

Point of sale payments in 2020

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 2020.

Use of payment methods, 2010-2020

In 2020, consumers in the Netherlands not only made fewer payments at points of sale (POS), but they also made use of a wider range of payment methods. Opting less often for cash and traditional debit card payments they have increasingly switched to contactless payments using their debit cards, smartphones or wearables.¹ For example, in 2020 consumers used cashless methods almost four times as often as cash to pay for their purchases from shops, petrol stations, cafés and restaurants, market vendors, service providers and the like.

The number of cash payments fell by 70% between 2010 and 2020, from 4.37 billion payments in 2010 to 1.30 billion in 2020, while their total value decreased by 59%, from EUR 52 billion to EUR 21 billion. The average amount paid in cash was EUR 16.40 in 2020, which is slightly higher than in 2019, when it was EUR 14.10, and more than EUR 4 higher

than the average amount paid in cash in 2010, which was EUR 11.80.

The number of cashless payments more than doubled between 2010 and 2020, from 2.15 billion to 4.87 billion. The total value of cashless payments rose by 55%, from EUR 81 billion to EUR 125 billion. In previous years, consumers used their debit cards to make increasingly smaller payments. In 2020, however, the average amount paid using the debit card increased by 4%, from EUR 24.64 to EUR 25.73. This marked the first-ever increase in the average amount paid with debit cards. This increase can be attributed to the changed purchasing behaviour of consumers since the outbreak of COVID-19 in the Netherlands in mid-March 2020. Since then, consumers have been making fewer payments while the average payment amount at brick-and-mortar points of sale has been higher.

Figure 1a Total number of payments

In billions

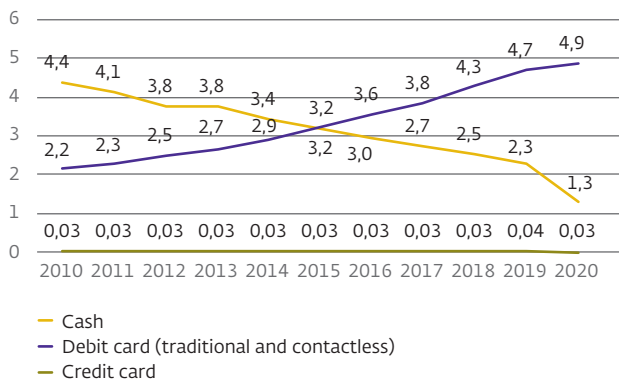
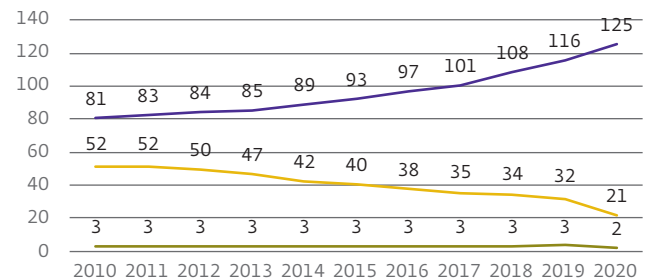


Figure 1b Total value

In EUR billion

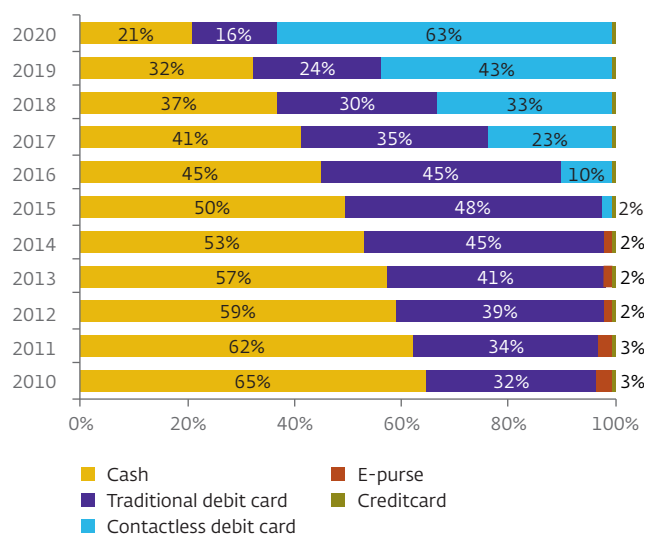


¹ The traditional debit card payment method involves inserting the card into the POS terminal and confirming payment by entering a PIN. Contactless payment methods involve briefly holding a card, smartphone or wearable close to the POS terminal. Often, there is no need to enter a PIN. Consumers must enter a PIN only to confirm individual payments in excess of EUR 25 and consecutive payments exceeding a EUR 50 threshold. These limits have been temporarily raised to EUR 50 and EUR 100, respectively, due to the COVID-19 pandemic. Contactless payments using a wearable, such as a smartwatch, ring, watch, bracelet or key fob fitted with an NFC payment chip, work in the same way.

Relative use of payment methods, 2010-2020

The share of cash payments in total POS payments fell by 11 percentage points in a year's time, from 32% in 2019 to 21% in 2020. This is the largest drop in cash usage since 2010. The combined share of traditional and contactless debit card payments amounted to 79%. The share of contactless (with and without PIN code) payments at points of sale increased by 20 percentage points, from 43% in 2019 to 63% in 2020, while the share of traditional debit card payments fell by 8 percentage points, from 24% to 16%. This meant that, for the first time, the share of traditional debit card payments was smaller than the share of cash payments (21%).

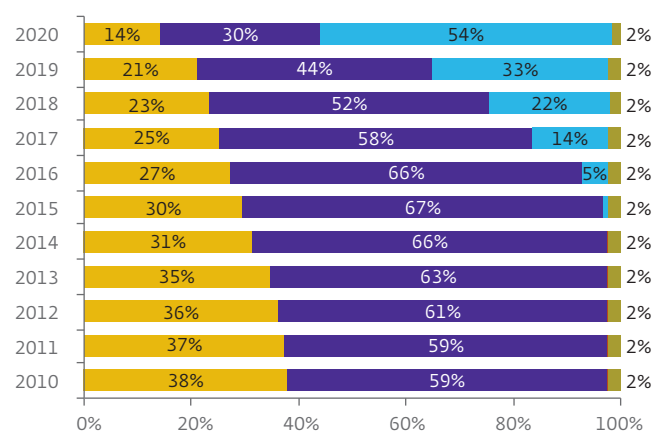
Figure 2a Breakdown of total number of payments by payment method



The share of credit card payments in the total number of payments was 0.5%, which is comparable to previous years.

