

# DANMARKS NATIONALBANK

12. DECEMBER 2017 — NO. 24

## Danish households opt out of cash payments

Many Danes live more or less without using cash, and even more Danes are expected to live without using cash in the future. However, Denmark is not heading for a cashless society. Citizens who wish to hold cash will still have the option to do so.



**Danes seldom pay in cash**

**23 per cent**

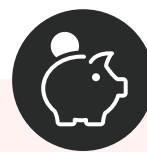
of the payments carried out by Danish households at points of sale are in cash. The corresponding share in the euro area is 79 per cent.



**Danes carry a small amount of cash**

**46 per cent**

of Danes carry less than kr. 100. Especially young people carry little or no cash



**Cash is also used as store of value**

**14 per cent**

of Danes hold cash savings of more than kr. 10,000. Large cash savings are most common among senior citizens.

### The use of cash in 2017

During the last decades, cash has lost its position as a self-evident part of Danes' everyday lives. One of the reasons for this development is the introduction of new digital payment solutions, including credit transfers via online banking, mobile payments and contactless payment cards. To examine the use of cash in Denmark, Danmarks Nationalbank has conducted a survey of the use of cash by Danish households, cf. Box 1.

This analysis covers payments carried out by Danish households at points of sale (POS)<sup>1</sup>.

### Danes seldom pay in cash

Danes tend to opt for digital payment solutions instead of cash. According to Danmarks Nationalbank's survey, in terms of numbers, 23 per cent of the payments carried out by Danish households at POS are in cash, while payment cards are used for 73 per cent of the payments. The remaining 4 per cent of the payments are carried out by use of other payment solutions, including mobile payments.

There are substantial differences in the payment behaviour of the youngest and the oldest Danes. According to the survey, 9 per cent of the payments carried out by 15-29-year-olds at POS are in cash, while the corresponding figure for the 70-79-year-olds are 40 per cent. The variations between the other age groups are minor, cf. Chart 1.

### Cash is used for small payments

When cash is used as a means of payment by Danish households it is typically for small amounts. The average value of a cash payment is kr. 182, while the average value of a card payment is kr. 294, cf. Chart 2. Because cash is typically used for small payments, the share of the households' payments that are carried out by the use of cash is smaller in terms of value (16 percent) than in terms of numbers (23 percent), cf. Chart 3.

The share of the payments that are paid with payment cards is larger in terms of value than in terms of numbers. In terms of value, payment cards and other payment solutions are used for 82 and 2 per cent, respectively, of the payments carried out by households at POS.

### Danmarks Nationalbank's survey of the use of cash by Danish households

Box 1

In cooperation with Kantar Gallup, Danmarks Nationalbank has conducted a survey of the payment behaviour of the Danish households, including their use of cash. The survey was conducted in the spring of 2017 and it is based on responses from a representative selection of around 1,200 Danes aged 15-79 years.

The data was collected by means of a payment diary and a questionnaire. During one day, each respondent entered all of his/her payments into the payment diary.<sup>1</sup> For each payment, the respondent stated several details, including the type of payment (e.g. cash or payment card). In addition to the payment diary, each respondent answered a number of questions regarding their payment preferences and view on cash, e.g. whether the respondent holds cash savings.

- 
1. The entries in the payment diary were made by the use of an app. Respondents who did not want to use an app could report their payment details by telephone.

The Danish Payments Council's 2016 report on the role of cash in society estimated that cash accounted for around 20 per cent of the value of payments in the retail sector in 2015. Danmarks Nationalbank's survey and the Danish Payments Council's report are based on different methods of calculation and are not directly comparable, cf. Box 2. However, both methods show that the use of cash as a means of payment is small in Denmark.

