

DANMARKS NATIONALBANK

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Cash payments are declining

More and more Danes opt out of using cash as a means of payment, and there is considerable evidence that this trend will continue in the future. However, an entirely cashless society is not envisaged in the foreseeable future.

34 per cent

of Danes do not carry cash. This figure has more than doubled since 2017.

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Kr. 27 billion

was used last year in cash payments between private individuals, corresponding to 36 per cent of all cash payments in 2019.

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Only 2 out of 10

payments among the oldest Danes were made with cash, which is a clear change in behaviour.

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Low use of cash

does not mean an entirely cashless society within the foreseeable future.

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One third of Danes do not carry cash for payments

Last year, 34 per cent of Danes did not generally carry any cash for payments. Especially among younger Danes, it was quite common not to carry cash, cf. Chart 1. This was pointed out by Danmarks Nationalbank's latest survey of Danish households' payment behaviour from the second half of 2019, cf. Box 1.

This figure reflects a significant change of behaviour in recent years, with many Danes having gone from carrying a small amount of cash to typically carrying no cash at all. The share of Danes not carrying cash has more than doubled – from 16 per cent in 2017 to 34 per cent in 2019, cf. Chart 2, meaning that almost one in five have stopped carrying cash during the last two years.

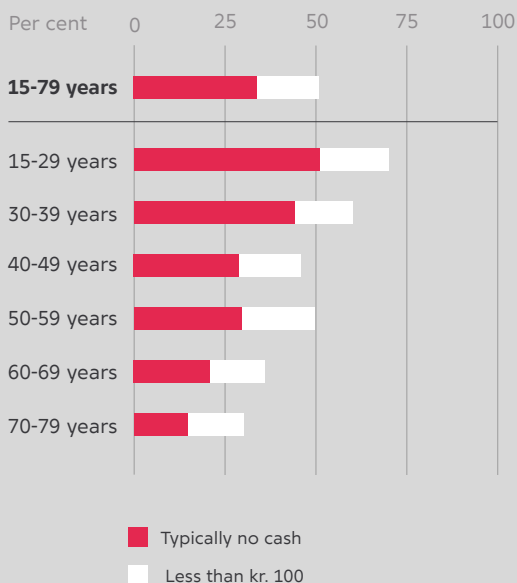
The trend towards completely opting out of carrying cash is broadly based across all age groups. This also applies among senior citizens over the age of 70, with more than one in ten having opted out of carrying cash entirely since 2017.

Last year, Danes had kr. 297 on average in their wallets, bags and pockets. Only 8 per cent of the population carried more than kr. 1,000 in cash.

Chart 1

Danes carry a small amount of cash – especially younger Danes

How much cash do you typically carry for payments?

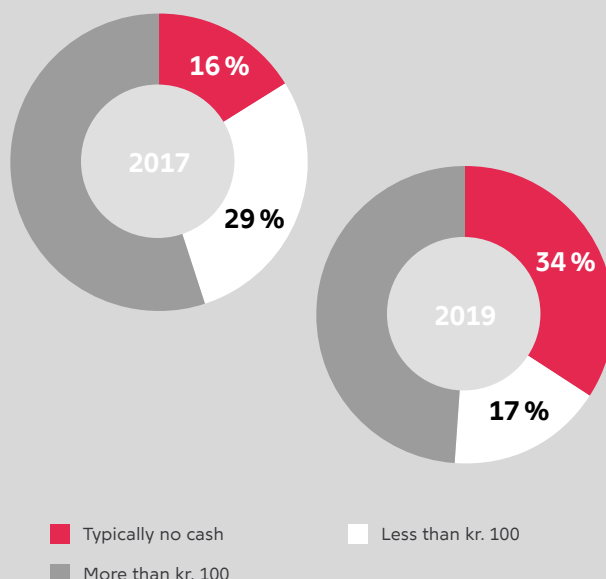


Source: Danmarks Nationalbank.

Chart 2

The share of Danes not carrying cash has more than doubled in two years

How much cash do you typically carry for payments?



Source: Danmarks Nationalbank.

