

Lars Nyberg: Cash and payments – what lies ahead?

Speech by Mr Lars Nyberg, Deputy Governor of the Sveriges Riksbank, at a meeting arranged by Sparbanksakademin och Handels tvecklingsrad, Stockholm, 5 February 2008.

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To most people the Riksbank is associated with money. This is not so surprising. We supply the country with banknotes and coins and on each note one can see the signature of the Governor of the Riksbank.

But we are not just concerned about banknotes and coins, which are tools to manage payments. We are also concerned about payments in a much broader sense. This is because the Riksdag, the Swedish parliament, has decided that we shall promote a safe and efficient payment system, as one of our tasks. Quite simply, this means that we shall ensure the financial system in Sweden is constructed in such a way that people (and companies) can manage their payments in a safe manner – and, moreover, at a reasonable cost. When we speak of "financial stability", which we do frequently, it is essentially the means to make payments safe and efficient we are referring to.

It is, of course, no coincidence that the Riksdag has given us this task: If people were unable to receive their salaries and if banks and companies were unable to make their payments this would rapidly have a major impact on society. This is why financial stability is about the way in which banks and financial markets function and how safe and efficient various technical payment systems are – on a daily basis, but also in crisis situations.

Money is an excellent means of payment – as long as we believe that it has some value. Should we lose that belief then it only remains for us to begin to exchange goods with each other and there are many accounts as to how clumsy and costly this is, even in modern times. This is why the Riksdag has given the Riksbank the task to maintain price stability. However, I do not intend to talk about the inflation target and its background today. Today I will talk about cash and other means of making payments. And this is where, just like in so many other areas, technical developments have to a great extent changed reality.

Do you remember the pay packet? When holding wage negotiations, there are still discussions about "how much money will there be in the pay packet". However, the pay packet is now a metaphor. Those of us who have seen them in reality are becoming fewer. I shall never forget when I worked at a sawmill in Ångermanland and "the chief clerk" from the office came down with the pay packets on Fridays. When one received the pay packet in one's hand it felt as though one had truly accomplished something during the week. Today we all have our salaries deposited in our bank accounts, directly transferred from the employer's account. This is, of course, far more efficient. At the sawmill the "chief clerk" went to the bank in Härnösand in order to collect the money and then to count it out at the office before he could walk down to us and distribute the pay packets. It took all day for him. But I cannot deny that there was a different feeling to opening the pay packet than to opening a bank statement.

The increased use of bank accounts came to revolutionise payments in Sweden. With the bank accounts as a base, a number of new instruments of payment developed. Cheques were based on bank accounts as were the post and bank giro transfer systems. The same is true of today's card payments and online payments.

So what are the present payment trends? And what do we believe will happen in the future? Are we, as some have claimed and others have advocated, moving towards a cashless society? Just under a year ago the headline on the front page of *The Economist* was "The

end of the cash era”.¹ Is this scenario reasonable? I shall begin by looking more closely at what has happened in recent decades in order to reach some kind of answer to these questions, or at least a qualified guess.

Cash payments have declined in significance

I will begin with cash. Cash payments still account for a large proportion of the number of transactions in the Swedish economy. But it comes as no surprise to anyone if I say that they have declined in significance in recent decades. As a per cent of GDP, the share of Swedish banknotes and coins in circulation (M0) has more than halved since the 1950s, from around 10 per cent to just around 3.5 per cent.²

In the past fifteen years, however, the trend has levelled off. The use of cash has not declined in the same way as before. M0 in nominal terms has actually increased. If we look at the statistics for ATM withdrawals, we find that the total transaction value has remained fairly constant at around SEK 275 billion a year during the entire 2000s. The number of cash withdrawals has been around SEK 320 million.

Does this mean that we have reached a lower limit for how much the use of cash can decline? Has the heyday of the account-based payments ended? I do not believe we should be so sure of that. Cash is still expensive to transport and manage and a heightened risk of robbery in recent years has not made cash management cheaper. In the end, it is we consumers who pay the costs in different ways. However, we must probably point out that we Swedes like our cash more than most analysts believed a few years ago.

How then have the account-based payment instruments developed?

The use of cards has increased rapidly

Card payments have increased rapidly in Sweden in recent years. In ten years the value of card payments has almost quadrupled and the number of payments by card has increased sevenfold. Six years ago, in 2002, for the first time ever more card payments were made in payment terminals than ATM cash withdrawals. In the most recent statistics available, from 2006, card payments in payment terminals were three times more common than ATM cash withdrawals.