### Paying in cash is less common in Denmark than in the euro area

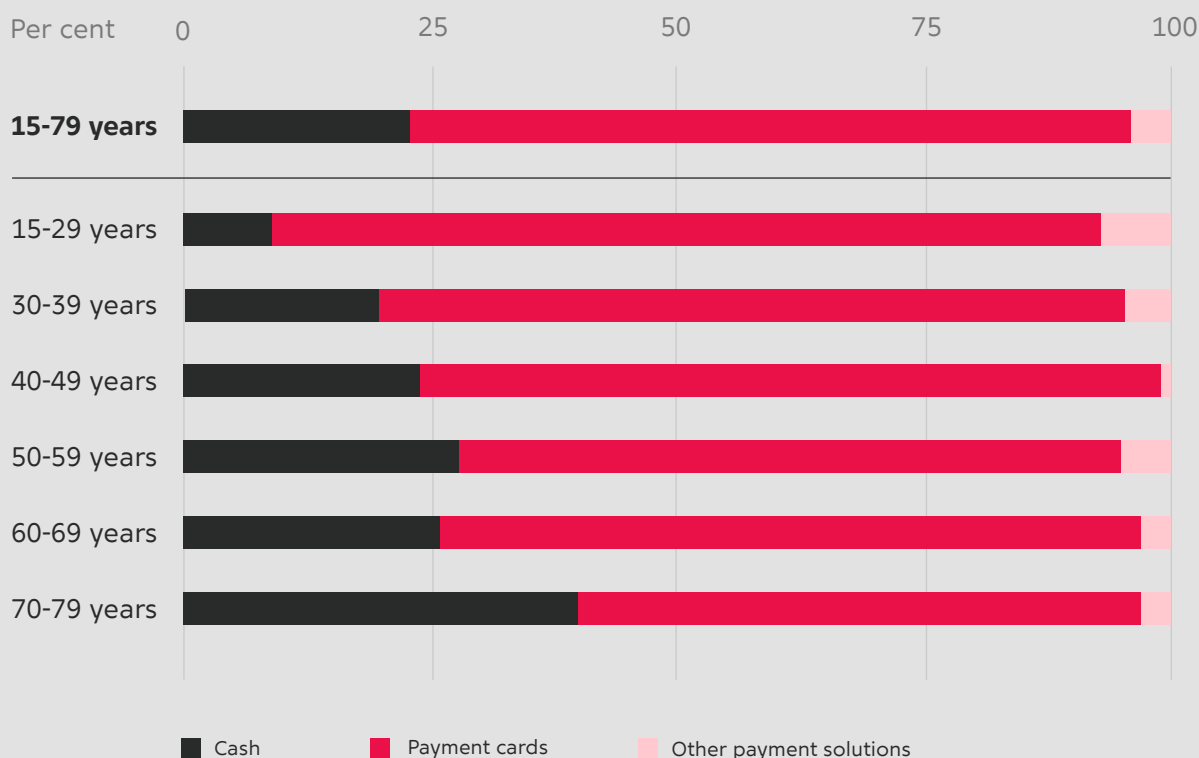
The ECB recently published an occasional paper on the use of cash by households in the euro area, cf. Box 3. The occasional paper shows that paying in cash is more common in the euro area than in Denmark. While 23 per cent of the payments carried out by Danish households at POS are in cash, the corresponding share in the euro area is 79 per cent. The remaining parts of the payments carried out by households in the euro area at POS are with payment cards (19 per cent) and other payment solutions (2 per cent).

---

1 Payments carried out at points of sale cover a variety of payees, including stores, restaurants and service providers.

# Danes seldom pay in cash

*Payments carried out by Danish households at points of sale, share of payment solutions*



Note: The chart shows the share of each type of payment in terms of numbers. The chart includes only payments carried out by households at POS, i.e. online shopping is not included in the figures.

Source: Danmarks Nationalbank.

The use of cash varies considerably across the euro area. In terms of numbers, the share of the households' payments that are in cash is smallest in the Netherlands (45 per cent) and largest in Malta (92 per cent), cf. Chart 4. Cash is used more frequently as a means of payment in all of the euro area member states than in Denmark.

## Danes are usually free to choose between paying in cash and paying with payment cards

In general, Danes experience that they are free to choose between paying in cash and paying with payment cards at POS. According to the survey,

96 per cent of Danes assess that they never or rarely experience being prevented from paying in cash. The corresponding figure for payment cards is 90 per cent, cf. Chart 5. Thus, the limited use of cash as a means of payment at POS reflects that Danes tend to opt for digital payment solutions, especially payment cards, instead of cash.

Danes' perception of generally being able to pay in cash at POS is in accordance with the Danish cash rule. The cash rule entails that consumers typically has the right to pay in cash at POS in Denmark, cf. Box 4.

## Cash is used for small payments

average value of  
a cash payment

average value of  
a card payment



Source: Danmarks Nationalbank.

### The Danish Payments Council's report on the role of cash in society

Box 2

The Danish Payments Council issued "Report on the role of cash in society" in 2016. The report estimated the use of cash for payments relative to the retail turnover. According to the report, cash payments in 2015 accounted for around 20 per cent of the value of the payments in the retail sector.

