

DANISH PAYMENTS COUNCIL

REPORT ON BUSINESS-TO-BUSINESS PAYMENTS

September 2015

Report on Business-to-Business, B2B, Payments
Text may be copied from this publication provided that the Danish Payments Council is specifically stated as the source. Changes to or misrepresentation of the contents are not permitted.

The report is available on Danmarks Nationalbank's website, www.nationalbanken.dk, under Banking and payments, Danish Payments Council.

This report is based on information available up to May 2015.

Inquiries about the Report should be directed to:

Danmarks Nationalbank.

Communications

Havnegade 5

DK-1093 Copenhagen K

Telephone +45 33 63 70 00 (direct) or +45 33 63 63 63

Office hours: Monday-Friday 9:00 am-4:00 pm

Email: kommunikation@nationalbanken.dk

www.nationalbanken.dk

CONTENTS

- Preface6**
- 1. Introduction and conclusions7**
 - 1.1 Background7
 - 1.2 About the report.....7
 - 1.3 Conclusions.....8
- 2. B2B payments in Denmark10**
 - 2.1 Introduction and summary.....10
 - 2.2 Description of a B2B transaction11
 - 2.3 Corporate online banking facilities.....11
 - 2.4 B2B payment solutions13
 - 2.5 Costs of B2B payments17
 - 2.6 Volume of B2B payments19
 - 2.7 Innovation.....20
- 3. Firms' views on payment solutions.....22**
 - 3.1 Introduction and summary.....22
 - 3.2 Overall assessment23
 - 3.3 Choice of solution24
 - 3.4 Other issues29
- 4. Cross-border payments33**
 - 4.1 Introduction and summary.....33
 - 4.2 Cross-border payment solutions33
 - 4.4 Costs of cross-border payments36
 - 4.5 Volume of cross-border payments.....37
 - 4.6 Firms' views on cross-border payments40
- 5. Electronic invoicing43**
 - 5.1 Introduction and summary.....43
 - 5.2 Definition43
 - 5.3 The prevalence of electronic invoicing.....44
 - 5.4 European initiatives46
- Appendix 1 – Task description for analysis of B2B payments48**
- Appendix 2 – Survey of B2B payments49**

Preface

Safe and efficient business-to-business, B2B, payments are of major significance to society. However, as opposed to many other payment methods, there are no recent assessments of B2B payments in Denmark. This prompted the Danish Payments Council to initiate an analysis of this type of payment.

This report presents the results of the analysis, comprising, inter alia, a survey conducted among Danish firms with the assistance of the Confederation of Danish Industry, the Danish Chamber of Commerce and the Danish Federation of Small and Medium-Sized Enterprises. The report also includes the conclusions of the Danish Payments Council based on the analysis.

One conclusion is that no major problems have been identified in the B2B payments infrastructure. But Danish firms tend to lack sufficient knowledge of the solutions available and could benefit from strengthening their knowledge in this respect.

The report was prepared by a working group comprising representatives of the Danish Bankers Association, Nets, the Confederation of Danish Industry, the Danish Chamber of Commerce, the Danish Federation of Small and Medium-Sized Enterprises, the Danish Competition and Consumer Authority and Danmarks Nationalbank. The efforts of all representatives in the preparation of the report are much appreciated.

Governor Hugo Frey Jensen, Danmarks Nationalbank
Chairman of the Payments Council

1. Introduction and conclusions

1.1 BACKGROUND

Every day, Danish firms make a large number of business-to-business, B2B, payments to pay for goods and services. For the individual firm, handling these payments can be quite resource-intensive. Moreover, some payments are large value payments, and if such payments are not received or received later than expected, it may have serious implications for the firm. Therefore, safe and efficient B2B payments are of major significance to society.

The Danish Payments Council has previously analysed solutions used for the purchase of goods and services at point of sale and online.¹ However, the Payments Council has not looked into B2B payments, and generally there seems to have been little research into this area. Consequently, without knowledge of any specific problems, the Payments Council in 2014 decided to conduct an analysis of the B2B payments market in Denmark with a view to publishing a report on the subject in the 1st half of 2015.

1.2 ABOUT THE REPORT

The Danish Payments Council established a working group, composed of representatives of the Council members, cf. Box 1.1, to undertake the analysis of B2B payments. Danmarks Nationalbank chaired the working group and provided secretariat services.

WORKING GROUP MEMBERSHIP

BOX 1.1

The report on business-to-business, B2B, payments was prepared by a working group with the following members:

- Tobias Thygesen, Danish Bankers Association
- Niels Christian Larsen, Nets²
- Joachim Strikert, Confederation of Danish Industry, DI
- Martin Jørgensen, Danish Chamber of Commerce
- Morten Simonsen, Danish Competition and Consumer Authority
- Jacob Thiel, Danish Federation of Small and Medium-Sized Enterprises

The participants from Danmarks Nationalbank were Anders Laursen and Anders Mølgaard Pedersen.

¹ Danish Payments Council, *Report on new payment solutions*, November 2013 ([link](#)).

² Nets is the central supplier of payment services and related services in the Danish payments infrastructure.

The Council approved a task description, set out in Appendix 1. According to the task description, the working group was tasked with:

- i. describing existing B2B payment solutions;
- ii. mapping firms' views on these solutions; and
- iii. looking into relevant aspects of firms' cross-border payments

In this report, B2B payments mean transfers settling an account in a customer-supplier relationship. The focus is on solutions used for this type of payment; in other words, the report deals with payments also made by private individuals, e.g. payment of electricity, water and heating bills and payment for travel, including accommodation and meals, to a minor extent only.

The analysis included interviews with selected firms on their use of and views on B2B payment solutions. Respondent firms were distributed on small and large firms from various industries. Interviews were also conducted with a number of banks about the solutions they offer and B2B payments in general.

Finally, in partnership with the Confederation of Danish Industry, the Danish Chamber of Commerce and the Danish Federation of Small and Medium-Sized Enterprises, a B2B survey was conducted among just over 400 firms. The survey is described in more detail in Appendix 2. It should be emphasised that – due to the relatively low number of participants – results are subject to some uncertainty.

This report consists of five chapters. Chapter 2 describes existing solutions for B2B payments. Chapter 3 reviews the findings of the survey on firms' views on B2B payments. Chapter 4 describes cross-border payments, and Chapter 5 outlines the concept of electronic invoicing.

1.3 CONCLUSIONS

On the basis of this report, the Payments Council concludes the following about B2B payments:

- *It is important that firms can make payments safely and efficiently.* Safe and efficient B2B payment solutions are of major significance to society. Every day, Danish firms make a large number of B2B payments to settle accounts with suppliers, etc. If substantial resources are required to handle these payments, this will have major social costs, weakening the competitiveness of Danish firms. Also, large amounts are often involved, and to many firms it may have serious implications if a payment is not received or is received late. Moreover, payment solutions that meet firms' requirements sometimes determine whether or not an agreement is concluded between transaction parties.
- *No infrastructure problems leading to recommendations from the Danish Payments Council have been identified.* The Danish Payments Council initiated the analysis without knowledge of any major problems with B2B payments in Denmark. According to the survey and the interviews conducted, a substantial share of the respondents are satisfied with the solutions offered by banks and other payment service providers. Other respondents point to high costs to payment service providers as an issue, for instance in relation to cross-border payments. However, only few are critical of elements of the payments infrastructure such as the possibility of notifying payees. Against that backdrop, the Danish Payments Council finds no cause to make recommendations for specific improvements to the infrastructure.

- *For B2B payments, most of the current innovation is aimed at streamlining processes.* New solutions for consumer payments are in focus, but B2B payments are also subject to innovation. The purpose of B2B innovation is not just to make paying easier, but also to reduce the time spent by firms on tasks before and after a payment, such as invoicing, reconciliation and bookkeeping. One example of this type of process innovation is the development of online banking solutions that can be integrated with the firm's finance system for automatic exchange of payment data with the bank. Another example is electronic invoicing. Large firms, in particular, are very keen to streamline the processing of B2B payments on an ongoing basis.
- *Firms want control of their B2B payments.* Firms generally prefer to initiate payments themselves rather than allowing a supplier to debit the firm's bank account. This ensures that firms remain in control of what payments are made and when. That way, they are able to comply with internal procedures, requiring approval of invoices before payments are transferred to suppliers. It also makes it easier for firms to manage cash flows. This wish is presumably the main reason why Leverandørservice, the primary solution of B2B direct debits in Denmark, is less prevalent than the corresponding solution for consumer payments, i.e. Betalingservice.
- *Cross-border payments in euro have been streamlined.* Denmark is a small, open economy with extensive foreign trade. Therefore, it is important to Danish firms that cross-border payments are safe and efficient. Due to EU legislation and the introduction of the Single Euro Payments Area, SEPA, including new solutions for credit transfers and direct debits, firms' payments in euro have become cheaper and faster. However, other types of cross-border payments are still subject to considerable costs and can take a relatively long time. Moreover, firms sometimes experience other problems with this type of payment, for instance account number fraud in connection with settlement with suppliers.
- *Firms sometimes have insufficient knowledge of payment solutions.* A potential barrier to safe and efficient payments could be firms' insufficient knowledge of the solutions available. This seems to be the case, to some extent, among Danish firms. For instance, the survey and the interviews conducted showed that many firms are not aware of a number of new initiatives that have improved the Danish payments infrastructure. Moreover, there is reason to believe that several Danish exporters of goods and services to Europe could benefit from using the new SEPA direct debit product. This indicates that firms lack information about payment solutions. This is a task for several parties, including banks, industry associations and authorities.

2. B2B payments in Denmark

2.1 INTRODUCTION AND SUMMARY

Every day, Danish firms make a large number of payments to pay for goods and services. Thus, the value of B2B payments far exceeds the total value of retail trade. Moreover, individual payments tend to be relatively large value payments.

To firms, the actual payment is just a part of the process constituting a B2B transaction. Other steps in the transaction are the actual conclusion of an agreement to buy or sell, invoicing and the subsequent bookkeeping entry. Firms generally seek to optimise all aspects of a transaction, since each step involves risks or requires resources, primarily in the form of employee time consumption.

Banks offer firms various online banking solutions. Firms with a large number of payments typically use solutions where data is exchanged between its finance system and its online banking facility. Other firms settle for a basic online banking facility with a few more add-on features than private online banking facilities. The largest banks, in particular, also devote substantial resources to advising firms on payment solutions.

For the specific solution, a distinction is made between credit transfers and direct debits. In a credit transfer, the payment order is sent by the payer to its bank. Often, the payer has received an invoice in advance, specifying the goods or services purchased and the supplier's account number. Alternatively, the customer may have received an inpayment form with the invoice, which can be paid through the online banking facility.

Inpayment forms make it easier for the supplier to reconcile amounts received, since there is no ambiguity as to the specific payment. In a credit transfer, there may be uncertainty as to the invoice of the payment, depending on the customer notification. In 2014, banks extended the notification options in relation to transfers to facilitate firms' reconciliation process.

When two firms enter into an ongoing contractual relationship in which the customer is regularly to pay a fixed or variable amount to the supplier, it may be advantageous to both parties if this process is automatic. This is possible through a direct debit solution. In Denmark, Leverandørservice is the primary product for B2B direct debits. With this solution, the payee initiates the payment after prior notification of the customer.

To firms, other important aspects of B2B payments are the time it takes to transfer the payment and the costs involved. Recent years have seen the implementation of a number of initiatives to reduce settlement times for payments in Denmark. This entails several advantages for firms, including improved liquidity management, since they have faster access to incoming payments.

Firms' costs of B2B payments comprise both fees payable to payment service providers and the time spent on tasks related to these payments. Fees to providers vary depending on the type of transfer, while resource costs depend on the degree of streamlining of procedures in the firm.

2.2 DESCRIPTION OF A B2B TRANSACTION

A transaction between two firms can be decomposed into several steps. The specific process of a transaction typically depends on the customer-supplier relationship and the purchase situation at hand. Below, a number of processes included in most B2B transactions are described.

The first step in a transaction is the placing of the order. To place the order, the customer may contact the supplier by telephone or email. Moreover, a growing number of firms sell through online shops or EDI, Electronic Data Interchange, i.e. orders exchanged electronically between two firms in agreed formats. According to a survey, 28 per cent of all firms sold from a website or using EDI in 2013.³

Once the goods or services have been delivered, the supplier usually sends the customer an invoice detailing the transaction to collect payment. The invoice usually has details about the goods or services, prices and payment obligations. An inpayment form may be included with the invoice, cf. below. Chapter 5 looks into this aspect of a B2B transaction, focusing on firms' use of electronic invoicing.

The customer reconciles the order and the goods or services received to the invoice before paying. Depending on the customer-supplier relationship and usage within in the industry in question, different payment periods may be agreed. When the payment has been completed using the payment solution selected, the supplier can reconcile the amount received, and the parties can enter the transaction in their books.

To firms, it is important that the process of a B2B transaction is optimised to minimise the resource consumption, primarily the time spent. Therefore, many firms are working to automate manual processes, thereby reducing the employee time consumption. This basically applies to all aspects of a B2B transaction: from the placing of the order to the reconciliation of the payment.

A key element in firms' automation of the steps in a B2B transaction is their finance system. In recent years, a large number of firms have moved to Enterprise Resource Planning, ERP, systems, i.e. software for order processing, inventory management, bookkeeping and other processes. In 2014, these systems were used by 42 per cent of all firms, up from 33 per cent a year earlier.⁴

2.3 CORPORATE ONLINE BANKING FACILITIES

A large portion of B2B payments are made through online banking. The number of corporate banking agreements has been on the rise, totalling some 450,000 at end-2014, cf. Chart 2.1, and thus exceeding the number of firms in Denmark (about 300,000). The number of online banking agreements exceeds the number of firms since some firms use several banks. Moreover, some firms have several units, each of which may have a separate online banking agreement.

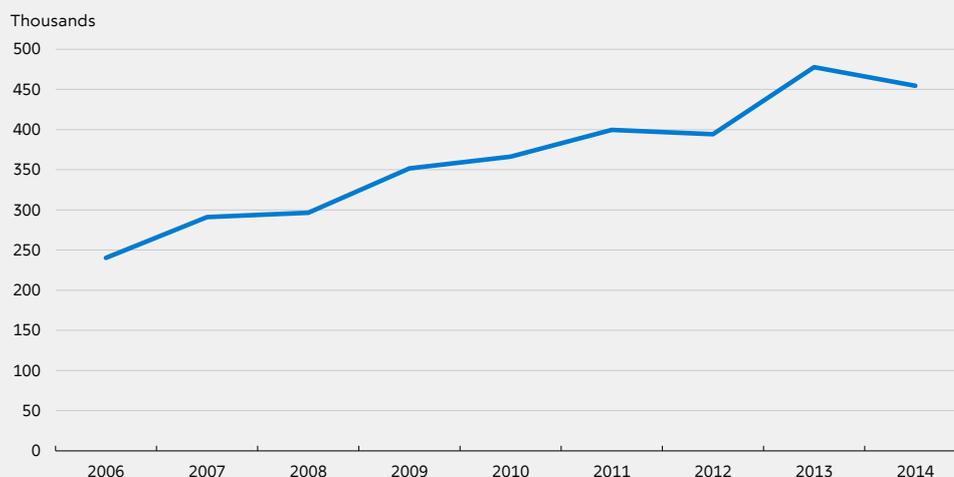
Danish banks typically have two or three online banking solutions on offer for corporate customers. In addition, the largest banks also provide customised solutions, enabling firms to purchase additional modules ('add-ons') as required, for instance for cross-border payments. Banks, especially the largest ones, generally devote substantial resources to advising firms on their choice and use of online banking solutions.

