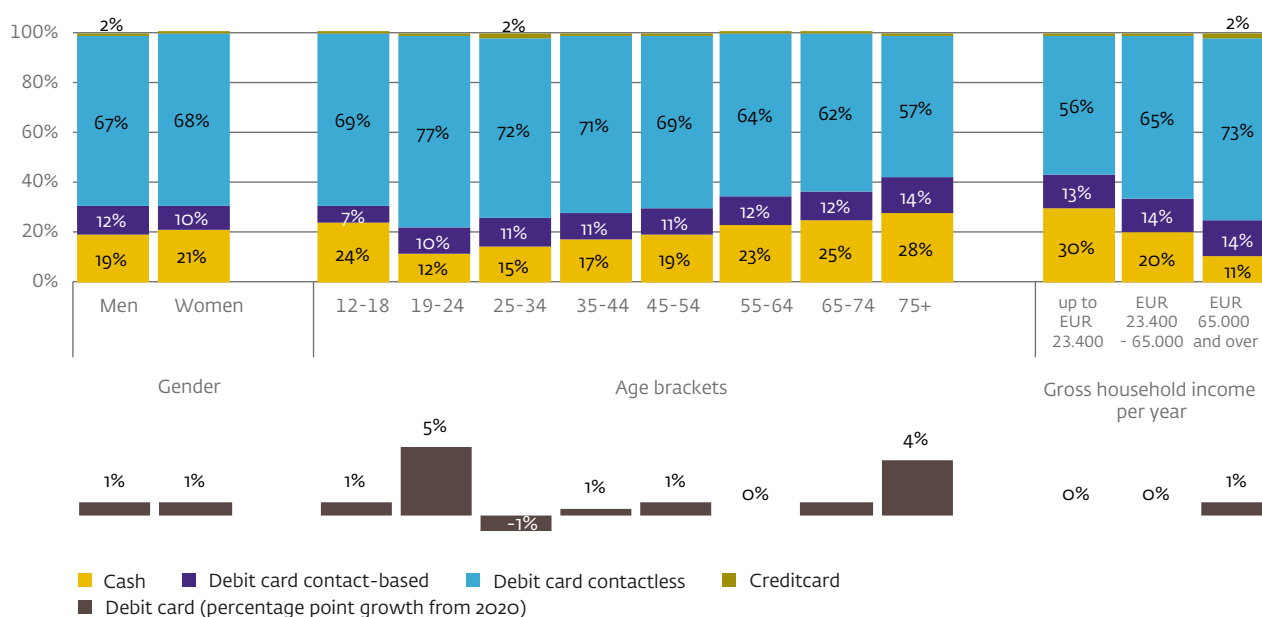


Use of payment instruments by demographics

The stabilisation in payment behaviour in 2021 can be seen among almost all consumer groups. In terms of income, the differences have remained virtually the same in 2021. Consumers in the lowest income bracket are the most likely pay in cash (30%), while those in the highest income bracket are the least likely to use cash (11%). In 2020, we saw that the impact of the pandemic on the use of cash was smallest among households in the lowest income bracket. Unlike the two higher income brackets, the share of cash had almost returned to its pre-pandemic level by the summer, after a dip following the first lockdown. In 2021, this share remained stable. The use of cash declined by 2 percentage points among households in the highest income bracket in 2021, while their use of debit and credit cards both increased by 1 percentage point.

Two age groups show some striking shifts. Although those in the 19-24 age group already paid most of their POS purchases with debit cards and least in cash in recent years, the difference with other age groups increased even more in 2021. The use of cash decreased by 4 percentage points among this age group and debit card use increased by 5 percentage points. Their use of cash continued to decline in 2021. Notably, those in the over-75 age group have also started to pay by debit card more often. Their debit card use increased by 4 percentage points.

