

DANISH PAYMENTS COUNCIL

REPORT ON THE ROLE OF CASH
IN SOCIETY

August 2016

Report on the Role of Cash in Society

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1 SUMMARY AND DELIBERATIONS ON THE CASH RULE

The role of cash is diminishing

The Danes use less cash in stores than previously. In 1984, the Dankort was introduced in Denmark, and since the mid-1990s the trend in retail stores has been fewer cash payments and more card payments. The balance between cards and cash tipped in the 2000s, and since then payment cards have been the dominant means of payment in Denmark. In 2015, cash payments accounted for 20 per cent of total retail turnover. Denmark and the other Scandinavian countries have more card payments and fewer cash payments per capita than most other countries.

Recent years have seen a number of changes in the Danish payments market and this has affected the use of cash. Technological advances mean that there are now several electronic alternatives in areas where cash has traditionally been used. Some of these solutions are based on new opportunities offered by the modernisation of the Danish payments infrastructure in recent years. The trend towards fewer cash payments can be expected to continue.

Cash will not disappear

Although the trend points to fewer cash payments, there is nothing to indicate that they will disappear completely and that Denmark is becoming a cashless society. This applies whether or not retailers have an obligation to accept cash. Retailers do what is most profitable. Several of the retailers interviewed for the report said that they would accept cash even if they did not have a statutory obligation to do so.

While cash is used less frequently in retail stores, the value of banknotes and coins in circulation has been at a stable, high level relative to the size of the economy for a number of years. The anonymity of banknotes and coins means that it is not possible to gain a comprehensive overview of what cash is used for. But there are indications that cash is to a large extent used as a store of value.

Cash is relatively expensive

Cash involves costs – for banks, for retailers and for consumers. A survey of the social costs of payments in Denmark conducted in 2009 showed that a cash payment is about twice as expensive for society as a Dankort payment. The physical nature of cash means that it is costly to handle for banks and retailers alike. For example, retailers have costs for staff handling the cash and for cash-in-transit companies and security equipment. These costs can be expected to be passed on to the consumers.

The availability of cash

The availability of cash relates to the possibilities for consumers and firms to withdraw or deposit cash at banks and consumers' access to cash in retail stores. The number of banks and bank branches has been falling steadily since the early 1990s, and many branches are now cashless. At the same time, the number of automated teller machines (ATMs) increased until 2007, after which it has fallen. All else equal, the opportunities for consumers and firms to withdraw or deposit cash at banks have been reduced. The availability of cash is being discussed in Sweden and Norway. Their geographical layouts differ from that of Denmark, meaning that the average Dane is much closer to an ATM. Maps of the locations of ATMs in Denmark show that on the one hand there is a concentration of ATMs in

urban – densely populated – areas, but on the other hand there are more ATMs per capita in the more scarcely populated areas.

An obligation to accept cash

Danish legislation includes several provisions affecting the role of cash in society. Where no other agreements or legal provisions apply, Danish banknotes and coins are always legal tender. Furthermore, under the "cash rule", a payee who accepts payment instruments, such as payment cards, must accept cash as payment in connection with staffed sales (section 56 of the Payment Services Act). This means that cash cannot be rejected, not even, say, at night, if the retailer is staffed at this time. On the other hand, the payee does not have any obligation to accept cash in connection with online purchases and in unstaffed self-service environments, e.g. unstaffed petrol stations and public buses. Whether a service environment is staffed or not depends on whether staff is present, as well as the role of the staff. The cash rule applies to both private sector firms and public institutions, but there are initiatives that limit the use of cash in public institutions. If the cash rule did not exist, the "freedom of contract" principle would allow the payee and the customer to agree on the method(s) of payment accepted by each retailer. In practice, this agreement could be "concluded" via a clearly visible sign in the retail store. This is in fact the case in Sweden, where retailers do not have an obligation to accept cash.¹

The payments area is developing at a fast pace and it is essential to ensure that legislation keeps abreast of these changes. Among other things, it is essential to ensure that the cash rule does not distort competition, e.g. between physical and online stores, and that the law can be enforced in practice.

A special Danish provision

The cash rule is being discussed because the Payment Services Act is up for revision in 2017. The background is that the EU has adopted an updated Payment Services Directive, which must be implemented in Danish legislation by 13 January 2018. The cash rule is included in the Danish Payment Services Act as a special Danish provision. In connection with the revision, it will be assessed whether this rule should be retained. The cash rule was introduced in 1984, when the banks introduced the Dankort system. The aim was to ensure competition for the Dankort, which at the time was believed to become the only electronic alternative to cash, and to prevent discrimination of cash customers in favour of card holders.

Retailers' views on cash

Retailers' views on cash and the cash rule were examined via interviews with representatives of the retail sector in the spring of 2016. The retailers indicate that cash has few or no advantages. Moreover, in the assessment of the retailers, cash is more expensive than payment cards and involves a risk of robbery.

The retailers point out that their primary aim is to maximise sales. Consequently, they will offer the payment solutions in demand among their customers, including cash. But the retailers would like greater flexibility to plan their range of payment solutions. This could best be achieved by abolishing the cash rule. Alternatively, they would like to be able to reject cash at certain hours or in certain areas with a view to reducing the risk of robbery.

¹ In Norway, specific cases have resulted in questions to the authorities regarding the interpretation and scope of a rule resembling the Danish cash rule.

Consumers' views on cash

Danish consumers are happy to shop online and are used to electronic payment solutions and electronic communication with the public sector. But for some consumers cash plays a special role. These consumers are found mainly among senior citizens, disabled people and socially vulnerable groups. There are numerous reasons why they pay in cash, and the reasons vary from group to group.

For senior citizens, i.e. those over 65 years, the use of cash in some cases reflects their familiarity with cash; it is reassuring and gives them an overview of their finances. Electronic payment solutions may seem difficult and complex to use, partly because these solutions are new and less familiar, partly because they require IT knowledge, which many senior citizens do not have.

For disabled people, use of other methods of payment than cash may present practical challenges. For others, the existing alternatives mean that they have no other option than to pay in cash. This means that cash plays a special role for many disabled people.

Socially vulnerable people are often battling a combination of social problems and mental conditions. To a large extent, they lead a cash-base life, where factors such as the anonymity of cash and its suitability for basic budget management give it a special role. Furthermore, many socially vulnerable people experience periods during which they have difficulty in using electronic payment solutions.

Besides these groups, children under the age of 13 generally do not have access to payment cards. If they have to make a payment and there is no adult with them, they use cash.

Deliberations about the cash rule

The working group discussed the social pros and cons of amending the cash rule. At the one extreme, the status quo could be preserved, so that all retailers with sales staff who accept payment instruments, such as payment cards, must still always accept payment in cash. At the other extreme is complete abolishment of the obligation to accept cash. At an early stage of the group's work, it became clear that neither of these extremes met support within the group. Hence, the group's discussions of the future of the cash rule centred on how it could be modified.

More specifically, three models were discussed in more detail:

1 A model limiting the scope of the cash rule to certain categories of retailers.

The cash rule could be abolished as an obligation for all retailers and retained for selected categories of retailers. For example, the cash obligation could be retained for retailers where special social and health-related aspects must be taken into account, such as sale of staple goods and basic services. These could be supermarkets, grocers and convenience stores, retailers with postal services or sale of prescription drugs, doctors and dentists, and newsagents, canteens, etc. at public hospitals and residential institutions.

This model would ensure that all groups in society still had the option always to pay in cash in retail stores that are key to living a normal life. At the same time, many retailers would be able to choose whether or not to accept cash.

This model could also be reversed, so that the rule specifically says which retailers are exempted from the obligation to accept cash. In other words, the cash rule would be retained, but selected categories of retailers would be exempted.

- 2 *A model limiting the hours during which the cash rule applies, i.e. the rule is retained, but not on a 24-hour basis.*

The cash rule could be amended so that retailers were allowed to reject cash at night-time, e.g. between 10:00 pm and 6:00 am. However, places such as 24-hour pharmacies would still have an obligation to accept cash at all times. In the daytime, all retailers would still have an obligation to accept cash.

This model would allow retailers to avoid cash handling during the most risky hours. The risk of robbery is greatest when it is dark. By abolishing the obligation to accept cash at night-time, it would be possible to reduce the risk of robbery and hence the negative effects of robberies on the staff in particular. Moreover, it would undoubtedly be possible to reduce costs for security measures. At the same time, the consequences for most consumers must be expected to be limited, and more retailers might choose to stay open late.

- 3 *A model limiting the scope of the cash rule to certain categories of retailers and certain hours.*

The general cash rule could be abolished, but certain categories of retailers would still have an obligation to accept cash, cf. the category-based model above. These retailers might then be allowed to reject cash at night-time, with the exception of e.g. 24-hour pharmacies, cf. the time-based model above. The model combines the first two models, giving greater flexibility for retailers than the other models separately.

The models could also be combined in reverse order. In other words, retailers would be allowed to reject cash at night-time, cf. the time-based model. However, this would not apply to certain specific retail areas, cf. the category-based model. Whether the scope of this model would, in practice, differ from the existing cash rule is doubtful. This is because the vast majority of the retailers that are open at night-time are convenience stores or supermarkets, i.e. retailer categories where special social aspects must be taken into account, cf. the category-based model.

The working group could not agree on any of the models discussed. Many members found that the time-based model was the one that ensured the best trade-off between, on the one hand, the costs to society of retaining the cash rule, including for retailer staff, and, on the other hand, the requirements of people with limited skills or possibilities of using electronic payment solutions. The risk of robbery could be reduced with a limited impact for the majority of consumers. Several members of the working group saw the category-based model described here as a good alternative to the existing cash rule, while other members found that this model was too far-reaching and had too great implications for the groups where cash plays a special role.

The working group discussed the issue of a pilot project, but could not agree on a specific proposal.

The working group agreed that it would be desirable for a future cash rule to be based on clear, objective criteria. That would benefit both retailers and consumers, as it would be easier to know who had an obligation to accept cash and who did not. Furthermore, a clear rule would facilitate the authorities' administration of the rule.

The working group's membership and terms of reference are shown in Box 1.1.

The working group's membership and terms of reference

Box 1.1

In 2015, the Danish Payments Council decided to launch an analysis of the role of cash in society, and a working group was set up for this purpose. The working group comprised representatives of participants in the Council and of Ældre Sagen (senior citizens), Danske Handicaporganisationer (disabled people), Rådet for Socialt Udsatte (socially vulnerable groups) and the Department of IT Management, Copenhagen Business School. Danmarks Nationalbank was in charge of the work and provided secretariat services to the working group.

The working group on the role of cash in society had the following members:

- Henrik Sedenmark, Danish Chamber of Commerce
- Joachim Nørgaard Strikert, Confederation of Danish Industry
- Jonas Aaen, Ministry of Business and Growth
- Tobias Nicholas Thygesen, Danish Bankers Association
- René Thomsen, Danish Bankers Association
- Troels Hauer Holmberg, Danish Consumer Council
- Frank Korsholm, Danish Federation of Small and Medium-Sized Enterprises
- Andreas Kaus Jensen, Nets
- Niels Christian Larsen, Nets
- Jan Damsgaard, Copenhagen Business School
- Hans Andersen, Disabled People's Organisations Denmark
- Kirsten Munk, The Council for Socially Marginalised People
- Jens Højgaard, DaneAge Association

Danmarks Nationalbank was represented by Kristian Nørgaard Bentsen, Lindis Oma, Eva Wix Wagner, Kirsten Elisabeth Gürtler, Marianne Clausager Koch and Nathalie Tuxen.

Terms of reference

The Danes use relatively less cash in retail stores today than they did just a few years ago. The volume of cash payments as a share of total payments in retail stores has been decreasing steadily for a number of years. New payment solutions are rapidly gaining ground and could present alternatives to cash – for payments in stores and for payments between individuals.

Several factors indicate that although we are not moving towards a cashless society, there is a tendency for cash to play a smaller role as a means of payment, and this tendency could accelerate. An analysis is needed to describe the implications of this development. The analysis is to clarify the role of cash in society and the existing/potential alternatives to cash.

The analysis should comprise a description of the pros and cons of cash for consumers and firms. For consumers, this comprises issues such as budget planning, availability, anonymity, understanding of value, costs, security, etc. For firms, it may be relevant to highlight issues such as risk of robberies, including staff considerations and financial losses, costs, deposit of cash, technical infrastructure, certainty of receiving payment, etc.

The task will include a description of major challenges in relation to payment solutions for groups in society where cash can be assumed to play a special role, including senior citizens, children and young people, socially vulnerable groups and disabled people. Furthermore, the analysis should look at experience from comparable countries, notably Sweden and Norway.

On the basis of the above, the analysis should include an assessment of whether existing legislation in this area is up-to-date. Among other things, the working group will discuss and describe potential ways of easing the cash rule. If agreement can be reached on specific policy proposals, in relation to the cash rule and possibly also in other areas, this will be elaborated on.

The overall report is to be presented at the meeting of the Danish Payments Council on 23 June 2016. The report will be published when approved by the Council.

2 THE ROLE OF CASH TODAY

2.1 INTRODUCTION

Developments in the payments market have had an impact on the use of cash as a means of payment, as has the general digitisation of society. This chapter looks into the use of cash and the related costs.

2.2 WHAT IS CASH?

The first embossed coins can be dated back to the year 600 BC and came from Lydia in what is now western Turkey, while banknotes can be dated back to China in the 8th century AD. In the 17th century, banknotes came to Europe, where private goldsmiths issued paper money in the form of debt certificates. In Sweden, the predecessor of Sveriges Riksbank issued banknotes² in 1661, while the Bank of England issued its first hand-written banknotes shortly after its establishment in 1694. The first Danish banknote came in 1713. Danmarks Nationalbank was given a monopoly on issuance of coins and banknotes in 1818 and has had it since then. See also Box 2.1.

Popularly, the terms "cash" and "money" are often used synonymously. For example, the term "cash" is often used about payment on the spot, as opposed to a credit agreement with payment at a later date. So the word "cash" does not necessarily imply expectations of payment in banknotes and coins.

In this report, the term "cash" refers only to physical banknotes and coins issued by the central bank.

Danmarks Nationalbank and the supply of cash

Box 2.1

Danmarks Nationalbank is the banknote and coin issuing authority of the Kingdom of Denmark. 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. At the same time, one of Danmarks Nationalbank's objectives is to promote safe payments. This is done, inter alia, by ensuring that the security features and design of banknotes and coins are of a high quality so that people have confidence in the Danish currency.

In Denmark, all coins issued after 1875 – with a value of kr. 0.50 or more – are legal tender, while all banknotes issued after 1945 are valid. However, it is up to retailers whether they are willing to accept old banknotes and coins. If they refuse to do so, it is possible to exchange the banknotes and coins at banks or at Danmarks Nationalbank. The practice in Sweden and Norway is that old banknote series and coins are invalidated when a new series is issued. The invalidated banknote series can be exchanged according to specific rules.

Until the end of 2016, cash is produced at Danmarks Nationalbank's premises. In future, Danmarks Nationalbank will outsource printing of banknotes and minting of coins to external service providers but will remain the issuing authority.