Danmarks Nationalbank's survey of the payment behaviour of the Danish households

Box 1

In cooperation with Kantar Gallup, Danmarks Nationalbank has conducted a survey of the payment preferences of the Danish households, including their use of cash. The survey was conducted in the second half of 2019 and is based on responses from a representative selection of 1,136 Danes aged 15-79 years.¹

The selected Danes entered all their payments for an entire day in a payment diary. For each payment, the respondent stated several details, including the type of payment, e.g. cash or payment card.²

In addition to the payment diary, each respondent answered a number of questions regarding their payment preferences and view on cash, e.g. their preferred payment solution in physical trade. The payment diary and other survey information were collected during one month from 19 August to 22 September 2019.

The study is associated with a +/- 3 percentage point uncertainty for questions covering the entire group of respondents. The uncertainty is greater when breaking the survey down into age groups and sub-questions where the number of responses are lower.

1. The age group is assumed to represent all Danes' payments made last year, and payments made by Danes not covered by the above-mentioned age interval have therefore not been included in the analysis.
2. The survey also includes mobile payments, credit transfers and other types of transactions to private individuals, e.g. gifts.

Every sixth payment in physical trade was made in cash in 2019

Cash takes up less space when you pay for goods and services in stores. Danmarks Nationalbank has examined the Danes' use of cash for a number of years, and the number of cash payments in physical trade has declined from around 786 million in 2009 to around 342 million in 2019. This means that 16 per cent of all payments in physical trade were made in cash last year, equivalent to every sixth payment, cf. Chart 3.¹ By comparison, almost half of the physical trade payments made in 2009 were cash payments.

In recent years in particular, this area has seen rapid development. Firstly, the share of cash payments in physical trade has fallen from 23 per cent to 16 per cent of total payments from 2017 to 2019. Secondly, the total value of cash payments in physical trade declined by more than 40 per cent to around kr. 49 billion, meaning that cash payments only represented 10 per cent of the total transaction value in physical trade in 2019. However, the decline not only concerns the number of payments – the average

value of each cash payment has also been significantly reduced from 2017 to 2019, cf. Table 1 in the Table Annex.

Development driven by the oldest Danes in recent years

There are differences in the use of cash between the youngest and the oldest Danes, but the tendency to move away from cash is seen in all age groups. In particular, senior citizens' use of cash has declined in recent years: Among the 70 to 79-year-olds, 40 per cent of payments were made in cash in 2017. This figure was almost halved to 22 per cent in 2019, cf. Chart 4.

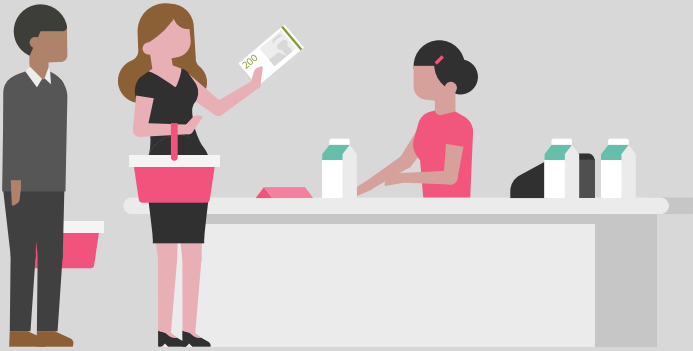
By comparison, the share of cash payments in physical trade fell from 9 per cent to 4 per cent among the 15 to 29-year-olds. Young people thus opt out of paying with cash in stores, but it is a change in behaviour among the oldest citizens which has been driving developments since 2017.

1 In the analysis physical trade includes all physical stores, staffed services in a bank or at the post office as well as self-service environments.

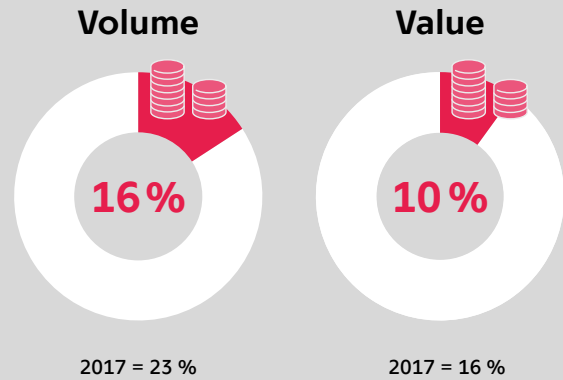
Chart 3

One in six payments in physical trade was made in cash in 2019

Share of total payments in physical trade made in cash



Source: Danmarks Nationalbank.



