

Financial Statistics
Money, Banking and National Accounts

Last revised:
22-09-2020

Payments

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0 Administrative Information about the Statistical Product

0.1 Name

Payments

0.2 Subject Area

Payments (Danmarks Nationalbank's StatBank)

Money and credit market -> Payments market (Statistics Denmark's Stat-Bank)

0.3 Responsible Authority, Office, Person, etc.

Danmarks Nationalbank, Statistics

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0.4 Purpose and History

The purpose of the statistics is to shed light on the payments market in Denmark. Danmarks Nationalbank collects, compiles and disseminates statistical information about payment services. The Payments Council has assisted Danmarks Nationalbank with the development of the statistics as

part of the Council's wish to expand statistical coverage in this area. The statistical data is available from the 1st quarter of 2016 onwards.

0.5 Users and Application

Users are government ministries, non-governmental organisations, Danmarks Nationalbank, banks, payment institutions, the European Central Bank and others.

The statistics are used to analyse developments in the payments market. An example is the prevalence and use of payment cards. Danmarks Nationalbank also uses the statistics in the European collaboration on collection of information for European payments statistics.

0.6 Sources

From 2016 onwards, the system for collection of information for the payments statistics is based on the following primary sources:

- Reporting by Danish banks and branches of foreign banks
- Reporting by payment institutions
- Reporting by card terminal suppliers
- Reporting by card payment acquirers.

0.7 Legal Authority to Collect Data

Danmarks Nationalbank collects statistics pursuant to section 14a of the [Danmarks Nationalbank Act](#), inserted by Act no. 579 of 1 June 2010, or by agreement. Pursuant to section 14a, Danmarks Nationalbank collects, compiles and disseminates statistical information within its area of competence. The information collected may be used for other purposes than compilation of statistics, and it may be made available to other public authorities with the consent of the reporters, e.g. for oversight and supervision purposes.

0.8 Respondent Burden

The market participants listed in section 0.6 have the direct respondent burden.

0.9 EU Regulation

EU regulation in this area consists of Regulation (EU) No. 1409/2013 of the European Central Bank of 28 November 2013 on payments statistics and the Recommendation on payments statistics of the same date (ECB/2013/44).

1 Contents

1.1 Description of Contents

The statistics contain quarterly data for:

- Danish issued cards by type and technology
- Danish issued cards by type and cardholder
- Transactions using Danish issued cards by type and cardholder
- Transactions using cards by type, point of use and country
- Transactions in Denmark using Danish issued cards by type and technology
- Fraud with payment cards by type, category and country
- ATMs and card terminals
- Cash withdrawals and deposits OTC and in ATMs
- Domestic credit transfers by type and initiation

Data for cards issued comprises cards issued in Denmark. This means that the statistics also include cards issued to cardholders resident outside Denmark.

Information is collected about both cash cards and payment cards. The statistics comprise all activated and valid cards, i.e. all cards that have been activated and have not expired, been withdrawn, or blocked.

The compilation of the number and value of card transactions comprises transactions in Denmark using cards issued in Denmark and abroad, as well as use of cards issued in Denmark abroad.

Because of the underlying payments infrastructure, cards issued in the Faroe Islands and Greenland are included in the statistics. Furthermore transactions in the Faroe Islands and Greenland are also included.

Both physical and virtual cards are included in the compilation. Virtual cards exist in electronic form only, but have separate card numbers – known as PANs (Primary Account Numbers). The fact that a cardholder registers a card in a payment app does not increase the number of cards issued as the cardholder simply registers the card number, expiry date and card verification code.

Transactions made via a payment app are comprised by the compilation of the number and value of card transactions if the underlying card infrastructure has been used.

1.2 Statistical Concepts

The payment statistics is based on the reporting referred to in section 0.6. It is outlined in the following.

Reporting for the payments statistics

The reporting population comprises:

- Approximately 60 banks
- Approximately 10 reporters distributed on the other reporting groups, cf. section 0.6.

Stock compilations, e.g. number of cards issued, are made on the last banking day of each quarter, while *flow* compilations, e.g. number of card transactions, are stated as the sum of transactions made during a quarter.