2 The first Swedish attempt at issuance of banknotes was subsequently abandoned due to inflation problems.

2.3 USE OF CASH AS A MEANS OF PAYMENT

Cash has a number of properties that are typically emphasised. They are elaborated on in Box 2.2. In short, cash:

- is a fast method of payment
- provides certainty that payment is effected
- is a widely accepted means of payment
- requires no technical infrastructure in the payment situation
- is tangible and simple
- is a basic means of budget management
- is anonymous
- is costly

Many of the above qualities previously applied to cash only. But today there are electronic payment solutions that offer similar properties in several areas. For example, payment cards are also widely accepted today.

Properties of cash

Box 2.2

A fast method of payment

Cash is characterised by a short processing time, especially for small or round amounts. But obviously this requires the presence of the payer and the payee at the same location.

Certainty of receiving payment

When cash is used, the payee can be certain that payment is effected.

Widely accepted means of payment

Cash is used for payments in all parts of society.

Requires no technical infrastructure

Cash does not require any technical infrastructure in the payment situation.

Anonymous

Banknotes and coins are bearer certificates, i.e. they can be used by anyone who is in possession of them without leaving electronic trails. Hence, payment in cash can be motivated by a wish to protect one's private life. The anonymity of cash also means that it can be used for illegal purposes, e.g. money laundering and moonlighting. In addition, this makes cash an obvious target of theft and robbery.

Tangible and simple

Cash is physical, which makes it simple and easy to understand.

Costly

Cash must be produced, transported, stored in a secure place and counted, etc., which involves considerable costs to society.

Budget management

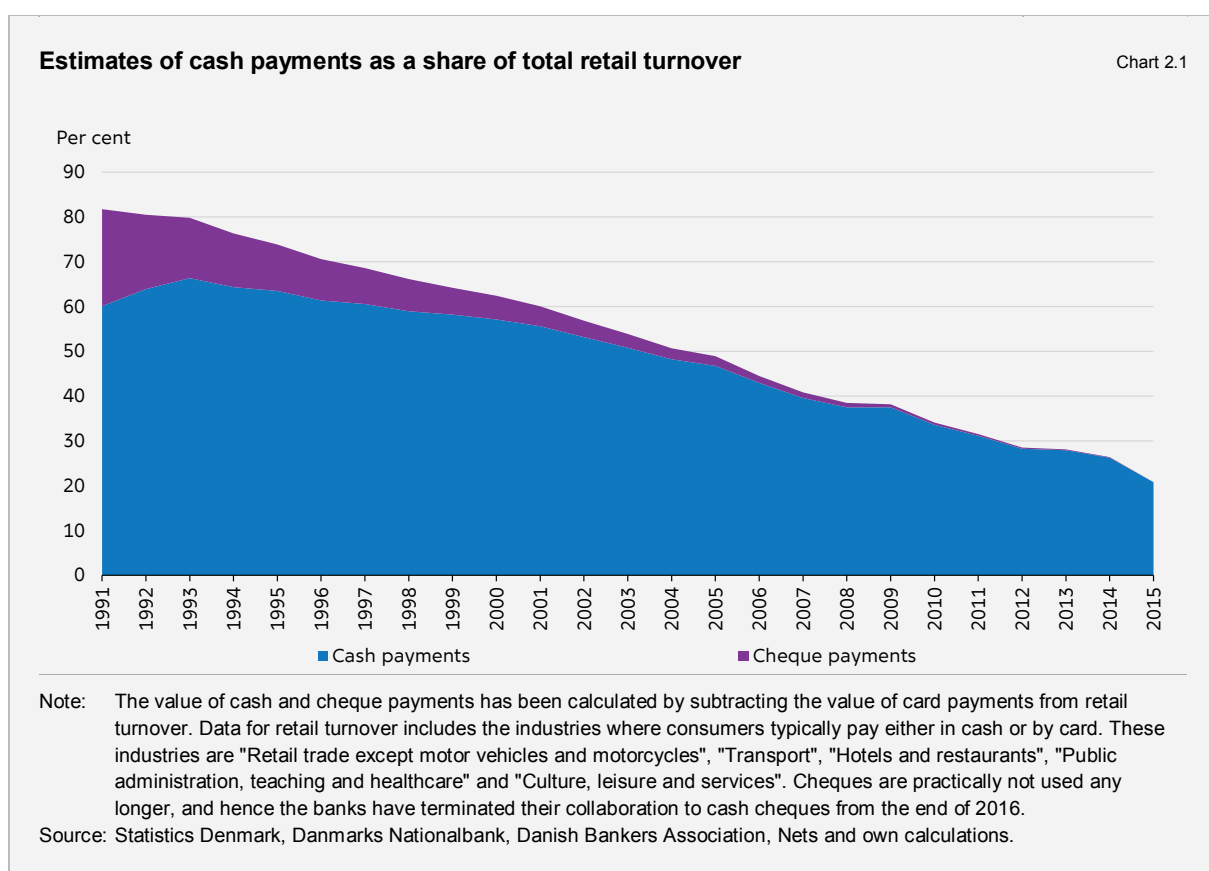
Cash can be used to limit consumption as people cannot use more cash than they have brought with them.

Cash as a means of payment in retail trade

Use of cash as a means of payment is decreasing in Denmark. According to the most recent estimate of the share of cash payments in retail trade, cash accounted for around 20 per cent of the aggregate value of all payments in 2015, cf. Chart 2.1. In the 1990s, cash payments accounted for something like 60 per cent of the value of all payments. The trend is clear and pronounced.

20 per cent of the aggregate value was equivalent to approximately kr. 110 billion in 2015. Cash is used in retail trade, but in general the Danes prefer payment cards – first and foremost the Dankort.

Cash payments have been calculated as a residual value, so the figure is subject to uncertainty. However, interviews with major participants from the Danish retail sector indicate that the level is about right, but the share of cash payments can vary considerably, depending on the location and the type and size of the store.³



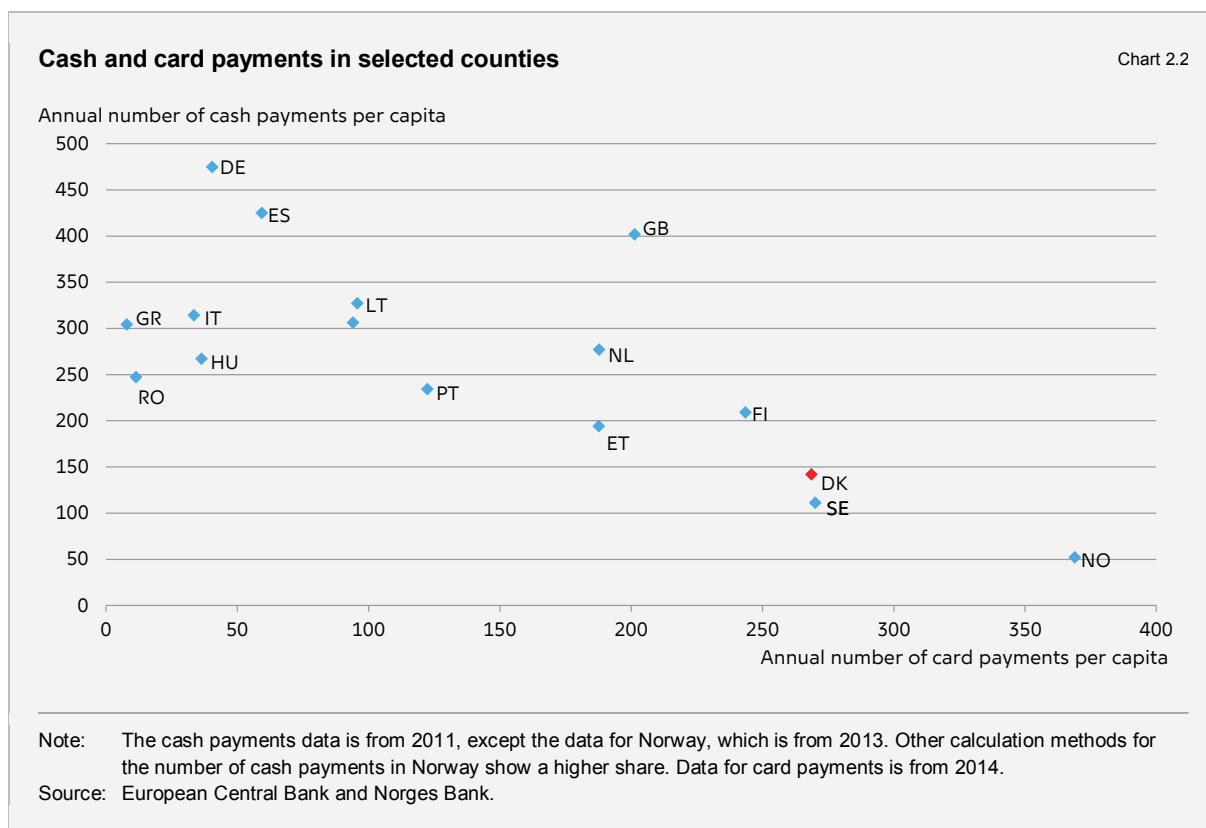
Cards are now the dominant means of payment

In an international perspective, Denmark is among the countries with most card payments and fewest cash payments per capita, cf. Chart 2.2. We share these characteristics with Sweden, Norway and Finland.

Dankort payments have evolved from being a solution based on paper vouchers and manual imprinters to still faster terminal-based solutions. Contactless payment cards are the most recent example. The contactless Dankort, which was launched in the 2nd half of 2015, makes it possible to

³ Section 6.1 (Appendix) provides an overview of the retailers represented.

transact payments of up to kr. 200 by just touching the card on a terminal that registers payment – without use of a PIN.⁴ From the autumn of 2016, it will also be possible to use a mobile phone, as the Dankort can be incorporated in a mobile phone.



Cash as a means of payment between individuals

Cash is also used for payments between individuals. Cash requires no technical infrastructure in the payment situation, which makes it suitable for this purpose.

Today, cash meets strong competition from the mobile payment solutions MobilePay and Swipp. These solutions enable transfers between users' bank accounts. Both solutions require that the payer opens an application with a PIN on a smartphone, enters an amount and the payee's mobile phone number and approves the payment without the use of NemID. The payer does not have to know the payee's account number. The mobile payment solutions apply express transfer, meaning that the amount is instantly transferred between the accounts on a 24/7/365 basis.⁵ An express transfer is final, so – as when using cash – the payee can be certain that payment has been made.

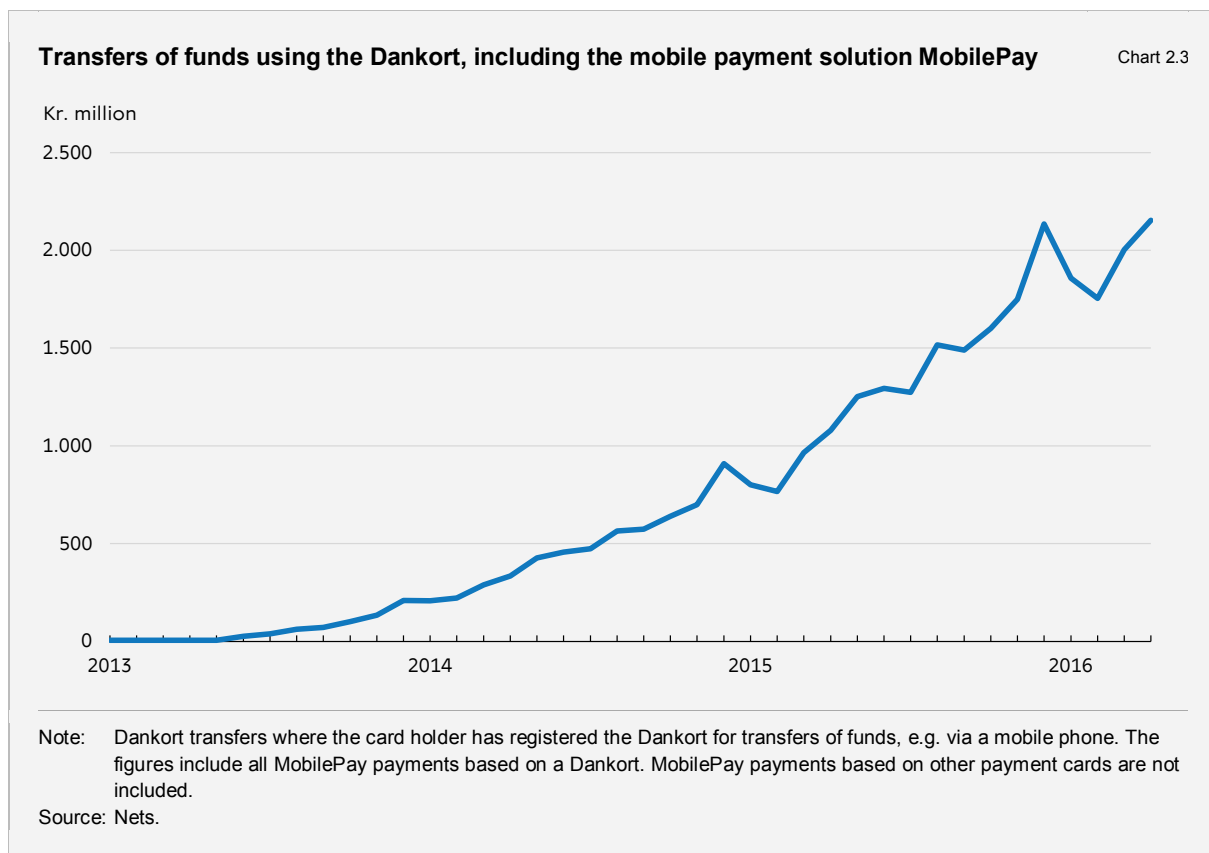
Mobile payment solutions have come into widespread use. Payments by MobilePay⁶ alone amounted to approximately kr. 2 billion a month in the first months of 2016, cf. Chart 2.3. The success of the mobile payment solutions reflects, inter alia, the popularity of smartphones in Denmark. Until

⁴ Contactless payment of higher amounts than kr. 200 is also possible, but requires use of a PIN.

⁵ For a description of the payments infrastructure for express transfers, see Morten Fremmich Andresen and Lars Egebjerg Jensen, Express transfers in Denmark, Danmarks Nationalbank, *Monetary Review*, 3rd Quarter 2014.

⁶ Only transactions where the underlying card is a Dankort are included.

now, the mobile payment solutions have been used mainly for payments between individuals, but they can also be used in retail stores and for online purchases.⁷



The mobile payment solutions may have affected payments between individuals in three ways. Firstly, they have replaced some cash payments. Secondly, they have supplemented traditional credit transfers. Finally, the option to pay by mobile phone has created its own demand, e.g. in the form of more frequent settlement as the payer always has the exact amount at hand via the mobile phone. There is no data to show which of these effects has been greatest, and nor is there data to say how large a share of payments between individuals is still made in cash.

Cash is still the only method of payment that, basically, requires no technology in the payment situation. A mobile payment transaction as a minimum requires a smartphone with mobile or internet coverage and a charged battery, and both users must have signed on to the solution.

