



PAYSYS REPORT

Issue 2 – March 2019

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1. Danish national cost study for payments - cost has fallen 50%

The Central Bank of Denmark has published a new study on the costs of payments. Overall, costs have fallen by 50%. The domestic debit card Dankort is the least costly POS payment instrument. International debit cards are now slightly cheaper than cash. International credit cards are still by far the most expensive payment instrument. competition between payment instruments is fierce and cash is continuously losing ground. Denmark may become a cashless society in 7-10 years.

2. Mobile, cards and instant payments: friends or foes?

In Sweden, often a front runner in retail payments, card payments in % of GDP seem to have peaked. At the same time Swish, a mobile P2P service, has been taking off in recent years. The rise of Swish and similar systems raises two issues, the competition between mobile phones and cards and the competition between the card infrastructure and new instant payment systems. It is argued that the instrument which customers hold in their hands (phone or plastic card) is of secondary importance. Either can be used to access the card infrastructure. But the spread of instant payments to eCommerce or the physical POS could be a threat to established card networks. However, while instant payments are cheap and easy to use they lack many of the value added services that come with today's card payment systems. Therefore, it seems questionable that, in the current form, instant payments will conquer a large slice of C2B payments. But that is no reason for complacency by the card industry.

Danish national cost study for payments

- cost has fallen 50%

We invited again Henning N. Jensen as guest author. Henning is since 2004 owner and managing director of the payment consultancy PlusCON, our Danish EPCA-member in Copenhagen.

He was General Manager in FDB/Coop Denmark 1997-2003, CEO in Danmont Ltd. 1991-97, Vice President for Sales and Innovation in PBS/Nets 1984-91 and on overseas assignment for East Asiatic Company in Saudi Arabia and Thailand 1977-83.

He is educated with a Master in Economics and Political Science and have completed Executive education at Stanford, USA and INSEAD, France. He has also been appointed to several Danish Governmental committees on Payments.



(hj) The Central Bank of Denmark has over the years made several cost studies for payments and the latest has just recently been published - based on statistics for 2016.¹

This time the Central Bank has concentrated on the total price per transaction for the society as a whole. This means the total cost for all parts of the value chain - both direct and indirect costs.

This huge data collection from households, banks, payment providers, retailers and other sources is only related to the cost and handling of the transactions. Both academically and practically it is a big challenge to try to calculate the marginal cost of one transaction, so the Central Bank did

not make any attempt this time, but wanted to finish the report with all the other interesting results as fast as possible.

In practice, the Central Bank of Denmark has calculated what it costs to pay with various types of payment instruments like cash, Dankort (the local debit card), international debit cards and international credit cards.

The conclusion is that the cost of all these payment instruments has dropped considerably since the last survey in 2009. The cost has been lowered by app. 50% from app. 1% of GDP in 2009 to 0,5% of GDP in 2016, which is the latest year the Central bank has data for. The drop in total cost is over DKK 7 billion (app 1 billion €) for Danish society as a whole.

This is an indication of how much digitalization and automation in the payments industry has contributed to improvements in productivity in Danish society in just 7 years.

Our Comment:

In the Danish media the main focus has been on the cost to retail payments which is not surprising when alone in Denmark 1.9 billion of these were made by a population of only 5.7 million people. However, this report from the Central Bank of Denmark contains way more interesting information. It has made a considerable contribution to understanding the cost to society of the various payment instruments - particularly when you observe it over a period of time.

The report distinguishes between point-of-sale transactions and e-commerce transactions. If we focus on the retail outlets, the cost to society of a payment is:

Cards	Cost/Transaction	Difference to Dankort
Dankort (debit card)	DKK 2.40 app. € 0.32	
international debit cards	DKK 4.10 app. € 0.56	+70%
cash	DKK 4.50 app. € 0.60	+87%
international credit cards	DKK 13.70 app € 1.82	+470%

Since there can be different circumstances in connection with various benefits/disadvantages of individual products (like loyalty programs, insurances, etc.) , the Central Bank does not wish to make a direct comparison between these prices, but all things being equal there is no doubt that in retail outlets Dankort is still by far the cheapest payment instrument for society.

International debit cards are now cheaper than cash.

By comparison to the cost in 2009, all payment in-

struments are considerably cheaper, and it is worth noting that international debit cards are now cheaper than cash.

At the same time, payments by cash in physical retail outlets have fallen from 48% in 2009 to only 23% in 2016. A drop of 52% in just 7 years, and we now know that this drop has continued after 2016, since contactless payments by Dankort in August 2018 were over 60% of all Dankort transactions against only 10% just two years earlier.