³ Statistics Denmark, *IT anvendelse i virksomheder* (Danish only), December 2014 ([link](#)).

⁴ See footnote 2.

NUMBER OF CORPORATE ONLINE BANKING AGREEMENTS

CHART 2.1



Note: The chart shows the number of active corporate online banking agreements, i.e. agreements used within the last three months, at the end of the year.

Source: Danish Bankers Association.

Small firms with a limited number of payments often use online banking solutions with much the same features and functionalities as those offered to private individuals. These solutions enable firms to make credit transfers, pay inpayment forms and monitor payments to/from the account on an ongoing basis. Moreover, in some cases, these solutions allow firms to receive payments made through inpayment forms and to give multiple users access to the account.

Large firms with many domestic and international payments tend to use more advanced online banking solutions. These solutions enable integration of the firm's accounting system with its online banking facility for automatic exchange of payment data with the bank. Furthermore, these solutions are usually capable of handling complex mandate processing and include features to facilitate the firm's liquidity management.

According to a survey, 63 per cent of all firms with more than 10 employees have introduced solutions with automatic exchange of data between their systems and those of their banks.⁵ This is most prevalent among large firms, while there are no major differences across industries. These results are in line with the responses in the survey conducted as part of the preparatory work for this report, cf. Appendix 2, which included a question on the use of integrated solutions.

⁵ Statistics Denmark, *IT anvendelse i virksomheder* (Danish only), December 2014 ([link](#)).

2.4 B2B PAYMENT SOLUTIONS

Firms use payments solutions for B2B transfers. This report distinguishes between three main types of solutions:

- i. *Credit transfers*, which are initiated by the payer, i.e. the customer, and involve the transmission of a payment message from the payer's bank to the payee's bank. Examples are *credit transfers* and transfers through *inpayment forms*.
- ii. *Direct debits*, which are initiated by the payee, i.e. the supplier, and involve the transmission of a payment message from the supplier's provider to the payer's bank. *Leverandørservice* is an example of this type of solution.
- iii. *Card payments*, i.e. payments using the Dankort or an international card such as Visa or MasterCard.

Below, these payment solutions are described in more detail.

Credit transfers

In a credit transfer, the payer basically instructs its bank to transfer funds to a specified account, which could be an account at the same bank – or more frequently – with another bank. The process may be as follows: in its online banking facility, the payer enters the amount to be transferred and the payee's account number. In addition, the payer usually has the option of adding a short message to the payee, a notification.

Previously, the funds were available in the payee's account the day after the transfer was made. However, recent years have seen the implementation of a number of initiatives to reduce settlement times for payments. In the autumn of 2013, it became possible for consumers and firms to transfer money within the same day, i.e. intraday transfers, and in November 2014 instant payments were introduced for amounts up to kr. 500,000.⁶

The upgrading of the payments infrastructure provides a number of advantages for firms. As a case in point, it is now possible to test the customer's ability to pay in the purchase situation by requesting instant payment. Moreover, firms have faster access to incoming payments and to correct any errors or omissions. Furthermore, shorter settlement times have reduced firms' loss of value days in connection with payments.

In 2014, Danish banks launched two new credit transfer features: a creditor reference and an end-to-end reference, cf. Box 2.1. The aim is to automate a number of processes by making it easier for firms to reconcile and book payments received. Thus, the new features provide some of the advantages characteristic of inpayment forms, cf. below.

Inpayment forms

An inpayment form is a physical or electronic form sent to the payer on behalf of the payee and used for the collection of payments. Typically, an invoice is included with the inpayment form, detailing the goods or services delivered, cf. above. Basically, the payment of an inpayment form is a credit transfer, including data to enable automatic processing of the payment.

⁶ See also Lars Egeberg Jensen and Morten Fremmich Andresen, *Express transfers in Denmark*, Danmarks Nationalbank, Monetary Review, 3rd Quarter 2014 ([link](#)).

To make it easier to reconcile and book payments, Danish banks implemented two new features in 2014 related to credit transfers, including intraday transfers and instant payments.

With the introduction of a special *creditor reference*, firms have been given the opportunity to clearly identify customer invoice payments. The reference is generated by the payee, e.g. in its finance system, and may consist of an invoice number and a customer number.

A creditor reference can be used as follows:

1. On the invoice, the payee specifies the unique creditor reference for the payment, and specifies that the payment will be made as a credit transfer with creditor reference.
2. The customer receives the invoice and makes the payment as a credit transfer with the creditor reference stated.
3. The creditor reference appears from the payment entry details in the payee's online banking facility.
4. The payee can reconcile the payment with the invoice by matching the creditor reference of the two, which is typically handled automatically in the firm's finance system.

Figures from Nets show that the creditor reference is used only to a very limited extent. The explanation could be that implementation of the creditor reference involves costs for firms. Another explanation could be that many firms are not familiar with the new feature or do not believe they need it, for instance because they use inpayment forms and are content with this solution.

The other new feature is an *end-to-end reference*, which is generated automatically by the payer when making the transfer and communicated to the payee. If the payee does not recognise the payment, the firm can provide the end-to-end reference to the payer, who will use the reference to identify the invoice(s) relating to the payment.

Denmark has two paper-based inpayment forms: the joint inpayment form of Danish banks and the giro inpayment form. The joint inpayment form is the most prevalent inpayment form. It was developed by Danish banks and Nets, while the giro inpayment form, the original inpayment form, was provided by Postgiro, subsequently GiroBank A/S. Both inpayment forms are payable through online banking facilities, at banks and post offices. Box 2.2 describes the joint inpayment form.

Electronic inpayment forms, provided by Nets, are also available. Electronic inpayment forms are sent directly to the payer's online banking facility with all information pre-filled and can be approved with the click of a mouse. Payees wishing to use this solution for debits must enter into an agreement with Nets, while payers must be registered for electronic inpayment forms in their online banking facility.

Transfers via Danmarks Nationalbank

Firms can also make instant credit transfers through Kronos, Danmarks Nationalbank's payment system. Transfers via Danmarks Nationalbank require manual processing in the individual bank and are aimed primarily at large, time-critical payments. Firms with a relatively large number of these payments typically choose an online banking solution enabling Danmarks Nationalbank transfers.

The joint inpayment form typically has the following information, cf. the image below:

- (1) The payer's name and address
- (2) Notification, if any, to the payee
- (3) Form type code
- (4) Payment identification number
- (5) Creditor number
- (6) Optical character recognition (OCR) line
- (7) Main sort code of the creditor's bank

The joint inpayment form has three card types, giving the payee various options of notification and automation: (i) Card type 71, which contains identification to enable automatic entry of the payment in the finance system; (ii) card type 73, which has no payment identification, but has a payer notification field; and card type 75, which has payment identification and a free text field.

The payee's choice of card type depends on the composition of its customers and reconciliation routines. For instance, card type 75 is typically used for debits where the payer is deemed to need to send notification with the payment. Moreover, it is suitable for regular customers wishing to pay multiple invoices at once in the form of a total amount.

In addition to the card type and any payment identification, the inpayment form must contain a creditor number, which is unique identification assigned to the payee by its bank. The creditor number is linked to the payee's account at its bank, ensuring that payments are transferred to this account.

The OCR line consists of the card type code, payment identification and creditor number, separated by specific characters. OCR – Optical Character Recognition – is the term used for machine recognition of the characters and numbers in the code line. OCR is used in banks and post offices.

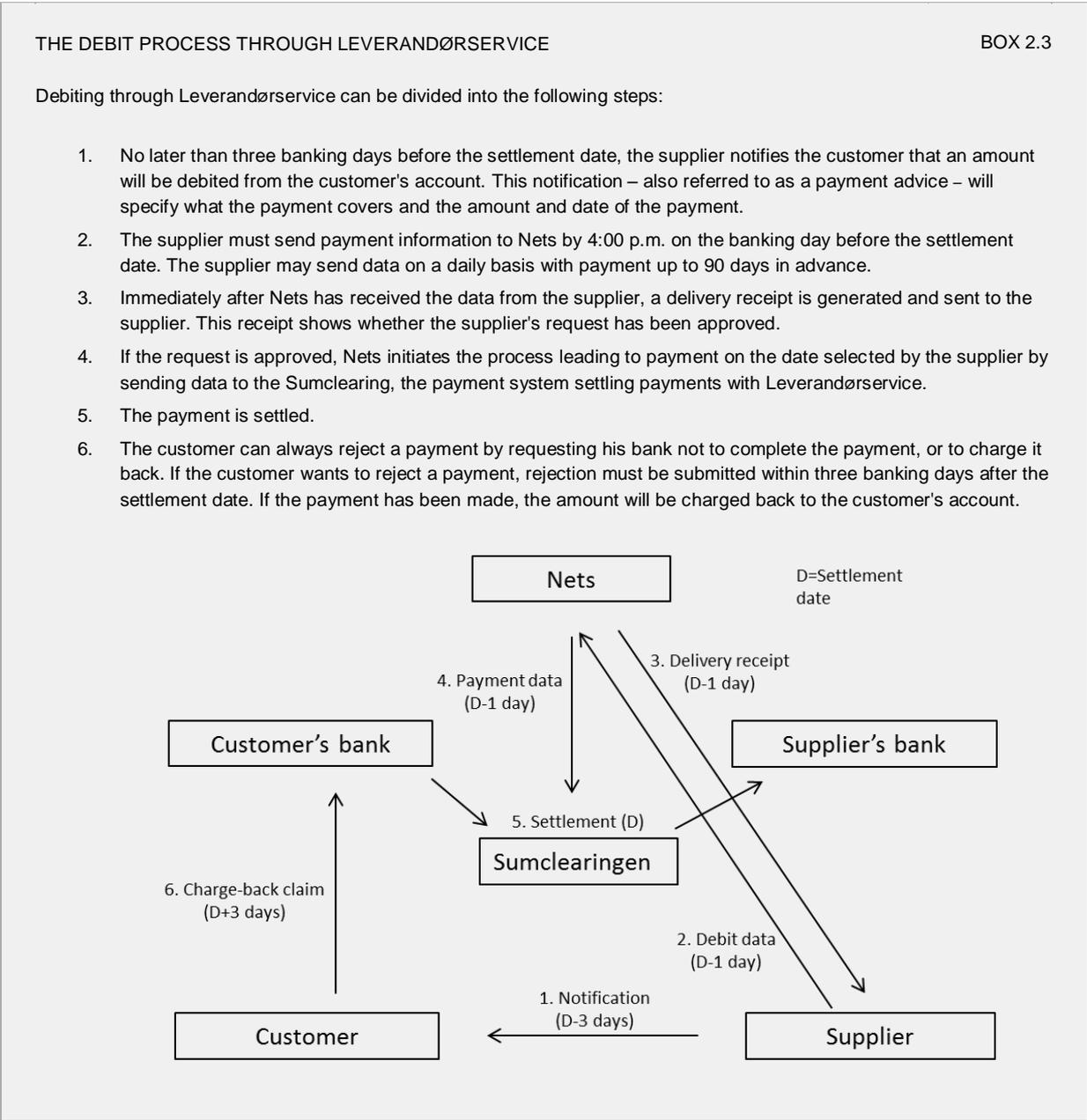
Indbetalingskort kortart 75		INDBETALINGSKORT		KA75	KVITTERING
Reg.nr.	Kontonr.	Kan betales i pengeinstitut og på posthus		Checks og lignende accepteres under forbehold af at pengeinstitutter modtager betalingen. Ved kontant betaling i pengeinstitut med terminal er det udelukkende pengeinstituttets kvitteringstryk der er bevis for hvilket beløb der er indbetalt.	
Indbetaler		Kreditnummer og beløbsmodtager		Kreditnummer og beløbsmodtager	
Fru Olsen Testvej 99 8888 Testby (1)		80 88 29 39 (5) Firma Test Firmavej 77 9991 Firmaby (7) 0890		80 88 29 39 Firma Test Firmavej 77 9991 Firmaby	
Meddelelse til modtager		Underskrift ved overførsel fra konto		Kvittering	
(2)					
Kroner		Betalingsdato		Kroner	
Øre		Dag Måned År		Øre	
Til maskinel aflæsning – Undgå venligst at skrive i nedenstående felt					
+75 <0000000000000109 + 80882939<		(6)			
(3)	(4)	(5)			

Leverandørservice

Leverandørservice is a direct debit solution reserved for B2B payments. This solution enables payees to collect payments directly from the payer's account after prior notification. Leverandørservice can be used for debits on a daily basis, as opposed to, say, Betalingservice that follows a fixed monthly cycle, cf. below. Box 2.3 describes the process of debits using Leverandørservice.

Nets owns Leverandørservice and enters into agreements with payees wishing to use this solution. The payee must sign a customer agreement with Nets as well as a creditor agreement concluded with

Nets and the payee's bank. In addition, the payer must set up a payment authorisation, applying only to the specific payee. The individual payment authorisations are registered by Nets.



For payees, the primary advantage of Leverandørservice is substantial certainty of payment – and payment at the agreed time. Leverandørservice also typically entails relatively short credit periods compared with other types of B2B payments. For payers, the primary advantage is that the debit is automatic, i.e. they do not have to spend time transferring funds to the payee.

Betalingservice

Another direct debit solution is Betalingservice, also owned by Nets. Betalingservice is used mainly for payments between consumers and firms and is especially appropriate for regular customer

relationships. Betalingservice differs from Leverandørservice in several respects, for instance by allowing monthly debits only and by giving payers a longer payment rejection period. Moreover, notification of the payer is part of the solution.

Corporate cards

As already mentioned, card payments are the third type of B2B payment solutions. Usually, a distinction is made between cards issued to private individuals and cards issued to employees of firms. The latter are corporate cards, enabling employees to pay for e.g. materials and travel expenses. The difference is also significant in a legal sense, since corporate cards are not included in a recently adopted EU regulation on interchange fees for card payments.⁷

A corporate card may be a debit card or a credit card. When a debit card is used, the amount is debited from the consumer's account immediately. The Dankort is an example. When a credit card is used, the amount is not debited from the payer's account until later, usually once a month. Examples of credit cards are MasterCard, including Eurocard, American Express and Diners Club.

Banks issue different types of corporate cards, differing in the services attached. For instance, insurance, discounts, lounge access and similar services. On top of these services, the firm can gain various benefits from providing employees with corporate cards, for instance time-saving in administrative tasks such as cash outlays. Banks usually offer firms to monitor the use of corporate cards in the online banking facility, where cards can also be blocked.

2.5 COSTS OF B2B PAYMENTS

B2B payments involve costs for firms. These costs are mainly costs payable to banks and other payment service providers, and the time spent on activities related to payments.