Looking at the total value of POS payments in 2020, 14% was paid with cash and 84% using the debit card (30% traditional and 54% contactless). Between 2019 and 2020, the share of contactless debit card payments expressed as the value of POS payments increased by 21 percentage points, while cash payments fell by 7 percentage points and the share of traditional debit card payments dropped by 14 percentage points. The share of credit card payments was 2% in terms of value.

Figure 2b Breakdown of total value of payments by payment method

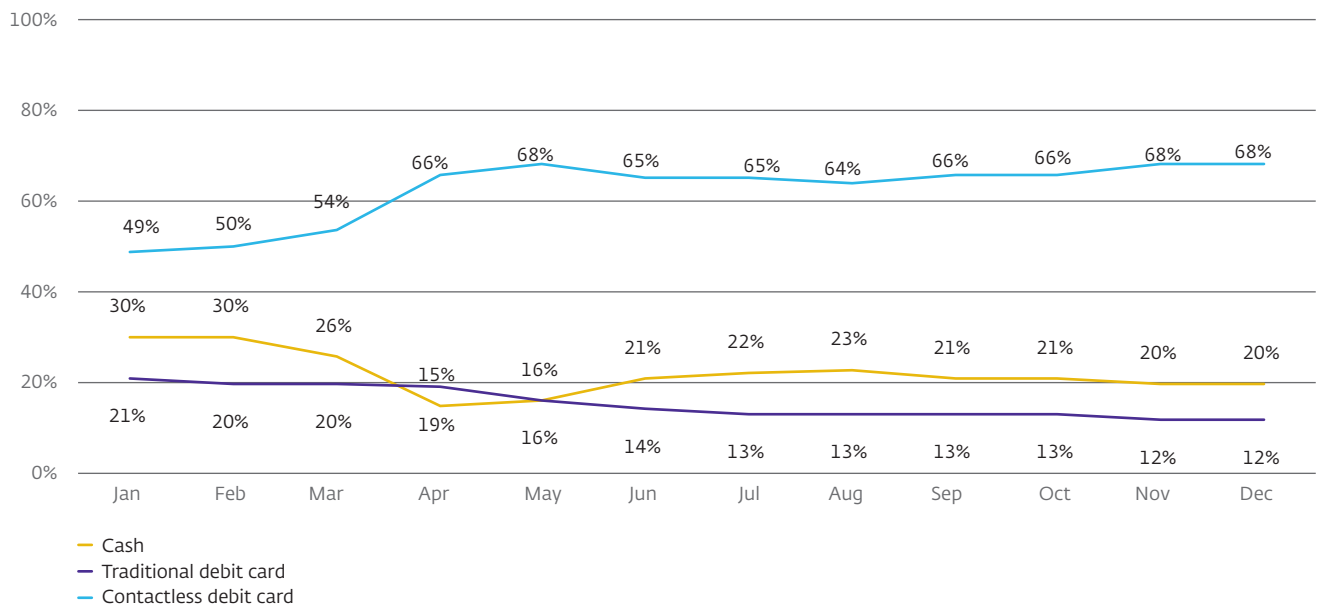


Relative use of cash and debit card during 2020

COVID-19 had a major impact on payment patterns in 2020. Gradual changes in consumer behaviour suddenly accelerated as a result of the pandemic. Since the beginning of the first lockdown in mid-March, for example, the popularity of contactless payments has increased significantly, at the expense of cash and traditional debit card payments.

Although the proportion of cash payments increased slightly to 23% in August after the dip to 15% in April, it appears to have stabilised since then at around 20%. The second lockdown, which started in September/October, and the third, which began in December, had little effect on payment patterns.

Figure 3 Monthly breakdown of point of sale payments by payment method



Use of payment methods by amount

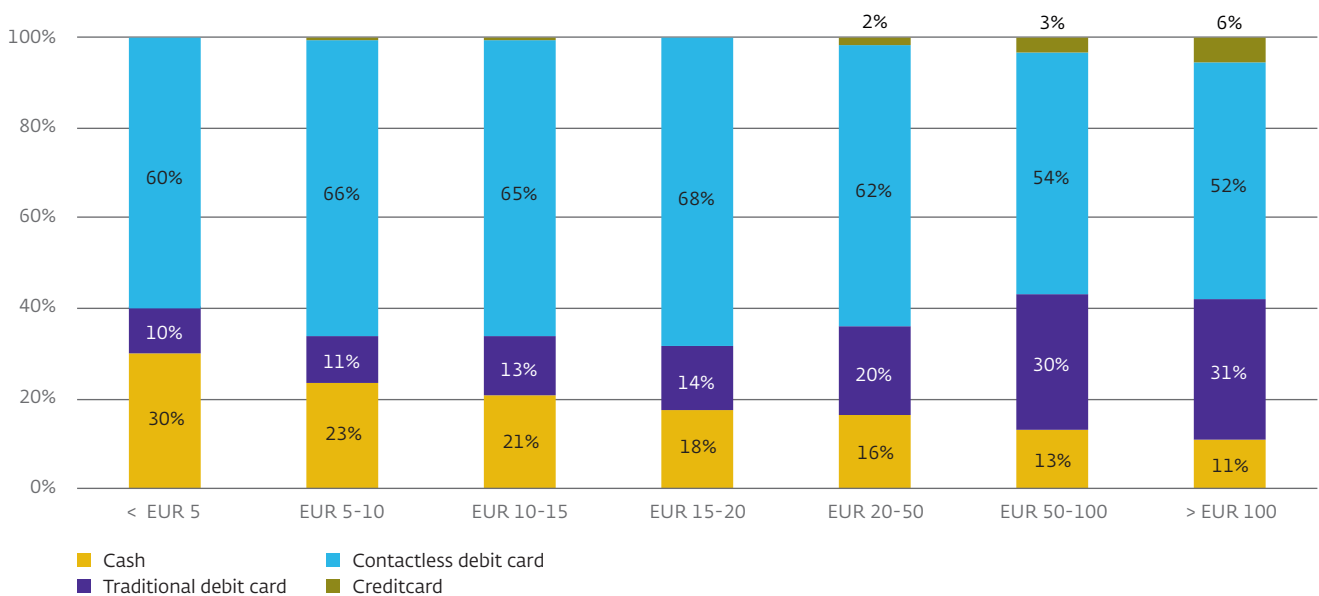
For all spending ranges, consumers most often opted for contactless payments in 2020. As in previous years, consumers were less likely to pay with cash for larger purchases, preferring electronic payment methods instead.

Unlike previous years, payment patterns for large amounts saw bigger shifts than those for small amounts. In 2020, 52% of all purchases above EUR 100 were made using contactless payments (including PIN code), 31% through traditional debit card payments and 11% in cash. In 2019, only 19% of these payments were contactless, while

traditional debit card payments were used for 56% of these purchases and cash payments accounted for 21%. A similarly significant shift occurred in purchases between EUR 50 and EUR 100.