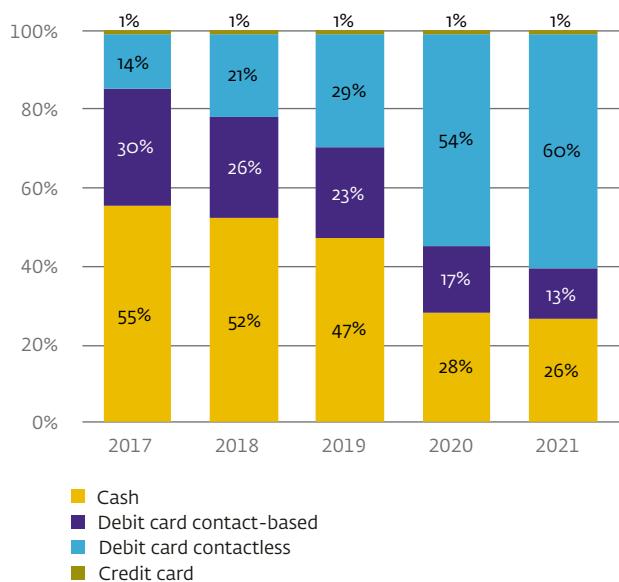
Figure 6a Relative use of payment methods by gender, age and income



The shift from cash to debit cards is different among older consumers aged 65 and over from that among the other age groups. In the years before the coronavirus pandemic, the shift in this group was still relatively limited, with a decrease in the use of cash of 3 percentage points in 2018 and 5 percentage points in 2019. In the first year of the pandemic, however, they started to pay much less in cash, which

reduced the share by 19 percentage points. In contrast to consumers in the lowest income bracket – where a similar trend occurred before the coronavirus crisis – the use of cash among the over-65s has remained virtually stable after the dip following the first lockdown. This may indicate that older people have become accustomed to the new payment method, having made the shift to using a debit card.

Figure 6b Relative use of payment instruments among over-65s in the past 5 years



Preference for different payment methods during 2020 and 2021

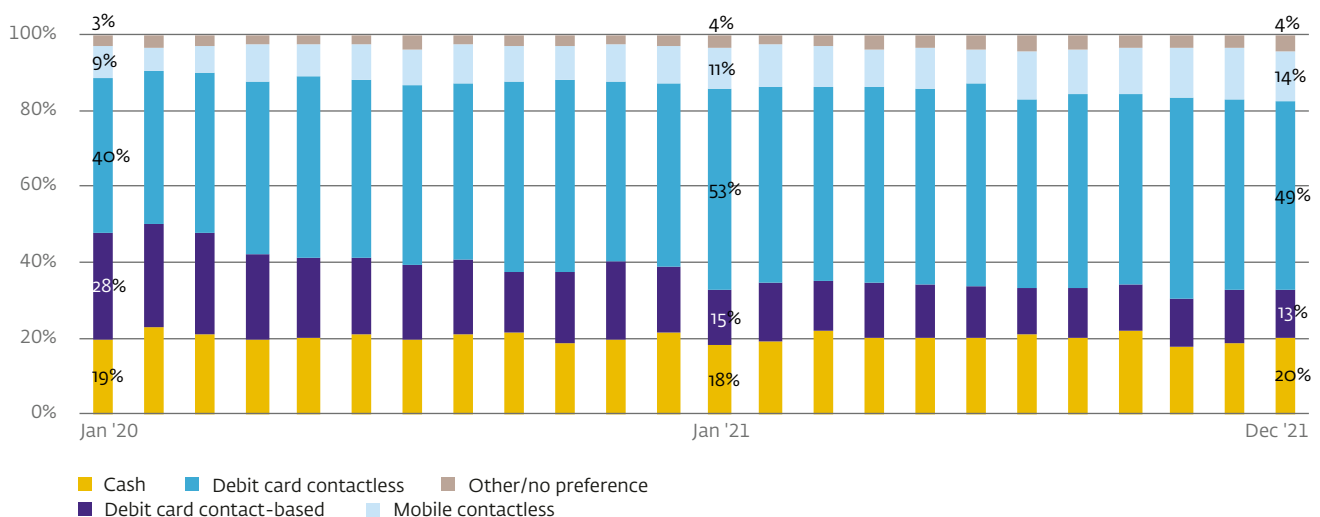
In the past two years, much has changed in Dutch consumers' preferences for different payment methods. In January 2020, prior to the coronavirus pandemic, 28% of Dutch people preferred paying with their debit card in the traditional, contact-based way, 40% with contactless debit cards and 19% in cash. Of the remaining group of Dutch people, 9% chose contactless payment by mobile phone as their preferred method of payment, and 3% another payment method such as a credit card, loyalty card or gift voucher.