Payment service provider costs

There are no available statistics for firms' payment service costs. Therefore, the following is based on price lists from the websites of selected banks and Nets. It should be noted that firms with a large number of payments will probably be able to negotiate discounts from list prices published. Below, only costs for the payment services described above are examined, while prices of cross-border payments are detailed in Chapter 4.

A fundamental problem of this type of statement is that banks use different fee structures. For instance, as mentioned earlier, some banks offer add-on modules for online banking facilities, while the same features may be part of the standard package provided by other banks. This makes it difficult to compare prices across banks and calculate average fees for individual payment services.

As regards banks' *corporate online banking solutions*, it is customary for firms to pay an establishment fee and a regular – monthly or quarterly – subscription fee. The size of the subscription fee depends on the services provided as part of the online banking solution. The price of a basic corporate online banking solution is up to kr. 100 per month, while the price of an advanced solution with a wide range of features is up to kr. 500-600 per month.

⁷ Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions ([link](#)).

PAYMENT FEES

TABLE 2.1

Credit transfer	Standard transfer	Up to kr. 1
	Intraday transfer	Up to kr. 5
	Instant payment	Up to kr. 10
	Danmarks Nationalbank transfer	Kr. 150-250
Direct debit	Leverandørservice	Kr. 2.96

Note: The table shows the fees for various credit transfers in the firm's online banking facility. Payments made in other ways, for instance through the branches of a bank, are usually more expensive than the fees displayed here.

Source: Price lists from the websites of selected banks and Nets.

For *credit transfers*, fees vary depending on the type of transfer. In most banks, credit transfers between accounts held within the bank are free of charge. For credit transfers to accounts at other banks, the fee varies depending on whether a standard transfer, intraday transfer or instant payment is involved, cf. Table 2.1. The transfer could also be a Danmarks Nationalbank transfer, which is considerably more expensive than other transfer types. The payer usually pays all credit transfer costs.

For *inpayment forms*, the payee's bank typically charges a fee for each inpayment form sent and an annual subscription fee. The firm also incurs costs for generating and sending out inpayment forms. For instance, the price at a provider is just under kr. 7 for each paper-based inpayment form and kr. 2 per inpayment form to be sent to the customer's e-Boks⁸. For electronic inpayment forms, Nets charges kr. 3.80 per form.

As regards *Leverandørservice*, the payee's costs mainly consist of a fee to Nets of kr. 2.96 per transaction, cf. Table 2.1. In addition, Nets charges payees an annual subscription fee of kr. 250-400. Firms usually do not pay a fee to their banks for using *Leverandørservice*, nor is it customary for payees to claim a separate fee from payers, i.e. to pass on the fee charged by Nets.

The fee for *corporate cards* depends on the services attached to the card. For an ordinary credit card with no special services, the annual subscription fee is typically about kr. 150, while the fee for other types of cards with various added benefits for cardholders may be to kr. 1,500-2,000 – or more – per year.

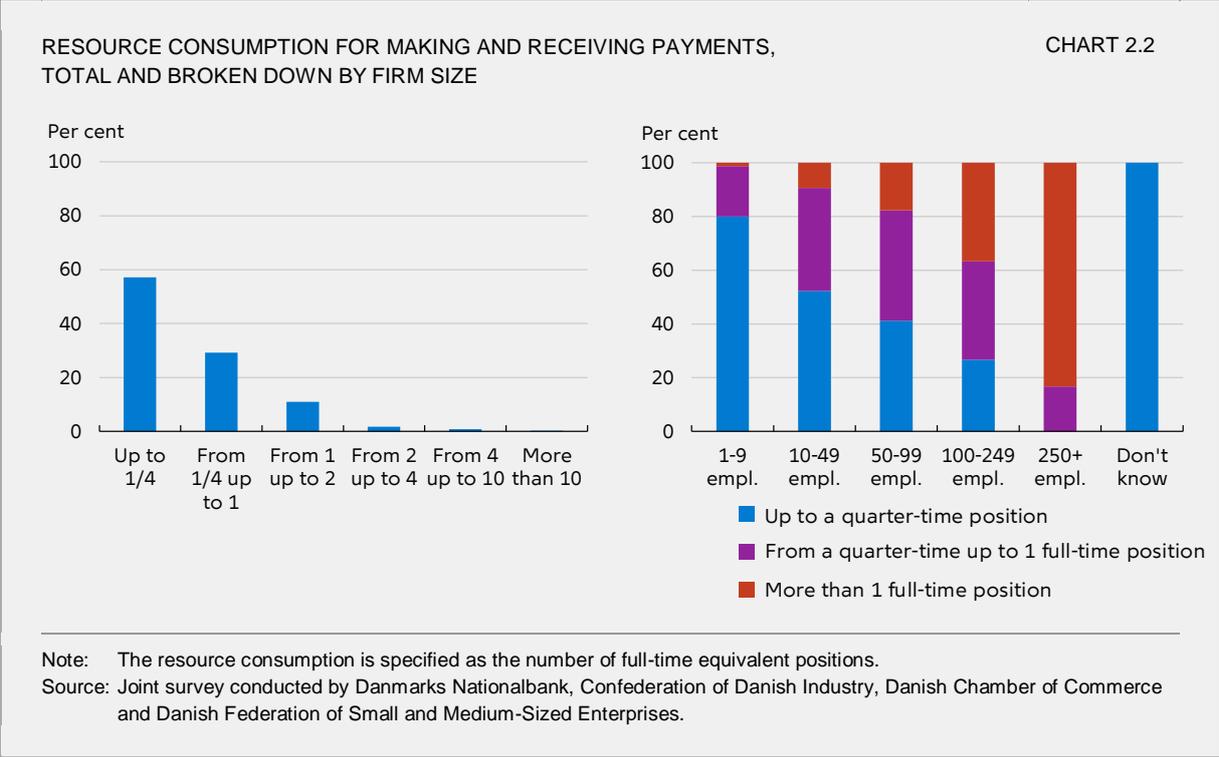
Resource costs

In addition to costs in the form of fees to banks and other payment service providers, firms also have resource costs in relation to B2B payments. These costs are mainly salaries paid to employees responsible for the firm's daily payments and related tasks. In principle, the firm's time consumption in this respect represents a cost similar to the fees payable to providers, but it may be more difficult to determine than the costs invoiced.

⁸ E-Boks is a digital service in Denmark where private individuals, firms and public authorities can receive, store and forward important documents.

In the survey, cf. Appendix 2, respondents were asked to assess their resource consumption, measured in full-time equivalent positions, for making and receiving B2B payments. Most of the respondents were small firms, answering that they spend less than one-quarter of a full-time equivalent position on B2B payments, cf. Chart 2.2. But for more than 15 per cent of firms, the resource consumption on B2B payments exceeds one full-time equivalent position.

For large firms, the relative workload of processing B2B payments is usually lower than for other firms with few employees and few payments. The reason is that large firms typically use automated solutions, reducing the time spent on processing payments. In small firms that have not optimised payment processes to the same extent, a smaller number of payments may, however, consume a disproportionate amount of employee time.



2.6 VOLUME OF B2B PAYMENTS

No statistics are available for the volume of B2B payments in Denmark either. To get an idea of the size of this market, data was collected from three large banks on their corporate customers' credit transfers, payments using inpayment forms and use of corporate cards. Subsequently, the data was calculated on the basis of the three banks' share of total corporate deposits. Thus, it should be emphasised that the figures are subject to some uncertainty.

According to these calculations, the value of Danish firms' credit transfers is about kr. 3,000 billion per year, cf. Table 2.2. Similarly, the annual value of debits using inpayment forms is approximately kr. 1,100 billion. The average transfer amount of the two types of transfer can be determined at kr. 40,000

and kr. 23,000, respectively, or substantially higher than the same types of transfer made by consumers.⁹

Moreover, an estimated 600,000 corporate cards have been issued in Denmark, in average 2 cards per firm. The value of payments made using corporate cards is assessed at approximately kr. 20 billion per year – or about kr. 900 per payment. By way of comparison, the value of Dankort transactions in 2014 was kr. 334 billion and the average payment amounted to kr. 300. Corporate cards are used mainly to pay for transport, accommodation and meals in connection with employee travel.

In 2014, the value of transfers via Kronos was about kr. 2,700 billion, and the average transaction amount was kr. 8 million. It should be noted that this type of transfer is used by firms also for financial transactions, for instance to raise or repay loans.

VOLUME OF B2B PAYMENTS IN DENMARK, 2014

TABLE 2.2

	Total, kr. billion	Average value per transaction, kr.
Credit transfers	3,000	40,000
Inpayment forms	1,100	23,000
Corporate cards	20	900

Note: Business payments to the public sector, for instance payment of taxes and VAT, are included as part of the value of credit transfers and inpayment forms. Nets declined to supply figures for the use of Leverandørservice.

Source: Danske Bank, Nordea and Sydbank and own calculations.

2.7 INNOVATION

Considerable innovation is taking place in the market for payment services these years. New solutions are regularly introduced, and the significance of new market actors is growing.¹⁰ Much of the innovation relates to the initiation of payments, i.e. the solution used and the way the payment is made. Examples include solutions based on mobile phones and contactless technology. The aim is to increase convenience of payment for users, for instance by reducing the payment time.

Unlike consumer payments at point of sale and online, B2B payments – between a customer and a supplier – are usually not made when the order is placed. As described earlier, B2B payments are typically credit transfers or payment of an inpayment form based on an invoice, often with a payment period varying from a few days to a month or longer.

Therefore, new initiatives and solutions targeting the actual initiation of payments are less prevalent for B2B payments. For B2B payments, innovation mainly aims to reduce firms' time consumption on the tasks related to payments, including invoicing, reconciliation and bookkeeping. These tasks are resource-intensive for firms and innovation in this area can potentially bring considerable savings.

New solutions designed to streamline processes are often referred to as process innovation. For B2B payments, process innovation has focused mainly on the development of online banking solutions – particularly more advanced versions, enabling integration of the firm's finance system with

⁹ See e.g. Danmarks Nationalbank, *Costs of payments in Denmark*, 2011 ([link](#)).

¹⁰ See Danish Payments Council, *Report on new payment solutions*, November 2013 ([link](#)).

its online banking facility, cf. section 2.3. As mentioned earlier, these solutions have automated the exchange of data with the bank and reduced firms' time consumption on payments.

Other examples of process innovation are the new creditor reference and end-to-end reference, cf. Box 2.1. Both references aim to facilitate firms' reconciliation of payments received. As already described, they have yet to become prevalent, but they may potentially lead to savings for many suppliers. Another example of process innovation is electronic invoicing, which is discussed in more detail in Chapter 5.

As opposed to the interest in solutions targeting consumer payments, public interest in process innovation of B2B payments is limited. However, the largest firms, in particular, have considerable focus on continually streamlining the processing of these payments – and thus wish to see continued development of existing solutions. This was confirmed in the interviews conducted with firms and in the survey, cf. the following chapter.

3. Firms' views on payment solutions

3.1 INTRODUCTION AND SUMMARY

This chapter describes firms' views on domestic payment solutions, based on the survey conducted for this report, cf. Appendix 2. According to the survey results, a large share of Danish firms are basically content with the solutions they are offered. High payment service provider costs and considerable time consumption are cited as the principal problems of B2B payments.

In settlement of supplier payments, three out of four respondent firms answer that having control of the payment is very important. This is possible when the firm makes the payment rather than having the amount debited from its bank account. This is presumably the main reason why Leverandørservice, which is used for B2B direct debits in Denmark, is less prevalent than e.g. Betalingsservice, the corresponding product for consumer payments.

As regards Leverandørservice, just under one in three firms want a longer period of time to reject a payment when debited than the current three days. On the other hand, an even larger share of suppliers consider it a problem that customers can reject payments after settlement. However, overall, relatively few firms point to unsatisfactory direct debit solutions as the principal problem of B2B payments.

For payees, certainty of payment is the most important aspect, followed by non-delay in payment. Overall, the customer's ability to pay and payment discipline are more important in this respect than the specific solution. However, it could be argued that, thanks to the short settlement period, Leverandørservice reduces the risk of customer losses, while also ensuring that payment is received on time, with no need for reminders.

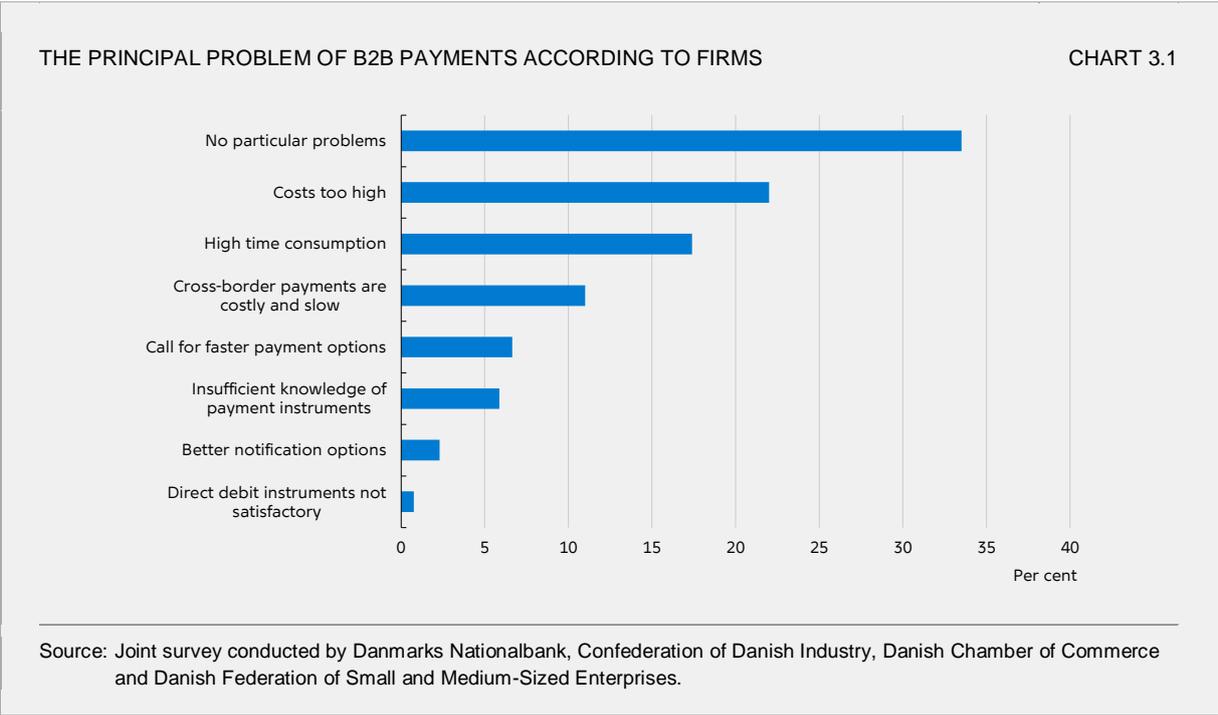
Regardless of the launch of the Straksclearing system, cf. Chapter 2, a substantial portion of the respondent firms call for better options for fast transfer or receipt of payments. The explanation could be that the maximum transfer amount in the Straksclearing is kr. 500,000. However, it is more likely that at the time of the survey, firms did not know the new opportunities of faster payments introduced a month earlier.