The change in payment patterns is largely 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.²

Figure 4 Breakdown of payment methods by spending range



² From the start of the pandemic, the Dutch government has indicated that cash payments should remain possible, in line with the Dutch National Institute for Public Health and the Environment's (RIVM) assessment that the risk of infection as a result of touching products, surfaces or cash is very small.

Use of payment methods by sector

The impact of the COVID-19 pandemic on the payment behaviour of Dutch consumers varies greatly from one sector to another. The most notable shifts in payment behaviour have occurred in sectors where cash was still the most common payment method prior to the pandemic. Consumers now prefer electronic payment methods over cash across all sectors, with contactless payments outstripping traditional debit card payments (see Figure 5a). This was not yet the case in 2019. The average amount increased by 12%, from EUR 21.56 in 2019 to EUR 24.04 in 2020 (see Figure 5c).

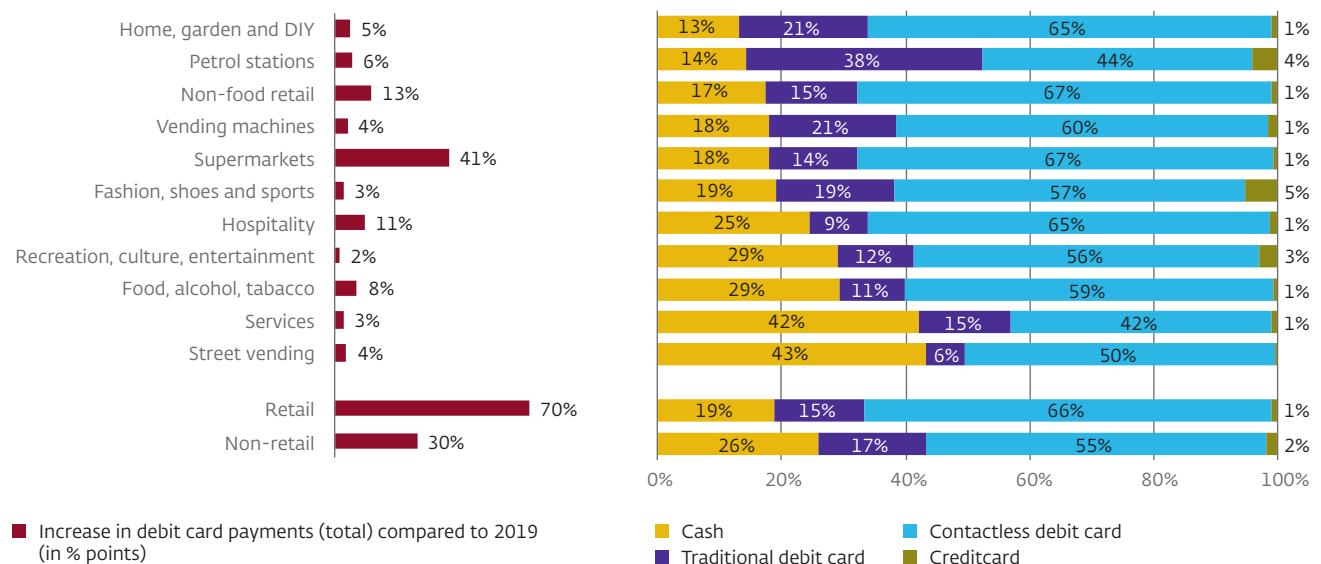
Most purchases are made in supermarkets. During the pandemic, this sector's market share in terms of total number of payments increased from 37% to 41%, while its share in terms of total value of consumer spending rose from 30% to 34%. The average amount in supermarkets also grew in 2020 compared to 2019, from EUR 17.79 to EUR 20.27 – a 14% increase. As in most other sectors, consumers opted for contactless payments more often, while traditional debit card and cash payments decreased in popularity. In 2020, consumers used contactless payments for two thirds of their supermarket purchases, an increase of 20 percentage points compared to 2019. The share of cash payments in supermarkets fell from 30% to 18%, while traditional debit card payments dropped from 23% to 14%. The pattern is similar

when expressed as a proportion of supermarket turnover. Contactless payments accounted for 61% of total supermarket turnover in 2020, compared to 36% in 2019, whereas the share of traditional debit card payments decreased from 37% to 24% and that of cash payments from 26% to 15%.

Street vendors – such as market vendors, food trucks and flower stalls – have seen the sharpest decline in cash payments. In 2020, consumers paid for 43% of their purchases from street vendors in cash, down from 74% in 2019 – a decrease of 31 percentage points. In terms of value, the decrease in the share of cash was slightly smaller, dropping by 27 percentage points to 29% of total turnover in 2020. Consumers opted for contactless payments over cash much more often.

Consumers still regularly paid service providers such as hairdressers, nannies and odd-jobbers in cash in 2020 (42%), which is less often than in 2019, when cash accounted for 50% of all payments – a decrease of 8 percentage points. Contactless and cash payments are now equally common for these types of services. Cash transactions made up 30% of total turnover in this sector in 2020, down 8 percentage points compared to 2019. Still, the services sector had the highest percentage of cash payments in 2020. In previous years, this was street vending.

Figure 5a Breakdown of payment methods (in terms of total number of purchases) by purchase location



There has also been a relatively large shift from cash to contactless payments in specialty food shops, tobacconists and off licences, and in the recreational sector, where consumers paid for 29% of their purchases in cash, a decrease of 17 percentage points compared to 2019, while more than half of all payments were contactless. The share of cash in total turnover was 19% in both branches, a decrease of 10 percentage points compared to 2019 for food, tobacconists and off licences, and a modest 2 percentage points in the recreational sector. In both branches, the average amount paid rose relatively sharply, i.e. by 20% to EUR 17.94 in specialty food shops and by 17% to EUR 27.40 in the recreational sector.

Although many sectors have been affected by government measures to combat the pandemic, the hospitality sector has likely suffered the greatest impact. The market share of this sector's total POS turnover decreased from 11% in 2019 to 8% in 2020. As in other sectors, consumers are more likely to opt for contactless payments for their purchases (65% in 2020 vs. 48% in 2019) rather than cash (25% in 2020 vs. 37% in 2019) or the traditional debit card payment method (9% in 2020 vs. 14% in 2019). The share of contactless payments in hospitality

sales increased by 21 percentage points to 61%, which was at the expense of cash payments (-10 percentage points to 19%) and traditional debit card payments (-11 percentage points to 17%), in other words at a roughly equal proportion. The average amount paid in the hospitality sector increased by 10% to EUR 17.98.