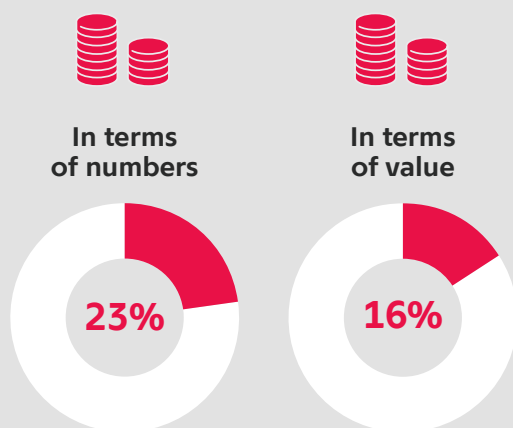
The Danish Payments Council's estimate was calculated as a residual, i.e. by subtracting the value of card payments from retail turnover.

The Danish Payments Council's estimate differs from Danmarks Nationalbank's survey of the use of cash conducted in the spring of 2017. The main difference is the calculation methods, i.e. respectively calculation of a residual and a survey based on a sample of the Danish population. Moreover, Danmarks Nationalbank's survey focuses only on payments conducted by households at POS, while the Danish Payments Council's estimate also comprises online shopping and business purchases in the retail sector.

Chart 3

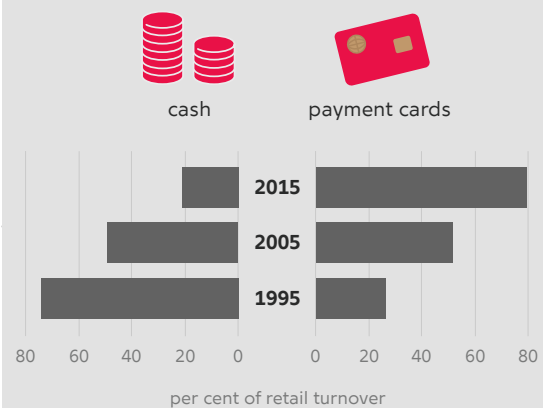
## The share of cash payments is small

*The share of cash payments is smaller in terms of value*



Source: Danmarks Nationalbank.

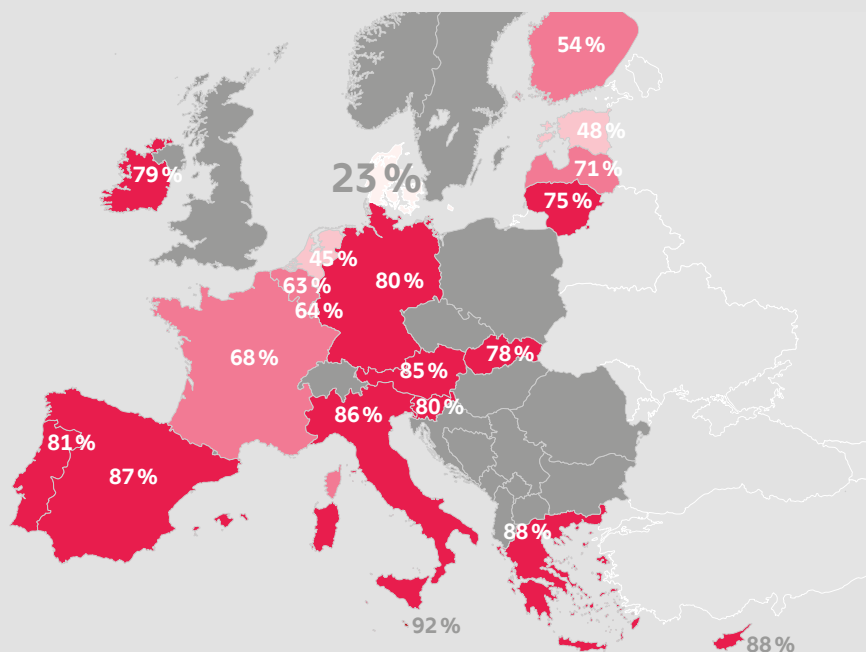
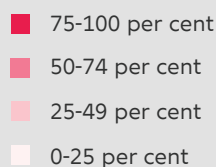
*The Danish Payments Council's estimate of the development in the use of cash*



1. The other non-digital payment solution, cheque payments, accounted for 10 per cent of the value of retail turnover in 1995, 2 per cent in 2005 and 0 per cent in 2015. In the chart, the value of cheque payments are included in the value of cash payments.
2. The Danish Payments Council's report on the role of cash in society is available at Danmarks Nationalbank's website. ([link](#))