Elaboration on the various card types

- **Cash card:**
Card that can be used only for cash withdrawals from ATMs or branches of the issuing bank or other banks.
- **Payment card:**
Widely accepted card, i.e. card that is accepted by many payees, not just a single retail chain. Examples include the Dankort, Visa-Dankort, international debit cards such as MasterCard Debit and Visa Debit, and international credit cards such as MasterCard, Visa, American Express and Diners Club.
Widely accepted cards differ from cards with limited application as defined in section 38(1) of the Danish Payment Services and Electronic Money Act.
Payment card is the sum of debit card and credit card, see below.
- **Debit card:**
Card where the amount is debited to the payer's account immediately after the card issuer has received the transaction information. Examples include the Dankort, VisaDankort and international debit cards such as Visa Debit and MasterCard Debit.
Debit card is the sum of Dankort, co-branded Dankort, international debit card and other debit cards.

- Dankort:
The national debit card in Denmark. Co-branded Dankort is a separate category not included under Dankort.
- Co-branded Dankort:
Dankort co-branded with another brand of card such as Visa. Note that transactions or fraudulent use of a VisaDankort is included in the statistics under co-branded Dankort, irrespective of whether the transaction has been acquired as a Visa transaction, as the statistics are broken down by card type rather than card acquisition.
- International debit card:
Debit card issued under licence from an international card company such as Visa or MasterCard. Examples include Visa Debit and MasterCard Debit.
- Credit card:
Card where the amount is not debited to the payer's account immediately after the card issuer has received the transaction information, but only after a period of time agreed between the cardholder and the issuer, typically once a month. An agreement for additional credit, a revolving credit facility, may be linked to the credit card. This credit facility is typically interest-bearing.
- International credit card:
Credit card issued under licence from an international card company such as Visa or MasterCard. Examples include Visa, MasterCard, American Express and Diners Club.
- Foreign card:
As payment card, but issued by non-Danish card issuer.
- Foreign debit card:
As international debit card, but issued by non-Danish card issuer.
- Foreign credit card:
As international credit card, but issued by non-Danish card issuer.

Elaboration on point of use for payment card transactions

- Physical stores:
Transactions made in staffed physical stores, e.g. payment in a supermarket where an employee provides checkout services and

accepts payment. In other words, transactions where both the payer and the payee are physically present.

- E-commerce, etc.:
Transactions made in connection with e-commerce, mail order and telephone sales, as well as transactions using apps. Thus are also included transactions via dedicated payment apps enabling person-to-person transfers, e.g. MobilePay, if the underlying transaction is executed as a card transaction. Furthermore, a subset of MobilePay transactions in physical stores is also included in the compilation.
Thus e-commerce, etc., comprises transactions also referred to as Card Not Present transactions.
- Self-service and sales via vending machines:
Payments made in unstaffed self-service environments. Examples include pumps at petrol stations, parking meters, parking facilities, bridges and toll roads, automatic ticket machines and supermarket self-scan checkouts as well as vending machines for sale of small items.
- Cash withdrawal:
Withdrawal of cash from an ATM or at the counter in a bank branch, including card transactions linked to purchase of foreign exchange.

Elaboration on card fraud categories

- In general, card fraud is divided into three categories.
 - Fraud using lost or stolen cards
 - Fraud using false cards
 - Fraud in connection with e-commerce, including mail order and telephone sales
- For the first two categories, card fraud in Denmark is also broken down by place of use, i.e.
 - Fraud with card for cash withdrawal from ATM or bank branch
 - Fraud with card for payment in staffed physical store, including a compilation of fraud with card in staffed physical stores where the card's contactless functionality has been used

Note that the transactions included in the statistics are those where the contactless functionality has been used. It is not a requirement that the transaction was below 350 Danish kroner. The amount may be larger if a compromised PIN has been used at the time of payment.

Elaboration on card fraud as share of total number/value of card transactions

- The individual shares are calculated as card fraud relative to the use of cards linked to the relevant place of use, i.e.
 - card fraud in connection with ATM cash withdrawal relative to total cash withdrawals
 - card fraud in stores relative to card transactions in stores and self-service environments
 - card fraud in stores, contactless transactions, relative to contactless transactions in stores
 - card fraud in e-commerce relative to card transactions in e-commerce

This means that *card fraud of lost or stolen cards and use of false cards* is calculated relative to the sum of cash withdrawals and transactions in physical stores and self-service environments.

- The chosen breakdown by card fraud and place of use means that in general it is not possible to add up shares as the denominators of the individual shares (fractions) are not identical.