A large share of the respondents would also welcome better notification options in connection with payments. This reflects the considerable time consumption on reconciliation of payments received in some firms. This could also, to some extent, be due to insufficient knowledge of the solutions offered, including new features in the form of creditor reference and end-to-end reference in credit transfers, cf. section 2.4.

3.2 OVERALL ASSESSMENT

In the survey, firms were asked, inter alia, to identify what they perceive as the principal problem in relation to B2B payments. They were given a choice between seven specific factors that may be problematic when making or receiving B2B payments. They could also indicate that they see no particular problems in this type of payment.

A large share of the respondents generally consider this area to be well-functioning. Thus, one in three firms indicate that there are no major problems in relation to B2B payments, cf. Chart 3.1. The pattern is more or less the same for specific industries and broken down by firm size, nor are there any differences in assessments between firms with and without cross-border payments.

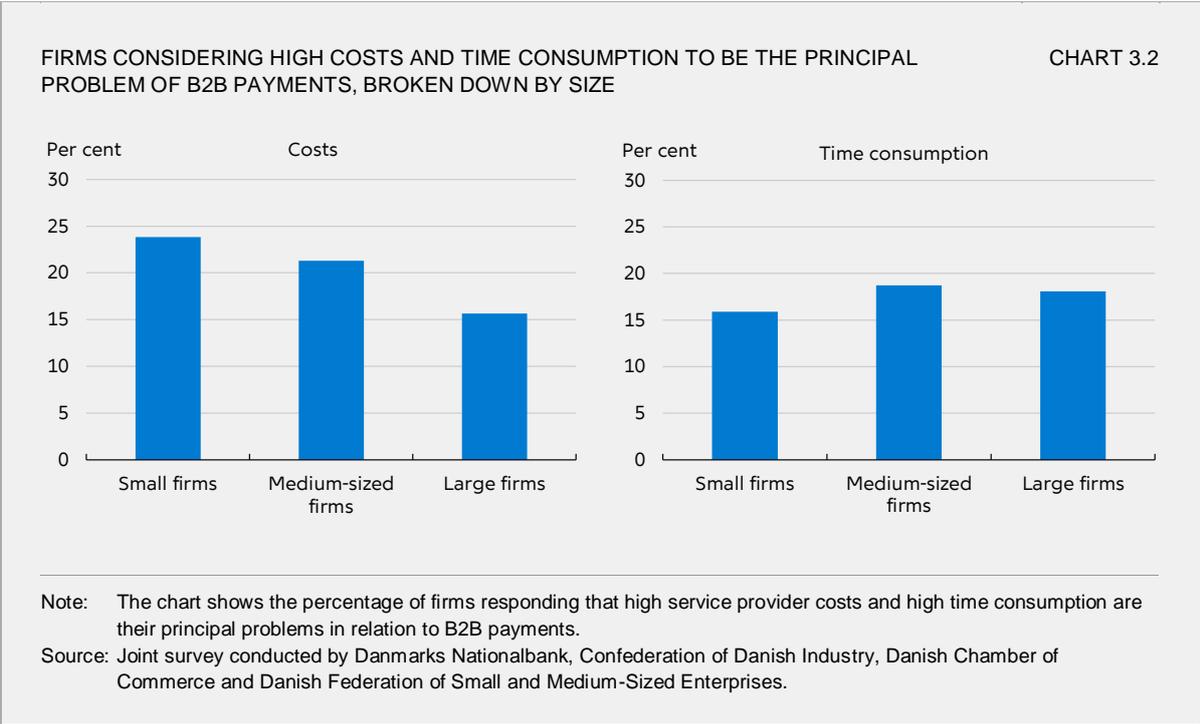


The generally positive assessment in the survey is in line with the impression gained from the interviews conducted. This reflects fundamental satisfaction with the solutions offered by banks, etc. Moreover, most firms are likely to focus more on operational aspects other than the payment solutions used as long as there are no serious issues with their payments.

Slightly more than one-fifth of firms point to high service provider costs as the principal problem in relation to B2B payments. Small firms, in particular, cite this as their principal problem, cf. Chart 3.2, left. The explanation could be that these costs account for a relatively larger share of total costs in small firms. Also, it may be more difficult for firms with relatively few payments to negotiate discounts, etc.

Another problem singled out by some firms is the time consumption involved in processing B2B payments. For instance, time spent on sending and receiving invoices, executing payments and reconciling and entering incoming and outgoing payments in the books. In principle, the firm's time

consumption in this respect represents a cost similar to the fees payable to its service provider, but it may be more difficult to determine than the costs invoiced.



Large firms with a large number of payments could be expected to focus more on the time consumption than small firms with fewer payments. However, high time consumption appears to be perceived as an equally large problem across firm sizes, cf. Chart 3.2, right. The explanation could be that large firms have automated payment processes to a greater extent than small and medium-sized enterprises and therefore spend less time per payment.

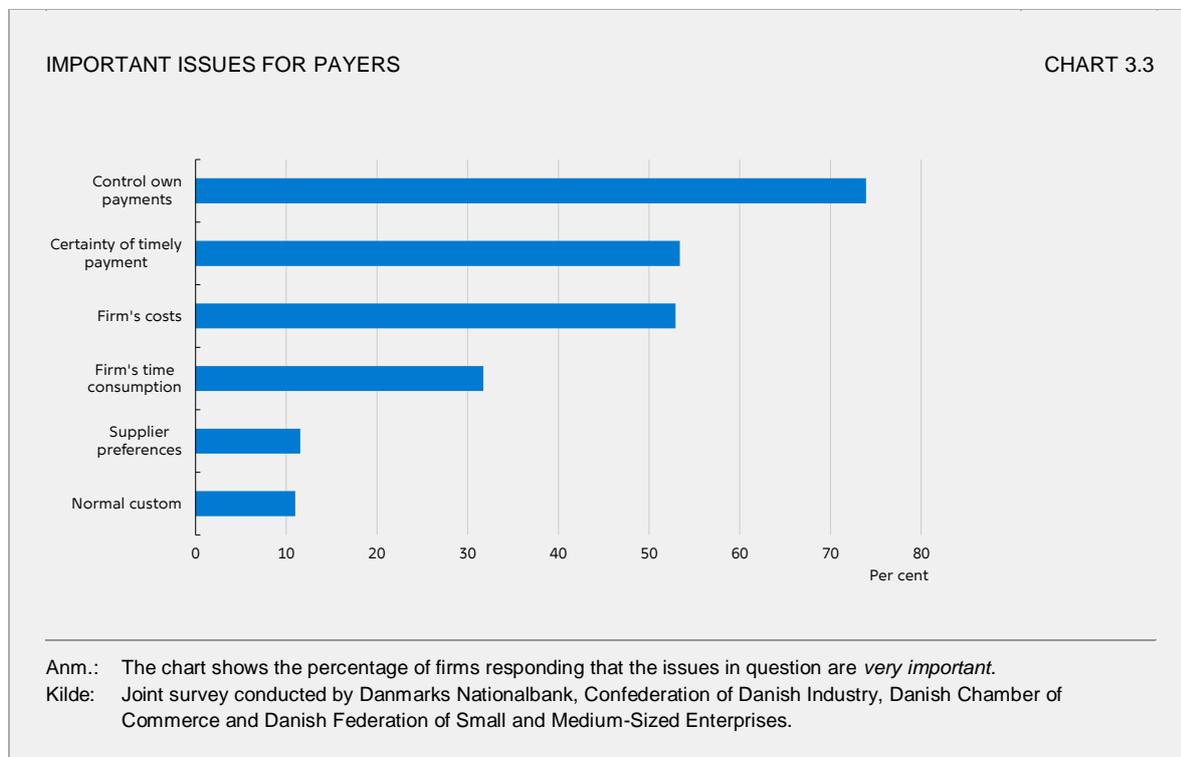
In addition to cross-border payments – described in more detail in the following chapter – a small share of the respondents also point to insufficient knowledge of possible payment solutions as the principal problem. Most of these are small firms with fewer resources than large firms to investigate various solutions. The firms calling for better options for transferring and receiving payments faster, cf. section 3.4, are also mainly small firms.

3.3 CHOICE OF SOLUTION

In the survey, firms were also asked to identify important factors in their choice of B2B payment solution. The relationship with the supplier or customer counterparty is often the determining factor: is it a regular customer or an isolated transaction. In addition, internal factors may play a part, for instance the solutions supported by the firm's finance system. Therefore, the following findings should be taken as general observations only, based on the survey.

As a payer

The aspect of B2B payments rated highest by firms is control of the payment, cf. Chart 3.3. Thus, more than 70 per cent of firms indicate that approving the payments to be made, and when, is very important to them. In other words, these firms do not want suppliers to debit amounts directly from their bank accounts as is the case with, for instance, Leverandørservice, cf. section 2.4.



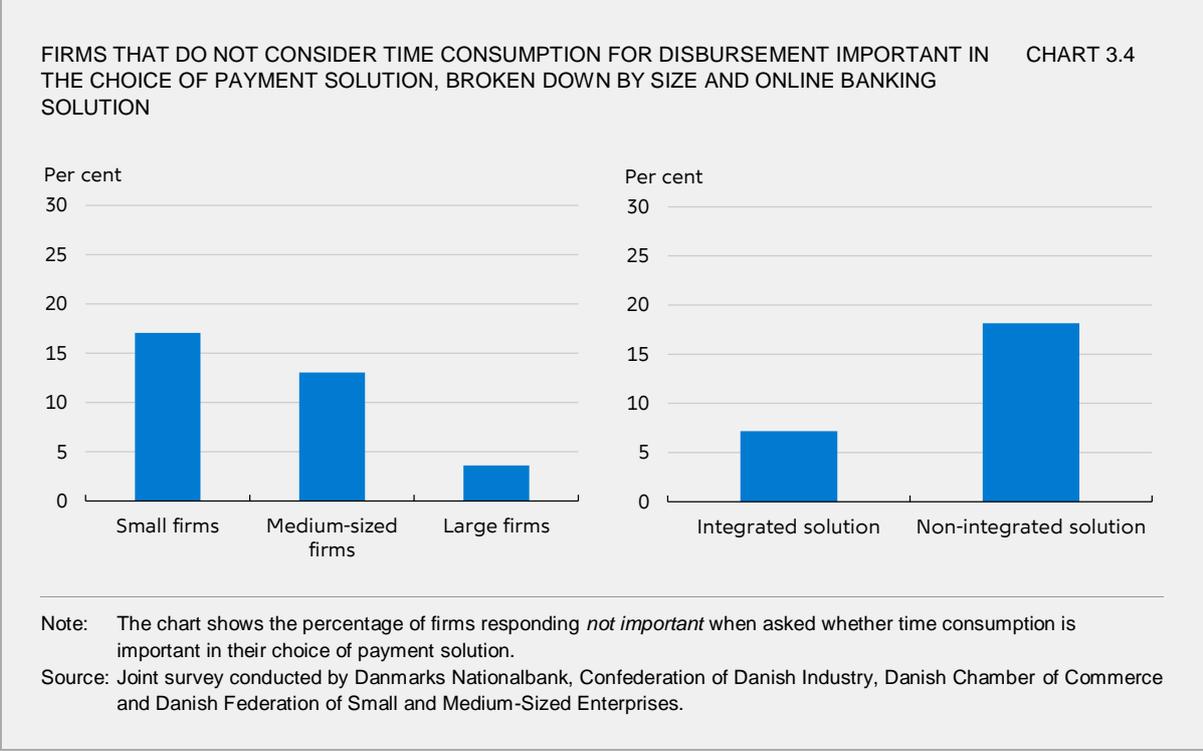
One reason why many firms are opposed to direct debiting of their accounts could be that complying with internal procedures for supplier settlement takes time. These procedures may entail that the goods or services delivered must be approved prior to payment of the supplier. This enables the firm to stop a transfer if the invoice does not match the goods or services received.

Moreover, firms may want certain payments to be made on specific days for liquidity management reasons. For instance, several of the respondents stated that, in general, they do not pay invoices on Fridays to avoid loss of value days over the weekend. With the infrastructure modernisation initiatives, cf. section 2.4 above, funds transferred on Mondays can be available to the payee on the same day.

However, at the same time, timely payment of invoices is important to many firms. In the event of late payment, a payment reminder fee may be charged. Late payment could also potentially damage supplier relations and tarnish the firm's general reputation. Firms typically have internal procedures and controls, for instance built into the finance system, to reduce the likelihood of late payment.

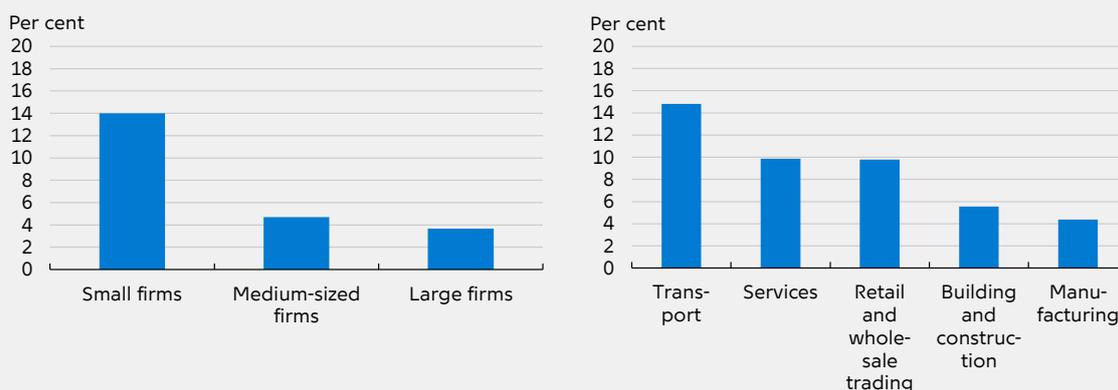
Direct costs in the form of fees, etc. to banks and other service providers are a third important aspect in firms' choice of solution for supplier settlement. This is in line with firms' indication of high service provider costs as the principal problem in relation to B2B payments, cf. above. As mentioned earlier, these costs are easy for firms to determine, and thus, not surprisingly, important in their choice of solution.

Moreover, just under one-third of firms state that time consumption is very important in their choice of payment solution. Firms responding that they do not consider time consumption an important parameter are mostly small firms, cf. Chart 3.4, left. Similarly, and not surprisingly, firms that have invested in an integrated solution between their finance system and online banking facility tend to rate minimisation of the time consumption relatively highly, cf. Chart 3.4, right.



Finally, supplier wishes seem to be of minor importance in the payer's choice of solution. This is underpinned by the fact that, according to the survey, only 8 per cent of firms pay their suppliers in a manner different from their preferred one, cf. Chart 3.5, left. Firms accommodating their suppliers in the choice of solution tend mostly to be small firms that may be in an inferior position to their suppliers. In the transport industry, in particular, firms pay in a manner different from their preferred one, cf. Chart 3.5, right.

