

A retrospective on the introduction of prices in the Norwegian payment system

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During the 1980s, Norwegian banks introduced direct pricing of customers' use of payment services. Direct pricing of payment services is relatively uncommon in other countries and Norway thus stands out in relation to the most widespread international practice in this respect. This article provides an account of the transition from free services to direct pricing of payment transactions, and the benefits of the transition. The article draws on theory where relevant, but the focus is on actual events in the period 1970–1993. During the last 8–10 years of the period, a pronounced transition from payment by cheque to payment by card occurred in Norway. Central factors behind this development are also described.

1 Introduction

1.1 Prices and cross-subsidisation

Prices provide important signals about the value of a product or service and therefore have a strong bearing on consumer choices. Rational consumers will choose the product that meets their needs at the lowest possible cost, and this in turn will contribute to economic efficiency. Prices generate revenue for producers. In the short term, the price of a product should cover the variable costs of production, but firms may also choose to operate at a loss for a period. In order to avoid bankruptcy, a firm's income must cover both variable and fixed costs in the long term. The price of each product must not necessarily cover the variable and fixed costs. The price of individual products can be set at below cost price. This means that the price of other products must be set higher than their production cost. This is called cross-subsidising. Such pricing results in lower consumption of higher-priced services than would have been the case without cross-subsidisation. Similarly, consumption of low-priced services will be higher. The impact on consumption of a given price change depends on the price sensitivity of demand for the service.

1.2 Prices for payment services

Pricing of payment services varies across countries. The most common practice is that banks do not price payment services directly, but cover their costs in other ways, for example via float revenue. Float is a result of the fact that money in transit between payer and beneficiary is not interest-bearing for either party for a number of days. Interest income accordingly accrues to the banks. In Norway, Section 27 of the Financial Contracts Act regulates the calculation of interest, and in practice

this provision prevents float in the Norwegian payment system. In a number of countries, payment system costs are covered through fixed account management fees charged to customers. In other countries, an interest rate of zero is usual on typical current accounts. Cross-subsidisation of payment services with income from other bank products is also usual.

The introduction of unit prices for payment services can benefit banks both directly and indirectly. They benefit directly through increased revenue. Moreover, prices that reflect the relative differences in production costs will encourage customers to choose the most cost-effective services. This will yield indirect benefits by allowing banks' costs to be lowered in the long term. Unit prices for payment services can also reduce the need for cross-subsidisation by other services, and thereby contribute to more correct pricing and hence also more correct consumption of these services. Why then is direct pricing of payment services not more common?

1.3 Obstacles to the introduction of prices

Many customers will find the transition from free services to direct pricing dramatic, even if the prices are low. The bank that first introduces prices will therefore be faced with dissatisfied customers and negative media coverage, probably resulting in a loss of customers. Although the introduction of transaction prices may potentially yield gains, it may be so costly for the bank that takes the initiative that it is not regarded as an option. It is therefore not very likely that a single bank will decide to introduce prices without other banks doing the same. On the other hand, if all the banks support a decision to introduce prices, none will lose customers, and they will all increase income and/or reduce costs.

There are two challenges to such a strategy. First, it is

¹ The authors would like to thank former Governor Hermod Skånland for useful information received at meetings in autumn 2005, and Director Tor Johan Bjerkedal of the Norwegian Financial Services Association for access to correspondence between the Norwegian Banking Association and the Norwegian Confederation of Trade Unions (LO) / Norwegian Union of General Workers (NAF) and the Directorate of Prices. Thanks also to Harald Haare, Olaf Gresvik, Asbjørn Fidjestøl and Bent Vale for useful input.

not certain that all banks will follow up. One or more banks may see it as being in their interest not to take part, in a bid to increase their market share. If a bank does not introduce pricing, it will be able to “take over” discontented customers from the banks that loyally abide by the decision. For the individual bank it will therefore be more attractive not to observe the joint decision, even though for banks as a whole it is best for all to comply with the decision.² The other challenge is banks’ relationship with the competition authorities. Competition legislation in most countries places stringent restrictions on price cooperation.

The banks may therefore be deadlocked in a non-optimal situation. They would all benefit from the introduction of transaction prices, but no bank wants to make the first move.

2 The introduction of transaction prices in Norway

2.1 Wage and salary payment free of charge via banks

Direct pricing of payment services is widespread among Norwegian banks today. However, this has not always been the case. On 1 January 1960, a wage account service was established for all commercial and savings banks, and the use of banking services increased through the 1960s as it became more common to pay wages and salaries into a bank account instead of the classic wage packet.

