REGIONAL CASE STUDY

Payments Trends in the Netherlands and the Nordic Countries (Denmark, Finland, Norway and Sweden)

Overview: The Dutch and Nordic populations are some of the most advanced regarding the use of electronic alternatives to paper payments (especially cheques) as well as in the adoption of mobile payments. This note explores the factors behind these trends.

Key observations:
- Money transfer GIRO (General Interbank Recurring Order) systems have been used for decades by individuals and businesses – at first as paper-based and now electronic payments – to send money between post offices and then bank accounts. As a consequence, cheques never became as ubiquitous as in North America. In cases where cheques have been eliminated, they were either priced out by retail banks and/or simply abandoned by users.
- Mobile payments are making inroads in the region, with some online and point-of-sale (POS) applications available, in addition to basic applications like parking meters and vending machine purchases, which often get applied to a user’s monthly cell phone bill. However, bank account-integrated mobile POS payments could arrive more broadly in some countries in the next two years.
- Pricing and convenience are the two main drivers of payment method adoption in the region, but the high penetration of cell phones seems to be a big factor.

Payment Methods of Choice

The Bank for International Settlements (BIS) compiles detailed payments information for some countries. In Table 1 below, Canada is contrasted against Sweden, Denmark and the Netherlands (for which data was available) regarding usage levels and total payments values for electronic credit transfers, credit cards and cheques (debit and credit cards are included for completeness). Canada’s relative reliance on paper cheques in lieu of (mostly-electronic) credit transfers is quite clear.

Table 1 also shows the dominance of debit card payments in the region, especially Denmark. Danske Bank declared in a 2009 report on the financial and payments systems that “Denmark is for all intents and purposes a cashless society.” This is due to heavy reliance on electronic payments, in the form of debit cards for retail purchases, and electronic credit transfers for B2B, based on an infrastructure that is supported by an affluent and dense population base.

Debit card transactions account for about 60% of non-bank transactions in Denmark, and this share is increasing.¹ The national debit card, Dankort, was introduced in the early 1980s and backed by the entire banking industry, much like Interac in Canada a decade later. Dankort (along with other newer domestic debit card brands) is universally

¹ For a population of 5 million, there are 4.5 million debit cards in circulation.
accepted and used in Denmark, and merchants pay a flat, low annual fee for accepting it (based on their number of transactions). Dankort cards use the “EMV chip and PIN” technology and Danes find this convenient enough to make their small value purchases by debit card. In fact, the average value of a debit card transaction is approximately DKK 260 ($47), which is 60% lower than in Germany and 20% lower than in the U.K., but about in line with Canada. While debit card transactions dwarf those of credit cards in terms of numbers and overall value, credit cards have been making inroads in recent years in retail payments. This appears to be driven by two factors: loyalty/rewards programs and use for internet shopping.

Table 1: Consumer/Business Payment Methods

<table>
<thead>
<tr>
<th>% of total # of transactions (%) of total value of transactions</th>
<th>Credit Transfer</th>
<th>Direct Debit Transfer</th>
<th>Cheque</th>
<th>Debit Card</th>
<th>Credit Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>10.8</td>
<td>11.6</td>
<td>8.0</td>
<td>7.9</td>
<td>18.9</td>
</tr>
<tr>
<td></td>
<td>(54.2)</td>
<td>(59.4)</td>
<td>(4.2)</td>
<td>(4.9)</td>
<td>(38.2)</td>
</tr>
<tr>
<td>Sweden</td>
<td>35.3</td>
<td>32.3</td>
<td>8.6</td>
<td>8.3</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>(89.4)</td>
<td>(90.0)</td>
<td>(3.7)</td>
<td>(3.7)</td>
<td>(0.7)</td>
</tr>
<tr>
<td>Denmark</td>
<td>22.8</td>
<td>20.7</td>
<td>15.0</td>
<td>13.9</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>(75.1)</td>
<td>(80.0)</td>
<td>(9.6)</td>
<td>(9.9)</td>
<td>(10.0)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>33.8</td>
<td>31.1</td>
<td>28.1</td>
<td>25.8</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>(93.9)</td>
<td>(93.7)</td>
<td>(4.7)</td>
<td>(4.9)</td>
<td>(0.0)</td>
</tr>
</tbody>
</table>