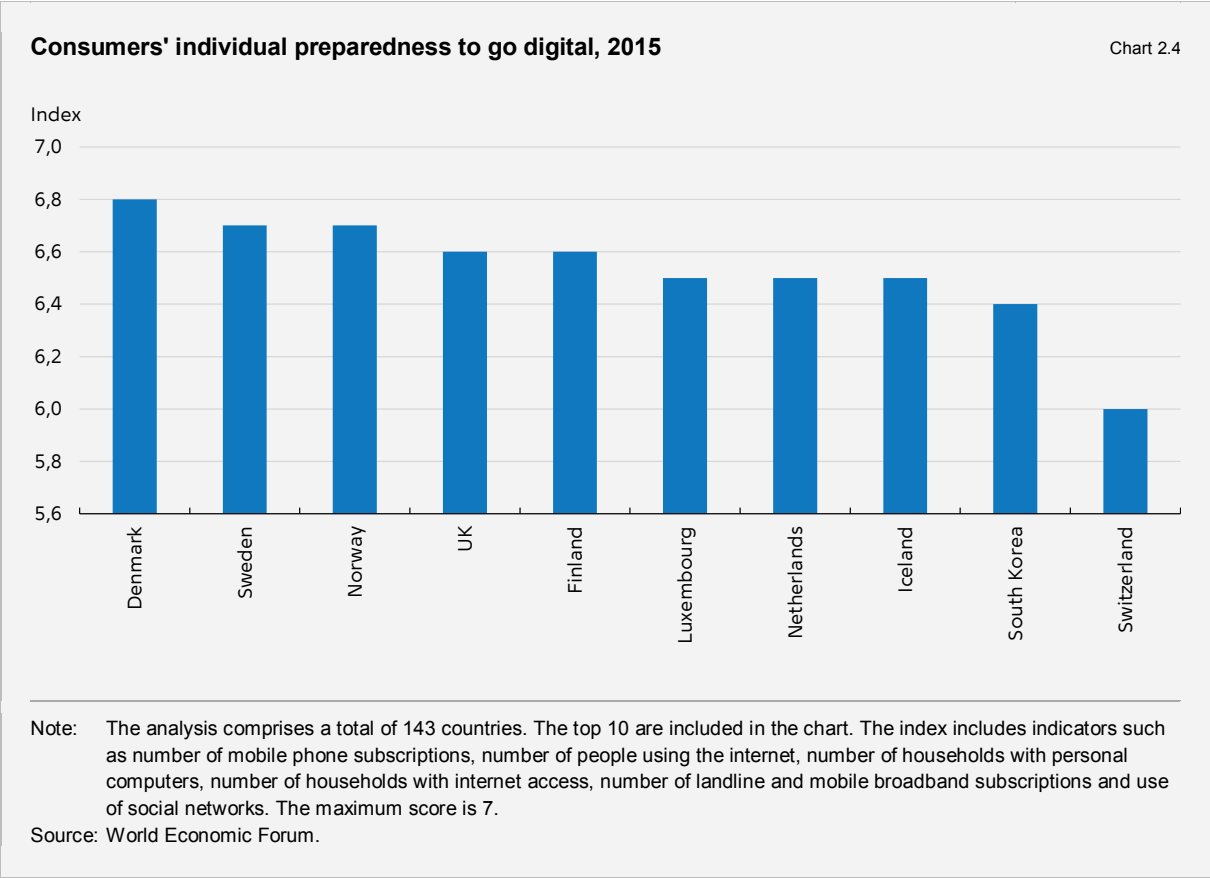
2.4 DIGITISATION AND THE USE OF CASH

Digitisation of society affects the use and availability of cash. Danish consumers embrace technology, and this is reflected in e.g. widespread use of online shopping. The public sector requires the use of digital self-service solutions. Banks' interactions with their customers have also become increasingly digitised, which contributes to a larger number of cashless branches and fewer branches in general.

⁷ Only MobilePay can be used on the internet.

Danish consumers embrace technology

Danish consumers are at the global forefront when it comes to individual preparedness to go digital, cf. Chart 2.4. This means that the vast majority of Danes are open to new digital solutions. However, there are groups of Danes who do not feel confident about digital solutions, cf. Chapter 4.

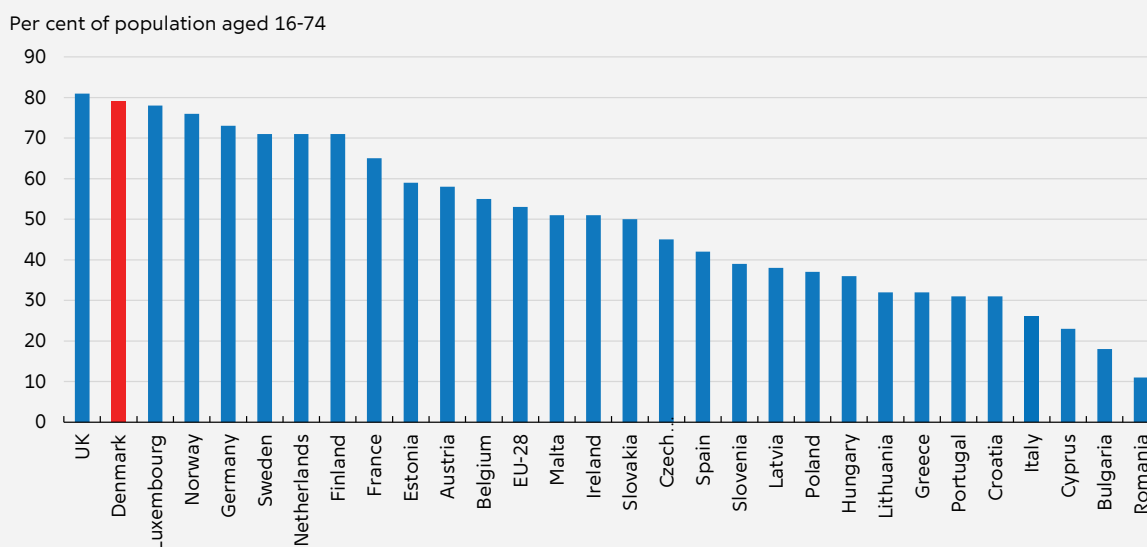


In an international context, the Danes are frequent internet users. In 2015, 87 per cent of the Danish population aged 16-74 years used the internet on an almost daily basis.⁸ Among other things, the internet is used to purchase goods and services. In 2015, 79 per cent of the population within this age group made online purchases. This is well above the average for EU citizens, 53 per cent of whom made online purchases in 2015, cf. Chart 2.5.

⁸ For people over the age of 74, the share using the internet on a daily basis is lower. See Chapter 4.

Online purchases in 2015

Chart 2.5



Note: Percentage of the population aged 16-74 that shopped online in 2015.

Source: Eurostat.

The picture of the Danes as online shoppers is supported by a surge in turnover in Danish online stores. Turnover rose by 41 per cent from 2012 to 2015.⁹ A survey by the industry organisation Foreningen for Dansk Internet Handel, FDIH, shows that in 2015 online sales accounted for approximately one quarter of the Danes' private consumption of goods that can be purchased online.¹⁰ The fact that consumers increasingly shop online contributes to rising demand for payment solutions that are suitable for this trading channel, where cash is not an option. It also intensifies competition for physical stores.

Digitisation of the public sector

Among other things, modernisation of the public sector has brought new digital solutions. On the basis of an agreement between the banks and the public sector, NemID was introduced as a shared electronic identification solution in 2010. NemID is a single shared log-in for public and private sector self-service solutions, including online banking. NemID has come into widespread use, one reason being that all citizens must be able to receive digital post from the public sector, for which NemID is used. However, users who are not able to provide sufficient identification or who are unable to administer NemID, e.g. due to physical or mental disability, language barriers or similar, may be exempted from digital post.

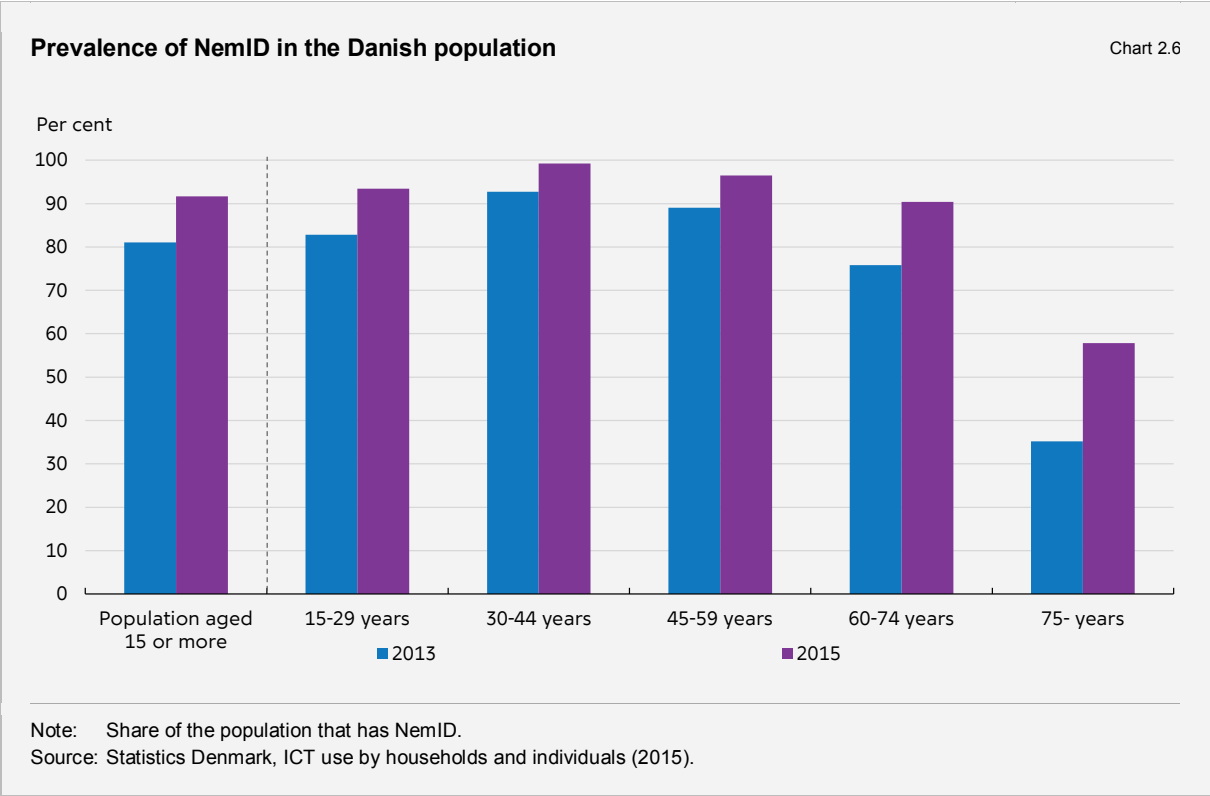
In a survey conducted by Statistics Denmark in 2015, 92 per cent of the population over the age of 15 said that they had NemID, cf. Chart 2.6. But the share remains considerably lower for those over the age of 74.

⁹ Source: DIBS's annual report on e-commerce, mobile commerce and payments, 2015.

¹⁰ An example of something that cannot be purchased online is petrol.

Another digital requirement from the public sector is that firms and consumers over the age of 18 must have a bank account, called NemKonto, where they can receive disbursements from public authorities, e.g. student grants, tax refunds and holiday pay.

Digitisation of the banking sector and the public sector has presumably boosted the use of digital solutions, which may have had a knock-on effect on payment patterns.

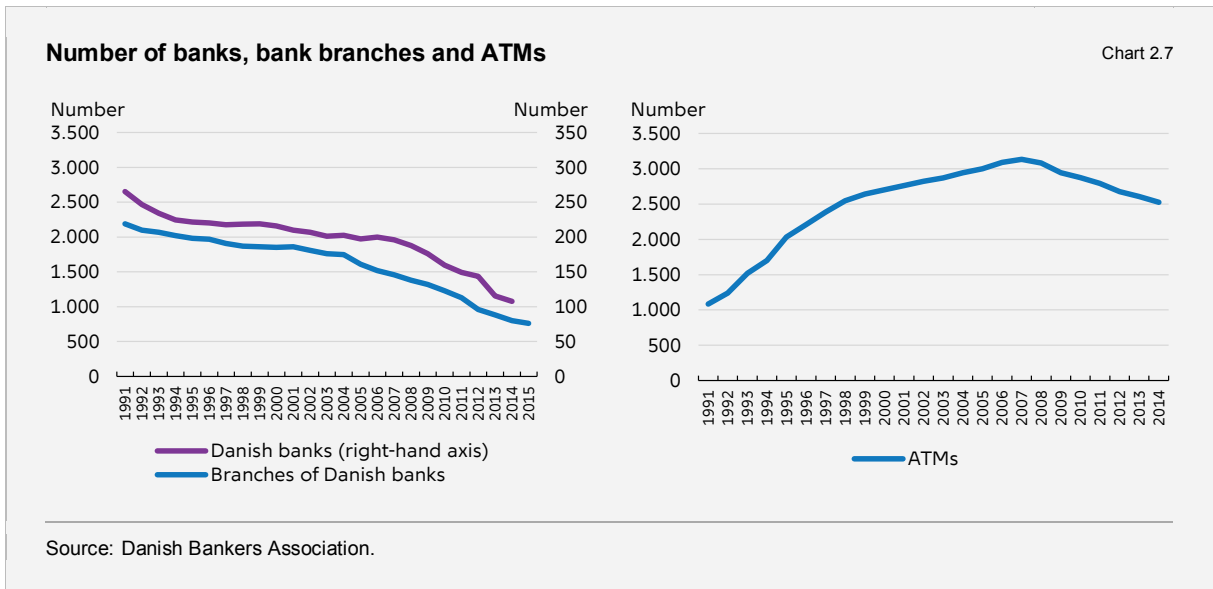


The availability of banks and cash to consumers

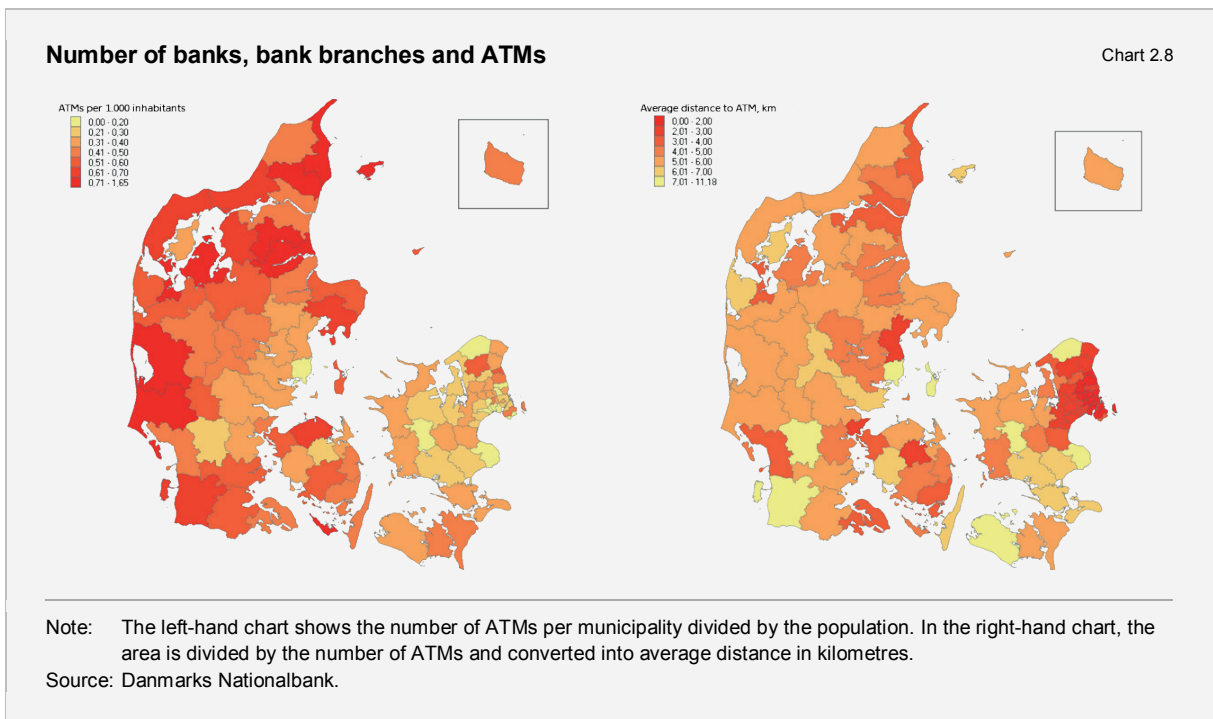
The availability of cash relates to the possibilities for consumers and firms to withdraw or deposit cash. Consumers can acquire cash from bank branches, from ATMs or by making card payments exceeding their purchases in retail stores.