Danes opt out of using cash for larger payments in particular

The respondents were also asked about their preferred means of payment in connection with various payment situations in physical trade. The survey showed that the use of cash depends, to a large extent, on the size of the amount to be paid.

According to the survey, 38 per cent of Danes cited cash as one of their preferred means of payment for payments of kr. 50 in physical trade last year. For larger amounts, e.g. kr. 500, this figure was reduced to 16 per cent.

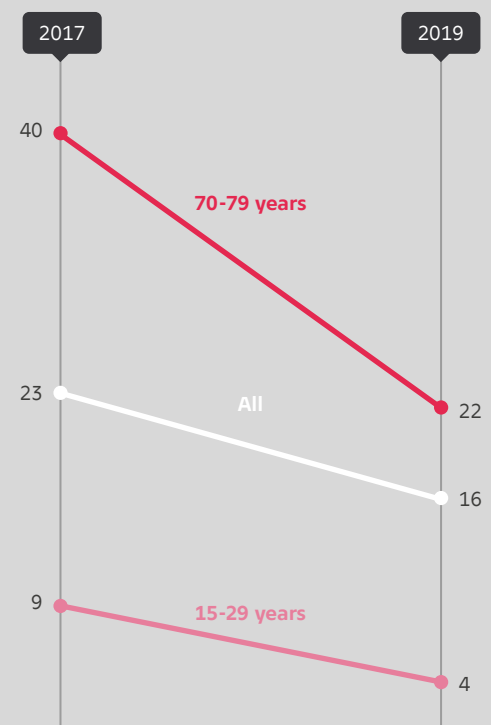
Conversely, eight out of ten Danes preferred to use a payment card for payments in physical stores, regardless of the amount. According to the survey, cash is thus less attractive than using a payment card – especially for large payments in physical trade.

In addition, the number of Danes who cited cash as one of their preferred means of payments has also declined since 2017. This applies regardless of the amount, but for small amounts in particular: The share of Danes having cash as one of their two preferred means of payment has been reduced by approximately 25 per cent in connection with physical trade payments of kr. 50. This can be ascribed to both young and senior citizens preferring payment solutions other than cash to a greater extent than previously.

Chart 4

Fewer people use cash in stores – especially the oldest Danes have changed behaviour

Share of total payments in physical trade made in cash



Source: Danmarks Nationalbank.

Cash also used for payments between private individuals

Cash also plays a role when private individuals make payments to each other. The survey showed that the total value of cash payments between individuals last year amounted to kr. 27 billion, corresponding to 36 per cent of the total value of cash payments made in 2019.

A large part of the cash transactions made between private individuals were gifts and pocket money, accounting for 42 per cent of the total transaction value of kr. 27 billion, cf. Chart 5. In addition, payments between private individuals accounted for 32 per cent of the total transaction value, with the remaining 26 per cent concerning bill sharing, loans etc. Cash is thus used for a wide range of payments between private individuals.

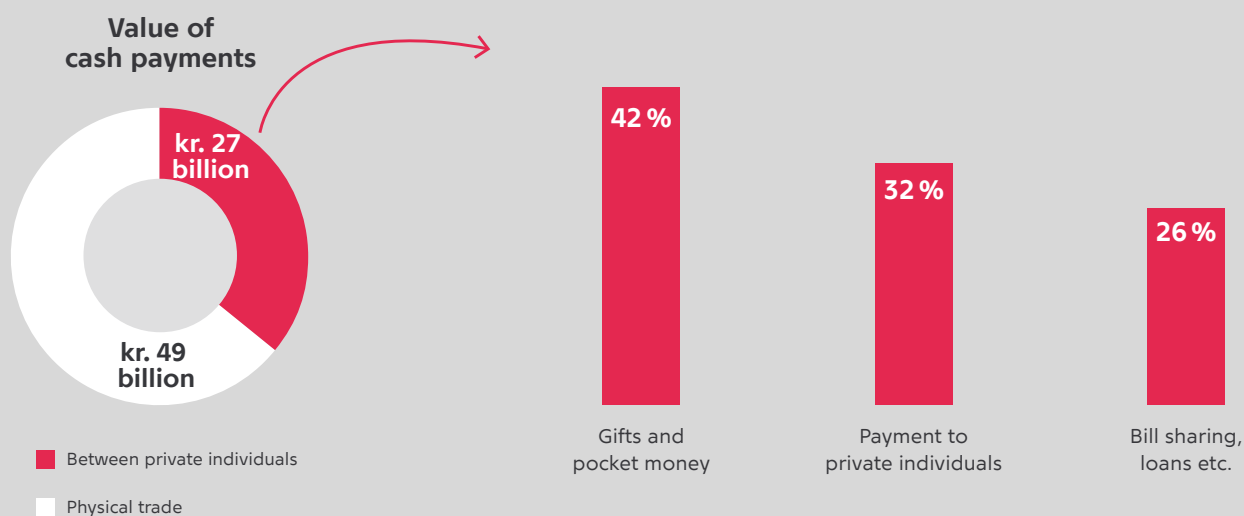
According to the survey, cash plays a bigger role in payments between individuals than in physical trade. One in six payments in physical trade was made in