Elaboration on private individuals and corporate customers

- The breakdown by private individuals and corporate customers is based on the underlying account used for the transaction. So in the statistics cards linked to accounts held by personal customers are regarded as cards issued to private individuals. In other words, it is not taken into account whether the card is a *consumer card* or a card issued to an employee of a firm, i.e. a *commercial card*.

Elaboration on card terminals and ATMs

- The statistics include a compilation of card terminals at business locations and information about how many of them that
 - accept contactless transactions

- are hand-held, i.e. battery-operated and send signals via wireless or mobile networks

The compilation of the number of card terminals does not include terminals in self-service environments, e.g. parking meters, bridge toll and ferry payment systems, at petrol stations, automatic ticket machines, etc. Finally, mPos terminals – entities that combined with a smartphone function as card terminals – are not included in the compilation either.

For ATMs, the statistics include a compilation of their number and how many of them that

- enable credit transfers to third parties
- enable cash deposits via the ATM
- are not located in close proximity to a bank branch

Elaboration on domestic credit transfers in Danish kroner

- The statistics include a compilation of domestic credit transfers in Danish kroner. Credit transfers are characterised in that it is the payer who initiates the transfer by issuing a payment request. The statistics includes transfers where either payer or payee is a non-MFI. Thus excluding interbank payments. The transfers are either between accounts in different banks and cleared via the retail clearing systems – The Sumclearing, Intraday Clearing or Express Clearing (Straksclearing) – or internal transfers between accounts within the same bank.
 - On-us transfers:
Internal transfers between accounts within the same bank. These are not cleared through the retail clearing systems.
 - Instant transfers:
Within seconds after initiation by the payer, the payees account is credited, 24/7/365. The transfers are cleared through the Express Clearing (Straksclearing).
 - Intraday transfers:
The payee's account is credited the same day as the payer initiate the transfer. The transfers are cleared through one of the Intraday Clearing System's daily clearing cycles, which implies that the transfers has to been send to clearing before the cut off time for the last daily clearing cycle. The exact point of time varies across banks, some operate with a cut off at 12.40 pm.

- Standard transfers:
The payee's account is credited the banking day after the payer's initiation of the transfer.
- Inpayment forms:
Transfers using inpayment forms.

Elaboration on initiation of credit transfers

- Credit transfers are divided according to how transfers are initiated; manually or electronically.
 - A manually initiated transfer is characterised by payer's instruction to bank assistant to initiate the transfer
 - An electronically initiated transfer is initiated by the payer e.g. via ATM, online or mobile banking service etc.

Elaboration on withdrawals and deposits of cash by point of operation

- The statistics include a compilation of domestic withdrawals and deposits of cash by Danish costumers. Included in the computation is "purchase and sale" of foreign currency. However, cash withdrawals made abroad is not included neither is foreigners cash withdrawals of Danish kroner or currency in Denmark.

Cash deposits can only be done at the customer's bank. However, customers are able to make cash withdrawals in other banks and ATMs than the one where he or she is a customer. Cash withdrawals and deposits are divided according to point of operation.

- Withdrawals are divided partly according to OTC and ATM transactions, partly on whether withdrawals are made at the customer's bank's branches or ATMs or made in other bank's branches or ATMs.
 - Deposits are divided on transactions OTC, via ATMs or use of night safe cash deposits
- Note that the value of cash deposits appear not to match the value of cash withdrawals. It can be explained by;
 - the lack of statistical coverage of deposits by Cash In Transit-companies on behalf of their clients. CIT-companies collect cash from larger merchants, count and deposits the collected banknotes and coins via cash depots

afterwards the merchants bank account is credited via a credit transfers. These deposits are neither OTC nor ATM transactions and thus not included in computation of deposits.

- Some banks were not able to distinguish OTC cash withdrawals where cash were withdrawn by one hand and used for payment of an inpayment form etc. by the other hand, from the ones where the customers actually left the bank branch with banknotes in hand.

2 Time

2.1 Reference Period

The statistics are compiled on a quarterly basis.

2.2 Date of Publication

Data for the most recent quarter is published first banking day in February, May, August and November.

2.3 Punctuality

The statistics are normally published without any delay relative to the date announced.

2.4 Frequency

New statistics are published every quarter.

3 Accuracy

3.1 Overall Accuracy

The statistics are based on reporting by approximately 60 banks with assistance from their data centrals and from approximately 10 payment service providers. The accuracy of the statistics depends on the accuracy of the reporting by the individual reporters.