The number of bank branches in Denmark has been declining for some years, and over the last decade this trend has accelerated. One of the reasons for the closures is that the number of banks in Denmark has been reduced to less than half in the same period, cf. Chart 2.7 (left). Furthermore, the banks have streamlined their branch networks, presumably reflecting customers' increased use of digital solutions rather than physical services. In 2002, the first cashless bank branch was established in Denmark, and since then the number has increased steadily. For example, Danske Bank now offers staffed cash withdrawal and deposit services at only 54 of its 120 branches in Denmark. Nordea's Danish customers have this option at 42 of the bank's 128 Danish branches.¹¹ All else equal, this trend has reduced the possibilities of withdrawing and depositing cash via staffed services at a bank.

¹¹ The number of branches is from June 2016 for Danske Bank and from April 2016 for Nordea.



The number of ATMs increased until 2007, after which it has fallen to around 2,500 in 2014, cf. Chart 2.7 (right). Relative to the population, the number of ATMs is highest in rural areas in Jutland, cf. Chart 2.8 (left). The average distance to an ATM is shortest in the largest cities and in the Copenhagen area, cf. Chart 2.8 (right).



The availability of cash is being discussed in Sweden and Norway. Denmark's geographical layout differs substantially from those of Norway and Sweden, and the average Dane is far closer to an ATM than citizens in the other Nordic countries, cf. Table 2.1. The Danes also have more ATMs per 1,000 inhabitants.

ATMs in selected Nordic countries

Tabel 2.1

	Denmark	Finland	Norway	Sweden
Number of ATMs	2,530	1,637	2,133	3,230
ATMs per 1,000 inhabitants	0.5	0.3	0.4	0.3
ATMs per km ²	0.060	0.005	0.006	0.007
Average distance to ATM in kilometres	4.1	14.4	13.4	11.8

Kilde: ECB SDW and Norges Bank, "Developments in retail payment services – 2014." Norges Bank Papers No. 1, 2015.

In Norway, there is a statutory provision saying that banks must make their customers' deposits available in cash in accordance with customer expectations and requirements. In Sweden, the Riksbank has recommended similar legislation in connection with the implementation of the EU Payment Accounts Directive (PAD), cf. Box 2.3. The Danish Payment Accounts Act, which is based on the same Directive, entered into force on 1 July 2016 and ensures that all consumers have access to a basic payment account with a number of features, including the option to withdraw and deposit cash, cf. Box 4.1. The Act does not include the same obligation for banks as the Riksbank's recommendation in Sweden.

The legal situation in Sweden and Norway as regards the banks' obligation to handle cash

Box 2.3

Sweden

In Sweden, the banks are not under any obligation to handle cash. In a consultation response to the Ministry of Finance in connection with the implementation of the PAD, Sveriges Riksbank recommends that an obligation be imposed on the banks to offer a number of services, including handling cash and making cash available, i.e. giving customers access to deposit and withdraw cash in accordance with their needs. In its consultation response, the Riksbank mentions that a considerable number of consumers, especially in rural areas, experience lack of access to payment services, notably cash.

Norway:

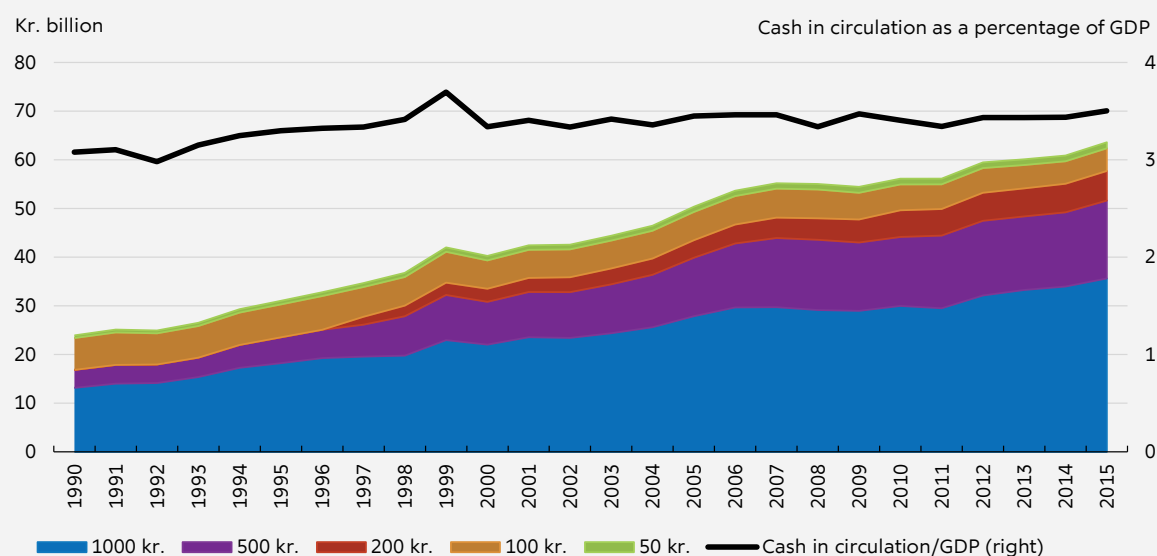
In January 2016, a new Norwegian Financial Institutions Act came into force. The Act imposes an obligation on banks to accept cash from customers and make deposits available to customers in the form of cash in accordance with customer expectations and needs. This obligation is more extensive than the Riksbank's consultation response, cf. above, as the Norwegian Act refers not only to customer needs, but also to expectations. The banks must comply by 1 January 2017. According to the explanatory notes to the Act, it is up to the banks to decide how they will meet the obligation. It is essential that the customers' cash deposit and withdrawal needs must be met in an appropriate manner. It is not ruled out that banks may charge for deposits and withdrawals, and nor is it a requirement that the bank must handle cash itself. So far, no further regulations have been prepared on the scope of this obligation.

2.5 CASH IN CIRCULATION – TOTAL VOLUME OF CASH

The total volume of cash in Denmark has been rising over the last 25 years. After the financial crisis, cash in circulation stagnated, but in recent years the volume has grown again. Cash in circulation as a ratio of GDP has been more or less stable for the last 15 years, cf. Chart 2.9. At end-2015, the value of banknotes and coins in Denmark was just under kr. 70 billion, of which approximately kr. 64 billion was in banknotes. This corresponds to just over kr. 12,000 per capita.

Banknotes in circulation in Denmark at year-end, broken down by denominations, and cash in circulation as a percentage of GDP

Chart 2.9



Note: Data for Danish banknotes held at year-end.

Source: Danmarks Nationalbank.

Danmarks Nationalbank does not have a target for cash in circulation, but supplies the banknotes and coins required, cf. Box 2.4.

Cash and monetary policy

Box 2.4

Danmarks Nationalbank does not use cash as a monetary policy instrument today. The main objective of Danmarks Nationalbank's monetary policy is to keep the Danish krone stable against the euro. This is done via the monetary policy interest rates. In addition, Danmarks Nationalbank makes sure that the banking system overall has sufficient liquidity by giving banks and mortgage banks access to current account deposits at Danmarks Nationalbank which can instantly be used for payments. The volumes of banknotes and coins in circulation purely reflect what is needed. Danmarks Nationalbank adapts production accordingly and does not have a target for cash in circulation.

Development in banknote denominations

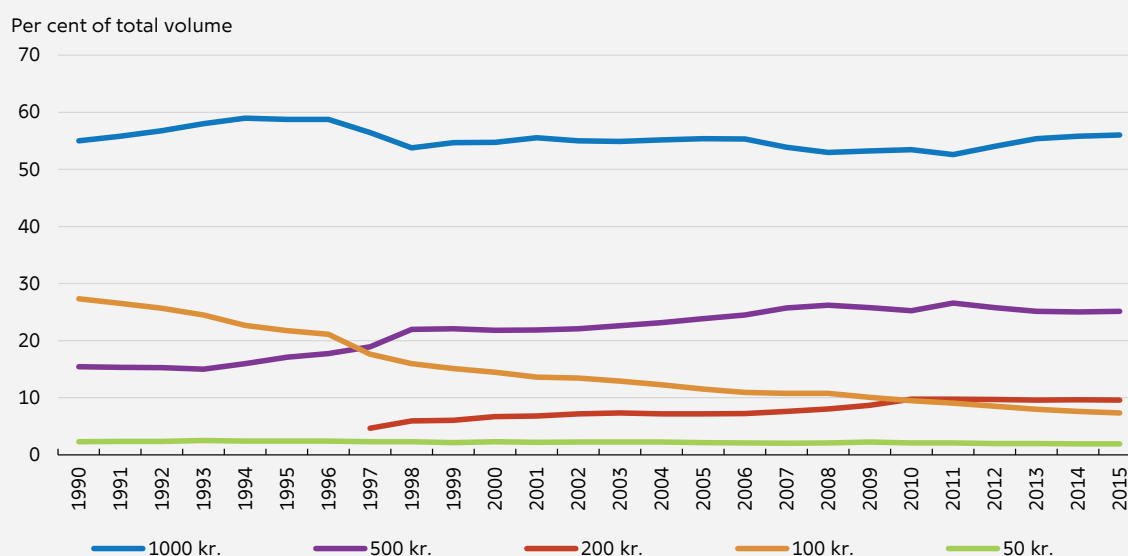
Cash is used for payments and as a store of value. Payments may include planned payments and cash at hand in case a payment situation arises where only cash can be used. Developments in banknote denominations give insight into whether cash in circulation is used for payments or as a store of value.¹²

There are five Danish banknote denominations. The 1,000-krone banknote is typically regarded as a store of value, while the three smallest denominations are used mainly for payments. It is difficult to assess whether the 500-krone banknote is used primarily as a store of value or for payments.

¹²Coins account for only a small share of cash in circulation so they are not discussed further in this section.

Individual banknote denominations as percentages of the total volume in circulation

Chart 2.10



Note: Total volume in circulation excluding coins.

Source: Danmarks Nationalbank.

The 1,000-krone banknote's share of total cash in circulation has been around 55 per cent since the late 1990s, but with a slight upward trend in recent years, cf. Chart 2.10. The 500-krone banknote's share has been rising, to approximately 25 per cent at present, while that of the 100-krone banknote has fallen, partly because the 200-krone banknote is taking over its role. In other words, the large denominations account for a greater share of cash in circulation than previously. The trend over time should also be viewed in the light of higher prices. All else equal, there will be a shift towards a higher share of large banknotes.¹³

Use of cash

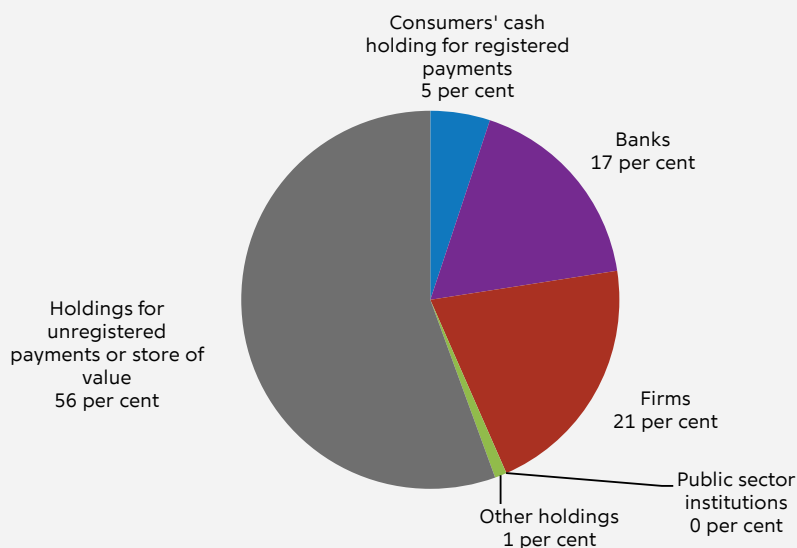
Most of the cash in society is used for unregistered payments and as a store of value, cf. Chart 2.11. Unregistered payments include e.g. payment between individuals for second-hand goods and payments in the "black economy". Presumably the anonymity of cash means that the black economy is to a large extent cash-based although payment also takes place via exchange of goods and services.¹⁴ Firms hold 21 per cent of cash in circulation, comprising cash received from customers.

¹³ Prices rose by 62 per cent from 1990 to 2015, cf. Statistics Denmark's consumer price index.

¹⁴ In the assessment of the Rockwool Foundation, demand for moonlight work fell from 2010 to 2014. This includes both the share paid for in cash and the share involving exchange of services.

Estimated distribution of cash in circulation in 2013

Chart 2.11



Note: Unregistered payments and store of value have been calculated residually. The calculation method is based on assumptions and estimates and is subject to uncertainty. The method applied is described in *Brug af kontanter i Danmark* (The use of cash in Denmark – in Danish only), Carlsen and Rishøj, 2006.

Source: Danmarks Nationalbank and own calculations.

Cash handling and cash in circulation

A possible explanation of the recent rise in cash in circulation may be that various stakeholders have focused on reducing the costs of handling cash. This can be done by e.g. filling more banknotes into ATMs than previously and by increasingly giving customers who withdraw money from ATMs large banknotes. Retailers can also minimise costs by postponing delivery/collection of cash. At the same time, the low level of interest rates means that people do not lose much income by holding cash for longer. The difference between holding cash, which does not carry interest, and having bank deposits is currently historically low. This could boost demand for cash. But in the assessment of Danmarks Nationalbank there are no indications that banknotes and coins in circulation are affected by negative interest rates to any substantial degree.¹⁵

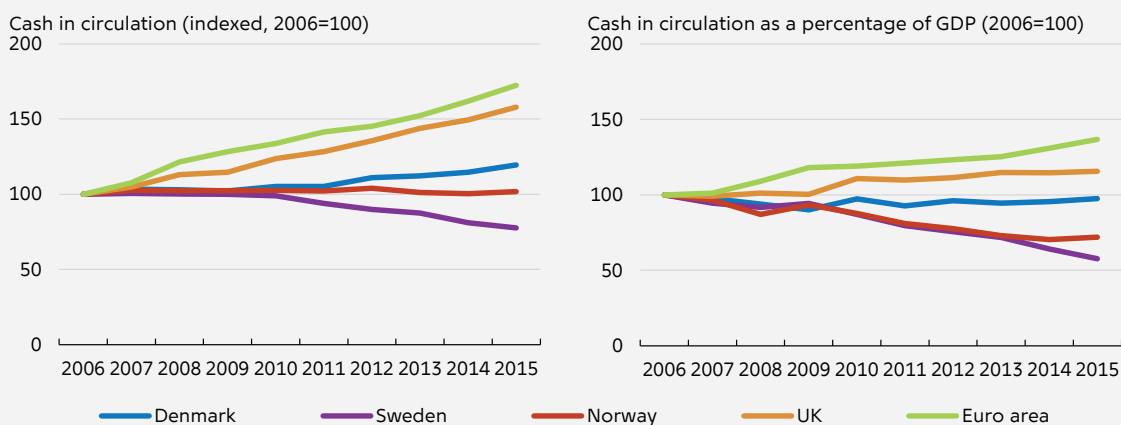
International comparison of cash in circulation

In the euro area and the UK, there has been a notable increase in cash in circulation, cf. Chart 2.12 (left). In Norway, cash in circulation has stagnated, while it is falling considerably in Sweden. Relative to the size of the economy, cash in circulation is falling in both Norway and Sweden, while it is flat in Denmark, cf. Chart 2.12 (right).