The decline in the use of cash is rather small in sectors where consumers already tended to pay for their purchases with debit cards such as home furnishings, garden centres and DIY shops (13% in 2020 vs. 23% in 2019) and petrol stations (14% in 2020 vs. 19% in 2019). In the case of vending machines, the use of cash remained constant at 18%. Traditional debit card payments are most common at petrol stations, i.e. 38% of payment transactions. This is due partly to the fact that contactless payment is not yet available at most unattended petrol pumps. Of all the different sectors, only vending machines showed no change in the amount paid per purchase between 2019 and 2020, while the petrol station sector saw the most pronounced decrease in the amount paid per purchase: a drop of 7% to an average of EUR 29.07 in 2020.

Figure 5b Breakdown of payment methods (in terms of total value of purchases) by purchase location

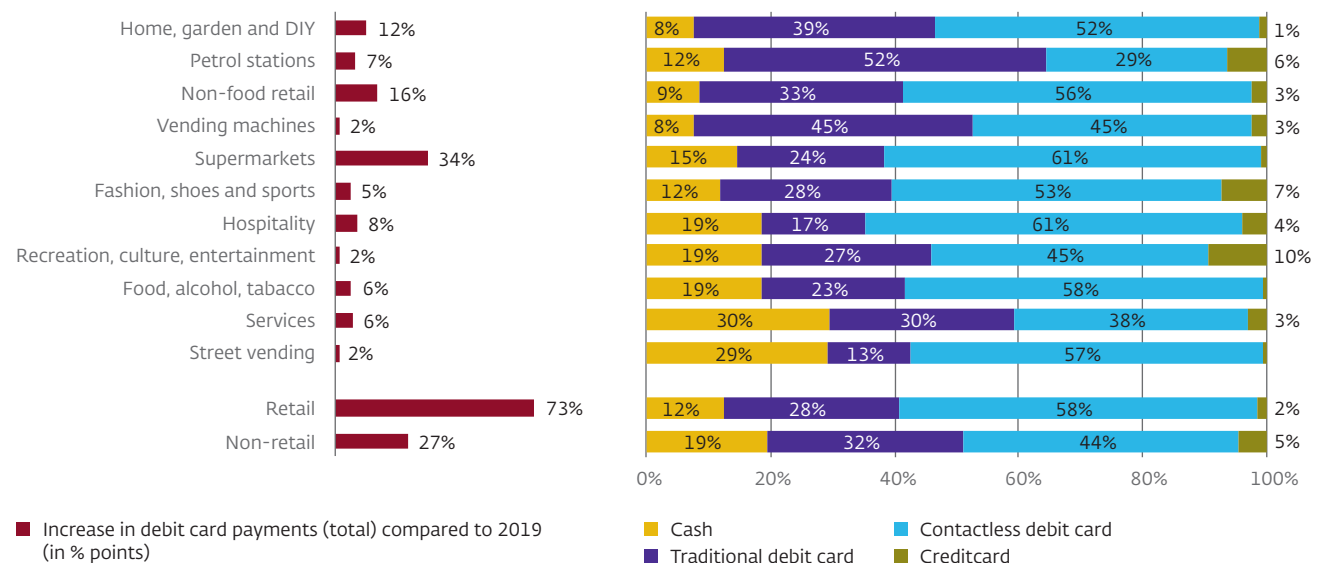
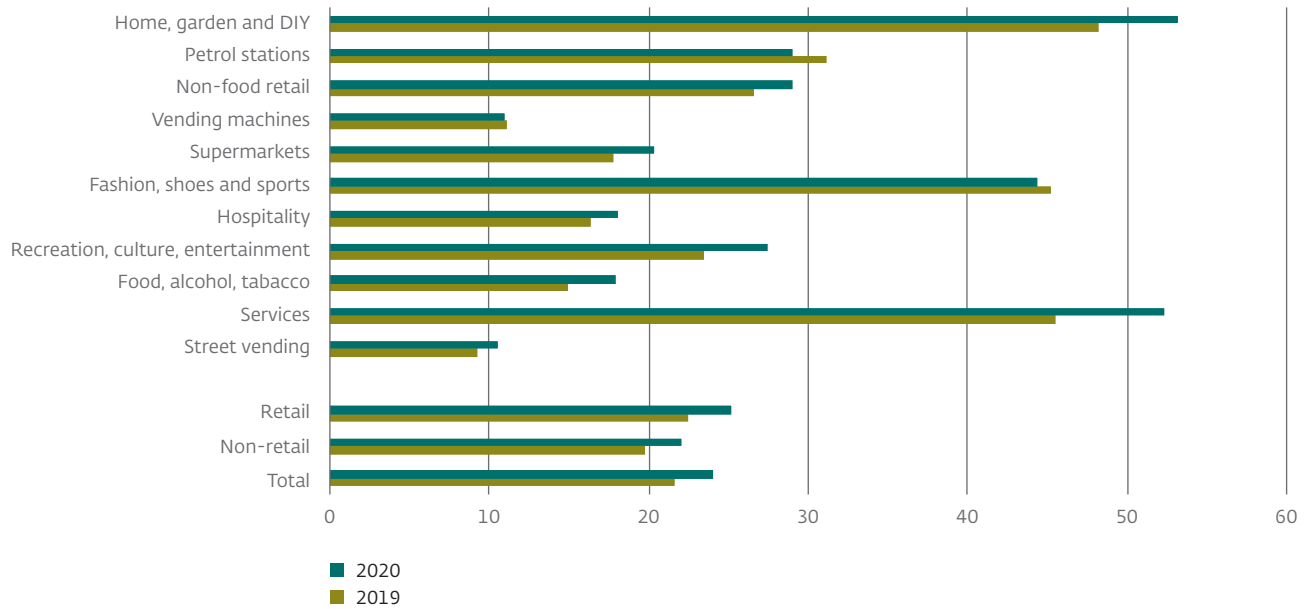