In the **e-commerce market** payment costs are considerably higher even though in this market segment they have also fallen significantly over the 7-year period. In this segment a Dankort transaction cost DKK 4.50 (app. € 0.60) and there were only 79 million of them in 2016 (compared to over 1.1 billion Dankort transactions in retail outlets). There were 25 million transactions with international debit cards costing DKK 5.50 (app. € 0.73). International credit card transactions (only 3 million transactions) cost DKK 17.80 (app. €2.37) per transaction.

An account-to-account transaction (credit transfers and direct debits) cost DKK 15.80 (app. € 2.11) and there were 152 million transactions of this kind.

Someone might be surprised that the cost of a Dankort transaction is so much higher (71%) compared to those in retail outlets, but this is related to:

- the higher development costs in e-commerce systems,
- the lower total volume which automatically makes individual transactions more expensive and

- the very much higher losses in e-commerce compared to retail outlets.

Looking beyond costs, it can be said that competition between the various payment instruments has been more and more visible over recent years and the intensity of competition will be further intensified in the coming years with the entry of new players wanting to participate in market developments, when PSD2 opens up for 3rd parties to get direct access to bank accounts. This will no doubt mean lower prices but we have to await the next cost report from the Central Bank, before we can see the effect on real prices in the market.

Denmark is very well under way to becoming a (nearly) cashless society.

At the same time it looks as if payment cards - with Dankort as the largest in Denmark - will continue to be very cost effective in the coming years, and it is here worth noting that many of the new "digital payments"

like Apple Pay, Google Pay, Samsung Pay, retailer or banking mobile payment apps are not payment instruments in themselves, but should more be considered as a "digital wallet" in which the cardholder inserts an electronic copy of his/her physical payment card.

From another angle it is also worth noting the impact and effect of digitalization and the effectiveness of payment patterns in this period. Denmark is very well under way to becoming a (nearly) cashless society within a period of just 7 to 10 years.

Lots of people already experience their daily life as cashless by using payment cards, smart phones and other electronic payment means everywhere they pay, and there is no doubt that this development will continue with undiminished speed in the years to come.

Mobile, cards and instant payments: friends or foes?

(mk) In a recent commentary published by the Bank for International Settlements (BIS), it has been argued that card usage in Sweden may have peaked and that the mobile solution Swish is gaining ground.² As is pointed out, the increased use of Swish „roughly equals the drop in card payments“. Underlying this statement seems to be the idea that the rise of Swish may have caused the recent decline of card payments (relative to GDP). In Denmark as well, competition between cards and mobile payments has be-

come visible in the latest payment statistics. As pointed out in the November 2018 edition of this newsletter, the Dankort transaction volume declined in Q1 2018 because the Danish mobile P2P payment service “MobilePay” switched to instant account-to-account based payments.³

Thus instant payments carried out via mobile phones might become a serious challenger to card payments.

Our Comment:

When speculating about the future evolution of the retail payment system, it is worth taking a broader look at the Swedish figures. It is true that when looking at the value of card payments in relation to GDP, 2014 was the peak year. In subsequent years this ratio was a little lower. The period starting 2014 was, indeed, the time when Swish took off. But when looking back over a longer period to the early 2000s, it becomes evident that the cards/GDP ratio has been stagnant for quite some time. In terms of cards/GDP, card payments may have already hit an upper ceiling in 2009. Thus, it is not entirely clear to what extent the lackluster card performance of the past five years is due to the rise of Swish.

Mobile payments need not be a threat to card schemes. Systems like Apple Pay and Google Pay are based on card payment systems. In fact, a merchant does not have to sign an acquiring contract to accept these „Pays“. It is sufficient to accept the international schemes and to be ready for contactless payments. Card payment systems and m-payment apps are complementary in this case.⁴

However, it cannot be denied that mobile payments

can be a threat to card schemes. Systems like Swish are true competitors. They are based on real-time credit transfers (instant payments) and do not need to use the card infrastructure.

Mobile payments can be a threat to card schemes.

The same applies to the Danish MobilePay. While it started out using Dankort, it has now shifted towards using instant payments. In a recent speech, the appeal of using low-cost instant payments as a substitute for card payments was stressed by the ECB's Yves Mersch:

Instant payment schemes may not be a suitable substitute for card payment.

The question whether the instrument the payers hold in their hands is a plastic card or a mobile phone is only for secondary importance.