Giro Payments Systems and Cheque Usage

Paper-based money transfer giro systems run by post offices and commercial banks in Europe started becoming popular in the first half of the 20th century and all Nordic countries have used an interconnected international giro system since the 1950s. In the case of bank giro systems (which have now largely subsumed the postal systems), payers would effect a payment by submitting a form to a teller with the amount and the payee’s account information. As giro systems became more widely used and were developed for retail commerce/billing, businesses started issuing payment remittance forms along with their invoices that would contain their account information, a bill reference code and the total owing. The payer would simply take or send the remittance form to the bank to pay the bill. These systems have since evolved into electronic banking and billing applications that allow direct debit and credit Electronic Funds Transfers (EFT) – though direct credit is more popular, seemingly due to the control it gives the payer over the

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2 Interestingly, while most Danish banks offer Single European Payments Area (SEPA)-compliant debit cards that can now be used throughout Europe, Dankort is not SEPA-compliant. Dankort cards are co-branded with Visa to allow international operability.

3 Sweden eliminated cheques in 2005.

4 Note that Denmark’s values are for the years 2005 and 2007 (2004 and 2008 were unavailable).

5 The Netherlands abolished cheques in 2001.
It is important to note that paper-initiated giro payments are still popular with certain segments of the population (for example, see chart below on Sweden).

While the associated technology is not much different than what facilitates online banking/billing in North America, the European electronic giro systems are still oriented around the payer initiating a payment and providing payee account information (in fact, this is similar to many Automated Clearing House (ACH) payments in the US). This is the opposite of paper cheques, where the payee initiates the payment by depositing the cheque, and the cheque itself contains the payer’s account information.

**Sweden.** like the other Nordic countries, has a largely giro-based payments system. In 2007, giro transfers accounted for 94% of the total value of personal and commercial transactions and for 29% of the number of transactions. The chart below shows how use of the most common account-based payment instruments has developed in recent years. Direct debit and credit transfers (both paper and electronic) are giro-based.

**Chart: Use of Account-Based Payment Instruments in Sweden**
(Million transactions)

![Chart: Use of Account-Based Payment Instruments in Sweden](image)

Source: The Riksbank. Note that the decline in the total number of credit transfers in 2002 is explained by the fact that the credit transfers arising between two postal credit transfer accounts are no longer included in the statistics.

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6 Even before the introduction of online banking, it was possible in some countries to make payments to third parties using ATMs, which can accurately and rapidly capture invoice amounts, due dates, and payee bank details via a bar code reader. In some countries, entering the bank account number results in the bank revealing the name of the payee as an added safeguard against fraud.
In Sweden, cash payments are still popular relative to other Nordic countries (though on a declining trend relative to cards – see Table 1 above). This is in part because the integrated ATM network allows individuals to make withdrawals, without charge, at any branch of any bank or at any ATM. In contrast, Swedish banks implemented a clear policy of reducing the number of cheque payments in the 1990s, given their low use and the cost of processing them relative to electronic payments (even though cheque truncation was in use by the banks). To this end, one of the major banks hiked fees for cheque transactions at the beginning of the 1990s, and the other banks subsequently followed suit. Cheques were abandoned in 2005.

In Finland, banks stopped issuing personal cheques in about 1993 in favour of giro systems, which are now almost exclusively electronically initiated either via internet banking or payment machines located at banks and shopping malls. Banks’ pricing policies have been a prime reason behind the wide growth in the use of debit cards and internet banking.

For Denmark, credit transfers are the most widely used payment instrument for commercial payments – almost 100% of payments for pensions, salaries, business-to-business payments and social security benefits are made electronically. Direct debit usage has also increased substantially since the 1990s and now over 90% of Danes pay their monthly bills through electronic direct debit. The EFT systems in Denmark provide for one-day clearing/settlement for non-urgent transactions, or same day settlement of ‘urgent’ transfers sent by banks and some large corporations. It should be noted that Denmark’s giro systems facilitate electronic processing of paper transfer forms, so not every individual has to use electronic or online banking to initiate electronic payments.