Figure 5c Average point of sale payment amounts in 2019 and 2020

In EUR



Use of payment methods, broken down by demographics

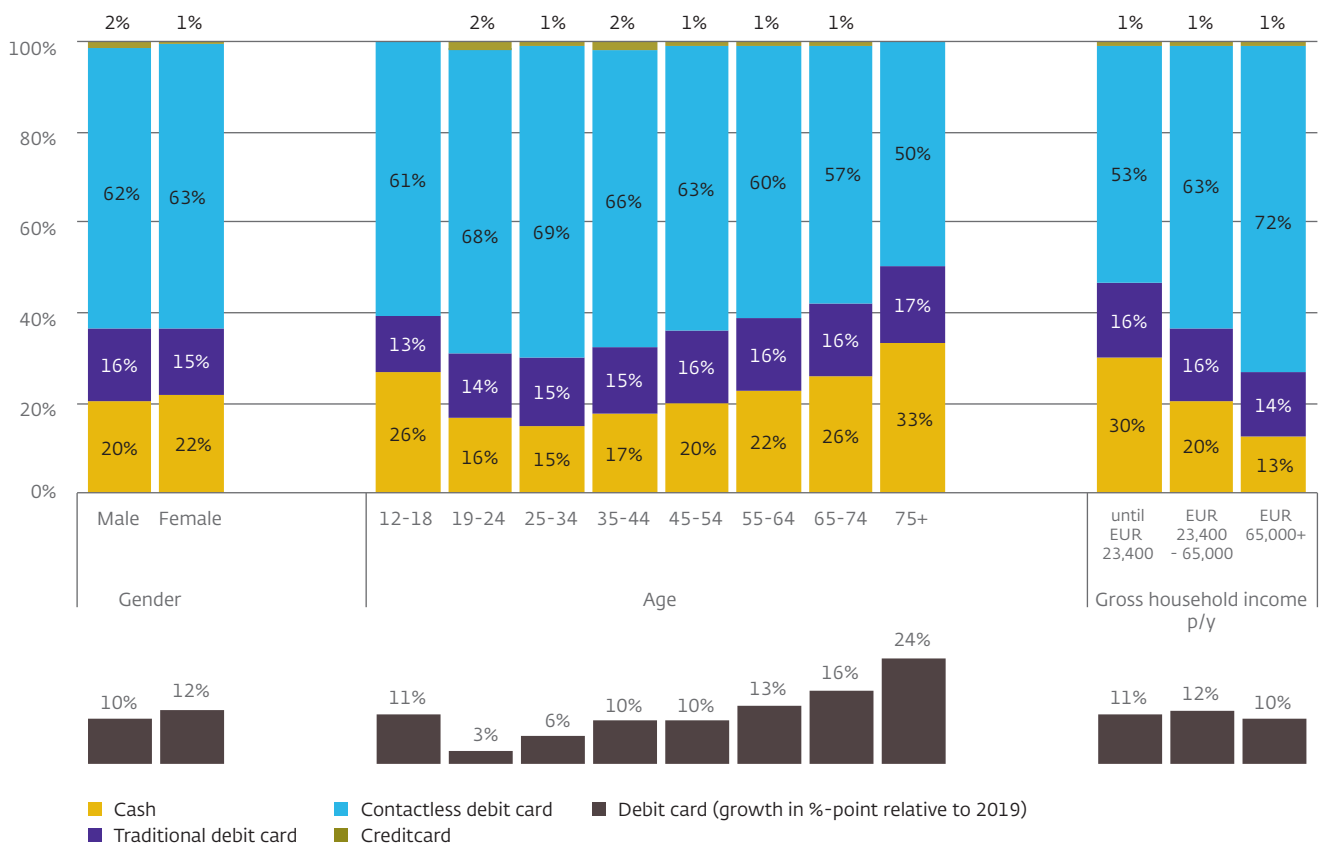
Consumers from all demographic groups were more likely to pay by debit card in 2020, especially using a contactless method, than in 2019 (see Figure 6a). Due to the strong increase in contactless payments – which, it should be noted, has also partly gone at the expense of traditional debit card payments – we are now seeing for the first time that consumers from all demographic groups use the debit card for more than two third of their purchases. The proportion of cash payments has decreased among all demographic groups, albeit to varying degrees.

The most striking differences are found in age and income. In 2019, those in the age range of 19-34 already paid by debit card the most and in cash the least. The change in payment behaviour was the smallest for this group in 2020. The most significant changes in payment behaviour last year are to be found among older demographic groups. For example, the proportion of debit card payments among 65-75-year-olds

rose by 16 percentage points. They used a contactless method to pay for 57% of their purchases and a traditional debit card for 16% of purchases. The jump of 24 percentage points among the over-75s is even more noteworthy. Among this latter group, the proportion of contactless payments more than doubled in the span of one year from 21% in 2019 to 50% in 2020.

Differences remain considerable between income groups. Consumers in the lowest income bracket are the most likely pay in cash, i.e. for 30% of their purchases, while those in the highest income bracket are the least likely to use cash, i.e. for 13% of purchases. People in all income brackets paid for their purchases more often by debit card and less often in cash in 2020. In contrast to the age brackets, however, here we do not see that the group that paid most often in cash in 2019 also booked the sharpest decline in the volume of cash payments a year later. Although consumers with a gross

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

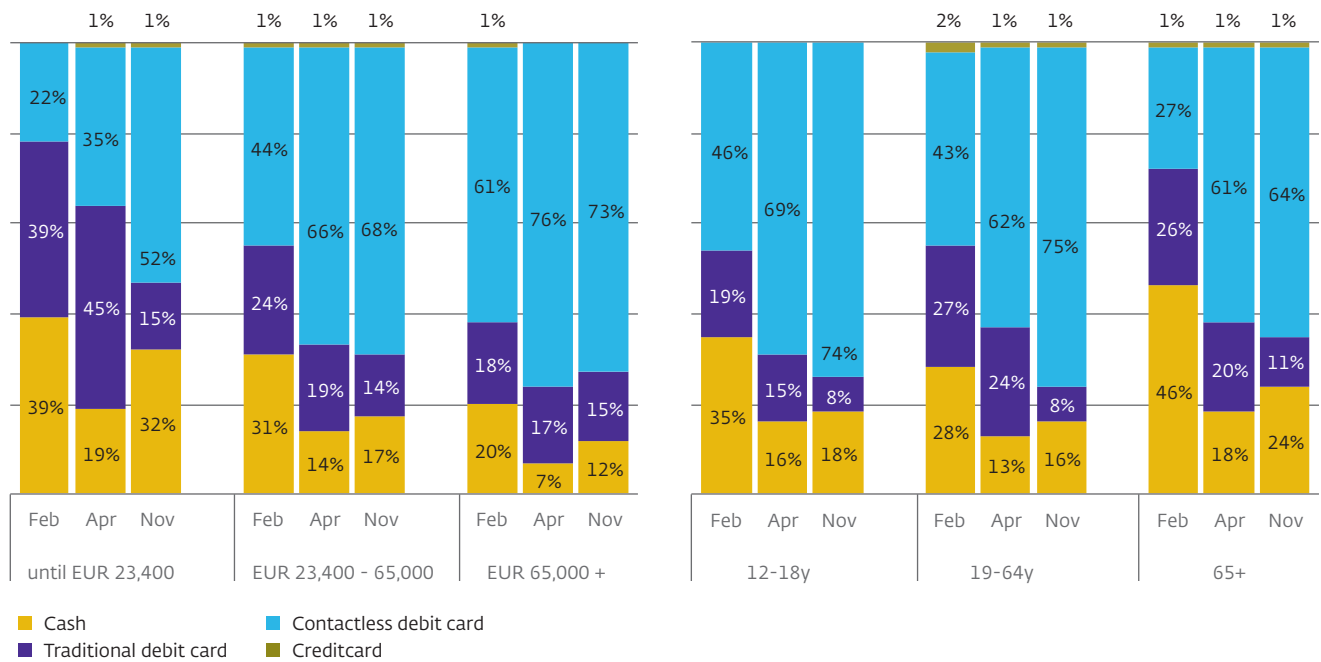


household income of up to EUR 23,400 did start paying in cash less often, the decrease of 11 percentage points is no more than average.