If one calculates in terms of the number of transactions, cards are now the most used account-based payment instrument. Like cash, card payments are mainly used for payments that are made at the actual time of the transaction. According to a 2006 Temo survey, 45 per cent of those questioned used cards as legal tender in at least four of five purchases.³ (3) The value of an average card payment has almost halved in the past ten years, from around SEK 730 to around SEK 380. We are then using cards to a greater degree to pay smaller amounts. In this way cards increasingly appear to act as a substitute to cash. This is particularly so in the case of younger people, which is indicated in a study recently published by the Riksbank.⁴

¹ The Economist, 17-23 February 2007.

² The stock of banknotes and coins totalled SEK 114 billion on 31 December 2007. Sveriges Riksbank.

³ “Allmänhetens syn på bankerna” (The Swedish public’s opinion of banks), Temo survey, March 2006, The Swedish Bankers’ Association.

⁴ Bergman, Guibourg and Segendorf, “The costs of paying – private and social costs of cash and card”, Working Paper Series, (No. 212), Sveriges Riksbank, September 2007.

Moreover, the increased use of cards is an international trend. For instance, if we look at developments among our Nordic neighbours, we can see that card payments have enjoyed rapid growth in these countries also.

As regards the choice between debit cards and credit cards, it is clear that Swedish card users favour debit cards. In 2006, the number of debit card payments accounted for around 80 per cent of all card payments. Charge cards and combined charge cards or credit cards dominate the remaining share of card payments.

Cheques have disappeared

As I said, card payments have begun to replace cash payments of smaller amounts. They have also replaced a large number of cheque payments in Sweden. In 1990 every seventh transaction was paid for by cheque. Cheque payments accounted for just over one-tenth of the value of non-cash payments. Today cheque payments account for just some tenths of a per cent of both the value of the payments as well as the number of transactions.

The death of the cheque in Sweden is of interest, for it was quick and unexpectedly painless. The story is as follows: Over time cheque handling became increasingly unprofitable for the banks. The costs increased, but none of the banks dared take the initiative to debit customers for these costs. There were concerns that Swedes regarded payments by cheque as an inherited right and would, therefore, vocally protest. But this was not the case. When, at the beginning of the 1990s, one of the banks decided to charge a fee of SEK 15 per cheque (and the others followed suit) the majority of cheque payments disappeared over just a few years – and moreover without political convulsions. The reason for this was that there were excellent substitutes that were free of charge and which were marketed by the banks, primarily cards and credit transfers. When consumers discovered this, their grief over the death of the cheque abated.

The United States has always been the promised land of the cheque. By tradition, US consumers have sent cheques in the post when they pay their electricity or telephone bills, for instance. The company receiving the cheque has then forwarded it to the bank, which has then transferred the money and returned the cheque to the consumer. In this manner, tons of cheques have crossed the American continent daily. But even in the United States cheque usage has begun to fall.

Giro transfers, other credit transfers and direct debit are used for the larger payment flows.

Giro transfers and direct debit are used for recurring and, in this context, relatively large payments such as, for instance, monthly bills, and often with someone with whom one has a contractual relationship, for example, the electricity company and the telephone company. In terms of value, giro transfers, other credit transfers and direct debit account for a very large proportion of the payment flow between private individuals, companies and the public sector. Previously, they also accounted for a large proportion of the number of non-cash transactions, but over the past few years more card payments have been made than giro transfers, other credit transfers and direct debit.

In Sweden today, approximately 80 per cent of households have Internet access. This has meant that an increasing number of people use the banks' Internet banks. The traditional account-based payment instruments have been adapted to this new payment channel. In some banks, more than half of the credit transfers are now Internet-based and this percentage is increasing rapidly. Increasingly, customers can also receive their bills directly via the Internet service, the so-called e-invoicing.

Do you remember how one used to queue at the bank or in the post office in order to pay one's bills once a month? Some still pay this way, but they are an ever-declining number.

Most people who are able prefer to sit in front of their computers to hanging around in a queue. But it has not just become more convenient to pay, it has also become cheaper. Payments over the counter, cheques, cash withdrawals and paper-based giro transfers are expensive to produce. Electronic payments, such as direct debit, transfers via Internet banks and card payments are far cheaper to produce. It is not so surprising that in the past twenty years we have to a great extent switched from paper-based to electronic payments.⁵ This is surely a trend that will continue.

New developments in the market

Everything I have spoken of here is essentially to do with what we can describe as traditional forms of legal tender. Even Internet payments are essentially traditional in the sense that money is transferred between accounts.