Danish cheque payments have declined significantly in volume since the 1990s due to the increase in the usage of credit transfers, direct debits and card payments (right now cheques account for less than 1% of non-bank payments transactions - see Table 1 above). Danske Bank has also noted that cheque payments are “almost an unknown phenomenon” for P2B payments. The cheque does still however play a role for B2B and B2government payments, at least in value terms: they account for about 4% of the value of non-bank transactions. This is mainly because payment of Value Added Tax (VAT) and other taxes is to some extent still done via cheques, given that larger corporations can save a number of float days by submitting a cheque instead of transferring the amount via a credit transfer. Even this process is in decline, however.

In the Netherlands, practically all non-recurrent payments in trade and industry, as well as some household payments and many government payments, are effected by giro credit transfers. Non-guaranteed cheques have never played a significant role as a general payment instrument in the Netherlands. In the second half of the 1960s, the guaranteed cheque was introduced together with a cheque guarantee card showing the cardholder’s

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7 [http://www.bis.org/cpss/paysys/SwedenComp.pdf](http://www.bis.org/cpss/paysys/SwedenComp.pdf)
account number and signature. For POS payments, it served as one of the main non-cash instruments in the period between 1970 and 1990. In the 1990s, however, the number of cheque payments declined substantially, reflecting their replacement by EFTPOS debit and credit payments. Given the decline in the use of cheques, as well as the high processing costs, Dutch banks stopped issuing cheques in July 2001 and terminated processing by the end of that year.

**Mobile Banking and Payments**

Mobile payments adoption in the region is more advanced than in Canada, and the reason seems to be mostly the high penetration of mobile handsets: in Norway and Sweden, mobile penetration is predicted to reach an estimated 123% this year. The presence of Nokia as a national industry leader in Finland has also affected public perceptions of mobile technology innovation. It is important to note that until very recently, bank-telco cooperation regarding the promotion of mobile payments has been no better than in North America.

Some mobile based banking services (e.g. credit transfers and balance inquiries) have been available in Finland since 1996. At first, mobile banking services were based on Short Message Service (SMS) text messages, but then Wireless Application Protocol (WAP) phone banking applications were developed. Both formats now co-exist. Mobile payments were trialed in 1998 in Finland and Sweden with vending machines and car parking. Commercial launches followed in 1999 in Norway. Now, specific mobile payment applications (such as for parking fees, online purchases and P2P transfers) are widely available in the Nordic countries.

Most, if not all, current mobile payment applications rely on a stored value function, whereby users load an account for their phone from a bank account or credit card, then spend that balance. In fact, it seems that while adoption is higher, the technology used is not very different from Zoompass in Canada.

However, select pilots for mobile POS retail payments (using Near Field Communication technology and smart-phone applications for stored-value accounts and credit cards) have been carried out in the last year, and some sources indicate that Sweden’s PayEx mCommerce is finding good take-up with students and retailers in Sweden. It is interesting to note that PayEx has established its own regulated deposit-taking financial institution, and as such all client stored-value accounts are backed by the national deposit insurance entity.

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9 This appears to be the re-branded PayEx Mobil, a service that allowed mobile payments for POS, online, P2P and vending machines. The POS application was trialed by 40+ merchants in the city of Visby, Sweden in 2009. 1200+ online shops are now signed up and at some Swedish universities a PayEx wallet account is a prerequisite for paying for copy and printing services on the campus. The service providers also claim that major retail chains in the Nordics have integrated mobile payment methods into their payments infrastructures.
More recently, in the Netherlands, the three largest banks (Rabobank, ING and ABN AMRO) and the three largest mobile phone operators (KPN, Vodafone and Deutsche Telekom's T-Mobile) said this September that they have signed a letter of intent to set up a joint venture to enable mobile POS payments using NFC technology by 2012. They claim this is the first time in Europe banks and mobile operators had joined together to collectively enable mobile payments. Should this venture succeed, it will be a game changer for mobile payments in the region.

References:


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