One reason for the difference in changing payment behaviour among the demographic groups can likely be ascribed to the Covid-19 pandemic and its influence on people's behaviour when paying for goods and services. Whereas most groups gradually started opting for cash payments again as of June following the first lockdown, the use of cash among consumers in the lowest income bracket has nearly recovered to the same level as before the first lockdown. Apparently, cash fulfils an important need for

this specific group. This does not seem to be the case, or at least to a far lesser extent, for older people, who were always thought to be relatively heavily reliant on cash. This group paid cash for 46% of their purchases in February, and only 18% by April. This was followed by a mild uptick, but the year-end rate of 24% still represents a drop by half compared to pre-pandemic levels. This may be attributable to this group's sensitivity to the potential adverse health effects associated with using cash during the pandemic. Another possibility is that many older consumers decided to take the plunge, as it were, and have since discovered the convenience of cashless payments.

Figure 6b Relative use by gross yearly household income and age bracket in 2020



Preference for cash or debit cards?

In 2020, 80% of consumers opted for debit card payments for POS transactions: 73% prefer debit card payments for all amounts, while 7% prefer the debit card except for low amounts, when they opt for cash. The general preference for debit cards payments increased by 5 percentage points in 2020, with a visible shift from traditional debit card payments to contactless transactions. On average, just over half of consumers preferred contactless payments in 2020, which is an increase of 14 percentage points compared to 2019 when

39% of consumers preferred contactless payments.

The share of consumers who prefer to pay in cash fell by 3 percentage points, from 23% in 2019 to 20% in 2020. Moreover, a decrease can be noted in the number of people who prefer debit card payments, except for low amounts, from 9% in 2019 to 7% in 2020. The shift in preference from cash to debit card is less pronounced than the shift in the actual use of cash to debit card.

Figure 7a Preference for cash or debit cards 2019

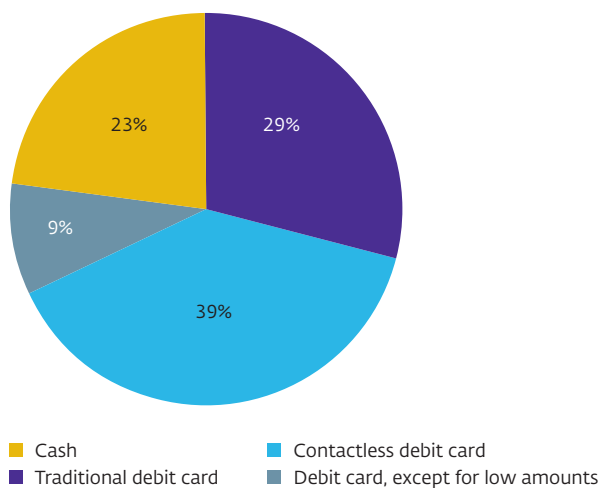
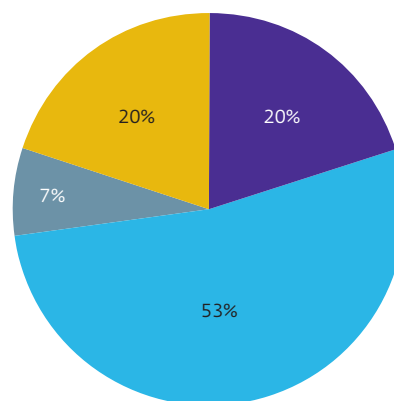


Figure 7b Preference for cash or debit card 2020

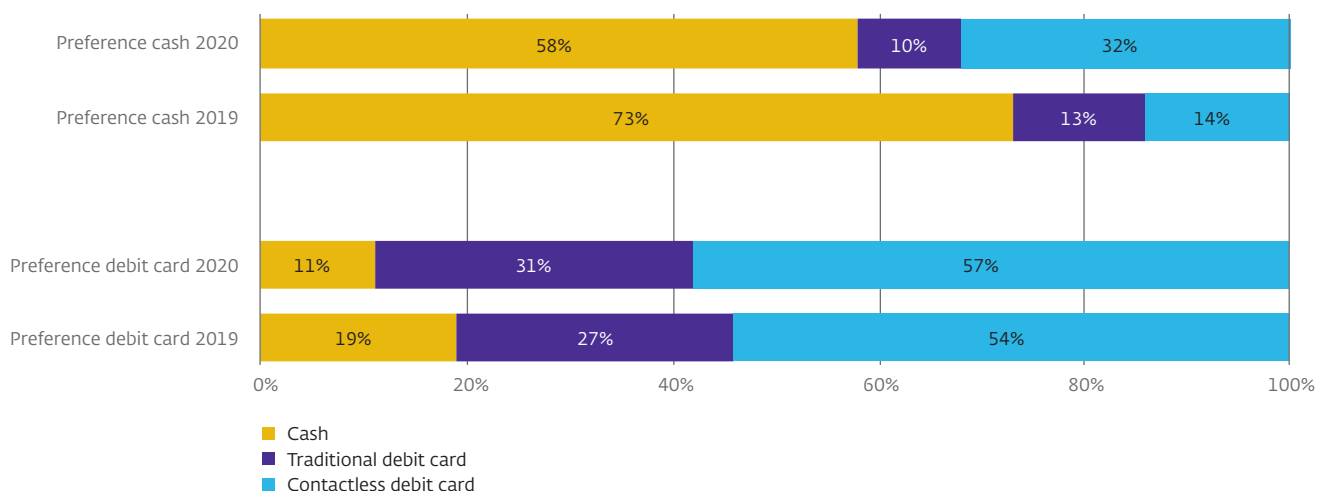


Preference versus behaviour

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. In the past, for example, the limited availability of POS terminals and the negative perception of debit card usage for small amounts played a major role, but this is hardly an issue nowadays. In general, the discrepancy between desired payment behaviour and actual payment behaviour has become less pronounced in recent years. In 2020, the discrepancy for people who prefer cash payments increased compared to 2019; these consumers

paid for 42% of their purchases by debit card in 2020, compared to 27% of their purchases in 2019. The pandemic likely caused these consumers to adjust their preferences, and it remains to be seen whether this shift is only temporary. Indeed, the majority of consumers still indicate that they paid for their purchases in accordance with their preferences. The discrepancy in payment behaviour narrowed among those who prefer the debit cards. They paid for 11 % of their purchases in cash in 2020, compared with 19% of their purchases in 2019.