¹⁵ See Carina Moselund Jensen and Morten Spange, Interest rate pass-through and the demand for cash at negative interest rates, Danmarks Nationalbank, *Monetary Review*, 2nd Quarter 2015.

International comparison of cash in circulation

Chart 2.12



Note: In the period since 2006, seven new members have joined the euro area, and this has had an impact on cash in circulation in the area. Slovenia (2007), Malta (2008), Cyprus (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015).

Source: Danmarks Nationalbank, Sveriges Riksbank, Norges Bank, Bank of England, ECB and OECD.

In many respects, Sweden is experiencing the same developments in the payments market as Denmark. However, Sweden differs from Denmark when it comes to practice in connection with issuance of new banknote series. Sveriges Riksbank traditionally invalidates an old banknote series shortly after having issued a new series. For example, the Swedish 1,000-krona banknote was invalidated at the end of 2013. This led to a strong fall in cash in circulation as many Swedes chose to exchange the old banknotes for electronic bank deposits. Furthermore, lost and damaged banknotes are excluded from the calculation of cash in circulation. Hence, different practices when it comes to issuance of new banknote series have contributed to different trends in cash in Sweden and Denmark since 2013.

2.6 DISTRIBUTION OF CASH

Banknotes and coins are put into circulation via two decentralised cash depots in Copenhagen and Aarhus, both of which are part of a larger cash centre. The cash centres are operated by Bankernes Kontantservice, BKS, which is one of three large cash-in-transit, CIT, companies in the Danish market, cf. Box 2.5.

Cash-in-transit companies in the Danish market

Box 2.5

In Denmark there are three cash-in-transit (CIT) companies, which service banks and retail stores by supplying, collecting and transporting cash safely between stores, branches and cash centres. Bankernes Kontantservice, BKS, is aimed primarily at banks, while Loomis and Nokas serve many retail stores. Today, CIT companies offer a wide range of services besides supplying and collecting cash, including closed cash handling systems, counting machines that eliminate counting of cash after closing time and fast crediting of cash payments to the retailers' accounts.

BKS:

BKS was established in 2010 via a merger of the large Danish banks' cash transport and counting functions. The aim was to pool bank competences in one company.

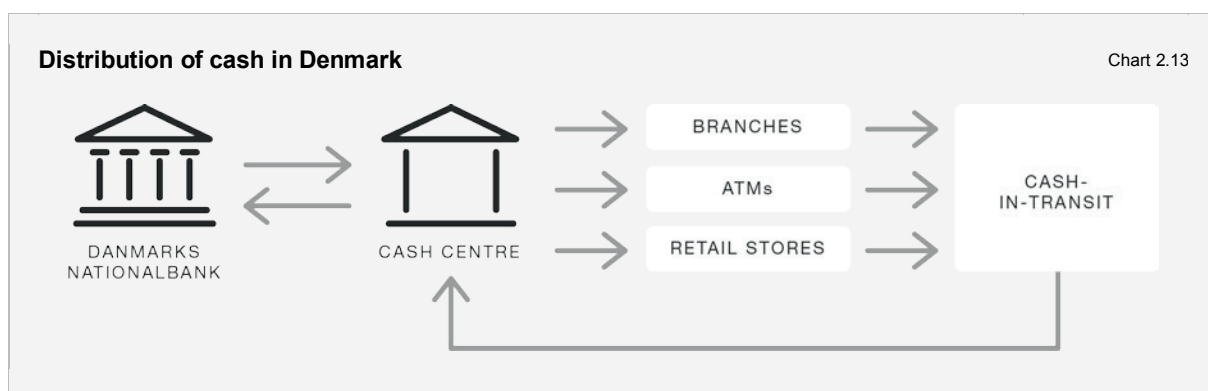
Loomis Denmark:

Loomis Denmark is a branch of the Swedish company Loomis AB. Loomis was previously part of Securitas. In 2006, Securitas' CIT operations were demerged and named Loomis. Loomis has two cash centres in Denmark.

Nokas:

Nokas is a Nordic security group with companies in Norway, Sweden and Denmark. Nokas is headquartered in Norway. Nokas provides services within transport of values and CIT services and also provides ATM operation services.

From the cash centres, the CIT companies transport the cash to bank branches, including ATMs, and large retail stores, cf. Chart 2.13.



The largest retailers typically have an agreement with a CIT company for collection of cash, while smaller retailers sometimes prefer to deposit cash in night safes or use ATMs with a deposit system, i.e. cash recirculation ATMs.

When the cash has been put into circulation, it can (1) circulate among consumers or (2) circulate between consumers and retailers as payment for goods and services or (3) be used as a store of value. Over time it is collected by a CIT company or deposited at a bank and sent on to a cash centre.

At the banks and the cash centres, cash deposited in night safes or collected is counted. As part of this process, an assessment is performed of whether the cash is fit for recirculation or should be returned to Danmarks Nationalbank for destruction.¹⁶

¹⁶ In practice, not all banknotes and coins are returned to Danmarks Nationalbank as there is some wastage.

2.7 COSTS RELATED TO CASH

Cash involves costs – for banks and for retailers. This was documented in Danmarks Nationalbank's survey of the social costs of payments in Denmark in 2009.¹⁷ The survey included households' costs, i.e. primarily the time used on activities linked to payments.

According to the survey, the total costs related to cash were just under kr. 6 billion, cf. Table 2.2. This corresponds to just over kr. 7 per cash payment. By comparison, the costs to society of Dankort payments were kr. 2.5 billion, corresponding to approximately kr. 3 per payment. Supplementary calculations showed that cash payment can be cheaper for society than payment by Dankort if the amount is relatively small. In 2009, the costs for payments below kr. 29 were smaller if payment was made in cash rather than by Dankort.

Social costs of payments in Denmark, 2009		Table 2.2
	Total, kr. billion	Per payment, kr.
Payments at points of sale	9.1	
Cash	5.8	7.36
Dankort	2.5	3.15
International debit cards	0.5	11.89
International credit cards	0.4	21.17

Note: Social costs, including household costs.
Source: Danmarks Nationalbank.

The costs related to cash mainly reflect that cash is time-consuming to handle. The banks spend time on deposits and withdrawals at branches, filling ATMs and sorting and counting night safe deposits. Retailers have payroll costs for staff that count the till during the day and at the close of the day, collect change and deposit cash in night safes. There may also be costs for CIT companies and security equipment.

The banks' coverage of costs is lower for cash services than for other means of payment, cf. Table 2.3. This is because the banks are hesitant to charge fees from customers for these services, especially if the banks' own ATMs are used. Danmarks Nationalbank's survey also showed that the costs to retailers are considerably higher for cash payments than for Dankort payments.

¹⁷ Danmarks Nationalbank, *Costs of payments in Denmark*, 2011.

Net costs to the private sector of payments at point of sale

Table 2.3

Kr. million	Private sector costs	Fees received and similar	Coverage of costs, per cent	Net costs to the private sector
Cash				
Banks, etc.	2,264	358	16	1,905
Retail stores	2,384	0		2,384
Dankort				
Banks, etc.	678	324	48	354
Retail stores	1,415	0		1,415
International debit cards				
Banks, etc.	373	76	21	296
Retail stores	94	0		94
International credit cards				
Banks, etc.	340	156	46	184
Retail stores	113	0		113

Note: Fees paid and received and similar includes all transfers between parties in the table, including interest losses and gains, cash and value losses and gains. Banks, etc. includes banks, CIT companies and card companies.

Source: Danmarks Nationalbank.

Finally, Danmarks Nationalbank has expenses for production and handling of banknotes and coins. Total costs for 2009 were calculated at kr. 130 million. Danmarks Nationalbank also has revenue from issuance of cash. The net revenue is called seigniorage, cf. Box 2.6.

Seigniorage

Box 2.6

When Danmarks Nationalbank issues money, this has historically generated considerable income, known as seigniorage. Seigniorage for cash can be seen as Danmarks Nationalbank's income from issuing claims without interest less the costs of producing banknotes and coins. Danmarks Nationalbank raises an interest-free loan and places it in assets, such as bonds, which yield interest income. So the size of the seigniorage depends on the return received by Danmarks Nationalbank. Seigniorage is part of Danmarks Nationalbank's profit, which is transferred to the central government. The low level of interest rates means that seigniorage is currently very modest. In the 1990s, it was considerable and amounted to approximately 0.2 per cent of GDP, or around kr. 1.5 billion in 1999.

Note: See Haller and Wagener, Compilation of seigniorage, Danmarks Nationalbank, *Monetary Review*, 4th Quarter 2000 for a more detailed review of methods for estimating seigniorage.

Subsequent developments

Danmarks Nationalbank's survey of the costs of payments is based on data from 2009. Since then, the downward trend in the use of cash in retail trade has continued, cf. section 2.3. Viewed in isolation, this trend has increased costs per cash payment, but reduced overall costs for cash. In addition, a number of other factors may have influenced the costs related to cash in either direction. It is assessed that an average cash payment still involves considerably higher costs for society than a Dankort payment.

As regards the banks, enhanced security requirements may have increased the costs related to cash. As part of the effort to comply with these requirements, the banks in 2010 established the CIT

company BKS. Large investments have subsequently been made in this joint company with a view to heightening cash handling security. In the longer term, the banks are expected to realise certain savings.

On the other hand, the bank branches have reduced their ranges of cash-related services. In recent years, a large number of branches have become cashless, and customers are increasingly getting used to withdrawing and depositing cash in other ways than at a staffed bank desk. This has reduced the banks' costs for handling cash.

Retailers have also invested in solutions to strengthen security in connection with cash. One example is closed cash handling systems, which limit staff access to cash. Due to depreciation on these investments, they have initially increased the retailers' cash-handling costs, but they also offer potential savings by way of more efficient counting and sorting.

In addition, it has affected the retailers' relative costs for cash and card payments that payment time for the latter has been reduced considerably. This is attributable to the introduction of new card terminals with faster verification of payments. The contactless Dankort has further reduced payment time for card payments relative to cash.

3 DANISH LEGISLATION

3.1 INTRODUCTION

Danish legislation includes a number of provisions affecting the role of cash in society. Where no other agreements or legal provisions apply, Danish banknotes and coins are always legal tender.

This chapter first describes the legal meaning of the term "legal tender", i.e. what is "current coinage" in Denmark. It then describes the legal basis for the obligation to accept cash, the cash rule and finally the principle of freedom of contract in relation to payments. These three areas are the Danish foundation for the relationship between the payer and the payee when banknotes and coins are used for payment. At the end of the chapter, rules and public sector initiatives limiting the use of cash are outlined.

3.2 LEGISLATION ON PAYMENT IN CASH

What is legal tender?

Legal tender is a legal term comprising the means of payment that can be used for release from a payment obligation in Denmark. Unless otherwise agreed or special legal provisions exist, cf. below, Danish banknotes and coins are always legal tender in Denmark.^{18,19}

Called-in and invalidated banknotes and coins

Box 3.1

Under section 8(3) of the Danmarks Nationalbank Act, banknotes may be called in with the permission of the Minister of Trade, Industry and Shipping (today the Minister for Business and Growth) and shall then cease to be legal tender from the date fixed by ordinance. After the expiration of twelve months from this date the called-in banknotes shall lose their validity vis-à-vis Danmarks Nationalbank, but Danmarks Nationalbank shall have the right to redeem the banknotes, i.e. exchange them for new banknotes, also after this time. Calling-in of banknotes under section 8(3) of the Danmarks Nationalbank Act has taken place only twice since the substitution of money in 1945. However, Danmarks Nationalbank still exchanges all banknotes issued after the substitution of money.

Under section 3 of the Coinage Act, the Minister for Business and Growth, after negotiation with Danmarks Nationalbank, may determine that coins are no longer legal tender. All coins issued after 1875 with a value of kr. 0.50 or higher are still legal tender and can be exchanged for new coins. The 25-øre coin ceased to be legal tender on 1 October 2008. The redemption deadline was 1 October 2011.¹

¹ Cf. Danmarks Nationalbank's website.

For banknotes, this follows from section 8 of the Danmarks Nationalbank Act.²⁰ According to this provision, banknotes issued by Danmarks Nationalbank are legal tender between man and man and for payments and disbursements which take place in public pay-offices. In relation to coins, section

¹⁸ Greenland and the Faroe Islands are part of the Kingdom of Denmark. The same banknotes are used throughout the Kingdom, except in the Faroe Islands. The Faroese banknotes are not legal tender in Denmark, and nor are Danish banknotes legal tender in the Faroe Islands. The same coins are used throughout the Kingdom of Denmark.

¹⁹ In general, the debtor cannot expect the creditor to be able to give change, but should make sure to have the exact amount. However, the creditor is scarcely entitled to reject the debtor's offer of payment if change can be given without much inconvenience. All the same, the Consumer Ombudsman has stated (case no. 12/00522) that in the opinion of the Consumer Ombudsman it would be contrary to the cash rule in section 56 of the Payment Services Act if a firm decides not to give change in connection with physical transactions.

²⁰ Act no. 116 of 7 April 1936 on Danmarks Nationalbank.

4(1) of the Coinage Act²¹ states that all coins minted pursuant to current or previous coinage legislation shall be legal tender, unless they have been called in or withdrawn.²² For further details, see Box 3.1.

Cash must be exchanged at its nominal value. There are no provisions in Danish legislation that say this directly, but it is assessed to follow implicitly from section 8 of the Danmarks Nationalbank Act for banknotes and section 4 of the Coinage Act for coins. Moreover, it should be noted that charging a fee for payment in cash must, as a main rule, be deemed to be circumvention of the cash rule in section 56 of the Payment Services Act, as a fee, depending on the size of the fee relative to the price of the goods, may in practice mean that the customer cannot pay in cash.²³

The cash rule

In Denmark, a payee who accepts payment instruments, such as payment cards, has a statutory obligation to accept cash as payment in connection with staffed sales. This follows from section 56 of the Payment Services Act.²⁴ This provision entails that a payee cannot make an agreement conditional upon the customer using a payment instrument comprised by the Payment Services Act. The provision applies to private sector retailers as well as public institutions.²⁵ See Box 3.2 for an elaboration on the term "payment instruments".

What are payment instruments?

Box 3.2

In the Payment Services Act, a payment instrument is defined as: "*Any personalised device(s) and/or set of procedures agreed between the payment service user and the payment service provider and used by the user in order to initiate a payment order*". This could be e.g. a payment card, including a traditional credit or debit card, intended for physical or electronic reading.