FIRMS NOT ALLOWED TO PAY IN THEIR PREFERRED MANNER, BROKEN DOWN BY SIZE AND INDUSTRY CHART 3.5



Note: The chart shows firms responding 'strongly agree' or 'agree' when asked whether *The firm often has to pay its suppliers in a manner other than its preferred one.*

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

As a payee

When firms are payees, they rate certainty of payment the highest, cf. Chart 3.6. Whether or not a payment is received is determined by the customer's ability to pay rather than by the specific solution. However, the credit period granted with a given solution may differ. For instance, customers tend to have a relatively long payment period when settlement is made by credit transfer, while debits using e.g. Leverandørservice are usually considerably faster.

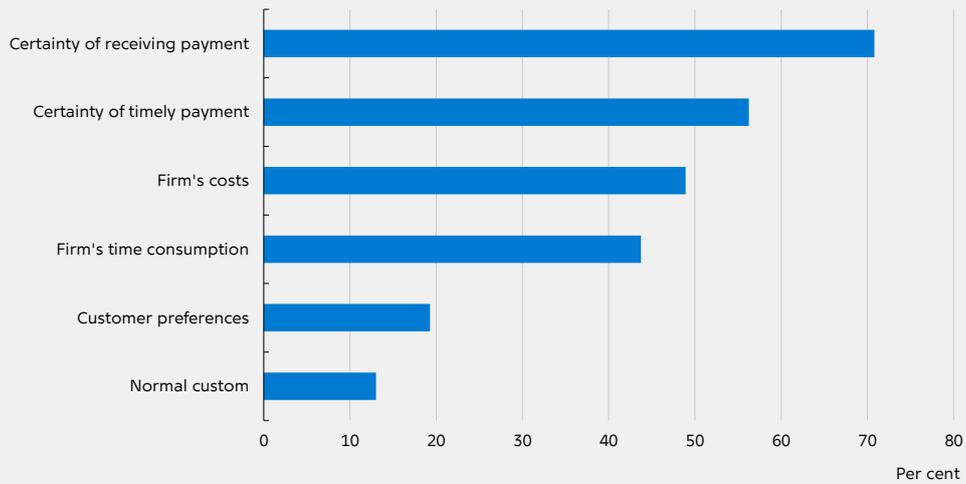
More than half of the firms indicate that timely payment is very important to them. This reflects that late payments are subject to administrative costs, for instance in the form of reminder letters. Moreover, late payments make liquidity management more difficult for firms and increase the credit risk on the customer, i.e. the risk that the customer will be unable to pay.

Late payment by firms and public authorities is relatively widespread in many countries. Overall, this problem is assessed to be greater in other European countries than Denmark. Nevertheless, just over half of Danish firms stated in 2014 that they suffered liquidity problems due to late payment.¹¹ To address the issue of late payments, an EU Directive was adopted in 2011. This Directive currently regulates the area of late payments, cf. Box 3.1.

¹¹ See Intrum Justitia, *Risk Index 2014 Denmark*, 2014 ([link](#)).

IMPORTANT ISSUES FOR PAYEES

CHART 3.6

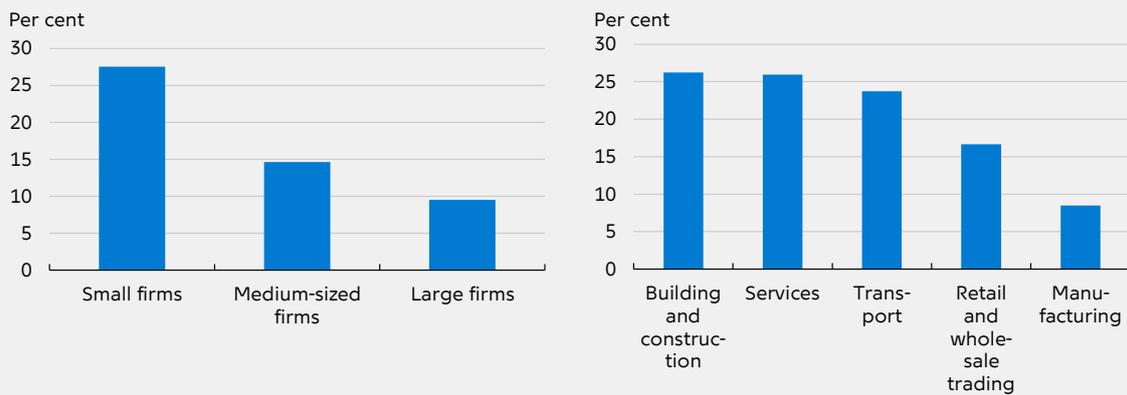


Note: The chart shows the percentage of firms responding that the issues in question are *very important*.
 Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

Finally, direct costs and time consumption are other very important aspects to many firms in their choice of solution as payees. Furthermore, about one in five firms state that this also applies to customer wishes in terms of the solution used. Small firms, in particular, take the payment preferences of their customers into consideration. Distributed on industries, firms in the building and construction, transport and services sectors are most likely to accommodate the wishes of their customers in this respect, cf. Chart 3.7.

FIRMS WHERE THE CUSTOMER'S PREFERRED PAYMENT SOLUTION IS IMPORTANT, BROKEN DOWN BY SIZE AND INDUSTRY

CHART 3.7



Note: The chart shows the percentage of firms responding *very important*.
 Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

In 2011, the Council and the European Parliament adopted a Directive on late payments, which generally strengthened the legal position of payees. The Directive introduced provisions on payment periods, late payment interest and entitlement to compensation for recovery costs. The Directive applies to B2B payments and to payments between firms and public authorities, but not to payments involving consumers.

The Directive had to be transposed into national law at the latest in March 2013. In Denmark, a working group with representatives from authorities, business organisations and experts was established to consider how to implement the Directive into Danish law. The work was presented in a report, resulting in amendments to the Danish Act on interest rates and other late payment issues (the Interest Rates Act).

Following the implementation of the Directive, payees in their standard terms cannot be expected to allow a payment period exceeding 30 days. If a payer wants a longer repayment term, this is subject to further agreement between the parties. If the payer requests a payment period longer than 60 days, special justification is required.

It remains to be assessed whether the new rules have resulted in fewer late payments and shorter payment periods. However, according to the interviews conducted with firms and other anecdotal information, small suppliers, in particular, occasionally have to accept relative long payment periods to land a particular order.

3.4 OTHER ISSUES

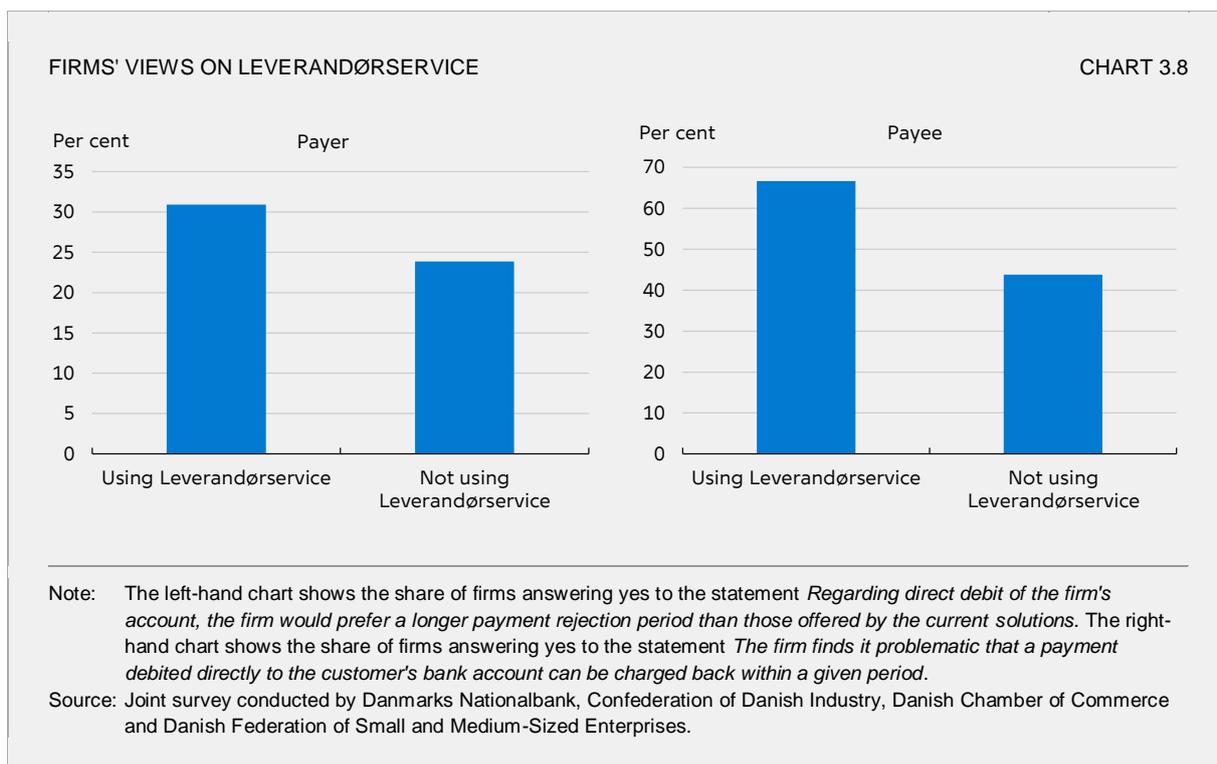
Finally, the respondents were also asked a number of more specific questions about the current B2B payment solutions.

Direct debit solutions

Direct debit solutions typically give the payer several days to reject a payment as the precondition for accepting this debit method. These days may be before or after an amount is debited to the payer's account. Leverandørservice, for instance, gives the payer three banking days after the settlement date to demand charge-back without having to state a reason, cf. the description of the product in section 2.4.

In the survey, the respondents were asked about their views on payment rejection periods in Leverandørservice. Among the respondents debited via this product, just under one-third called for a longer payment rejection period, cf. Chart 3.8, left. On the other hand, around two-thirds of the payees using Leverandørservice replied that the payer's charge-back option is problematic, cf. Chart 3.8, right.

Despite these opposite views on payment rejection, it seems that only a relatively limited number of respondents find the existing direct debit products unsatisfactory, cf. Chart 3.1. Nevertheless, the use of Leverandørservice is relatively modest primarily because, as described earlier, firms prefer to control their own payments rather than having their bank accounts debited directly.



Settlement time

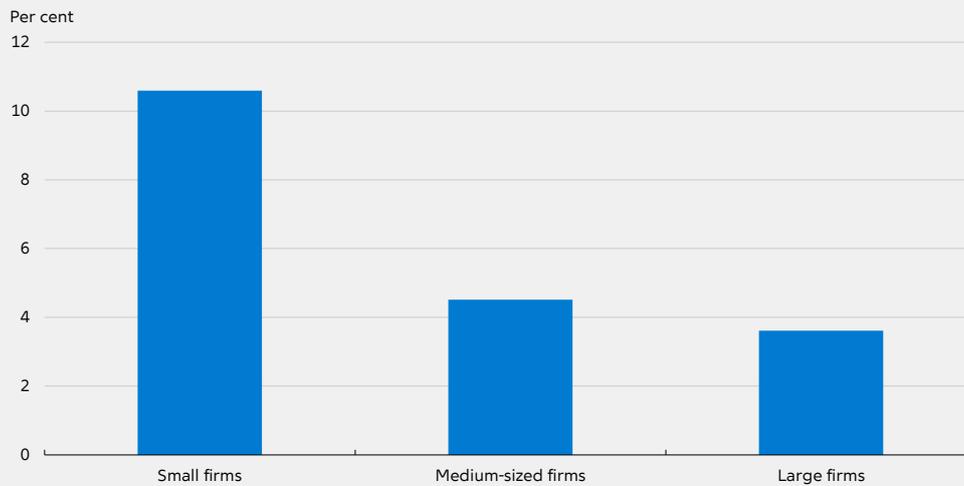
As described in section 2.4, several measures implemented in recent years have reduced the settlement time for payments, including instant payments.

The respondents of the survey were also asked whether they were satisfied with the current payment settlement times. Around one-fourth of the respondents replied that they would like better options for instant payments or intraday transfers, while 40 per cent of the respondents gave the same answer on the payee side. However, only 7 per cent of the respondents stated that they would like better opportunities of faster payments, cf. Chart 3.1.

The survey was conducted soon after the launch of instant payments in Denmark. The limited satisfaction with settlement times may to some extent be attributable to the respondents' lack of knowledge about the new options. This is in line with the fact that mainly smaller firms – which can be expected to become aware of new features later than large firms – stated long settlement times as their principal problem in a payment context, cf. Chart 3.9.

FIRMS INDICATING SETTLEMENT TIME AS THEIR PRINCIPAL PROBLEM IN RELATION TO B2B PAYMENTS, BY SIZE

CHART 3.9



Note: The chart shows the share of firms stating possibilities of faster payment as their principal problem in relation to B2B payments.

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

Notification

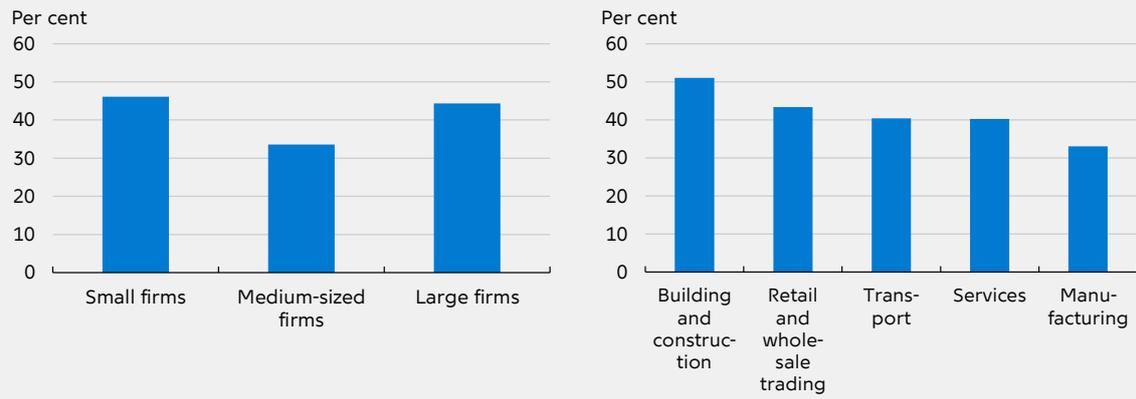
In the interviews, several firms mentioned that they spend much time on reconciliation of payments and invoices. For instance a supplier who has sent several invoices to a customer who pays the invoices in one total transfer. The supplier then has to spend time finding out which invoices have been paid. Against that background, the interviewees called for new notification features for credit transfers.

In the survey, 40 per cent of the respondents called for better notification features, cf. Chart 3.10, left. This wish is apparently most widespread among small and large firms. A breakdown by industry shows that building and construction firms in particular call for better notification, cf. Chart 3.10, right, which may reflect the relatively high number of invoices in this industry.

As mentioned in section 2.4, Danish banks have implemented two new features – a creditor reference and an end-to-end reference – which are to make it easier to reconcile and book payments received. These features may possibly meet the needs of some firms to a certain extent. When a relatively large number of firms call for better notification features, this may be due to their lack of knowledge about the new features.