Figure 8 Preference versus actual payment behaviour



Person-to-person (P2P) payments in 2020

Use of payment methods in P2P payments in 2020

Alongside POS payments, citizens also regularly make payments to each other (person-to-person – P2P). A total of 533 million such transactions were made in 2020, which is less than the 567 million P2P transactions in 2019. In 2020, for the first time, electronic payment methods were more common than cash for P2P transactions among residents of the Netherlands (44% of these transactions were in cash – a drop of 10 percentage points compared to 2019). Internet 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 people to make over 56% of their P2P transactions electronically, which is an increase of 11 percentage points

compared to 2019. Residents of the Netherlands use other payment methods, such as gift vouchers, in 0.4% of transactions.

The total value of P2P transactions was EUR 21.9 billion in 2020, a decrease of 5% compared to 2019 when the value was EUR 23.1 billion. Cash made up 37% of the value of all P2P transactions in 2020, which is only slightly lower than the 2019 share of 38%. Residents of the Netherlands make nearly 63% of their P2P payments (EUR 13.8 billion) electronically via internet banking or mobile banking, whether or not initiated through app-based payment requests. Other payment methods represent 0.2% of the total value.

Figure 9a Payment method as share of the total number of P2P transactions

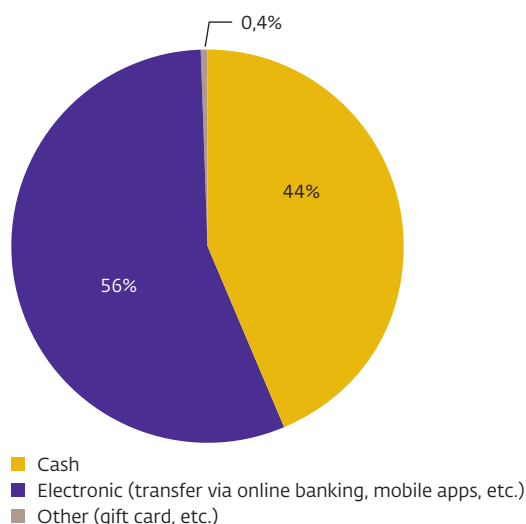
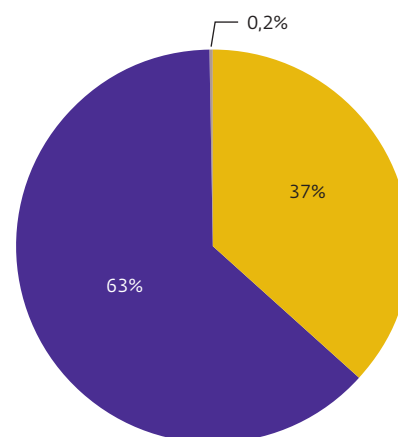


Figure 9b Payment method as share of the total value of P2P transactions



P2P payments by purpose

We distinguish two categories of P2P transactions:

1) payments to family, friends, colleagues and other acquaintances (472 million transactions); and 2) payments for school, sports and other informal activities (62 million transactions), such as a contribution to a gift for teacher, the Christmas dinner at school or the 'pancake tournament' at the sports club (Figure 10a).

In 2020, residents of the Netherlands used cash for 41% of the payments for school, sports and other informal activities. Nearly 58% of these payments were electronic, and just over 1% were made with a different payment method. The use of electronic payment methods increased by almost 14 percentage points in 2020 compared to 2019, mainly at the expense cash transactions. Residents of the Netherlands used cash less than half the time to make payments to family, friends, colleagues or other acquaintances. They used an electronic payment method 53% of the time. The method

chosen was mostly mobile banking, as it was in 2019. In 2019, 46% of these transactions were electronic, meaning a jump of seven percentage points in the span of a year.

Of the total value of payments for school, sports and other informal activities, Dutch residents paid 29% in cash, 71% by electronic means such as internet banking or mobile banking, and 0.3% by other means (Figure 10b). Of the total value of payments to family, friends, colleagues and acquaintances, they paid 37% in cash, 62% by electronic means, and 0.2% by other means.

The lower share of cash payments on the total value of P2P transactions than on the total number of P2P transactions indicates that residents of the Netherlands often opt to use cash for low amounts while preferring an electronic payment method for somewhat higher amounts.

Figure 10a Share of payment method as part of the total number of P2P transactions by purpose

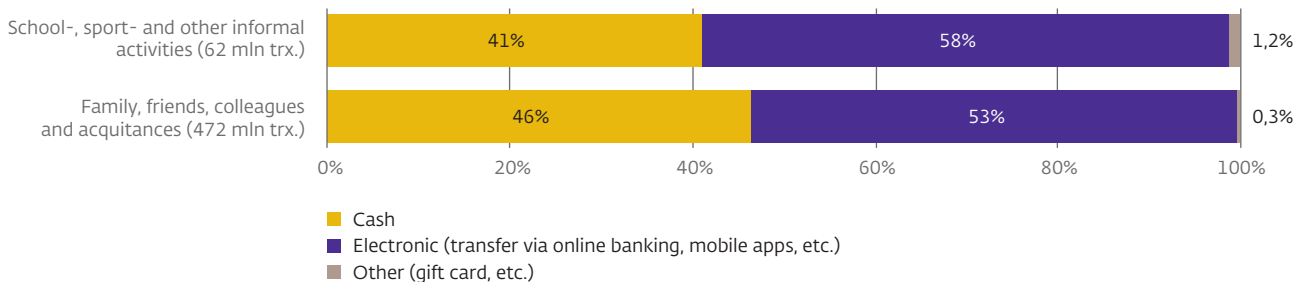
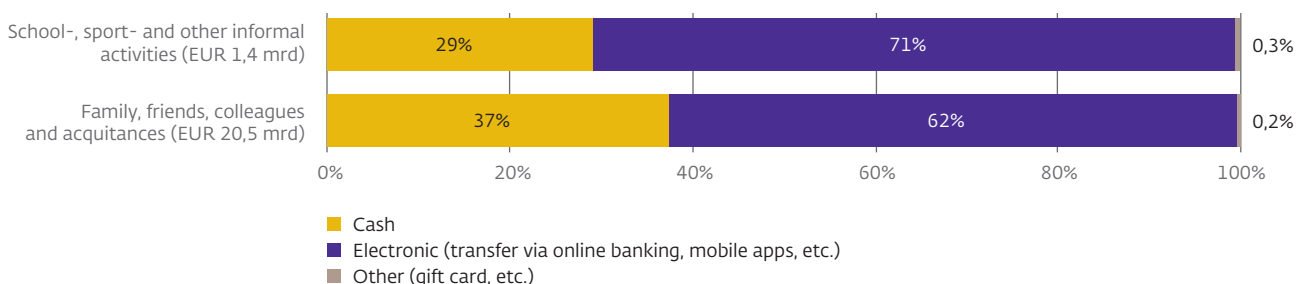