cash, while approximately one in three payments between private individuals was made in cash in 2019.

Overall, around 120 million cash payments were made between private individuals last year, each payment having an average value of kr. 226 – especially driven by gifts. The remaining payments between private individuals were credit transfers via online banking as well as mobile payments.

Chart 5

Cash is used for several purposes between private individuals



Note: Distributed on the number of transactions, gifts and pocket money, payment to private individuals and bill sharing, loans etc. amounted to 39, 27 and 34 per cent, respectively, in 2019.

Source: Danmarks Nationalbank.

Nine out of ten Danes have access to at least three payment solutions in addition to cash

Electronic payment solutions available among Danes



Note: The payment solutions are divided into four categories: payment cards, MobilePay, other mobile payment solutions and credit transfers. Payment cards are regarded as one payment solution, regardless of the number of payment cards you have. The same applies to other mobile payment solutions. This means that persons with at least three payment solutions have at least one payment card, at least one mobile payment solution and the possibility of making a credit transfer.

Source: Danmarks Nationalbank.

New electronic payment solutions make cash less attractive

Over a number of years, Danes have been presented with new alternatives to cash when they pay for goods in a store or to a private individual. The Danes have embraced these new alternatives, including new mobile payment solutions.

According to the survey, nine out of ten Danes had access to at least three electronic payment solutions last year for making payments in stores or to private individuals, cf. Chart 6. In the vast majority of cases, the payment solutions cover one or two payment cards, MobilePay and credit transfers via online or mobile banking.²

The survey also showed that almost four out of ten Danes had access to at least four payment solutions. The fourth payment solution consists of other mobile payment solutions and includes the Dankort app, Apple Pay, Google Pay and PayPal. One of these solutions is typically available to Danes in addition to MobilePay, payment cards and credit transfers.

The impact of the individual payment solutions on the decline in the use of cash varies across physical trade and between private individuals. In order for electronic solutions to serve as an alternative to

² As a general rule, all Danes are entitled to and have access to a payment account allowing them to make credit transfers. Credit transfers are therefore added to the range of payment solutions available to Danes. The solution is not widely used in physical trade, but is often used for large transfers between private individuals.

cash, the solution must be widely used among both users and payees. It is not enough that the solution is widely used among either users or payees.

Mobile payment solutions like Apple Pay and MobilePay are good examples of solutions with different prevalence and levels of use. Apple Pay can be used in most physical stores,³ but the prevalence among users was relatively limited at the time of the survey being conducted. Conversely, the prevalence of MobilePay is very high among users, while it is more moderate in physical stores.

In general, the use of cash is reduced in step with an increase in the number of electronic alternatives. Danes with access to MobilePay use cash to a much lesser extent than the rest of the population. This applies to transactions both in stores and between private individuals.⁴ The same trend is seen for other mobile payment solutions in physical trade.