## Share of cash payments carried out by households at points of sale in Denmark and the euro area

Chart 4



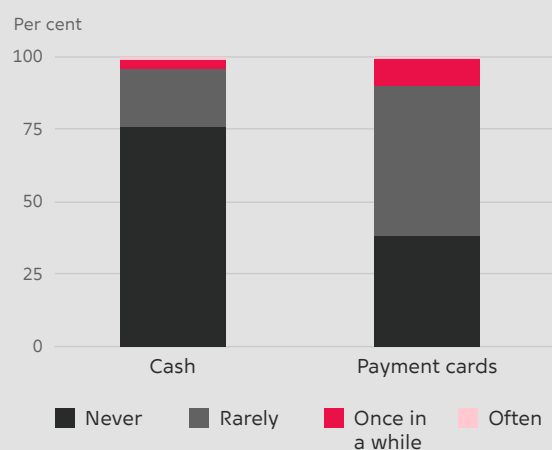
Note: Surveys from Sweden and Norway show that the two countries – like Denmark – differ from the euro area member states as the use of cash payments are smaller. The surveys conducted in Sweden and Norway are based on other methods than the surveys conducted in the euro area and Denmark. The estimates of the use of cash in Sweden and Norway are therefore not directly comparable to the estimates of the use of cash in the euro area and Denmark. The central bank of Norway, Norges Bank, estimates that cash made up 15 per cent of the payments carried out by Norwegian households at POS in 2013. The Swedish central bank, Riksbanken, estimates that the proportion of cash payments in the retail sector in 2016 was about 15 per cent.

Source: ECB, Deutsche Bundesbank, De Nederlandsche Bank, and Danmarks Nationalbank

## Danes experience freedom of choice between cash and payment cards

Chart 5

*“How often do you experience that you are prevented from paying with cash/payment cards?”*



Source: Danmarks Nationalbank.

## The ECB's occasional paper on the use of cash by households in the euro area

Box 3

In November 2017, the ECB published an occasional paper on the use of cash by households in the euro area.<sup>1</sup> The paper is based on surveys conducted in the period 2014-16. In the surveys, a little more than 92,000 respondents have filled in payment diaries and questionnaires about their payments and their use of cash. For most of the euro area member states, the data originates from a joint survey conducted in 2015-16. However, data from Germany and the Netherlands is from separate surveys conducted by their central banks in 2014 and 2016, respectively.

The surveys in the ECB's occasional paper and Danmarks Nationalbank's survey are based on the same methods. The survey statistics are therefore comparable in general, despite small differences, including that Danmarks Nationalbank's survey is newer than the ones underlying the ECB's occasional paper.

1. The use of cash by households in the euro area, ECB Occasional Paper Series, No. 201, 2017. ([link](#))

### Danes carry a small amount of cash

Compared to euro area citizens, Danes carry a small amount of cash. On average, Danes carry kr. 337, while euro area citizens carry 65 euro, which corresponds to around kr. 480.

The average amount of cash carried by Danes is enlarged by a few persons who carry a lot of cash. In particular, this applies to many senior citizens, and 15 per cent of the 70-79-year-olds carry more than kr. 1,000.

However, many Danes carry only a small amount of cash. According to the survey, 46 per cent of Danes carry less than kr. 100. The youngest Danes carry the smallest amount of cash, and 63 per cent of the 15-29-year-olds carry less than kr. 100, cf. Chart 6.

### Cash is also used as store of value

A lot of Danes use cash for savings. According to Danmarks Nationalbank's survey, 34 per cent hold cash for savings<sup>2</sup>, and 14 per cent hold cash savings of more than kr. 10,000.

The prevalence of large cash savings varies across age groups. In particular, many senior citizens hold large cash savings. Among the 70-79-year-olds, 27 per cent hold cash savings of more than kr. 10,000. Large cash savings are less common among the younger age groups, cf. Chart 7.

### Cash savings are more common in Denmark than in the euro area

Danes pay less frequently in cash than households in the euro area, but cash savings are more common in Denmark than in the euro area. While 34 per cent of Danes use cash for savings, this only applies for 24 per cent of the euro area citizens (excluding Germany<sup>3</sup>).

### More Danes will live without using cash in the future

Today, most payments carried out by Danish households at POS are digital, and many Danes carry only little or no cash. In general, it is possible to live in Denmark without using cash.