Figure 10b Share of payment methods on total value of P2P transactions by purpose



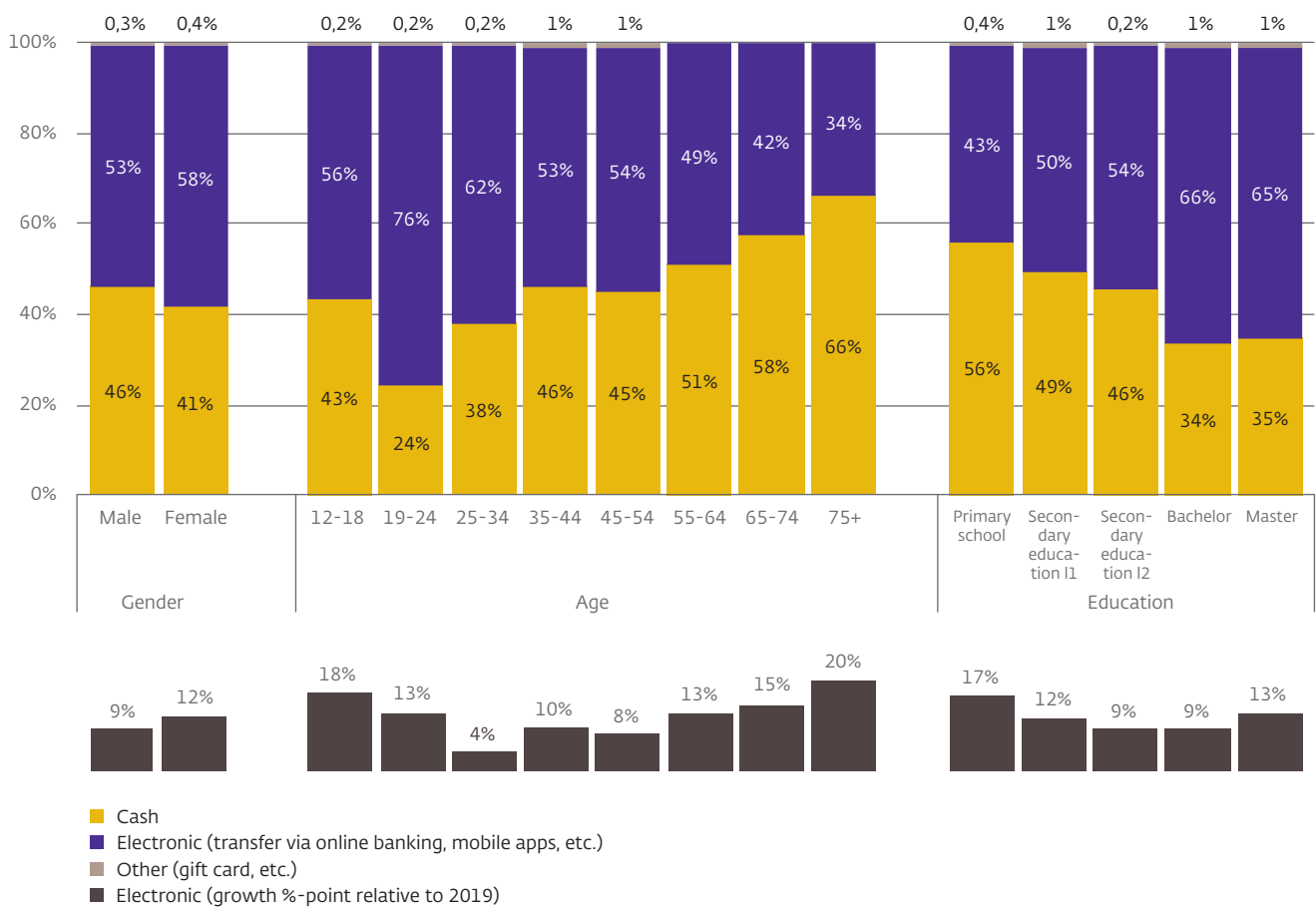
P2P payments by demographics

Most demographic groups use electronic payment methods more often than cash, with the exception of people with only a primary school education and those over 55 years of age. The use of electronic payment methods increased among all demographic groups in 2020. The smallest increase (4 percentage points) was among those in the 25-34 year age bracket: 62% of their P2P transactions were electronic in 2020. The biggest increase in electronic P2P payments (a jump of 20 percentage points) was among those aged 75 and over. This means that more than one third of this group used electronic means for P2P payments in 2020, up from 13% in

2019. The sharp increase in the use of electronic payments among the under-18s is also striking. They made 56% of their P2P payments electronically and 43% in cash in 2020, whereas in 2019 they still used cash for 60% of these payments and electronic means for 38% of payments.

Furthermore, the chasm is widening between women and men when it comes to making use of electronic payment methods. Women made 58% of their payments electronically in 2020 versus 53% for men, while these percentages were 46% and 44% a year earlier.

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



Consumer confidence in smooth payment processing by banks

Residents of the Netherlands were highly confident in banks' ability to process their domestic payments smoothly. Confidence in fact peaked just after the start of the first lockdown: they awarded banks an average score of 4.4 on a five-point scale, indicating high levels of confidence.

During the second wave of infections in October 2020, confidence edged down, but remained well above 4.2. Confidence rose again during the final months of the year, returning to the initial lockdown peak of 4.4 at year's end.

Figure 12 Confidence in payment systems



Note: The figure shows a 14-day moving average. Confidence was rated on a scale from 1 (very low confidence) to 5 (very high confidence).

Survey characteristics

Market research bureau IPSOS collected data among more than 24,498 respondents for the 'Point-of-sale payments in 2020' study, carried out by DNB and the Dutch Payments Association.

Survey questions:

- What are the total number and total value of payments made in the Netherlands in 2020, broken down by payment method?
- In 2020, 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?

Aspect boundaries:

- 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.
- Internet 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 2020.
- 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 (traditional and contactless) and contactless payment data are from the Dutch Payments Association, and credit card estimates are derived from regular DNB statistics.

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