Since the start of the COVID-19 pandemic, there has been a sharp increase in the share of Dutch people who prefer contactless debit card payments, largely at the expense of those who prefer the contact-based debit card method. The change in payment behaviour is partly due to the appeal made by retailers to their customers at the beginning of the pandemic to use contactless payments as much as possible. The measures taken by banks to facilitate contactless payments by temporarily increasing the limit were also an important factor.³ At the end of 2021, about 49% of Dutch

people preferred paying contactless with their debit card (an increase of 9 percentage points compared to before the pandemic) and only 13% preferred paying with their debit card in the traditional way (a decrease of 15 percentage points). Contactless payment by mobile phone, which involves holding a smartphone with a virtual debit card in an Apple or Google wallet near the payment terminal to make a payment, has also gained popularity in the past two years. Since the beginning of 2020, the share of people who prefer paying this way has increased by 5 percentage points, to 14%. The entire group of Dutch people with a preference for contactless payments (both by debit card and mobile phone) has increased by 14 percentage points in the past two years, from 49% to 63%.

The group of Dutch people with cash as their favourite means of payment has remained stable over the past two years. About 20% of the Dutch people prefer paying this way, which means that cash is still an important means of payment for one in five Dutch people.

Figure 7a Payment method preferences since the beginning of 2020⁴



³ In March 2020, the Dutch banks temporarily raised the limit for contactless payments to €50 because of the coronavirus pandemic. They agreed to make this increase permanent in October 2021.

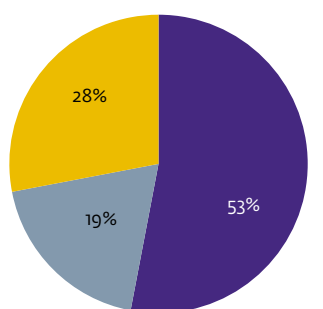
⁴ The figure shows the average preference per month, not taking into account small amounts.

Preference for cash or debit card?

Compared to five years ago, in 2021 an increasing share of consumers indicated they prefer paying by debit card or mobile phones. Despite this development, there is also a group that prefers paying cash for small amounts. This group is getting smaller, however; five years ago, almost one in five consumers preferred paying cash for small amounts, but now this is only 7%. The decline in this group of consumers

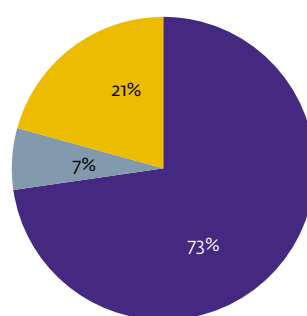
was relatively large compared to the decline in the share of people who also prefer paying higher amounts in cash. Most payment terminals have been equipped with a contactless payment option in recent years. In addition, the use of debit cards in shops is now more explicitly promoted, also for small amounts. This has made it more common and convenient for consumers to use their debit card for small amounts.