„For merchants, instant payments at the POI [point of interaction] could be a cost-efficient alternative to cards. Such solutions are currently emerging across Europe.“⁶

However, Yves Mersch also sees a potential for instant payments to promote card payments, in particular card payment schemes that are competing with the established international schemes:

„The industry sees the implementation of a European infrastructure for instant payments as an opportunity to instantly clear and settle card transactions, which would offer a possible way of supporting the interlinking and interoperability of national card schemes.“⁶

Thus, in the end it may not matter much whether cards or mobile phones are used. Any payment will be using the „cost-efficient“ instant payment infrastructure. However, as one or the other person has experienced in life, buying cheap may come expensive.

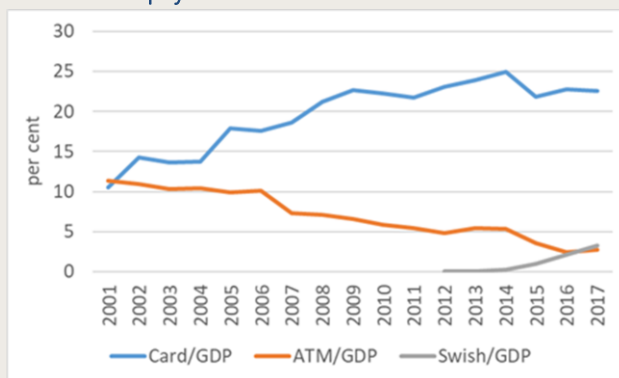
The card infrastructure with its bewildering amount of rules and prices may seem overly complex at times. But in many cases it definitely serves a purpose. Having a dedicated acquiring function and rules for acquired merchants makes a lot of sense. The same can be said of transaction monitoring, risk management, chargeback procedures and the ability to carry out reversals or reservations. The option to dispute a payment is particularly important in e-commerce. It provides buyers with a protection that is lacking in the case of irreversible push-payments.

„Plain vanilla“ can be cheap but in many cases it will be far from optimal. In fact, the defining characteristic of instant payments – it instantly leaves your account

and is instantly credited to someone else's – makes it also very attractive for fraudsters. Based on the UK experience with rising fraud involving Faster Payments (the UK instant payment scheme) Peter Jones argues that instant payment schemes may not be a suitable substitute for card payments.⁷ But that is not a case for complacency. The rise of instant payments should be interpreted as a wake-up call for the card industry.

Taking the view of the challengers, it must be clear that being „fast“ is not enough. A credible alternative to current card networks needs to provide a lot of the value-add services the user of card payments are accustomed to. This is the essential point. The question whether the instrument the payers hold in their hands is a plastic card or a mobile phone is only of secondary importance.

Retail payments in Sweden 2001 to 2017



Card/GDP: value of cards payments in % of GDP; ATM/GDP: value of ATM cash withdrawals in % of GDP; Swish/GDP: value of Swish payments („Fast payments“) in % of GDP.

Sources: ECB SDW, BIS and own calculations.

Notes

- 1 http://www.nationalbanken.dk/en/bankingandpayments/danish_payments_council/Documents/The%20costs%20of%20consumer%20to%20business%20payments%20have%20decreased%20considerably.pdf
- 2 Micka Jakobsen: Payments are a-changin' but traditional means are still here (https://www.bis.org/statistics/payment_stats/commentary1812.htm)
- 3 Henning N. Jensen: Denmark: Domestic card scheme under pressure? in the November 2018 edition of this newsletter.
- 4 There also exists competition - but merely between the plastic and the phone.
- 5 Promoting innovation and integration in retail payments to achieve tangible benefits for people and businesses. Speech by Yves Mersch, Member of the Executive Board of the ECB, at the American European Community Association, Brussels, 7 February 2019 (<https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190207~f900d9105b.en.html>)
- 6 Source: See above.
- 7 Peter Jones (PSE Consulting): Threats to the EU Cards Business – Is the End Near? PaySys Breakfast Meeting, Frankfurt, September 28th, 2018. ([http://paysys.de/images/downloads/breakfast%20conference%202018%20final%20\(002\)2.pdf](http://paysys.de/images/downloads/breakfast%20conference%202018%20final%20(002)2.pdf))

Should you have any questions or comments please contact:

Dr. Hugo Godschalk (hgodschalk@paysys.de)

Dr. Malte Krueger (mkrueger@paysys.de)

Please, send us your views to:

paysys-report@paysys.de

PAYSYS REPORT IMPRINT

PaySys Consultancy GmbH

Im Uhrig 7
 60433 Frankfurt /Germany
 Tel.: +49 (0) 69 / 95 11 77 0
 Fax.: +49 (0) 69 / 52 10 90
 email: info@paysys.de
www.paysys.de

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