In addition, a payment instrument may have limited use for purchasing goods and services from the issuer of the payment instrument (e.g. a specific department store), in a limited number of stores (e.g. in a specific shopping centre) or for a limited range of goods and services. Examples are canteen cards, petrol cards and transport cards.

Section 56 of the Payment Services Act is a Danish provision, i.e. it is not an implementation of the Payment Services Directive. The rule was introduced in 1984 in connection with the launch of the Dankort system. The history of the cash rule is described in Box 3.3.

21 Act no. 117 of 21 December 1988.

22 Coins that are materially damaged or worn are not legal tender. Likewise, banknotes that are discoloured, e.g. by colour cartridges, or materially damaged are not legal tender.

23 Section 78(2) of the Payment Services Act states, inter alia, that a provider of payment services shall not prevent the payee from offering a discount. This provision is part of the implementation of an EU Directive and relates only to payment instruments (the provision applies by analogy to payment surrogates, cf. section 106 of the Payment Services Act) and hence the issue of discounts for some payment instruments rather than others. Cash is beyond the scope of the Directive, so the provision does not regulate the issue of discounts for payment instruments versus cash. If discounts are given to all customers making electronic payments, but not to cash customers, this may, in the given circumstances, be comparable to charging a fee for cash payment.

24 Consolidated Act no. 613 of 24 April 2015 on Payment Services and Electronic Money (as amended).

25 In 2007, the Consumer Ombudsman contacted Borgerservice (Citizens Service) in the City of Copenhagen, which refused to accept cash payment in connection with registration for driving tests, and informed them that this was contrary to the cash rule.

The ban on rejection of cash payments stems from the Payment Card Act, which entered into force in 1984 when the banks introduced the Dankort system. At that time, use of electronic payments was virtually non-existent. Before the Act was passed, and in continuation of a debate in the Folketing (parliament) on the Dankort, the Minister for Industry had set up a project group to assess a number of aspects, including consumer policy aspects, related to the use of electronic means of payment.

The project group prepared a "*Rapport om betalingskort*" (Report on payment cards – in Danish only), which was published as report no. 965 in December 1982. The report states that it is a condition for the introduction of the electronic payments system that it does not put weak consumers in a much weaker position. In the assessment of the project group, it should be possible for any payer to avoid using a payment card, and consumers should always have the option of using cash instead. Among other things, the report points out that it is in the interests of consumers that the supply of all services develops in a competitive environment, and that consumers who cannot or do not wish to hold a debit card need to have alternative options. As regards the competition element, the report also states: "*Taking into account the size of the country and economies of scale in communication, it is reasonable to accept that if an electronic payment system with a debit card is established, only one system is established. To ensure that it does not develop into a de-facto monopoly, alternative methods of payment should be ensured. First and foremost cash.*" The consumer policy assessment in the report had an impact on the subsequent debate and the content of the final act.

Hence the Payment Card Act of 1984 included a general clause under which the Consumer Ombudsman was to ensure that payment card systems were designed and operated in a way that ensured transparency, voluntariness and protection against fraudulent use for consumers. The voluntariness requirement was also specifically enshrined in a provision on the obligation to accept cash. The legislative material¹ behind this provision shows that "*the rule contains a prohibition against discrimination of cash customers in favour of card holders, so that a payee cannot refuse to enter into an obligation to supply goods/services purely because of the method of payment (card/cash)*". In other words, the provision was to ensure that cash could still be used in all stores in future. At this time, the ban on rejection of cash payments applied within "normal opening hours" only. It can be seen from the legislative material that "normal opening hours" initially related to practices under the act on retail opening hours.

Act no. 184 of 23 March 1992 gave the Minister for Industry powers to grant exemptions from this provision. This was done in order to combat crime,² as the provision in force entailed a requirement also to install cash machines at unstaffed points of sale with card payment machines. The Act on Certain Means of Payment (act no. 414 of 31 May 2000) extended the provision to apply throughout the store's opening hours. At the same time, it was made clear that the ban on rejecting cash did not apply to remote sales or in unstaffed self-service environments. The applicable provision in the Payment Card Act did not include any such exemption from the cash rule. This had proved to be inexpedient as there is no personal contact between the buyer and the payee in these situations. The original draft for the Act on Certain Means of Payment did not include a specific provision on the obligation to accept cash corresponding to the earlier provision in the Payment Card Act. However, such a provision was inserted when the act was discussed by the relevant parliamentary committee (supplementary report of 24 May 2000).

In 2009, the Act on Certain Means of Payment was replaced by the Payment Services Act now in force. This Act retains the cash rule.

¹ Folketingstidende (Danish official gazette) 1983-1984, 2nd Collection, Appendix B, column 896.

² Folketingstidende 1991-1992, Appendix A, Vol. 1, column 1169.

The cash rule means that cash cannot be rejected, not even at night, if the retailer is staffed at this time.²⁶ However, there are situations where a payee does not have an obligation to accept cash. This

²⁶ This applies "*even if the payee may have an interest in only accepting payment by means of payment instruments and rejecting cash payment in order to protect retail staff against robberies, which typically take place at times when the payee's staffing is low.*" Susanne Karstoft, *Lov om betalingstjenester og elektroniske penge med kommentarer* (The Payment Services and Electronic Money Act with comments – in Danish only), 2012 p. 338 and Folketingstidende (Danish official gazette) 1999-2000 Appendix B, Vol. 2, p. 1375.

applies in connection with remote sales, e.g. online sales, or payment transactions in unstaffed self-service environments. Unstaffed self-service environments can be shops with automatic vending only, e.g. unstaffed petrol stations. Whether a self-service environment is staffed or not depends not only on whether staff is present – the role of the staff is also of significance, cf. Box 3.4. The Consumer Ombudsman, who supervises that payees do not breach section 56, has assessed that the organisation of the sales and payment procedures and driver functions in Movia's buses must be deemed to be an unstaffed self-service environment. In this case, the Consumer Ombudsman stated that the issue of whether a self-service environment is "staffed" should, in the view of the Consumer Ombudsman, also be interpreted in the context of technological advances and a business operator's wish for expedient planning of its activities.

The obligation to accept cash payment does not apply in situations regulated by section 2 of the Act on Preventive Measures against Money Laundering and the Financing of Terrorism either, cf. section 3.3 below.

Interpretations of unstaffed self-service environments

Box 3.4

In connection with the Danish Financial Supervisory Authority's consideration of an application from Movia for exemption from the cash rule, the Consumer Ombudsman has stated that Movia's reorganisation of its sales and payment procedures and transition to new driver functions in Movia's buses must be deemed to be comprised by section 56 on unstaffed self-service environments. As regards the reorganisation, it was stated that in future drivers will primarily drive the buses, while contact with passengers was to be limited to a minimum. In future, drivers were not to sell or check tickets etc. The issue of whether a self-service environment is "staffed" should, in the view of the Consumer Ombudsman – and in the absence of clear-cut indications in the legislative material – also be interpreted in the context of technological advances and a business operator's wish for expedient planning of its activities. As the Consumer Ombudsman saw it, the term "unstaffed self-service environment" should be interpreted in this light. But at the same time, the Consumer Ombudsman indicated that reorganisation of existing procedures and functions in buses should not be initiated until these changes had been clearly and visibly notified to the passenger groups involved.¹

The Consumer Ombudsman has also considered a case concerning a consumer who had been rejected when trying to buy football tickets from a radio and TV store because she was unable to pay by Dankort. The actual sale took place via an internet portal accessed via a self-service ticket terminal. There was no agreement between the owner of the ticket terminal and the store saying that the store's staff should help customers buy tickets. In the assessment of the Consumer Ombudsman, the cash rule had not been violated, provided that a sign or similar clearly stated that this was a self-service device and that cash could not be used.²

¹ Case no. 13/02485.

² Case no. 2003/11737/8-5.

Access to grant exemptions from the cash rule

Exemptions from the cash rule may be granted only by the Minister for Business and Growth. The Payment Services Act includes an exemption provision in section 1(3), under which the Minister for Business and Growth may decide that the Act shall apply only partly or not at all to a specific service or specific categories of services.²⁷ In practice, this provision has been interpreted so as to mean that the Minister may also grant exemptions from the cash rule in section 56.²⁸ It follows from the

²⁷ The powers of exemption have been delegated to the Danish Financial Supervisory Authority, cf. Executive Order no. 44 of 19 January 2015.

²⁸ Cf. e.g. Karnov's comment on the provision in the previous Act on Certain Means of Payment on the payee's obligation to accept cash payment (section 10).

legislative material behind the provision in section 1(3) of the Payment Services Act²⁹ that "*the powers of the Minister shall be used restrictively, i.e. there must be weighty reasons for applying the provision. This would e.g. be the case where use of the payment instrument is very limited and where it would appear to be unreasonably burdensome to let the Act's regulations apply. An example could be payment instruments which can only be used by a firm's employees in the firm's canteen*".

Although the Minister for Business and Growth may grant exemptions from the cash obligation, it is assessed that general access for all or most categories of retailers to reject cash should, in principle, be introduced via a legislative amendment, as administrative powers to grant exemptions cannot be used to de facto repeal a statutory rule.

The principle of freedom of contract

A basic principle of freedom of contract applies in Danish law. This means that if there were no statutory obligation to accept cash, cf. section 56 of the Payment Services Act, the parties, e.g. in traditional retail sales, would be able to agree that other methods of payment were to be used. As a main rule, this agreement would be deemed to be concluded if, say, the retailer has put a clear sign in the store's window stating that the store does not accept cash. This is how it is in Sweden, cf. Box 3.5.

²⁹Folketingstidende 2008-2009, Appendix A, Vol. V, p. 3517.

The legal situation in Norway, Sweden and the euro area as regards the obligation to accept cash

Box 3.5

Sweden:

Banknotes and coins issued by the Riksbank are legal tender in Sweden, cf. part 5, section 1 of the Sveriges Riksbank Act. In Sweden, as in Denmark, a principle of freedom of contract applies, but Sweden does not have a rule corresponding to section 56 of the Danish Payment Services Act, i.e. a cash rule imposing an obligation to accept cash on payees. In other words, the parties are free to agree on another method of payment than cash, and the provision purely establishes a right to pay in cash unless otherwise agreed.

Norway:

Banknotes and coins issued by Norges Bank are legal tender in Norway, cf. section 14 of the Norges Bank Act. Section 38(1) of the Act on Financial Contracts and Financial Assignments states that payment may be effected by transfer of the amount to the payee's account unless otherwise agreed or the payee has requested payment in cash. Under section 38(2), the payee may give further instructions concerning the method of payment, provided this does not entail a substantial additional expense or other inconvenience for the payer. Finally, section 38(3) states that a consumer is in all cases entitled to effect settlement with the recipient of the payment in legal tender. Specific cases have been brought before the Ministry of Justice and Public Security for interpretation of the issue of the scope of the Act. For example, the Ministry in 2013 issued a statement concerning the interpretation of section 38, including how far a consumer's right to pay in cash stretches beyond "sales of goods over the counter".

Euro area:

The status of euro banknotes and coins as legal tender in the euro area follows from Article 128 of the Treaty on the Functioning of the European Union and Council Regulation no. 974/98.

In 2010, the European Commission issued a recommendation (2010/191/EU of 22 March 2010) on the scope and effects of legal tender of euro banknotes and coins. The recommendation is not binding, and the term "legal tender" is interpreted in different ways in the various euro area member states.

The recommendation includes a number of guiding principles, including:

1. The acceptance of euro banknotes and coins as means of payments in retail transactions should be the rule. A refusal thereof should be possible only if grounded on reasons related to the "*good faith principle*" (for example the retailer has no change available).
2. Large banknotes should be accepted as means of payment in retail transactions unless refusal thereof is grounded on reasons related to the "*good faith principle*" (for example the face value of the banknote tendered is disproportionate compared to the amount owed to the creditor of the payment).
3. No surcharges should be imposed on payments with euro banknotes and coins.

The Commission's recommendation is based on the main conclusions of a report prepared by an expert group set up in early 2009 and comprising representatives of the euro area ministries of finance and central banks and headed by the Commission and the ECB. The report shows that the definition and scope of the term "legal tender" varies within the euro area. A majority of euro area member states indicated that in consumer relationships the very concept of legal tender means that a retailer cannot refuse to accept cash unless the retailer can bring forward restrictively defined objective reasons to do so. Four member states (Germany, Finland, the Netherlands and Ireland) did not share this point of view and did not endorse the recommendation. According to these member states, the concept of legal tender refers to the fulfilment of a contract already concluded, while the principle of contractual freedom can limit legal tender provisions.

Source: Riksbank.se, Regjeringen.no and *Report of the Euro Legal Tender Expert Group on the definition, scope and effects of legal tender of euro banknotes and coins*.

3.3 RULES LIMITING THE USE OF CASH

As described in section 3.2, Danish banknotes and coins are legal tender in Denmark, unless otherwise agreed or special legal provisions exist. The following describes three special legal provisions limiting the right to use cash.

The Act on Preventive Measures against Money Laundering

Under section 2 of the Money Laundering Act,³⁰ a business operator³¹ may not receive cash payments of kr. 50,000 or more, either as a lump sum or as several payments that appear to be linked. The purpose of this provision is to prevent money laundering.

The VAT Act and the Tax Collection Act – initiative against moonlighting

As part of the effort to combat moonlighting, Danish legislation includes provisions on joint liability for payment of VAT for services exceeding a certain size if payment is made in cash. This applies to both VAT-registered and private buyers. There is no prohibition as such against the use of cash, but the joint liability included in the provisions gives the buyer an incentive to pay by electronic means. Electronic payments leave transaction trails from both the payee and the payer.

The VAT Act³² includes a provision in section 46(12) whereby a supplier and a VAT-registered buyer of goods or services are jointly liable (i.e. each of them is fully liable) for payment of VAT if payment for the delivery was made in cash, unless the total payment does not exceed kr. 10,000, including taxes. The buyer's liability arises only if the supplier has not stated the VAT on the goods and services provided. The buyer firm can release itself from the liability by paying electronically (e.g. using a payment card, via online banking, at a post office or bank). Likewise, tax deductibility of the purchase is conditional upon electronic payment, cf. the Tax Assessment Act³³ section 8 Y.³⁴

Likewise, section 10a of the Tax Collection Act³⁵ includes a provision stating that a private individual buying services or goods with services³⁶ from a business operator and paying the business operator in cash has joint liability with the business operator for the tax and VAT which the business operator has not declared, provided that the amount payable exceeds kr. 10,000, including taxes. This liability can be avoided by making digital payment. If a consumer is unable to pay by digital means, the consumer can be released from liability by reporting the purchase to SKAT.

These provisions were included by Act no. 590 of 18 June 2012 as part of the Ministry of Taxation's initiative against moonlighting.

Payment of large amounts in coins

Under section 4(4) of the Coinage Act, no-one shall be bound to accept more than 25 coins of each denomination in one payment transaction. That is, a maximum of twenty-five 50-øre coins, twenty-five

30 Consolidated Act no. 1022 of 13 August 2013 (as amended).

31 Except for certain firms, such as financial corporations, lawyers, accountants and estate agents, which are comprised by section 1(1) of the Money Laundering Act.