Figure 7b Preference for debit card or cash in 2016



■ Cash
■ Debit card
■ Debit card, except small amounts

Figuur 7c Preference for debit card or cash in 2021

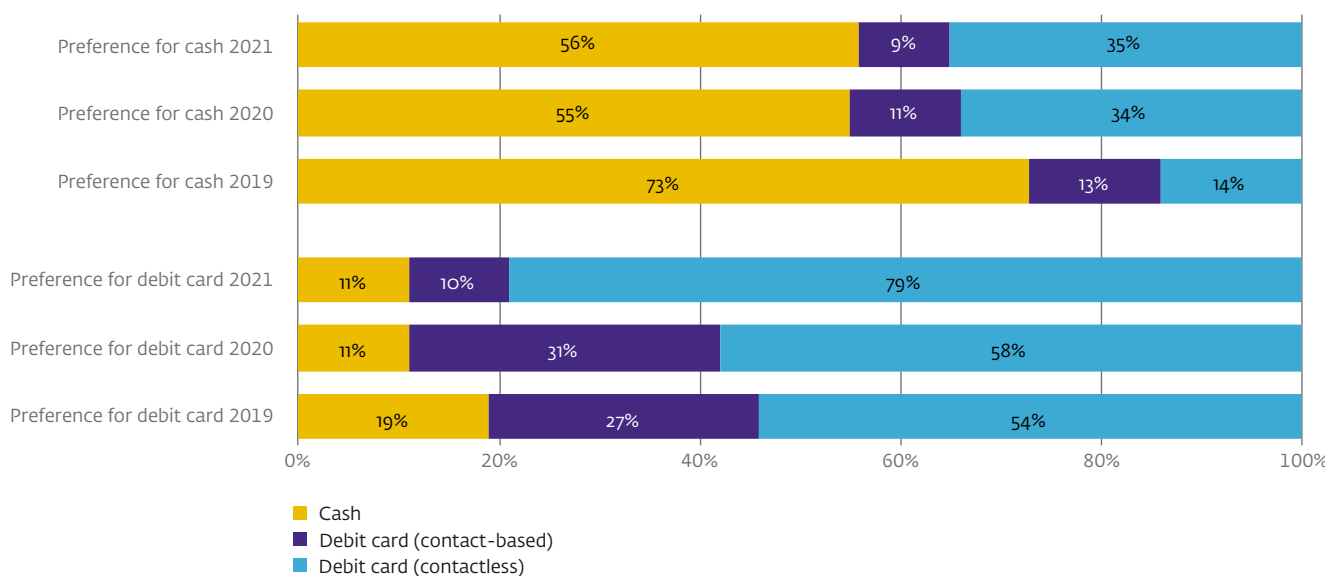


Preference versus behaviour

Consumers' preferences for certain payment methods and their actual use in practice do not always fully correspond due to habits, circumstances and other situation-specific preferences (such as payments for small amounts). In some cases, for example, people with a preference for debit card payments pay cash, and vice versa. As in 2020, consumers who expressed a preference for debit cards actually paid 89% of their purchases by debit card in 2021. This is a 8 percentage point decrease compared to 2019, before the pandemic.

Among consumers with a preference for cash, a greater shift in payment behaviour can be observed between 2019 and 2020. In 2019, they paid 73% of their supermarket purchases in cash. In 2020, this dropped to 55%. In 2021, this percentage remained virtually unchanged at 56%. The pandemic and the changes associated with it therefore mainly affected the payment behaviour of those with a general preference for cash.

Figure 8 Preference versus actual payment behaviour



Person-to-person (P2P) payments in 2021

Use of payment methods in P2P payments

In 2021, there was a further shift in consumer transactions from cash to electronic payments. In 2021, consumers made a total of 531 million P2P transactions. This is comparable to 2020, when the number of P2P transactions amounted to 533 million. Of these transactions, 39% were cash. This represents a drop of 5 percentage points compared to 2020. Online banking, payment apps on mobile phones and payment request services such as Tikkie, Betaalverzoek from ING and Rabobank, PayPal, Bunq app and the like have paved the way for consumers to make over 61% of their P2P transactions electronically. Dutch consumers use other payment methods, such as gift vouchers, in 0.2% of transactions.

The total value of P2P transactions was €21.5 billion in 2021, a decrease of 5% compared to 2020 when the value was €21.9 billion. Dutch consumers make 69% of their P2P payments (€14.9 billion) electronically via online banking or mobile banking, whether or not initiated through app-based payment requests. Cash made up 30% of the value of all P2P transactions in 2021, which is down 7 percentage points from the 2020 share of 37%. At 30%, the share of cash in the total value is smaller than in the total number of payments (39%). This indicates that the Dutch use cash relatively often for small amounts, and that they prefer an electronic payment method for higher amounts. The differences are smaller than last year, which indicates that an increasing number of Dutch people started to use an electronic payment method for lower amounts in 2021.

Figure 9a Share of payment method in total number of P2P transactions

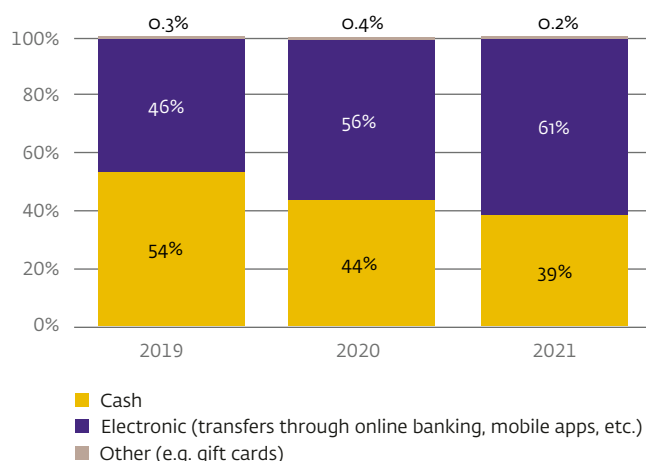
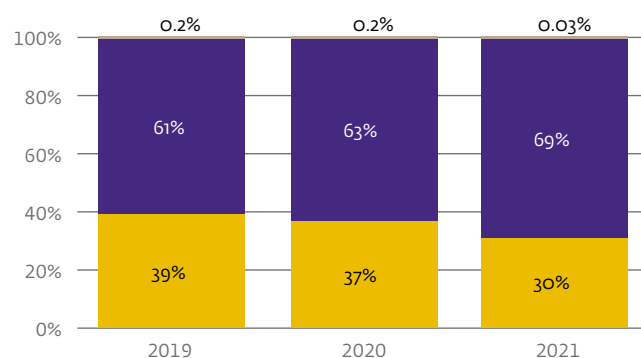