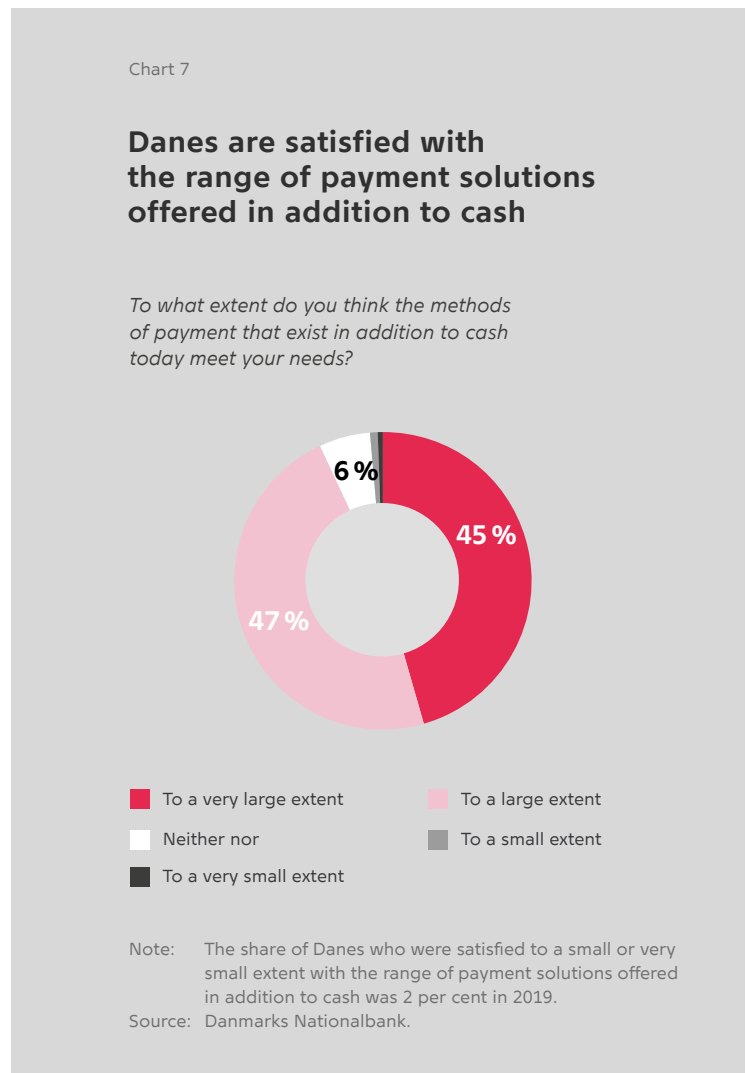
New solutions cover the needs of Danes

The various electronic payment solutions are widely used in the population, and the vast majority of Danes have a very positive view of the range of payment solutions offered, cf. Chart 7.

More than 90 per cent of the respondents indicate that they are satisfied with the range of payment solutions offered in addition to cash to a large or very large extent. This applies across the various age groups with younger Danes most positive about the range of solutions offered. More than 50 per cent of the respondents under the age of 40 stated that the electronic payment solutions cover their needs to a very large extent.

Only few respondents were to a small or very small extent satisfied with the range of payment solutions offered in addition to cash, equivalent to 2 per cent of the total population in 2019.

The prevalence of electronic payment solutions has also contributed to the fact that, according to the



survey, only 2 per cent of Danes have experienced that cash was the only means of payment available in physical trade. In the vast majority of cases, the new payment solutions thus cover the payment needs of Danes.

³ Apple Pay can be used in stores accepting international contactless payment cards, such as Visa and Mastercard.

⁴ Danes with access to MobilePay use cash payments for 14 per cent of their total payments in physical trade. For Danes not having MobilePay, 35 per cent of payments in physical trade were made in cash.

Development in the use of cash payments driven by demand

Stores in Denmark are generally required to accept cash, see Box 2. The survey also showed that the majority of Danes have never experienced problems with paying in cash in a store. Today, the vast majority of stores also accept a wide range of electronic payment solutions. Cash is thus no longer the only means of payment that is widely accepted in the physical stores.⁵

Compared to electronic payment solutions, it has become relatively slower to pay in cash in recent years. At the same time, increased security has in several cases changed the way payments in cash are made. Several stores have, for example, set up closed cash management systems for cash payments. This is reflected in the survey, as fewer respondents no longer find that cash is a quick way to make a payment: Since 2017, the share of Danes who believe that cash is a quick means of payment has been reduced by 35 per cent.

Danes are, according to the survey, free to choose between cash payment and electronic payment solutions. The decline in use of cash as a means of payment reflects the fact that the citizens are opting out of using cash. Thus, development is driven by a decline in Danes' demand for cash as a means of payment as consumers choose new payment alternatives.