3.2 Sources of Inaccuracy

Population and grossing-up

The reporting is targeted at banks and other payment service providers. The smallest Danish banks, measured by balance sheet assets, are exempt from reporting data for the statistics.

It is assessed that the statistics are adequate in terms of cards issued and transactions executed using these cards. For transactions executed in Denmark using foreign cards, coverage is assumed to be a little lower as foreign card acquirers may have been used who do not report for the statistics.

It is assessed that the reported fraud accounts for the largest share of card fraud in Denmark and fraud of Danish cards abroad. However, coverage is lower than for the other tables with card data.

Since the smallest banks are exempt from reporting for the statistics and no estimate has been made of the number of transactions etc. executed via accounts in these banks, the statistics are not comprehensive.

Guidelines

Danmarks Nationalbank prepares guidelines for reporting of data for the statistics. In addition, Danmarks Nationalbank performs a number of automated and manual controls of the data reported to ensure its quality and to eliminate errors in collaboration with the reporters. All the same, there is still a risk that the reporters interpret the guidelines differently so that reporting is not consistent.

Reporting shortfalls

Procedures in connection with reporting shortfalls, e.g. due to late or inadequate reporting or reporting errors, depend on the significance of the data to the overall compilation of the statistics. Data is projected on the basis of previous reporting or estimated on the basis of information from the rest of the population. The statistics are revised when the reporter submits new data, cf. section 4.3.

3.3 Measures of Accuracy

The statistical uncertainty has not been calculated.

4 Comparability

4.1 Comparability over Time

Until these statistics were introduced, Danmarks Nationalbank published a half-yearly payments statistics. Data in the two sets of statistics is comparable if found in both data sets, although there is a shift of level in the compilation of e.g. number of cards issued because the primary sources have changed. The quarterly statistics are more detailed than the previous statistics

4.2 Comparability with other Statistics

Previously Statistics Denmark published Dankort statistics comprising the number of Dankort cards issued and the number and value of Dankort transactions. The two sets of statistics are not fully comparable although the general tendency is the same.

For example, the statistics differ in that the payments statistics:

- are not comprehensive since the smallest banks do not report data for the statistics, cf. section 3.2.
- also include cash withdrawals and purchase of foreign exchange from ATMs and at the counter in bank branches if a card is used
- do not include credit transactions, i.e. transactions where an amount is returned to the cardholder via the card, e.g. in connection with the return of goods purchased.
- include card transactions made via payment apps,
- for co-branded Dankort cards, such as VisaDankort, also include transactions in Denmark where the cardholder has used the card as e.g. a Visa card in connection with payment.
- Technically, the transaction has been executed as a Visa transaction, but here it is included as a co-branded Dankort transaction.

The European Central Bank, ECB, publishes European statistics. Denmark's Nationalbank reports data for these statistics, explaining in notes why the data reported does not follow the ECB definitions, cf. the guidelines. For example, the European statistics break down cards by consumer cards and commercial cards, not by whether the cardholder is a personal customer or a corporate customer, cf. above.

4.3 Coherence between Provisional and Final Statistics

The statistics are revised on a quarterly basis when data for the most recent quarter is published. The statistics are usually revised one quarter back in time. When data for the 1st quarter is published, all historical data may be revised. However, in most cases revisions are expected to be limited to data for the current and previous calendar year.

4.4 Adjustment for Change of Source

In the period from the 1st quarter of 2016 until and including the 1st quarter of 2017, Nets Danmark A/S reported data on the number of cards issued and use of the cards on behalf of banks for which Nets provided card issuer services. Since the 2nd quarter of 2017, the banks have reported this data themselves. The change of source led to a data break for

issued cards and the compilation of cash withdrawals using cards. This break has been adjusted for back in time.

5 Accessibility

5.1 Forms of Dissemination

Published on a quarterly basis via:

www.nationalbanken.dk

<http://nationalbanken.statistikbank.dk>

www.statistikbanken.dk

5.2 Basic Material: Storage and Usability

Data from reporters is received on an ongoing basis and stored in a local database. StatBank retrievals are performed from the local database.

5.3 Documentation

Reporting guidelines can be found at Danmarks Nationalbank's website.

5.4 Other Information

No further information is available.

6 Supplementary Documentation

None.