32 Consolidated Act no. 106 of 23 January 2013 (as amended).

33 Consolidated Act no. 1081 of 7 September 2015 (as amended).

34 In special cases where a firm has been unable to pay by electronic means, because either the buyer or the supplier does not have a deposit account at a bank that enables electronic payment, the buyer may be released from this liability (and obtain deductibility) by reporting the purchase to SKAT.

35 Consolidated Act no. 1180 of 30 September 2015 (as amended).

36 The rule for private individuals does not comprise purchases of goods only.

1-krone coins, etc. The reason is that payment of large sums in coins can constitute a nuisance and might in some cases be deemed harassment.

3.4 PUBLIC SECTOR INITIATIVES LIMITING THE USE OF CASH IN TRANSACTIONS WITH THE PUBLIC SECTOR

Today, the options to use cash as a means of payment in citizens' and firms' transactions with the public sector are limited. A number of initiatives have been introduced as part of the digitisation and streamlining of public sector administration. These include the obligation to register an account as the holder's NemKonto, which is used for disbursements from the public sector, and the use of electronic settlement of accounts with the public sector. In addition, some local authorities have been granted exemptions from section 56 of the Payment Services Act. The legal basis for these initiatives is outlined below.

Free municipalities

As part of the Danish government's cooperation with local and regional authorities on reducing bureaucracy and streamlining and improving local and regional management, a pilot project with "free municipalities" was adopted, cf. the Act on Free Municipalities.³⁷ These free municipalities could apply to be exempted from government rules or to have a set of rules amended if they came up against legislative barriers.³⁸ The pilot project ran until the end of 2015, but a new project will be launched in the period from 2016 to 2019, for which new municipalities may apply.

In the pilot project which has now ended, the Minister for Business and Growth approved a free municipality project under which the Fredensborg local authority could require that citizens used payment instruments at the citizens service centre.³⁹ In other words, cash could not be used for payment, cf. section 11c of the Act on Free Municipalities.^{40, 41} This was a derogation from section 56 of the Payment Services Act. In the explanatory notes to the Act, it is stated that this provision can contribute to saving administrative resources in a free municipality and help to ensure a safer working environment for citizens service centre employees, who must otherwise handle cash, which entails a risk of robbery.⁴²

Cash-free municipal institutions

Several municipalities are introducing cashless canteens in certain municipal institutions, where payment must be made using specific card solutions and cash payment is not possible. This could be in e.g. local schools or citizens service centres. Background factors include streamlining of administrative functions and the fact that some municipalities do not find cash as readily available as previously. For example, the Ministry of Business and Growth under the "right to challenge"⁴³ granted the municipality of Skanderborg an exemption from section 56 of the Payment Services Act for a specific period of time.

37 Consolidated Act no. 1027 of 20 August 2013 (as amended).

38 Cf. the website of the Ministry of Social Affairs and the Interior.

39 Approval is conditional upon the free municipality making alternative payment options available to citizens without access to a payment instrument and upon citizens not incurring substantial additional costs.

40 This provision was inserted by Act no. 648 of 12 June 2013.

41 An application from Fredensborg Municipality has been approved.

42 Cf. the explanatory notes to bill L 188 to amend the Act on Free Municipalities, presented on 20 March 2013.

43 From December 2008 to the end of 2015, local and regional government have also been able to use the right to challenge to apply for exemptions from existing legislation for pilot projects in the individual areas.

4 GROUPS IN SOCIETY FOR WHICH CASH PLAYS A SPECIAL ROLE

4.1 INTRODUCTION

Modern consumers can choose between a number of different payment solutions. For most consumers, cash plays a far smaller role than previously, but for some groups in society cash still plays a special role. Cases in point are disabled people, senior citizens, socially vulnerable groups and children under the age of 13. There are numerous reasons why these groups pay in cash, and the reasons vary from group to group. For each of these four groups, this chapter provides background information on why they use cash.

4.2 DISABLED PEOPLE⁴⁴

For several groups of disabled people, use of other methods of payment than cash presents practical challenges. For others, the existing alternatives mean that they have no other option than to pay in cash. This means that cash plays a special role for many disabled people. The reason is that cash is tangible, which makes it possible to "read" it by either seeing or feeling. In addition, it is easier for disabled people to get help from others when making payments in cash as cash is not personal, unlike a payment card. Many disabled people find it a challenge to get hold of cash as their disability makes them dependent on, or they feel most secure when, receiving staffed services at a bank.

For visually impaired people, payment by other means than cash constitutes a challenge as they cannot themselves ensure that the display shows the right amount if it is presented visually only. Consequently, many visually impaired people prefer to pay in cash as this is the easiest way for them to keep an account of their payments. Furthermore, cash offers the advantage that banknotes and coins have different physical expressions, depending on their value. For example, there is special embossed print on the 100-krone and 200-krone banknotes, which makes it easier to tell the banknotes apart. For the visually impaired, staffed cash desks in banks and ATMs with audio access provide safe access to cash. Nordea and Danske Bank have around 600 ATMs with audio access in Denmark.

Another group of disabled people who use cash are people with cognitive function impairment. Their condition makes it difficult for them to recognise or remember figures. As a result, card payment and cash withdrawal from ATMs or retail stores presents a challenge, and many of them prefer staffed bank services. Even if they are able to use a PIN, many of them still prefer cash as the value of cash is supported by its visual and physical expression. This helps people who struggle with numbers to understand how much money they have and what goods cost.

A third group of disabled people who prefer cash are wheelchair users. For this group, cash is a guarantee that they are always able to pay as they may have a number of practical challenges in

⁴⁴ By a decision of the Folketing (parliament) on 28 May 2009, Denmark ratified the UN Convention on the Rights of Persons with Disabilities. The aim of the Convention is to ensure that all human rights and basic freedom rights apply fully and equally to persons with disabilities. The Convention lays down requirements for participant countries, e.g. in terms of ensuring the inclusion of disabled persons in society and accessibility to society's facilities for the disabled. By ratifying the Convention, Denmark has assumed a responsibility under international law to ensure that legislation and administrative practices comply with the Convention. For example, supporting accessibility for people with functional impairment has been key in the development of NemID. With NemID it is ensured that e.g. banks or public institutions can verify the identity of a citizen. In collaboration with, inter alia, the Danish Association of the Blind, special solutions have been established for people who are visually impaired, blind or deaf and blind, cf. Denmark's first report submitted on 24 August 2011 to the UN Committee on the Rights of Persons with Disabilities on measures taken with a view to complying with the Convention.

relation to payment. For example, the position of card terminals may make them difficult to reach and see. The same applies to ATMs.

New solutions exist which could potentially remove some of the obstacles facing these groups. Examples are the contactless Dankort and mobile phone payments. In addition, payment solutions could be adapted to people with physical or cognitive function impairment. One option could be to present payment information both visually and with sound and to introduce approval of payments using biometric features, e.g. fingerprints. People who need help from others for shopping have access to "non-personal" payment cards. For example, Danske Bank offers a non-personal payment card, the KontantKort, aimed at people over 18. The PIN for such cards is always 0000, and money transferred to the card has the same status as cash – so if you lose the card, the money is lost. This solution is also an option for people who have difficulty remembering a PIN.⁴⁵

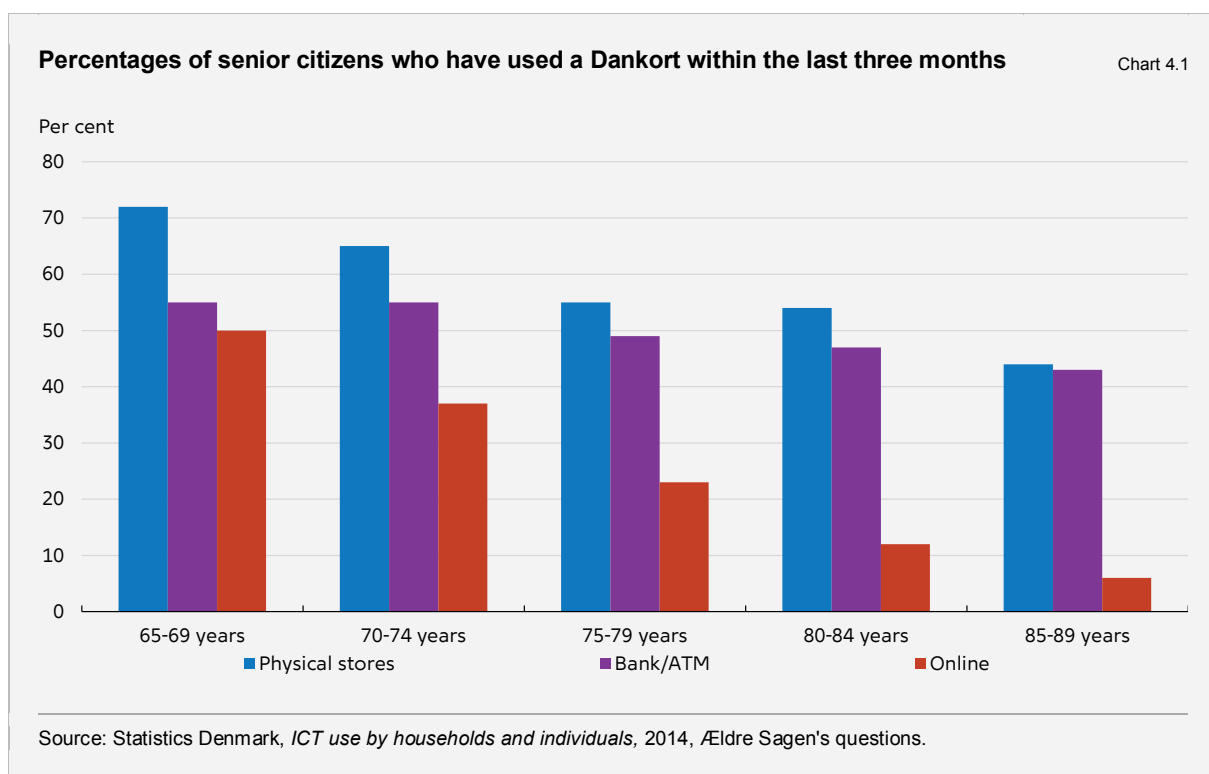
4.3 SENIOR CITIZENS

Another group who to a large extent use cash are senior citizens, i.e. people over the age of 65. The attitude to cash varies depending on how old people are, but there is a clear tendency for this group to use cash more than the rest of the population. The use of cash presumably reflects this group's familiarity with cash; it is reassuring and gives them an overview of their finances. In contrast, electronic payment solutions may seem difficult and complex to use, partly because these solutions are new and less familiar, partly because some senior citizens have limited IT skills. Moreover, some senior citizens have developed varying degrees of physical or cognitive function impairment, e.g. dementia, which gives them some of the same payment challenges as disabled people with cognitive function impairment, as described in section 4.2.

A survey conducted by Statistics Denmark in 2014 indicated that many senior citizens seldom use other methods of payment than cash. More specifically, 177,000 people aged 65-89 had used neither Dankort nor online banking within the preceding three months. This corresponds to approximately 18 per cent of the population aged 65-89. The same survey also shows a tendency for the use of cash to increase with age. While 72 per cent of those aged 65-69 had used the Dankort for payments in physical stores in the preceding three months, this applied to only 44 per cent of the respondents aged 85-89, cf. Chart 4.1. It is to be assumed that the rest pay mainly in cash – or that they get help from family and friends.

For senior citizens who need help from others for shopping, the above non-personal payment cards could be an alternative to cash.

⁴⁵ <http://www.danskebank.dk/da-dk/Privat/Kort/Typer-af-kort/KontantKort/Pages/kontantkort.aspx>.



4.4 SOCIALLY VULNERABLE GROUPS

Socially vulnerable people are often battling a combination of social problems, including homelessness, prostitution, poverty, alcohol and drug abuse, and mental diseases.⁴⁶ They live on the edge of society, seldom have an affiliation with the labour market and often have shifting or uncertain living conditions. Socially vulnerable people to a large extent lead a cash-based life, where the anonymity of cash plays a role. A further reason for using cash could be that socially vulnerable people often have an aversion against authorities and the establishment, e.g. public authorities and banks. Moreover, it may be an advantage to these groups that cash is simple and tangible and hence easy to use for basic budget management.

Their most frequent sources of income are social assistance and disability pensions, which are paid into NemKonto accounts. However, many of these people are heavily indebted and withdraw their money as soon as it is available in order to prevent creditors from claiming it. Some socially vulnerable groups have no registered income and make a living by e.g. collecting bottles for recycling, begging or selling the homeless magazine HUS FORBI.

Socially vulnerable people have a statutory right to an account with e.g. a payment card just as the rest of the population, cf. Box 4.1. But their living conditions mean that it can be difficult to store objects such as a computer, a mobile phone, a NemID card, etc., and combined with the above factors that means that this group seldom uses digital solutions, including payment cards.

⁴⁶ According to the Danish Health Authority's latest figures (2009), around 33,000 people in Denmark are drug abusers in need of treatment. According to the latest count by SFI – the Danish National Centre for Social Research (2015), there are 6,140 homeless people in Denmark.

On 19 April 2016, the Folketing (Danish parliament) passed the Payment Accounts Act. Among other things, this Act ensures that all consumers have access to a basic payment account at a bank, either free of charge or against a reasonable fee. A basic payment account must include a number of services, including the option to deposit funds in the payment account, withdraw cash from the account at the bank's business premises or from an ATM, and a payment card and access to online banking linked to the account.¹ The Act supplements the basic deposit account requirements already included in the Executive Order on good practice for financial enterprises.² With the exception of certain provisions, the Act entered into force on 1 July 2016.

The Payment Accounts Act is based on an EU Directive. On 23 July 2014, the European Parliament and the Council adopted Directive 2014/92/EU (PAD) on, inter alia, access to payment accounts with basic features. The Directive (Articles 16-17) imposes an obligation on member states to ensure that all banks or a sufficient number of banks offer consumers payment accounts with basic features (PAD accounts). In accordance with the Directive, this account will include more features than the basic deposit account, e.g. online banking and direct debit services.

¹ However, the bank must provide these services only to the extent that they are already offered to consumers with other payment accounts than a basic payment account, cf. section 9(2) of the Act. So if, say, a bank does not offer its customers access to withdraw cash from business premises (branches), this access need not be offered to consumers with basic payment accounts either. Hence the Payment Accounts Act does not include an obligation for the banks to handle cash.

² The Executive Order on good practice for financial enterprises already states that a bank must offer all personal customers a basic deposit account, unless an individual and objective reason for refusing to do so exists.

4.5 CHILDREN AND YOUNG PEOPLE UNDER THE AGE OF 18

The tendency for children and young people to use cash should be seen in the context of children's often simple concept of money, as well as limited access to other methods of payment. Furthermore, cash is easy to handle for a child, and with cash parents can set an effective upper limit on their children's purchases.

There is no legislation in the area of payments that is aimed directly at children and young people. In 2004, the Danish Bankers Association, the Civil Law Directorate, the National Council for Children, the Danish Consumer Council and the Consumer Ombudsman agreed that banks should not issue payment cards to children under the age of 13. Hence, it is a general practice among banks that they do not issue payment cards to children under 13, while teenagers between 13 and 17 can have a payment card with balance control. Balance control ensures that their spending does not exceed the balance in the account. Children up to and including the age of 12 who shop without their parents can in most cases only use cash in physical stores. The guidelines referred to are currently being revised.