FIRMS CALLING FOR BETTER NOTIFICATION OPTIONS, BY SIZE AND INDUSTRY

CHART 3.10



Note: The chart shows the number of firms calling for better notification options in connection with reconciliation of payments received.

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

4. Cross-border payments

4.1 INTRODUCTION AND SUMMARY

Denmark is a small, open economy with extensive trade with other countries. Hence, it is important that Danish firms can execute cross-border payments safely and efficiently.

Typically, exporters and importers must be able to receive and make payments, respectively, in foreign currency. For that purpose they may choose to have a currency account at a Danish or foreign bank. Alternatively, they may stick to a krone account and then exchange between kroner and foreign currency as required. More than half of Danish firms with cross-border payments state that they have a currency account, thereby saving exchange costs.

Historically, cross-border payments have been cost-intensive and taken longer time to execute than domestic payments. However, EU legislation and the establishment of the Single Euro Payments Area, SEPA, have contributed to a reduction of fees and settlement times for intra-EU payments. Nevertheless, a relatively large share of the respondents still perceive costly and slow cross-border payments as their principal payment problem.

Danish firms' cross-border payments are predominantly to and from other EU member states. These payments are effected using the new SEPA products, i.e. SEPA Credit Transfer and SEPA Direct Debit. SEPA Direct Debit in the B2B version is comparable with Leverandørservice. SEPA Direct Debit is used only to a limited extent and may be useful for more firms.

Another potential problem associated with cross-border payments is account number fraud. This occurs when a customer transfers money to a stated account, which turns out not to belong to the intended payee. There are no statistics available on this type of fraud, which is by no means an insignificant problem, according to firms and banks. The banks are continuously helping firms combat this fraud.

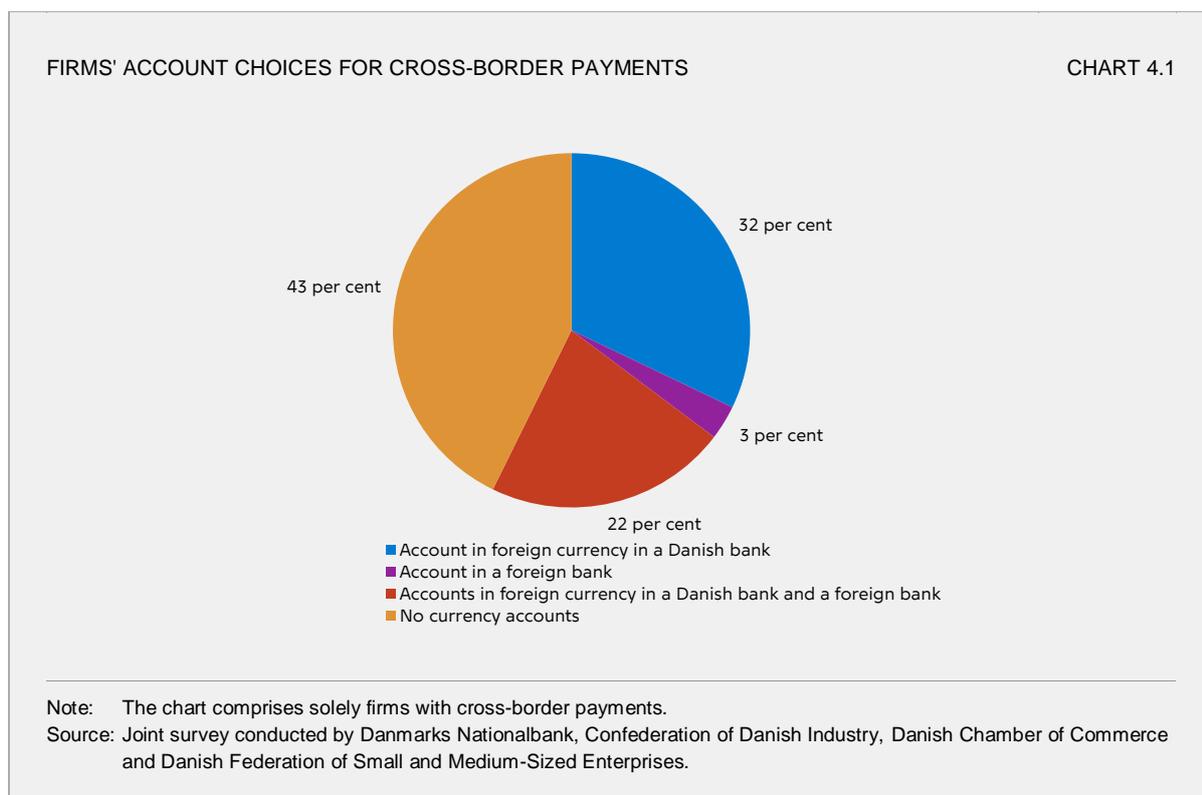
4.2 CROSS-BORDER PAYMENT SOLUTIONS

A firm with international trading activities usually needs to be able to pay or receive amounts in foreign currency. Most Danish banks offer their corporate customers access to currency accounts – either accounts at the bank itself or by providing assistance with opening accounts at a foreign bank. Alternatively, a firm may have a krone account at its own bank and then exchange between kroner and foreign currency in connection with payments in foreign currency.

In the survey, slightly more than half the respondents with international payments stated that they use currency accounts for cross-border payments, cf. Chart 4.1. The respondents without currency accounts are mainly small firms with only a small share of cross-border payments relative to their total purchases and sales. One-fourth of the respondents with cross-border payments hold accounts at foreign banks.

The best solution for the individual firm depends on e.g. the nature and number of its payments in the currency in question. If the firm makes and receives a large number of payments in the same

currency, it may be cheaper to have a currency account, thus avoiding exchange fees, etc. The firm also needs to consider how a currency account would affect its total exchange rate risk.



Credit transfers in foreign currency

By far the majority of firms' cross-border payments are executed as credit transfers. Most of them are made via the individual firm's online banking facility. In addition, most banks also take orders for international transfers by other means, e.g. at the counter in a branch or by telephone. These options are typically subject to higher fees than online banking transfers.

Most banks distinguish between three types of international credit transfers, depending on the currency and terms of payment:

- A *SEPA payment* is a credit transfer in euro which can be made to all EU member states and a number of other European countries. The amount is available in the payee's account one banking day after the payer's account is debited. Such payments are SEPA Credit Transfers, i.e. the European product for credit transfers in euro. SEPA is outlined in Box 4.1.
- A *standard payment* is used for credit transfers in other currencies than euro. The amount is normally available in the payee's account two banking days after the payer's account is debited.
- An *express payment* implies that the amount transferred is available to the payee faster than for the above options. In the most common currencies, e.g. euro and dollars, this will typically be the same day, while it may be the next day for less commonly used currencies.

A credit transfer requires the payer to state the payee's account number and bank details. For international credit transfers, the payee's IBAN (International Bank Account Number) and the recipient bank's BIC (Bank Identifier Code) are often used. This e.g. applies to SEPA payments. As from February 2016, only the payee's IBAN will have to be stated, cf. Box 4.1.

SEPA

BOX 4.1

SEPA – the Single Euro Payments Area – crystallises the vision of a single euro payments area in Europe. In SEPA, the cross-border payments of consumers, firms and public authorities are to be effected as efficiently as domestic payments. SEPA currently comprises 34 countries: the 28 EU member states, Switzerland, Norway, Iceland, Liechtenstein, San Marino and Monaco.

Initially, SEPA comprises two common products for credit transfers and direct debits, i.e. SEPA Credit Transfer, SCT, and SEPA Direct Debit, SDD. The products have been developed by the European Payments Council, EPC, which is the banks' organisation for handling retail payment issues at the European level. The Danish EPC members are the Danish Bankers Association, representing Danish banks, and Danske Bank.

In the euro area member states, all credit transfers and direct debits in euro have been effected using the new SEPA products since August 2014. This is the consequence of an EU regulation from 2012, which set a deadline for phasing out national credit transfer and direct debit solutions. The deadline for non-euro area member states is the end of October 2016. In Denmark, credit transfers and direct debits in euro are generally effected using the SEPA products.

An important change for users in the transition to SEPA products was the requirement of stating the payee's IBAN (International Bank Account Number) for all transfers, including domestic payments. For cross-border payments, the user normally also has to state the BIC (Bank Identifier Code) of the recipient bank. However, according to the EU regulation mentioned above, IBAN will be sufficient for all payments from February 2016.

SEPA is especially expected to benefit firms. For example, an analysis from 2014 concluded that firms in the euro area will save 13 billion euro once SEPA is fully realised.¹ One of the reasons is sharpened competition among banks, etc., which will entail lower prices for payment services and efficiency gains for firms, e.g. by managing all payments in euro via one account.

¹ PwC, *Economic analysis of SEPA. Benefits and opportunities ready to be unlocked by stakeholders*, 2014 ([link](#)).

Direct debit in euro

Besides using credit transfers, Danish firms may also use SEPA Direct Debit B2B, SDD B2B, for making and receiving cross-border payments. SDD B2B is a B2B solution, which is most comparable with Leverandørservice. The most important difference is that SDD B2B does not entail a charge-back option for the payer if the payment has been carried out correctly. Box 4.2 describes SDD B2B.

Other services

In addition to transfer services, the banks also offer corporate customers several other services in connection with cross-border payments. One example is letters of credit with the purchaser's, i.e. the importer's, bank issuing a payment guarantee on the basis of e.g. a shipping document. A letter of credit means that the importer does not have to tie liquidity in advance payment for the goods, and hence, the importer also avoids having to pay for goods that are not received.

Examples of similar services offered by several banks are other types of guarantees, export finance and debt collection abroad. Their basic purpose is to reduce the firms' risks on trading with foreign firms or to provide intermediate financing for the transaction. Such services are beyond the scope of this analysis, so they are not described further here.

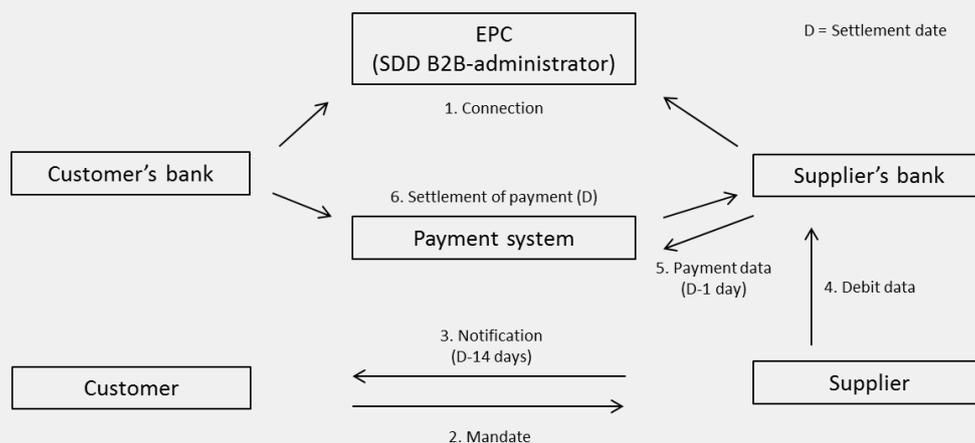
SEPA Direct Debit B2B, SDD B2B, is the pan-European product for business-to-business direct debits in euro. The rules and conditions for using SDD B2B are described in a set of rules to be updated around once a year.

The direct debit process using SDD B2B can be divided into the following steps (see also the chart below):

1. The banks of the payer and the payee must be connected to SDD B2B at the European Payments Council, cf. Box 4.1, which administers the SEPA products. Moreover, both the payer and payee must have concluded agreements with their respective banks on the terms for direct debit via SDD B2B.
2. The payer signs a mandate, which is submitted to the payee. The mandate authorises the payee, through his bank, to debit the payer's account for the amount in question and, possibly, future payments.
3. Unless otherwise agreed, the payee must notify the payer of the payment, referred to as notification, before the first transaction, at no less than two weeks' notice.
4. The payee sends debit data to his bank on an ongoing basis.
5. No later than the day before the settlement date, the payee's bank sends the payment to a payment system which settles SDD B2B or directly to the payer's bank.
6. The payment is effected, i.e. the payer's account is debited and the payee's account is credited.

The bank of the payer or the payee may, without particular cause, reject a debit until it has been effected. In addition, the payer's bank may reject a debit for up to two banking days after the settlement date, e.g. because of insufficient funds in the payer's account.

Once a payment has been effected, the payer is not entitled to have the amount charged back if all procedures were executed correctly. In the event of an unauthorised payment, e.g. in the absence of a signed mandate, the payer may request charge-back of the amount in up to 13 months.



4.4 COSTS OF CROSS-BORDER PAYMENTS

By tradition, cross-border payments have entailed considerably higher costs than domestic payments as well as relatively long settlement times. This has been the case for transfers between Denmark and non-EU countries, but also between Denmark and other EU member states. For example, a 2001 study showed that the average cost of a transfer of 100 euro from Denmark to another EU member state was 21 euro, with a settlement time of four days.¹²

¹² Retail Banking Research, *Study on the verification of a common and coherent application of directive 97/5/EC on cross-border credit transfers in the 15 member states – transfer exercise, 2001* ([link](#)).

The costs and settlement times of transfers between Denmark and other EU member states have been considerably reduced since then. This is especially due to the implementation of EU legislation regulating bank fees for cross-border payments and the maximum payment transaction time. Moreover, with the establishment of SEPA the banks have implemented an infrastructure that has contributed further to reducing the costs of cross-border payments in Europe.

According to a review of selected banks' published price lists, the cost for a Danish firm of a cross-border credit transfer in euro is kr. 15-30, cf. Table 4.1. The fee for a standard payment, i.e. a credit transfer in a non-euro currency, is kr. 40-50, while the fee for an express transfer, where the money is available to the payee on the same day, is kr. 250-300. The payer typically has to pay kr. 10-30 for a payment via SDD B2B.

FEES FOR CROSS-BORDER PAYMENTS		TABLE 4.1
Credit transfers	SEPA payment	Kr. 15-30
	Standard payment	Kr. 40-50
	Express payment	Kr. 250-300
Direct debit	SDD B2B	Kr. 10-30

Note: The table shows the typical fee for the payer in various types of cross-border payments via online banking facilities. For other types of payments, e.g. in a bank branch, the fee is normally higher.
 Source: Published price lists of selected banks.

It is also normal for the payee to pay a fee for cross-border payments. Basically, the costs can be distributed among payer and payee in three different ways. The most common is for the parties to pay their separate shares of the costs, called SHARE, which is a requirement for intra-EU transfers, including SEPA payments. In addition, it is possible to have the payer or payee pay all costs, i.e. OUR and BEN, respectively.

The fees mentioned above can be assessed by comparing them with the fees for identical payment types in other countries. The price lists from the largest banks in Norway and Sweden show that their fees are similar to the level in Denmark. However, the cost of a SEPA payment, i.e. a cross-border transfer in euro, seems to be relatively low in Sweden, i.e. only around 2 Swedish kronor.

4.5 VOLUME OF CROSS-BORDER PAYMENTS

There are no available statistics for cross-border payments made or received by Danish firms. However, foreign trade statistics provide an estimate of the volume of these payments. In 2014, exports and imports totalled kr. 1,022 billion and kr. 914 billion, respectively, cf. Table 4.2. Trade with EU member states accounted for just under 60 per cent. In general, non-EU countries have gained ground in terms of total foreign trade.