Figure 9b Share of payment method in total value of P2P transactions



P2P payments by purpose

We distinguish two categories of P2P transactions: 1) payments for school, sports and other informal activities (61.7 million transactions), such as a present for a teacher, the school Christmas dinner or a pancake tournament at a sports club and 2) transactions involving family, friends, colleagues and other acquaintances (469.5 million transactions). A total of 531.2 million transactions were involved (see Figure 10a), with a total value of €21.5 billion (see Figure 10b).

Dutch people made 36% of their payments for school, sports and other informal activities in cash and 64% electronically, either via online or mobile banking. The use of electronic payment methods increased by almost 6 percentage points in 2021 compared to 2020, mainly at the expense of cash

transactions. A similar trend can be observed in payments to family, friends, colleagues and acquaintances: cash was used for these payments in 39% of cases, compared to 46% in 2020. This decrease in the share of cash is entirely in favour of the share of electronic P2P payments, which increased by 7 percentage points, from 53% in 2020 to 60% in 2021.

Dutch consumers paid 27% of the total value of P2P payments for school, sports and other informal activities by cash and 73% by electronic means. In 2020, these percentages were 29% and 71%, respectively. Of the total value of payments to family, friends, colleagues and acquaintances, they paid 31% in cash and 69% by electronic means. In 2020, the share of cash in the value of these payments was 37%.

Figure 10a Share of payment methods in total number of P2P transactions by purpose

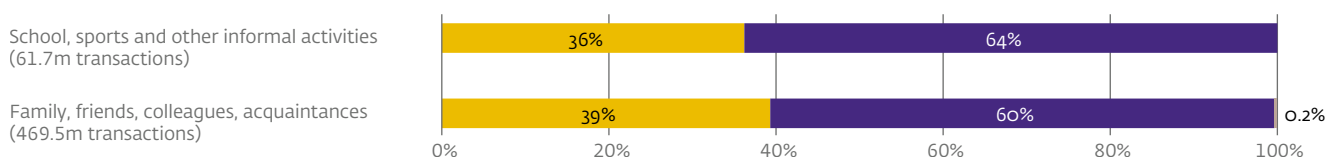
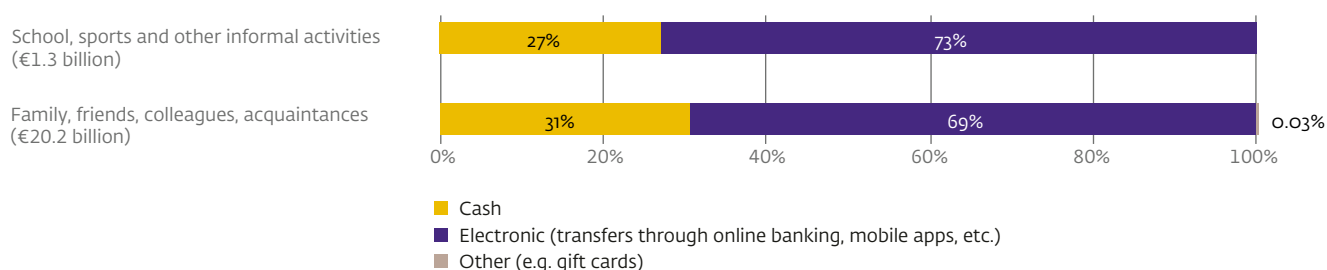


Figure 10b Share of payment methods in total value of P2P transactions by purpose