Danmarks Nationalbank is the issuing authority of banknotes and coins, see Box 3. Danmarks Nationalbank expects that the use of cash as a means of payment will continue to decline as an increasing share of the population is opting out of cash.

However, cash is still used as a means of payment, especially between private individuals, and more than one in four Danes held cash savings in 2019. Therefore, Danmarks Nationalbank does not envisage an entirely cashless society within the foreseeable future.

⁵ According to the survey, 21 per cent of Danes indicated that the main benefit of cash is that it is accepted everywhere, as compared to 37 per cent in 2017.

The Danish cash rule

Box 2

The Danish legislation on payments is anchored in the EU Payment Services Directive. However, Danish legislation contains a special obligation on payees to accept cash in certain payment situations.

The cash rule entails that physical stores may not reject cash if the store is staffed and receives electronic payment instruments, e.g. payment cards. The cash rule does not apply to remote transactions, including online transactions and unstaffed self-service environments, e.g. unstaffed petrol stations. In addition, other exceptions apply to the cash liability.¹

With the implementation of the Danish Payments Act (*Lov om betalinger*),² which entered into force on 1 January 2018, staffed stores will no longer be obliged to receive cash from 10 pm to 6 am. In areas with a high risk of robbery, the cash rule does not apply from 8 pm. However, the Minister for Industry, Business and Financial Affairs may lay down rules by which certain types of payees, e.g. 24-hour pharmacies, are always obliged to receive cash.

1. The Danish Money Laundering Act (*Hvidvaskloven*) prohibits retailers from receiving cash payments of more than kr. 50,000. Also, no retailer is obliged to receive more than 25 coins per coin type, i.e. a maximum of, for example, 25 1-krone coins.
2. Executive Order on Payments (*Bekendtgørelse af lov om betalinger*), see Consolidated Act no. 1024 of 3 October 2019 (*link*) – in Danish only.

Cash production

Box 3

Danmarks Nationalbank is the issuing authority responsible for the production, security and design of banknotes and coins, as stipulated in the Danmarks Nationalbank Act (*Nationalbankloven*) of 1936.

Until the end of 2016, the production of banknotes and coins took place in Danmarks Nationalbank's building, but has now been outsourced to external suppliers in France and Finland, respectively. This is due, among other things, to the declining demand for new banknotes and coins.

The production of new Danish coins is undertaken by Mint of Finland, and the first coins from 2017 have been put into circulation. The new banknotes from the banknote printing company Oberthur Fiduciaire SAS in France are expected to be put into circulation in 2020 and contain a number of updated security features compared to the existing banknote series from 2009.¹

1. Press release, Danmarks Nationalbank, 21 February 2018 (*link*).

Table annex – cash

Cash payments in physical trade 2009-2019

Table 1

	2019	2017	2009 ¹
Number of cash payments (million)	341.8	454.5	786.3
Value of cash payments (kr. billion)	48.7	82.5	150.5
Kroner per payment (average)	142.5	181.5	191.4
Share of total number of payments (per cent)	16	23	48
Share of total value of payments (per cent)	10	16	36

¹ Danmarks Nationalbank, *Costs of payments in Denmark*, April 2012 ([link](#)).

Note: Physical trade includes all physical stores, staffed services in a bank or at the post office as well as self-service environments. The value of the cash payments and the average payment is stated in current prices.

Source: Danmarks Nationalbank.

Cash payments as a share of the total number of payments broken down by age

Table 2

per cent	15-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	15-79 years
Share of total payments in physical trade (2019)	4	17	12	19	24	22	16
Share of total payments in physical trade (2017)	9	20	24	28	26	40	23

Source: Danmarks Nationalbank.

Share of Danes not carrying cash broken down by age

Table 3

per cent	15-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	15-79 years
Share of Danes not carrying cash (2019)	51	45	29	30	21	15	34
Share of Danes not carrying cash (2017)	28	27	11	13	7	4	16

Source: Danmarks Nationalbank.

ABOUT ANALYSIS



As a consequence of Danmarks Nationalbank's role in society we conduct analyses of economic and financial conditions.

Analyses are published continuously and include e.g. assessments of the current cyclical position and the financial stability.

The analysis consists of a Danish and an English version. In case of doubt regarding the correctness of the translation the Danish version is considered to be binding.

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