It ought to be expected that more Danes will opt to live without using cash in the future. There are several reasons for this. Firstly, the use of cash will continue to decline if the younger generations maintain their current payment habits as they get older. Secondly, it must be expected that the continued development of more advanced digital payment solutions will induce more Danes to choose not to pay in cash. Thirdly, increased use of online shopping will reduce the share of payments for which households are able to pay in cash.

#### The Danish cash rule

Box 4

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.<sup>1</sup> The cash obligation entails that physical stores may not reject cash if the store is staffed and receives electronic payment instruments, including payment cards. The cash obligation does not apply to remote transactions, including online transactions and unstaffed self-service environments, e.g. unstaffed petrol stations.

With the adoption of new legislation, the Danish Parliament decided to ease the Danish cash obligation as from 2018. Accordingly, 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 obligation is lifted 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.

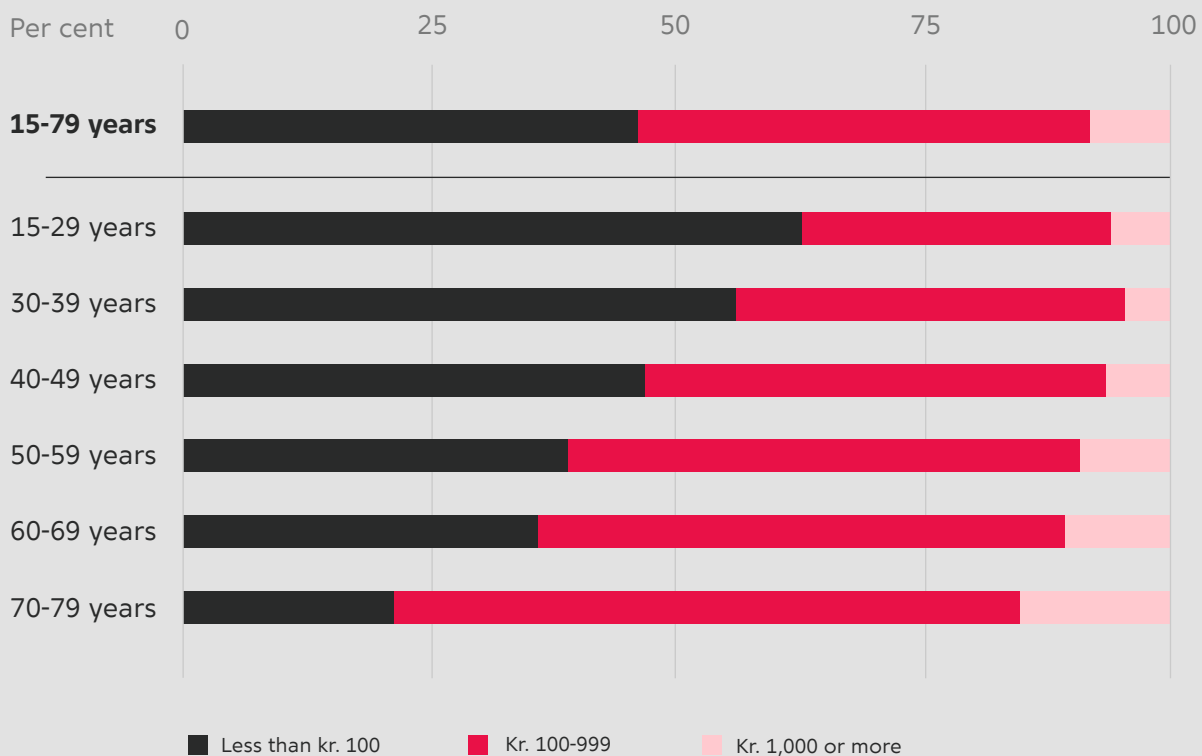
1. Danish legislation also contains a few limitations on the use of cash as a means of payment. The Money Laundering Act, inter alia, prohibits retailers from receiving cash payments of more than kr. 50,000.

2. Around 6 per cent of the respondents did not want to state whether or not they use cash for savings.

3. Due to lack of data availability, the figure for cash savings in the euro area exclude Germany.

## Senior citizens carry more cash than young citizens

*How much cash – banknotes and coins – do you carry in your wallet, handbag and pockets (or where you keep cash that you use for payments) at the beginning of the day?*



Source: Danmarks Nationalbank.