During the 1990s there were many, not least within the central bank world, who believed that electronic money (e-money) would replace if not all, at least a large part of the smaller payments that are made with banknotes and coins. In somewhat simplified terms, one could say that e-money is money that has been transferred, for instance, from an account in a bank to some form of computerised medium, where it is stored and can then be used for payments. The storage space may be a microprocessor embedded in a plastic card – so-called smart card – but it may also be in the hard drive of a computer or a central server – so-called network money.

In Sweden at present e-money is not issued nationwide. However, it has existed. In 1998 a few of the banks launched the so-called Cash card, which was a prepaid cash card designed to replace banknotes and coins for transactions entailing small amounts made at small points of sale. Afterwards, one can say that it was a flop. Consumers never liked it. Maybe there were too few places where one could recharge the card, perhaps the normal debit cards were too similar, maybe one believed that the banks should have paid some interest on the money when it was transferred to the Cash card? Anyway, it was not a success. At most in an individual year the number of transactions amounted to 4.2 million. The Cash card was finally discontinued in the autumn of 2004.

However, it is not just in Sweden where developments have been sluggish. Developments have been slower than expected in the rest of Europe also. There are countries where prepaid cash cards – similar to our Cash card – are used to a relatively large extent, and here I am thinking in particular of Belgium and the Netherlands. All in all, however the use of prepaid cash cards is modest.

What has grown in recent years is the use of so-called server-based network money. Companies that manage prepaid payments on the Internet, so-called e-payment companies, have become increasingly common. Neither buyers nor sellers need give sensitive information – such as card numbers or account numbers – on the Internet by using these companies. The most well-known e-payment company is PayPal, which is registered in Luxembourg, but which is active around the world.

Almost exactly ten years ago Stefan Ingves, the current Governor of the Riksbank, held a speech on the theme “Electronic money from a central bank perspective”. He then said that “the situation today on the e-money front can, put briefly, be described as there being a lot

⁵ In 2006, 85 per cent of all giro transfers and other credit transfers were made electronically, the remainder were paper-based. In terms of value, 96 per cent of these transactions were made electronically. Sveriges Riksbank.

happening at different places in the world, although a breakthrough on a broad front is still in the future". This summary can probably said to still hold today.⁶

But not all development is tied to e-money. Mobile phones are now also used to make payments. For example, we can pay our bus and underground journeys by sending a text message. A few seconds later we receive a text message back from the operator, confirming that a ticket has been purchased and that it can be shown to the driver or conductor. If one has a prepaid card the cost is drawn directly, otherwise it will be put on the telephone bill.

There are shops that have begun to use smart cards. At a coffee shop chain in Stockholm one can buy a plastic card for SEK 20 and then charge it with cash in any of the chain's shops. If one uses the card one receives a discount when buying coffee and sandwiches. There is also a discount on buns and other items. It is evidently rational management at the sales outlets and, moreover, is appreciated by the consumers.

We Stockholmers can also take pleasure in the congestion charges, where the fee is automatically drawn from our bank accounts when our cars are automatically registered when passing the control points. There are many technical innovations, even with respect to account-based payments.

And how about the future...?

An important task for us who work at the Riksbank is to assess how the Swedish economy will develop in the future. The art of making accurate forecasts fills us with respect. I shall therefore refrain from all categoric statements about what will happen with payments. Developments are steered by technology and I am no engineer. However, allow me to make a few reflections and guesses.

- I believe the "cashless society" is as far away as the "paperless society" was when one once began to speak of it. There will always be a need for banknotes and coins, although cash transactions continue to decline as a share of GDP. Cash is an efficient form of legal tender for certain purposes and will continue to be so.
- The next generation will use cards to a far greater extent than we do at present, even for smaller transactions. There are banks today which will, with the permission of the parents, issue simple debit cards to children who are 13-years-old and above. In addition, payments via text messaging will grow in importance. Mobile phones are here to stay.
- Cards will develop technically. They will become safer with chips instead of magnetic strips and they will have several different functions – identity cards, driving licences, passports? Technology appears to have no limits here. The opportunities with wireless communication further expand the areas of use.
- Use of e-money will grow. Not cash cards, where there are good substitutes, but the server-based network money. As e-trading increases so too does the need for secure e-payments.
- Finally, I believe that paper-based payments will die a natural death, just as cheques once did. They are expensive for the banks and impractical for consumers. In a few years we will see them on display at the National Museum of Science and Technology.

Thank you!

⁶ "Electronic money from a central bank perspective", speech by Stefan Ingves, Sveriges Riksbank, 4 March 1998.