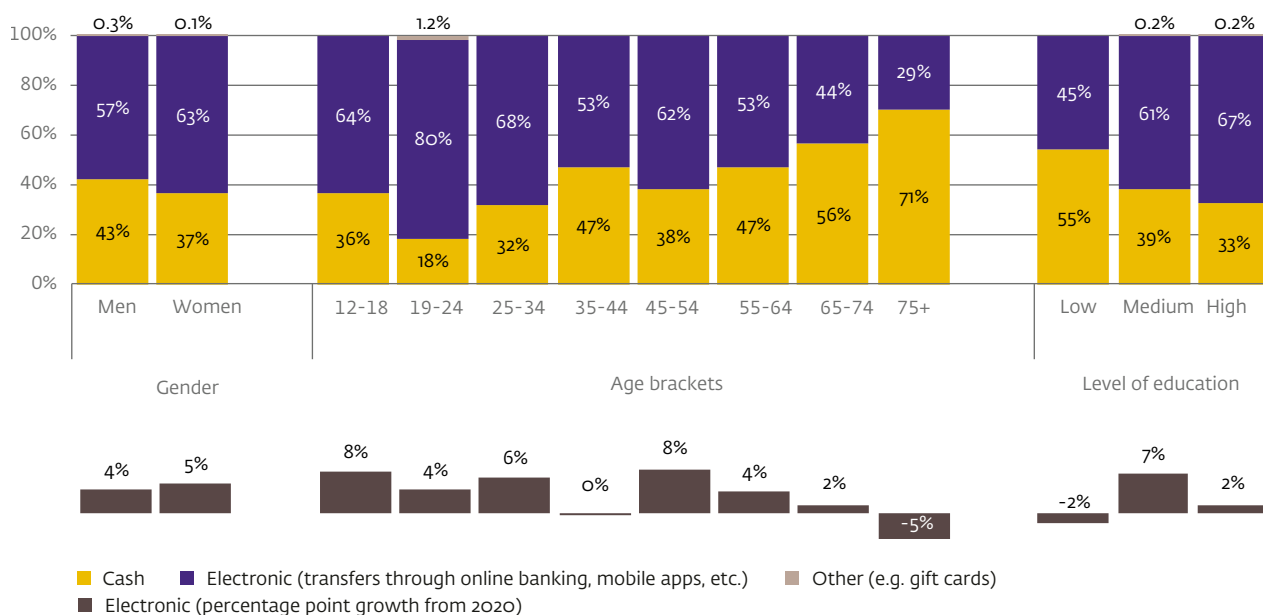


P2P payments by demographics

Most demographic groups use electronic payment methods for P2P payments more often than cash, with the exception of Dutch people with a relatively low level of education and those over 65 years of age. For the group aged 75 and older, the use of electronic payment methods for P2P payments decreased by 5 percentage points in 2021 compared to 2020. This was the group of Dutch people whose use of electronic payment methods for P2P payments had increased most (by 20 percentage points) in 2020. The use of electronic payment methods for P2P payments also decreased by 2 percentage points among those with a relatively low level of education.

The use of electronic payment methods for P2P payments increased most in the 45-54 age group, with 8 percentage points. This means they made 62% of their P2P payments using electronic methods. In 2019, this percentage was 46%. The use of electronic payments among the under-18s also increased. They made 64% of their P2P payments electronically, while in 2020 they used an electronic method in 36% of cases. In 2019, this was still 38%. In 2021, we see that the difference in the use of electronic payment methods between men and women has again increased slightly. Women now make 63% of their P2P payments electronically, compared to 57% of men.

Figure 11 Share of payment methods in P2P payments by gender, age group and level of education



Survey characteristics

Market research bureau IPSOS collected data among 24,713 respondents for the 'Point-of-sale payments in 2021' study, carried out by DNB and the Dutch Payments Association.

Research questions:

- What are the total number and total value of payments made in the Netherlands in 2021, broken down by payment method?
- In 2021, which payment methods did residents of the Netherlands use most often in the three sectors with the most payments?
- How has the use of cash and debit cards developed since 2010?

Survey scope:

- Payments made in the Netherlands by residents of the Netherlands aged 12 and over.
- Payments made at points of sale – such as shops, cafés, restaurants, hotels, petrol stations, service providers, markets and vending machines – and person-to-person payments.
- Online purchases and transfers of money for fixed charges etc. were excluded from the study.

Survey method:

- Single-day transaction diary and web-based questionnaire or telephone interview.
- The field work was carried out between January and December 2021.
- Respondents represent a true reflection of the population of the Netherlands in terms of gender, age, ethnicity, education, region and income.

General comments:

- Debit card (contact-based and contactless) and contactless payment data are from the Dutch Payments Association, and credit card estimates are derived from regular DNB statistics.

Contact details

Jelmer Reijerink: j.m.t.reijerink@dnb.nl;

Patricia Zwaan: p.zwaan@betaalvereniging.nl