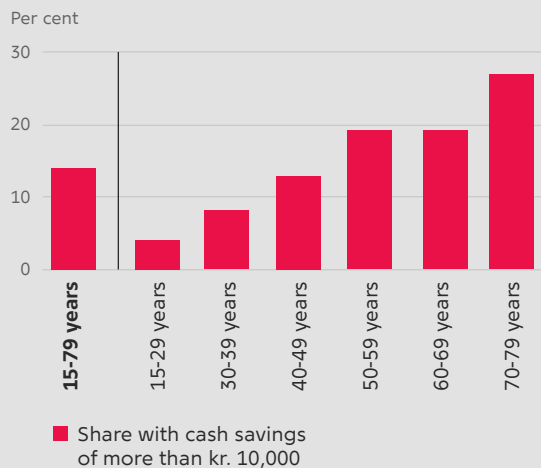
### Cash will not disappear

Danmarks Nationalbank's survey shows that some Danes live more or less without using cash, but for other Danes, cash is an important part of their everyday lives. Danes are divided in their assessment of the importance of cash. 50 per cent find that it would be problematic for them if there was no cash in society as we know it today, while 40 per cent find that it would not be problematic, cf. Chart 8. Overall, there is still a demand for cash in Denmark, and Danmarks Nationalbank is in charge of issuing the banknotes and coins that are needed, cf. Box 5. Danmarks Nationalbank has neither a target for the size of the circulation of cash nor targets for the use of cash by Danish households.

Danmarks Nationalbank expects that the use of cash as a means of payment will continue to decline as more Danes are expected to choose to live without using cash in the future. However, Denmark is not heading for a cashless society. Citizens who wish to hold cash will still have the option to do so.

### Large cash savings are held mostly by senior citizens

Chart 7



Source: Danmarks Nationalbank.

### Danmarks Nationalbank's role in the supply of cash

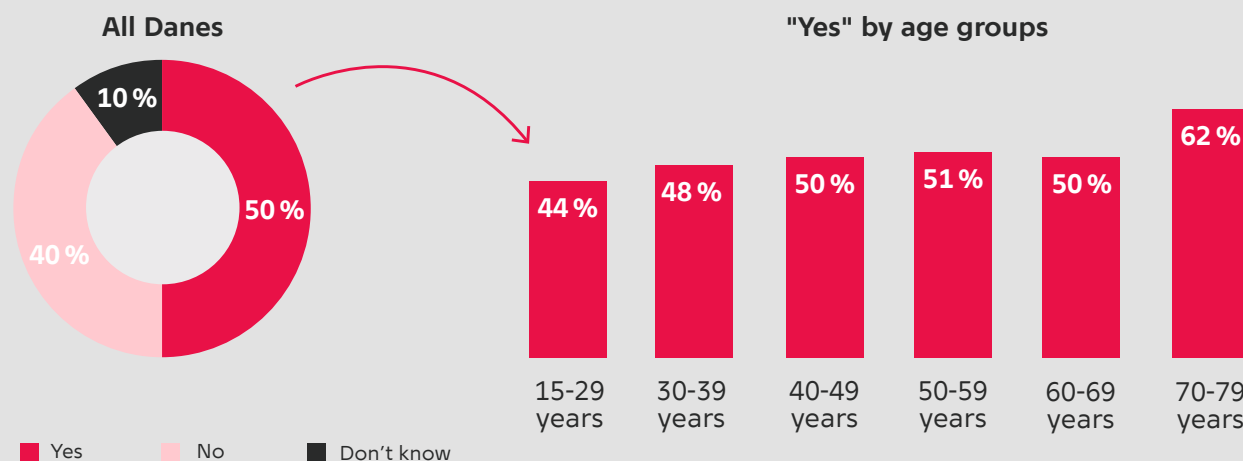
Box 5

Under the Danmarks Nationalbank Act, Danmarks Nationalbank is responsible for issuance of banknotes, while the Coinage Act says that minting of coins is the responsibility of the government. Since 1975, production and administration tasks related to minting of coins have been delegated to Danmarks Nationalbank. Until the end of 2016, cash production took place in Danmarks Nationalbank's building. In future, printing of banknotes and minting of coins will be outsourced to external suppliers, but Danmarks Nationalbank will still be the issuing authority.

Chart 8

## Danes are divided regarding the importance of cash in society

*"Would it be problematic for you if there was no cash in society as we know it today?"*



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.

DANMARKS NATIONALBANK  
HAVNEGADE 5  
DK-1093 COPENHAGEN K  
[WWW.NATIONALBANKEN.DK](http://WWW.NATIONALBANKEN.DK)

This edition closed for  
contributions on 7 december 2017

**Victor Gørtz Smestad**  
Retail Payments Policy Analyst  
FINANCIAL STABILITY



**DANMARKS  
NATIONALBANK**