FOREIGN TRADE IN GOODS AND SERVICES, 2014

TABLE 4.2

	Exports, kr. billion			Imports, kr. billion		
	Goods	Services	Total	Goods	Services	Total
Total	617	406	1,022	556	358	914
- EU	385	177	563	386	193	579
- Rest of the world	231	228	459	170	165	335

Source: Statistics Denmark.

In practice, only a small share of Danish firms have cross-border payments. According to Statistics Denmark data, in 2013 25,000 firms were exporters of goods and hence recipients of cross-border payments. This corresponds to 8 per cent of all active firms in Denmark. Large firms, defined as firms with more than 250 employees, accounted for around half of total exports.

The share of firms making cross-border payments is slightly larger. In 2013, the number of importers was 53,000, i.e. around 17 per cent of all firms. The majority of these importers imported goods from other EU member states, while less than half imported goods from non-EU countries. Wholesalers, i.e. firms selling products to other firms, account for around 60 per cent of total exports.

Use of SEPA products

The Danish Bankers Association collects data on the use of SEPA Credit Transfer and SEPA Direct Debit, cf. Table 4.3. However, these figures underestimate Danish firms' use of the new products. The reason is that several banks effect SEPA payments for their customers via branches or other intra-group units in the euro area, so these payments are not included in the figures of the Danish Bankers Association. But the banks state that the use of especially SEPA Direct Debit is still relatively modest.

USE OF SEPA PRODUCTS, 2014

TABLE 4.3

	SEPA Credit Transfer (Danish payer)	SEPA Direct Debit B2B (Danish payee)	SEPA Direct Debit B2B (Danish payer)
Number	3,437,445	9,775	2,570
Value, million euro	39,592	43	21

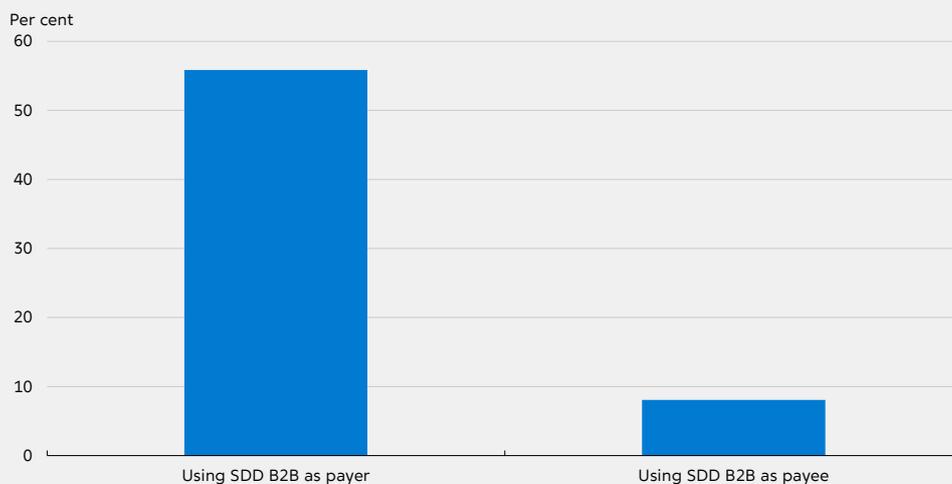
Note: The table shows the number and value of payments using selected SEPA products via banks in Denmark. Payments using SEPA Credit Transfer also include transfers made by consumers.

Source: Danish Bankers Association.

In the survey, the respondents were asked to state whether they use SEPA Direct Debit B2B for paying suppliers or debiting customers in euro. Just over half of the importers making payments in euro replied that they are debited via SDD B2B, cf. Chart 4.2. On the other hand, less than 10 per cent of the exporters receiving payments in euro replied that they use this product.

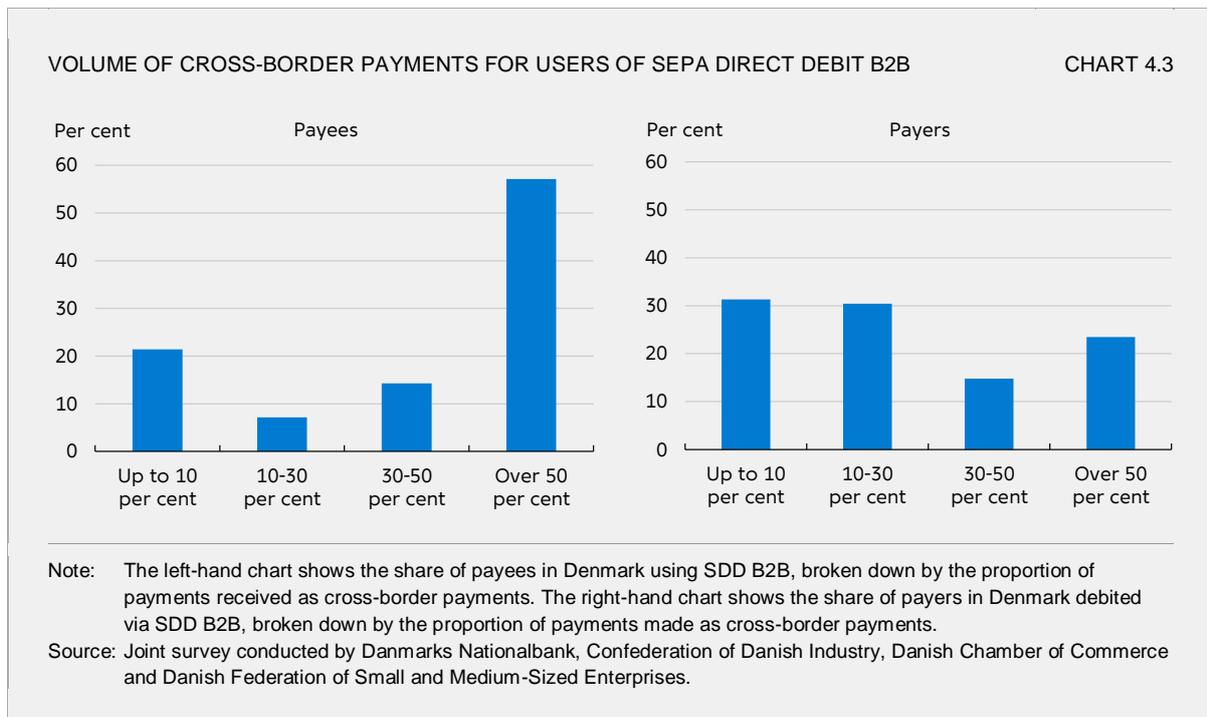
DANISH FIRMS' USE OF SEPA DIRECT DEBIT B2B

CHART 4.2



Note: The bar on the left shows the share of importers in Denmark making payments in euro and being debited via SDD B2B. The bar on the right shows the share of exporters in Denmark receiving payments in euro and using SDD B2B.
 Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

The fact that more foreign than Danish payees use SDD B2B may be explained by the time it takes to become familiar with the new product. This means that SDD B2B must be relevant for a considerable number of payments before a firm starts to use it. This is in line with the overweight among Danish exporters of large exporters using SDD B2B, while among importers, it is used to the same extent by small and large importers, cf. Chart 4.3.



4.6 FIRMS' VIEWS ON CROSS-BORDER PAYMENTS

Historically, the processing of cross-border payments has been less smooth than processing of domestic payments. According to the survey, this still applies to some extent. 11 per cent of the respondents thus stated costly and slow cross-border payments as their principal problem in relation to B2B payments, cf. Chart 3.1. Among firms with cross-border payments, the share was 17 per cent, cf. Chart 4.4.

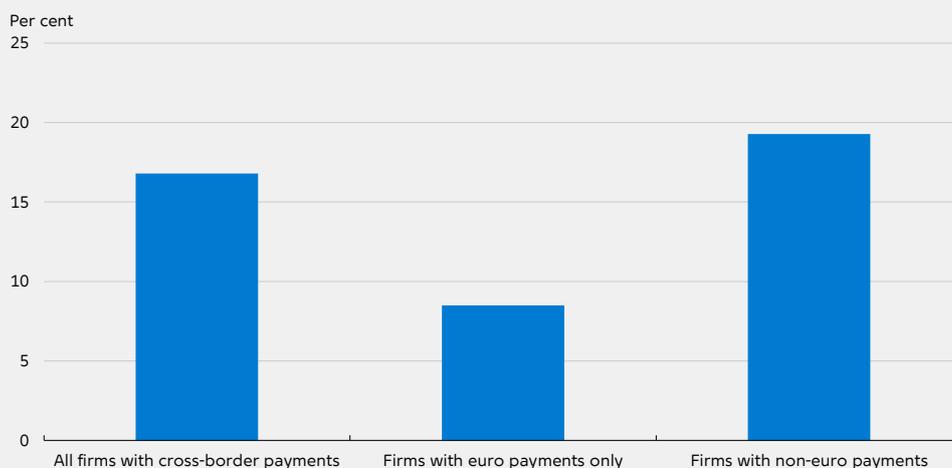
For domestic payments, the relatively fast processing and low costs can be explained by an efficient infrastructure. SEPA is the result of the European banks' efforts to establish a European infrastructure in euro with no difference between domestic and cross-border payments. Ideally, this enables firms to handle all their payments in euro via one account, in contrast to previously, when it was sometimes necessary to hold accounts in several countries.

The respondents still find that payment settlement is associated with considerable costs for trade with non-euro area countries. In the interviews the firms mentioned, inter alia, that they often have to open an account in a bank in the country in question, possibly with assistance from their banker in Denmark. This can be both expensive and time-consuming for a firm.

The results of the survey confirm that there seem to be differences between cross-border payments within SEPA and between Danish firms and firms in countries not participating in SEPA. Among firms with payments in euro only, less than 10 per cent thus stated cross-border payments as their principal problem in relation to B2B payments, while the share was almost 20 per cent among firms with payments in non-euro currencies, cf. Chart 4.4.

FIRMS STATING CROSS-BORDER PAYMENTS AS THEIR PRINCIPAL PROBLEM IN B2B PAYMENTS

CHART 4.4



Note: The chart shows the share of firms stating costly and slow cross-border payments as their principal problem in relation to B2B payments, broken down by all firms with cross-border payments, firms with payments in euro only and firms with payments in non-euro currencies.

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

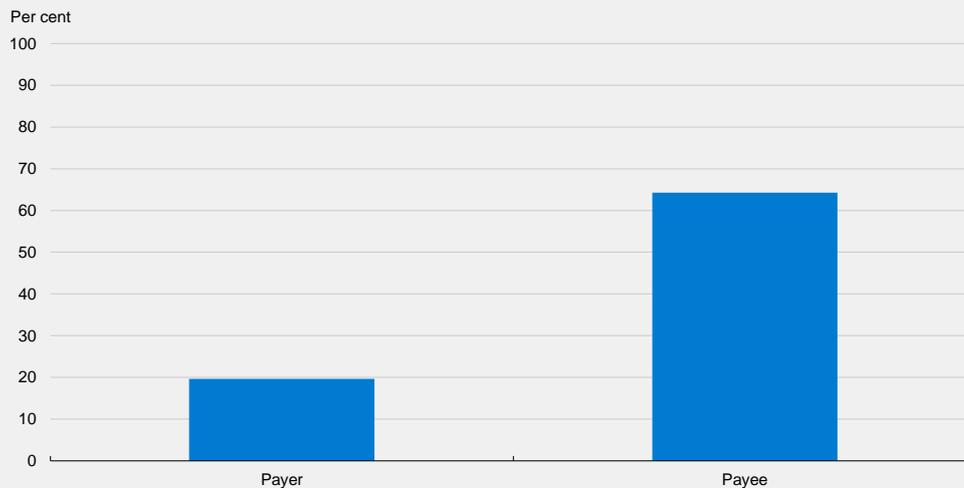
SEPA Direct Debit B2B

In the survey, the respondents were also asked about their views on direct debit solutions in euro, i.e. SEPA Direct Debit B2B. Only one-fifth of the respondents debited via SDD B2B stated that this is a useful product, cf. Chart 4.5. The reason for this relatively modest share is probably – like the reason for the limited use of Leverandørservice – that firms prefer to make the payments themselves rather than having their bank accounts debited automatically.

Conversely, among the firms using SDD B2B as payees, more than 60 per cent state that it is a useful product. This should be viewed in the light of firms using SDD B2B achieving greater certainty of receipt of the proceeds from a sale, not risking charge-back and avoiding having to open an account in the payer's home country. In conjunction with the limited use of SDD B2B, this indicates a considerable potential for increasing the use of this product.

FIRMS PERCEIVING SEPA DIRECT DEBIT B2B AS A USEFUL PRODUCT

CHART 4.5



Note: The chart shows the share of firms using SDD B2B as payers and payees, respectively, and perceiving it as a useful product.

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

Account number fraud

In connection with the interviews, several firms remarked that they were occasionally exposed to fraud – or attempted fraud – with the account number when transferring money to abroad. One large firm mentioned, inter alia, that it had several such cases every year. In the survey, just under half of the respondents replied that they were, from time to time, uncertain about the correctness of a foreign supplier's account number.

For instance, account number fraud can be committed by hacking the email correspondence between the supplier and the customer and changing the payment details. Alternatively, a correct invoice may be followed up by a false email explaining that the money must be sent to a different account than the one originally stated. Such fraud is often very convincing, making it difficult for firms to detect it.

The banks are continuously combating this type of fraud, e.g. by advising firms and warning them against paying invoices if they suspect fraud, e.g. in the event of a change of payment details. Moreover, the banks record fraud cases when they become aware of them, blocking transfers to false account numbers. In addition, the banks keep each other informed, e.g. by exchanging account numbers used for fraudulent purposes.

5. Electronic invoicing

5.1 INTRODUCTION AND SUMMARY

The report has described how firms send and receive B2B payments in Denmark and abroad. Before a customer pays a supplier, the customer has usually received an invoice with information about the content of the transaction and the method of payment. Invoicing is not a payment service as such, but it is closely linked to the payment.

Firms are still extensively sending invoices by ordinary mail or as attached files in emails. Electronic invoicing has gained ground in recent years, however. It means that the supplier sends the invoice electronically in a format that can be read directly into the customer's finance system, which can contribute to reducing costs for both parties.

Denmark is one of the European countries with the most widespread use of electronic invoicing. More than half of the Danish firms use electronic invoicing, while the figure for Europe as a whole is less than one-third. One reason is that since 2005 electronic invoicing has been mandatory for firms with sales to the public sector.

In recent years, European authorities have focused strongly on increasing the use of electronic invoicing. Most recently it has been decided to make it mandatory from the end of 2018 for the public sector to be able to handle this kind of invoicing. Moreover, standardisation work is in progress in both private-sector and public-sector efforts.

5.2 DEFINITION

Payment for firms' purchases of goods and services from other firms is normally based on an invoice specifying the content of the transaction and the method of payment, cf. section 2.2. At European level, firms and public authorities receive an estimated 17 billion invoices annually.¹³

Invoices are issued either physically, i.e. sent by ordinary mail, or electronically. An invoice in a format that is automatically readable in a firm's finance system is called an electronic invoice or e-invoice. Any invoice sent electronically, but requiring manual processing from the recipient, e.g. entry into the finance system, is not an e-invoice. An example is an invoice sent as an attached PDF file in an email.