The Norwegian Confederation of Trade Unions (LO) and the Norwegian Employers’ Association (NAF) included provisions on payment of salaries by way of bank accounts in the wage agreement of 1966. They informed the Norwegian Banking Association and the Norwegian Savings Banks Association of the provisions. In their response to LO and NAF regarding the wage account arrangement, the two banking associations stated that banks would continue to perform services free of charge for employer, trade union or employee. However, they reserved the right to revert to the question of charging employers and trade unions once they had more experience of the wage account arrangement, particularly how costly it would be.

The *Basic Agreement* of 1969 between LO and NAF provided for payment of wages and salaries through banks (the wage account agreement) if the enterprise wanted this arrangement. Cheques provided easy access to wages. A joint record of objection was entered in the Basic Agreement of 1974 to the effect that wage payment via banks was based on the assumption that employees could access their wage account free of charge by means of cheques. Changes that broke with

this assumption would lead to each of the parties having a right to demand renegotiation of the rules concerning salary payment via banks. The banks were interested in the wage account arrangement, and therefore felt that this record of objection limited their opportunity to introduce charges. Any subsequent attempt to introduce transaction prices on payment services led to protests from both employee and employer organisations.

2.2 Increased focus on the costs associated with payment services

Both banks and public authorities realised fairly early that the processing of all the cheques entailed high costs. In autumn 1969, the *Credit Policy Committee* held negotiations between authorities and banks on changes in interest rates. At the time, banks’ deposit and lending rates were both regulated, and quotas were imposed on banks’ lending (both the price and the volume of the loans). In connection with these negotiations it was stated that banks should to a greater extent cover their operating expenses, and particularly expenses in connection with payment services, by pricing services instead of covering their expenses through interest income.

Focus on the costs of payment services increased during the 1970s. In his annual address in 1973, Knut Getz Wold, then Chairman of Norges Bank’s Board of Directors, criticised banks for supplying free payment services. This was also followed up in an article in *Penger og Kreditt* later that year: “Hvorfor skal det koste noe å bruke sjekk?” (Why should it cost anything to use a cheque?). (Magnussen 1973.) In the National Budget for 1973 (*Storting Report no. 1 (1973–74)* p. 29), it was pointed out that payment intermediation (cheques) accounted for a considerable share of banks’ costs, and that payment for banking services could contribute to curbing a further rise in interest rates, while at the same time the scope of banking services would be more correct from an economic perspective.

In connection with the renegotiation of the Basic Agreement between LO and NAF in autumn 1973, the banking associations stated that they had no plans to introduce charges on cheques in the four-year period for which the agreement was to apply. However, the banking associations planned an information campaign to reduce the use of cheques for less than NOK 100 and assumed that LO and NAF would take part. If the campaign did not have perceptible effects, the banking associations would consider limiting the number of cheques that were free of charge. Nevertheless, LO and NAF included a formulation about use of cheques free of charge in the Basic Agreement of 1974.

² In game theory, this is called ‘the prisoner’s dilemma’. The problem is that the decision that is best for the parties jointly is the one that is least attractive/most risky on an individual basis. (In the ‘prisoner’s dilemma’, two prisoners who are isolated from one another are given a choice between keeping silent and informing on the other. If the other keeps silent, you get out free by informing, but get 1 year’s prison by keeping silent. If the other informs on you, you get 5 years by also informing, but 10 years for keeping silent. Both will inform in order to be released or at any rate not risk 10 years. They will thus both get 5 years, instead of the 1 year they would have got if they could have agreed to keep silent.) As long as the parties cannot meet, discuss and agree on a strategy, it is impossible to achieve the optimal result. And even if the parties can meet and agree on a strategy, each will still benefit from breaking the agreement because breach is the strategy that pays off best on an individual basis. It is therefore improbable that the collectively optimal solution will be achieved without the existence of control and sanction possibilities.

In 1973, the Ministry of Finance appointed a committee to consider various issues relating to payment services (the *Payment Services Committee*). Both cost and efficiency were specifically mentioned in the mandate. A subcommittee estimated banks' unit costs for account-to-account giro payments at between NOK 2 and NOK 5, while unit costs for cheques used for payment were estimated at about NOK 2. The low costs associated with cheques were explained by the fact that shops did much of the work of inspecting cheques when they were received, and that they could deliver a number of cheques to the bank at the same time. The total economic cost of banks and the post office in connection with payment services was estimated at NOK 671 million. In "*NOU 1979:16 Betalingsformidling (Payment Services)*", the majority of the committee were in favour of using fees as a means of promoting a more rational use of resources in payment services.

Banks were also focusing on the high level of costs, and in 1972 appointed a "Reform Committee". The committee was to discuss in principle solutions to the question of costs associated with payment services. In 1975 the committee proposed that the number of free cheques or cash withdrawals should be limited to four per month, and that there be a fee of one krone per cheque used or per cash withdrawal in excess of this number. The committee also proposed introducing a fee of one krone per giro, without any quota free of charge.