Cash can help children and young people to learn and understand the value of money as it is simple and tangible. Children and young people are more than ready to embrace technology and many of them use smartphones, tablets, etc. on a daily basis. But it is a learning process for them to understand and use electronic payment solutions in an expedient way. Besides an understanding of the value of electronic money, use of e.g. a payment card requires that the child remembers the PIN, does not pass it on and can hide it when entering it. It is important that young people learn to use electronic payment solutions in a controlled environment (payment card with balance control), possibly under the supervision of their parents, before they become adults.

Payment by smartphone both in physical transactions and in the digital market offers a number of opportunities to pay without using cash, but this requires a lot from the young people. They need to

have an understanding of electronic money and to have a sensible approach to account details and IT security in general.

Several initiatives and innovations are aimed at teaching children and young people about money and consumption. One example is Pengeugen (Money Week), which seeks to raise financial awareness among children and young people by teaching them about private finances and IT security. Another example is the mobile application MyMonii, which can help children to gain a better understanding of pocket money and private finances.

5 RETAILERS' VIEWS ON CASH

5.1 INTRODUCTION

Grocery stores such as supermarkets, convenience stores and corner shops find it hard to imagine a future where cash is not an accepted means of payment as they, in principle, welcome all consumers. Nevertheless, they would appreciate more flexible legislation. This would best be achieved by abolishing the cash rule. It would also increase flexibility if grocery stores were allowed to reject cash during certain hours or at locations where the risk of robbery is greatest, or if stores catering to a specific customer segment were allowed to deselect cash as a payment solution.

This chapter describes retailers' views on cash as a means of payment, including their views on the cash rule. It is done on the basis of a series of interviews conducted in the spring of 2016, cf. section 6.1. Experience from previous reports published by the Danish Payments Council, including conclusions from Danmarks Nationalbank's 2013 survey of retailers' views on existing and new payment solutions, are also taken into account.

5.2 RETAILERS' GENERAL VIEWS ON CASH AS A MEANS OF PAYMENT

Retailers' general views on cash reflect their interest in maximising sales, which means that they offer the payment solutions demanded by customers, including cash. In addition, retailers have a widespread wish for payments to be fast, i.e. the customer's payment time should be reduced to a minimum. Finally, the price of the payment solution is also a significant factor.

Advantages of cash for retailers

In Danmarks Nationalbank's 2013 survey, two advantages of cash were highlighted: (1) that it does not involve an acquirer fee as card payments do, and (2) that cash provides certainty that the payment is effected. Retailers are guaranteed an amount of up to kr. 4,000 for payments by Dankort, including PIN and chip.⁴⁷

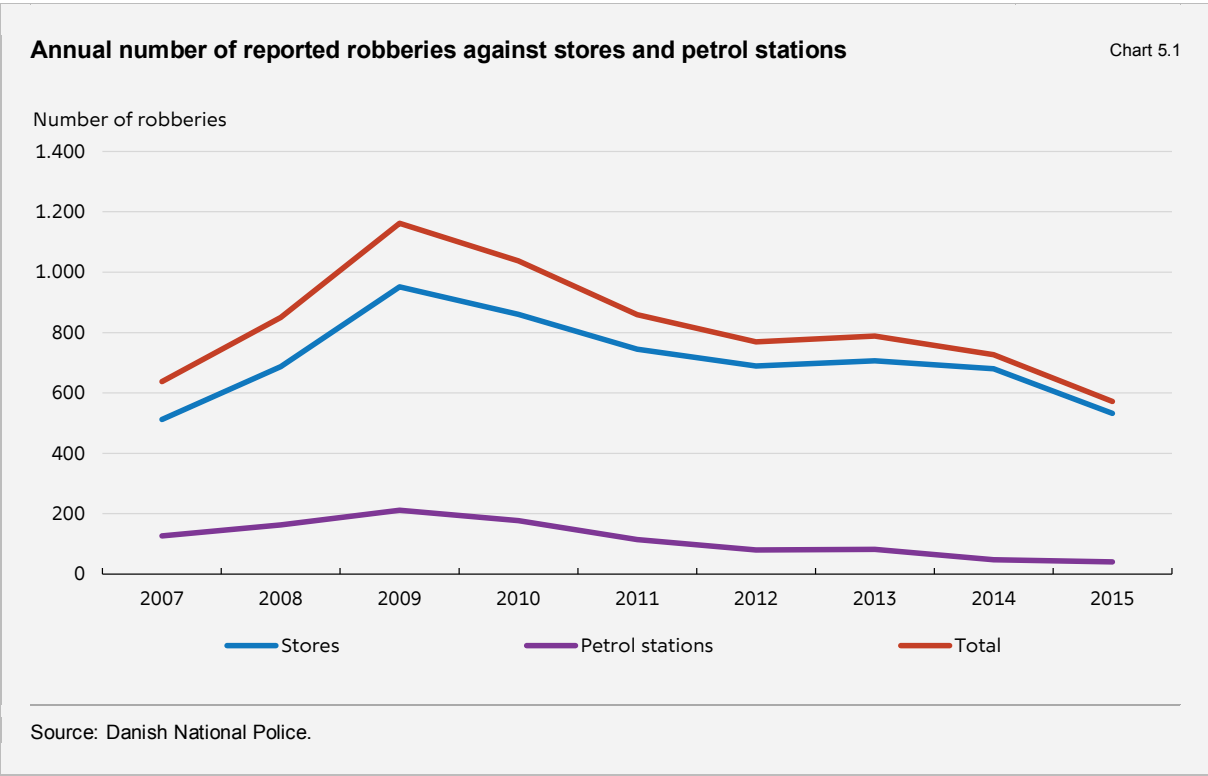
The retailers interviewed in 2016 saw no advantages of cash as a means of payment. They pointed out that due to technological advances processing time for even round and small amounts is not faster with cash than with payment cards.

Drawbacks of cash for retailers

Several of those interviewed mentioned the risk of robbery as the greatest drawback of cash relative to electronic payment solutions. Robberies have financial and human costs. Retailers run a risk in connection with staffed sales, storage of value and when delivering cash to e.g. a night safe. To meet this risk, some retailers have invested in technology. This could be closed cash handling systems, where employees have limited contact with cash, or CCTV and time-delay locks, which limit the amount in cash that can be paid out within a given interval. Finally, some retailers have chosen to outsource cash handling, cf. Box 2.3 on cash-in-transit (CIT) companies in Denmark.

⁴⁷ For larger purchases, the retailer bears the risk of loss of the amount exceeding the payment guarantee and may possibly suffer a loss in case of insufficient funds in the consumer's account if the product or amount cannot subsequently be recovered.

Since 2009, there has been a fall in the number of robberies against retail stores and petrol stations, cf. Chart 5.1. The retailers mention investments in improved security features as a major reason why the number of robberies is declining. Preventing access to cash cannot completely eliminate the risk of robbery, one reason being that robbers may target other easy-to-sell goods, but it can reduce the risk considerably. Retailers see the risk of robbery as being greatest during the hours when there are fewest customers. This is typically after the fall of darkness. Data from Crimestat shows that in the period from 2011 until April 2016, 71 per cent of robberies against retailers took place between 6 pm and 6 am.⁴⁸



A shop that experiences a very high risk of robbery at vulnerable times of the day has a choice of accepting cash or limiting its opening hours. The cash rule means that retailers must accept cash, but they have no obligation to stay open.

Some retailers mentioned costs as the most significant drawback of cash. Retailers have payroll costs for staff that count the till during the day and at the close of the day, collect change and deposit cash in e.g. night safes. There may also be costs for a CIT company and for purchasing security equipment such as closed cash handling systems. The costs of cash are elaborated on in section 2.7.

A few retailers mentioned that a drawback of cash is that it takes longer time from a cash payment is received until it is electronically available to the retailer than is the case for card payments.⁴⁹ CIT companies now offer solutions to reduce the time from a retailer's receipt of cash until it is deposited to the retailer's account.

⁴⁸ Crimestat is the retailers' database for compilation of statistics on robberies, burglaries and shoplifting.
⁴⁹ Conversely, there are retailers (typically small stores) whose view is that settlement in cash is fast as the cash is immediately available for their next payments. For card payments, it takes 1-2 weekdays before the amount is transferred to the retailer's account.

Retailers and the availability of cash

Retailers generally find it increasingly difficult to deposit cash due to closure of bank branches and a larger number of cashless branches. Retailers can also deposit cash in night safes or, if the amounts are small, in recirculation ATMs. This is only the case if the retailers choose to deposit the cash and obtain small change themselves, not if they buy these services from CIT companies. Among the interviewees, there was general acceptance and understanding of this development.

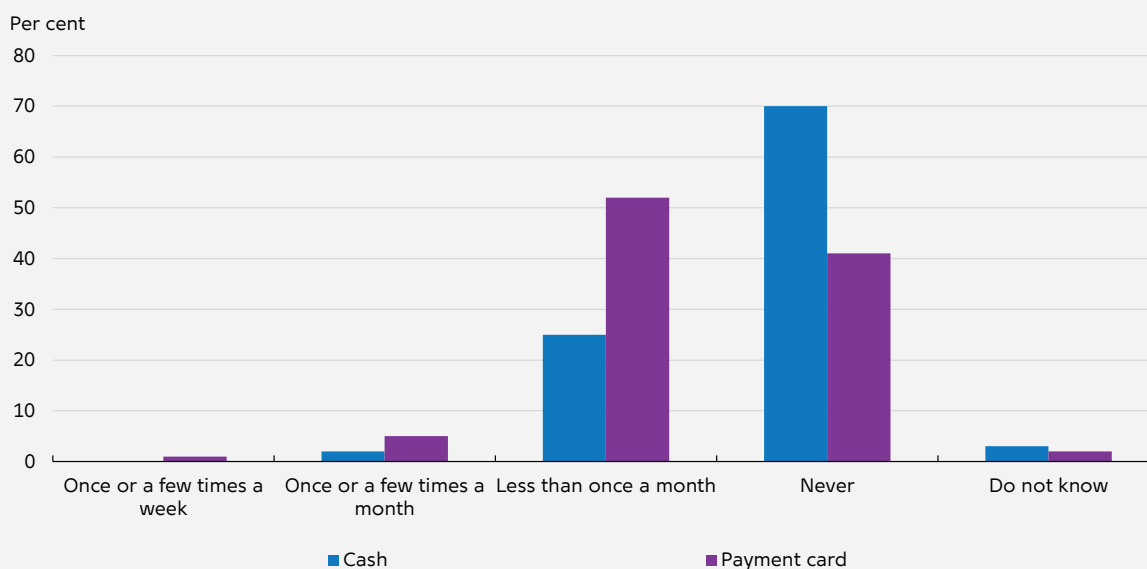
Retailers can ensure availability for consumers by allowing them to withdraw cash via card payments *exceeding* the amount payable. In general, retailers take a positive approach to providing this service. In that cash is recirculated from the stores, it will take longer before the retailers themselves must deposit cash, which can ultimately reduce costs. Especially retailers with closed cash handling systems have a positive approach to letting customers withdraw cash by making card payments *exceeding* the amount payable as this does not affect the cash amount available as change for subsequent customers. Some retailers are more willing to let customers withdraw cash via Dankort payments exceeding the amount payable rather than payments using international cards. This is because the acquisition fee payable by the retailer for international cards depends on the size of the transaction; this is not the case for Dankort transactions.

Retailers' views on the cash rule

Grocery stores such as supermarkets, convenience stores and corner shops indicate that they find it hard to imagine a future where cash is not an accepted means of payment – irrespective of whether the cash rule exists. In Sweden, where retailers do not have an obligation to accept cash, consumers generally find that they can pay in cash, cf. Chart 5.2.

Survey in Sweden: How often do you experience that you cannot pay in cash/by payment card, respectively?

Figur 5.2



Source: Sveriges Riksbank, survey 2014.

Danish grocery stores would like greater flexibility to plan the payment solutions offered by each store in the optimum way, taking into account the risk of robbery. For example, if a chain believes that there is a higher risk of night-time robbery at a specific location, it would like to be able to reject cash at night. Representatives of convenience stores also indicated that a few of their stores could be located in areas that were so troubled that they would like to make these stores cashless. Furthermore, Telenor and Danish airlines have expressed an interest in switching to a cashless business model, cf. Boxes 5.1 and 5.2.

Telenor's view on the cash rule

Box 5.1

Telenor currently has 67 staffed stores in Denmark. Telenor would like the cash rule to be abolished as the firm would prefer cashless stores as part of its digital strategy. Concerns about robberies and the potential for internal fraud are factors, but above all Telenor wishes to streamline its stores. In 2015, cash payments accounted for 15 per cent of the value of staffed sales in Telenor's stores, a fall of 10 percentage points relative to 2013. Some of the cash sales relate to minor acquisitions and prepaid telephone cards, which are no longer sold by Telenor.

Dansk Luftfart's view on the cash rule

Box 5.2

Dansk Luftfart represents the Danish airline companies, including SAS. Dansk Luftfart sees the cash rule as a considerable nuisance to the airline companies. Above all, the organisation points out that for the airline companies cash involves many administrative processes (handling, counting, security, etc.). Some of these processes must be carried out in connection with every single flight. It is also argued that the cash rule distorts competition in connection with registration of aeroplanes. An aeroplane registered in Denmark is deemed to be Danish territory, and hence Danish legislation, including the cash rule, applies. An aeroplane registered in e.g. Sweden can operate with card sales only. Due to the Danish cash rule, SAS needs to keep up the cash system throughout its network, irrespective of the country of registration. Dansk Luftfart estimates that card payments now account for approximately 85 per cent of cabin payments for the airline companies. In the assessment of Dansk Luftfart, the remaining cash share does not indicate that the passenger does not have access to other methods of payment, but in the vast majority of cases that the customer has cash corresponding to the amount payable.

6 APPENDIX

6.1 INTERVIEWS WITH REPRESENTATIVES OF THE RETAIL SECTOR

To obtain input from retailers on their views of cash and the existing legislation, a number of interviews with various representatives of the retail sector have been conducted. These representatives include large supermarkets, grocers, convenience stores and stores aimed at consumer segments that use cash only to a limited extent. The interviews were based on the same questions, cf. Box 6.1.

Participants and questions from the series of interviews

Box 6.1

The participants were representatives of:

- Circle K (formerly Statoil) – represents 300 petrol stations in Denmark.
- Dansk Luftfart – represents, inter alia, the Danish airports and SAS.
- COOP – represents more than 1,200 supermarkets in Denmark, including the Kvickly, SuperBrugsen, Dagli'Brugsen, Irma and Fakta chains.
- Dansk Supermarked – represents more than 1,400 retailers in Denmark, including the Bilka (hypermarket), Netto (supermarket) and Salling (department store) chains.
- De Samvirkende Købmænd (DSK) – represents 1,250 supermarkets and grocery stores in Denmark, including the Rema 1000, Meny and SPAR chains.
- 7-eleven (Reitan Convenience Denmark) – represents 186 convenience stores in Denmark, including 77 DSB stores at railway stations.
- Telenor – represents 67 Telenor stores in Denmark.

Questions:

- a. Which method of payment do you prefer for staffed sales?
 - b. What is the greatest advantage of cash as a means of payment?
 - c. What is the greatest drawback of cash as a means of payment?
 - d. What would it mean to you if you could say no to cash as a means of payment?
 - e. How large a share of your customers' payments are in cash?
 - f. Has the volume of cash payments changed over the last three years?
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