Exchange of an e-invoice requires that the sender and recipient agree on what information should be contained in the e-invoice and its exact meaning, called semantics. In addition, the parties need to agree on the syntax, i.e. the machine-readable format of the e-invoice. Examples are UBL and the Danish version, OIOUBL, which are XML-based syntaxes. Finally it must be agreed how to send the invoice, i.e. the method of transmission.

¹³ See Billentis, *E-Invoicing / E-Billing, International Market Overview & Forecast*, February 2014 ([link](#))

E-invoices can be exchanged directly between the parties' finance systems. However, this requires that the systems are able to read the same format. For a firm with many customers and suppliers, having to support a variety of formats is resource-consuming. As a result, there are providers offering conversion of invoices to the format desired by the recipient. This enables the individual firm to send and receive invoices in the same way no matter which firm it is doing business with.

Another type of provider offers to scan firms' non-electronic invoices, e.g. invoices in PDF format or paper invoices to create e-invoices. The e-invoice can then be read into the firm's, i.e. the supplier's, finance system or sent to a customer. There are also portals where suppliers can enter invoices which are then sent to the customers as e-invoices.

Electronic invoicing has several advantages. First and foremost it allows automation of invoicing processes, i.e. creation, transmission and receipt of invoices. This enables faster invoicing, reduces the volume of errors and entails lower printing and postage costs. It also provides for integration of invoicing with other processes in a B2B transaction, such as ordering and payment.

In Denmark, the benefits to society of the transition to electronic invoicing for transactions with the public sector were calculated at around kr. 750 million annually in an early study.¹⁴ Other studies also point to substantial savings from increased use of e-invoicing. For instance, in Norway the savings have been calculated at almost 25 billion Norwegian kroner annually,¹⁵ while a 2007 study concluded that the savings for the EU from switching from paper invoices to e-invoicing would be almost 240 billion euro over a six-year period.¹⁶

These studies were, in essence, corroborated by the respondents in the survey conducted during preparation of this report, cf. Appendix 2. Most respondents stated that electronic invoicing has reduced their costs.

5.3 THE PREVALENCE OF ELECTRONIC INVOICING

Since 2005, electronic invoicing has been mandatory in Denmark for firms with sales to the public sector. Since 2011, all invoices to the public sector have been submitted via NemHandel. This technology, developed by the public sector, makes it possible to send electronic documents related to a transaction, e.g. invoices, securely via the Internet. NemHandel, which may also be used by firms in B2B transactions, is described in more detail in Box 5.1.

Since 2010, data has been collected on Danish firms' use of electronic invoicing, cf. Table 5.1. In 2013, 59 per cent of firms with more than 10 employees were sending e-invoices, while just under one-third were receiving them. The use of e-invoicing increased over the period and is most widely used in building and construction and among large firms. The table also shows that a large share of firms are still sending out paper invoices.

¹⁴ KPMG, *Optimal betalingsformidling i den offentlige sektor* (Danish only), October 2003 ([link](#)).

¹⁵ Harald Haare, *Samfunnets besparelse ved overgang til elektronisk faktura* (Norwegian only), Staff Memo No.7/2014, Norges Bank ([link](#)).

¹⁶ Capgemini, *SEPA: potential benefits at stake, 2007* ([link](#)).

The NemHandel technology has been developed by the public sector and enables online transmission and receipt of electronic documents. NemHandel has three main elements¹:

1. An infrastructure based on open standards, ensuring safe and reliable exchange of documents.
2. A format for electronic documents, OIOUBL, enabling digitisation of all legs in a transaction, including invoicing.
3. A register of service providers and users using NemHandel. A supplier wanting to send invoices to public authorities only does not have to register.

There are several ways to transmit invoices via NemHandel. They can be transmitted directly from the firm's finance system if it supports the format used. It may possibly be necessary to use a program for collecting invoices and sending them to the customers. Another solution is online entry or outsourcing parts of or the whole process to a service provider.

Several service providers offer solutions enabling firms to use e-invoicing, e.g. via a portal or based on their own data entries. In addition, the Danish Agency for Digitisation offers the NemHandelsprogram and Fakturablanketten (invoicing form), which are free of charge. The invoicing form is only for sending invoices to the public sector, while the NemHandel program also provides for invoicing of private sector firms.

Firms can then choose the solution best suited to their needs. If the firm sends many invoices, perhaps to both the public and the private sector, an integrated NemHandel solution may be an advantage, enabling invoicing directly from the finance system. If the number of invoices is limited, the firm could often benefit from a simpler solution, e.g. data entries in the invoicing form.

The use of NemHandel has increased year by year. In 2014, NemHandel was used for sending almost 18 million documents, cf. the table below. Most documents sent via NemHandel are invoices and credit notes, i.e. documents stating a customer's outstanding account with the supplier.

Million documents	2012	2013	2014
Documents exchanged via NemHandel	13.7	16.7	17.9
- of which invoices and credit notes	12.8	14.8	15.3
- of which sent via Fakturablanketten	1.2	1.2	1.2

¹ See also the website of the Danish Agency for Digitisation, www.digst.dk.

INVOICING BY DANISH FIRMS

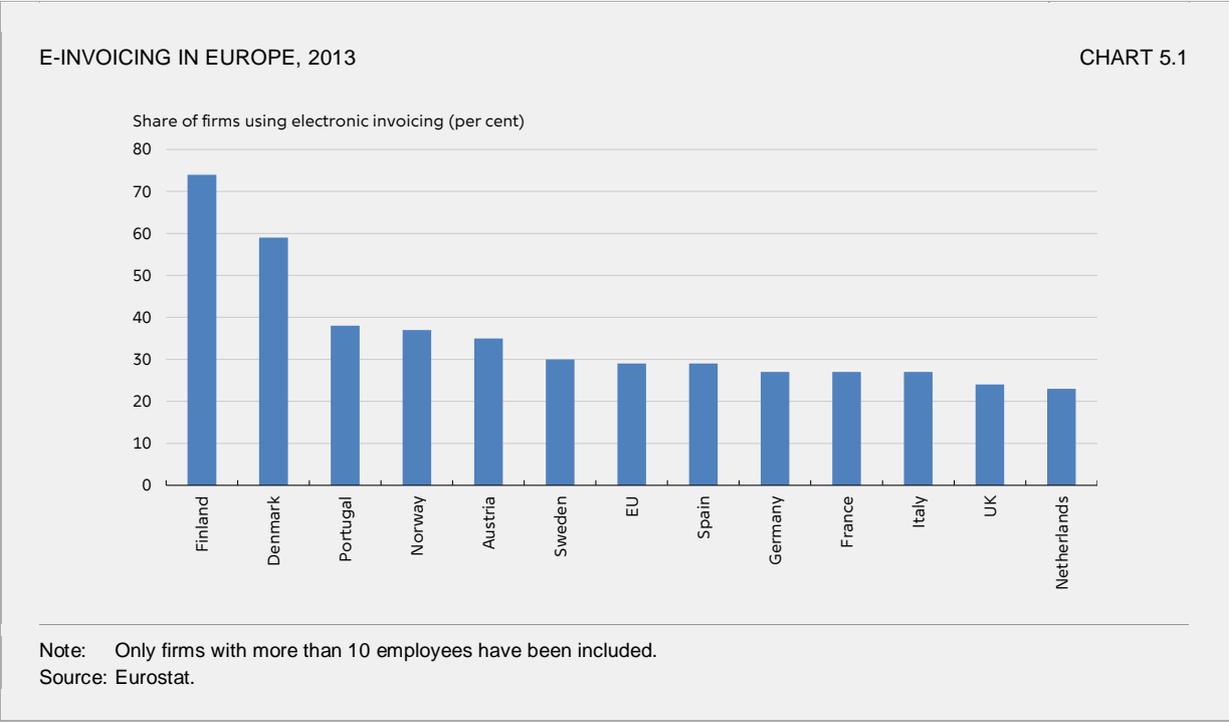
TABLE 5.1

	2010	2011	2012	2013
Sending invoices, per cent				
In electronic form enabling automatic data processing	45	52	54	59
In electronic form not enabling automatic data processing, e.g. PDF	53	60	69	68
In physical form (paper invoices)	-	-	-	72
Receiving invoices, per cent				
In electronic form enabling automatic data processing	24	27	25	32

Note: The question relating to use of paper invoices concerns 2013 only.

Source: Statistics Denmark, various editions of *IT anvendelse i virksomheder* (Danish only).

Denmark is among the European countries with the most widespread use of e-invoicing, cf. Chart 5.1. However, when it comes to the prevalence of e-invoicing, Denmark is surpassed by Finland, where e-invoices are also sent to consumers via the payer's online banking facility, instead of using SEPA Direct Debit. E-invoicing is also relatively widely used in Norway and Sweden, where e-invoicing to the public sector is also mandatory. An average of 29 per cent of all European firms are sending e-invoices.



5.4 EUROPEAN INITIATIVES

Several European countries have seen a marked increase in recent years in the use of e-invoicing as firms seek to automate their business processes.¹⁷ Nevertheless, there seems to be a considerable potential for increased exchange of e-invoices in a B2B context. In the light of the substantial potential savings, the authorities have focused strongly on promoting e-invoicing.

The absence of common standards constitutes a significant barrier to more widespread use of e-invoicing. Today there is no generally accepted standard for e-invoices, but a great variety of standards, of which only a few have a cross-border scope. This fragmentation basically constitutes a barrier for firms' access to markets in other countries, as both suppliers and customers.

In 2014, the Council of Ministers and the European Parliament adopted a Directive on electronic invoicing in public procurement. An important objective of the Directive is to make it easier for firms to be suppliers to the public sector in other countries. The Directive entails establishment of a European standard on e-invoicing. In addition, from end-2018 it will be mandatory for the member states to accept e-invoices meeting the standard.

¹⁷ See footnote 11.

The standard will define the minimum core elements of e-invoices in the EU. Furthermore, a list of a limited number of syntaxes that are compatible with the standard will be prepared, as well as guidelines for sending e-invoices. According to the Directive, the current national standards should be taken into account in the establishment of the European standard to allow for parallel use as far as possible.

Another European initiative to promote digital solutions for transactions with the public sector is PEPPOL – Pan-European Public Procurement On-Line – which was launched in 2008 as a pilot project funded by among others the European Commission. In a PEPPOL context standards have been developed for electronic exchange of orders and invoices with the public sector. The project was concluded in 2012, but the work is continued today in the OpenPEPPOL organisation with both public and private actors.

PEPPOL also comprises an online platform for exchange of orders and invoices. NemHandel is connected to PEPPOL via a gateway. This enables public authorities in Denmark to receive invoices from suppliers in other countries. Other European countries have chosen other PEPPOL strategies. Norway, for example, has implemented PEPPOL as the mandatory solution for transactions with the public sector, i.e. as the Norwegian counterpart of NemHandel.

Appendix 1 – Task description for analysis of B2B payments

The annual value of B2B payments is considerably higher than the value of retail payments, and firms need to spend substantial resources on handling payments to and from other firms. Safe and efficient processing of B2B payments is therefore of major significance to society.

The Danish Payments Council has established a working group to perform an analysis of B2B payments. The analysis will primarily cover B2B payment types, e.g. transfers to suppliers. Moreover, the report may cover other business payments, e.g. payroll and pension payments as well as taxes and duties to the public sector, etc. The report is to cover both domestic payments and cross-border payments.

Given the analysis' focus on B2B payments, it is not expected to cover payments also made by private individuals to any considerable extent, e.g. payment of utility costs such as power, water and heating, or traditional card payments.

For presentation purposes stylised firm types may be used as a starting point. They may be e.g. a manufacturing firm with imports and exports, a wholesaler, a utility firm, a retailer and a craftsman's business.

The objectives of the analysis are:

- i. To describe existing B2B payment solutions, including the needs they fulfil and the extent of their use. Comparison with similar solutions in other countries can be included if data is available.
- ii. To map firms' views on the payment solutions available to them, including whether they meet the firms' wishes for user-friendliness, speed, safety, etc., and the providers' perception of barriers, if any, to the prevalence of such types of solutions.
- iii. To look into firms' cross-border payments, including to describe how they are effected and examine any problems associated with such payments. A separate topic is firms' experience so far with SEPA Credit Transfer and SEPA Direct Debit and their expectations regarding these products.

The analysis may also cover other subjects, e.g. firms' use of supplementary services such as e-invoicing and e-reconciliation, the significance to B2B payments of the ongoing modernisation of the Danish payments infrastructure, etc.

The analysis is to include interviews with selected firms and providers. Furthermore, it may be considered to carry out a more quantitatively oriented survey among firms, possibly using the regular surveys of the participating trade organisations.

The working group's analysis is to be presented in a report to be submitted to the Payments Council with possible recommendations of measures which the working group considers relevant.

Appendix 2 – Survey of B2B payments

Introduction

At the end of 2014, the Confederation of Danish Industry, the Danish Chamber of Commerce and the Danish Federation for Small and Medium-Sized Enterprises conducted a survey among their member firms about B2B payments. During the preparatory phase for this survey, interviews were held with firms and banks with a view to adjusting questions, etc. Moreover, the survey was discussed in the working group that prepared this report.

The industry associations were in charge of selecting firms and collecting questionnaires. The survey was generally designed to make it as easy as possible for firms to participate. They received a link to the online survey and only received questions of relevance to their own type of firm. For example, firms with no imports or exports were not asked any questions about cross-border payments.

The survey contains responses from 421 payees in total, both small and large firms in various industries, cf. table below.

Survey content

The survey was divided into four parts. The first part, which all respondents were asked to complete, contained general questions about their firms. The questions covered industry, turnover and number of employees, among other issues.

The second part of the survey covered the firms' payments. The firms were, inter alia, asked about which payment solutions they use for both domestic and cross-border payments.

The third part of the survey related to the firms' views on the payment solutions they use. The firms were, inter alia, asked which issues they find most important when choosing solutions and what they perceive as the principal problems in relation to their B2B payments.

The fourth part was about invoicing. The firms were asked to state how they send and receive invoices. In addition, firms using e-invoicing were asked to state the volume of such invoicing.

In the report, the results are presented on the basis of the number of firms, i.e. small and large firms carry the same weight.

NUMBER OF RESPONSES BY INDUSTRY AND TURNOVER

TABLE

All firms	421
Industry group	
Manufacturing	118
Building and construction	61
Retail and wholesale trading	102
Transport	59
Services, etc.	81
Turnover¹	
Up to kr. 10 million	167
Kr. 10-100 million	164
Over kr. 100 million	90

Source: Joint survey conducted by Danmarks Nationalbank, Confederation of Danish Industry, Danish Chamber of Commerce and Danish Federation of Small and Medium-Sized Enterprises.

¹ In the report firms have been classified as small, medium-sized or large on the basis of their turnover. This means that small firms have a turnover of up to kr. 10 million, medium-sized firms between kr. 10 million and 100 million and large firms more than kr. 100 million.