In Norway, banks and the government postal giro system (Postgiro) provided giro (credit transfer) services. Giro transfers between postal giro accounts were free of charge, and prices for cash payment or disbursement giros were very low (customers paid postal charges). Postgiro had no plans to introduce prices other than these. The banking industry pointed out to the authorities on several occasions that it was difficult for banks to introduce prices for payment services as long as Postgiro offered the same types of service free of charge.

2.3 *The first prices for cheques*

In 1978, the Savings Banks Association and the Norwegian Banking Association agreed on a system with 15 cheques free of charge per quarter and pricing of payment services and the issue of bank ID cards (cheque guarantee cards). The implementation of this system was prevented by Royal Decree of 17 February 1978 relating to freezing of prices and price regulation, which the authorities introduced to curb a sharp rise in prices. The banking associations twice applied for exemption from the price freeze, but both the applications were rejected. After input from LO in October 1979, it was decided that all holders of cheque accounts should be charged NOK 2 for cheques of less than NOK 150, instead of making 15 cheques per quarter free of charge. When price regulation was suspended on 1 January 1981, member banks in the Norwegian Banking Association

introduced fees on small cheques (cheques of less than NOK 150) from 1 February 1981. At the same time, the Savings Banks Association recommended that its members introduce fees on these cheques at a later date.

The authorities still supported the introduction of prices for payment services. The Revised National Budget for 1983 (*Storting Report* no. 88 (1982–83)) stated that the aim must be for banks to set prices that cover the real costs of the different services. It was argued that this would result in more correct allocation of resources and ensure that those who actually use the services would pay for them. It was not considered rational for such services to be financed by banks' interest margin.

2.4 *Applications for more direct pricing of payment services*

The banking industry was exempt from the regulations of 1960 relating to competition regulation. The exemption was repealed by Royal Decree of 2 September 1983, with effect from 1 January 1984. The banking associations supported the repeal, but indicated in their comments that they would be applying for exemption for some agreements, and that these applications should be processed before the implementation of the repeal. In December 1983, the banking associations applied for exemption for agreements on interbank charges and common prices for payment services for customers. At this time, the regulation of deposit rates had been repealed, while regulation of lending rates and lending volume remained in force.

In February 1984, the Directorate of Prices stated that there might be a need for exemption from a common price policy for a limited period in order to introduce charges on some customer-oriented payment services. The assumption was that the agreements should be formulated in such a way that they did not prevent individual banks from adjusting their charges policy. The Directorate of Prices also assumed that the banking associations would use the exemption for targeted work to establish a rational pricing system. The Directorate asked to be kept informed of developments, and stated that more cost-oriented pricing of banks' payment services should result in lower interest rate margins in credit intermediation. They also pointed out that a desired change in banks' pricing could be impeded if pricing of competing payment services, such as Postgiro, were not also developed in a rational manner. Specifically, the two associations were given exemption for agreements regarding charges on giros paid in cash, charges to customers for use of ATMs and automated petrol dispensers and charges on cheques for less than NOK 150. The exemptions were limited to the period 1 March 1984 to end-1985. The banking associations were also granted exemption from interbank charges until further notice.

In January 1985, the Board of the Norwegian Banking Association decided that commercial banks should introduce an arrangement with four free cheques each month and pricing of giro payments. The minimum price was NOK 3 for both cheques and giros, while the individual bank was otherwise at liberty to fix its own prices. Prices were to be introduced from 1 July 1985. In line with the Directorate of Prices' statements of February 1984, the Banking Association applied for exemption for the specific pricing scheme. The Banking Association's application for exemption received broad coverage in the media, and reactions were largely negative. The issue was also taken up in the Storting's Question Time. A number of trade unions passed resolutions against pricing of cheques.

The Directorate of Prices sent the application with a request for comments to the Banking Inspectorate (one of the forerunners of the Financial Supervisory Authority) and Norges Bank as experts. The Banking Inspectorate pointed out that a fairly high degree of agreement to the effect that users should cover costs had not been sufficient to win acceptance for the principle of charges on payment services. No individual bank was willing to assume the burden in relation to its own customers and public opinion of being the first to introduce charges. The Banking Inspectorate therefore supported the Banking Association's application for exemption. Norges Bank pointed out that they had indicated on several occasions a need for charges on payment services. The majority of the Board of Directors of Norges Bank were nevertheless opposed to granting exemption from the competition regulations. The reasons for this attitude were that agreements that regulate competition are unfortunate in principle, and that there was no basis

in experience for the need for exemption. In a dissenting opinion, the vice-chairman of the Board of Directors (Hermod Skånland) stated that he considered it very desirable to grant the commercial banks a limited period of exemption.

The Directorate of Prices was in favour of granting the Banking Association exemption from the regulations on competition regulation up to 1 January 1986. This was regarded as being a matter of principle, and was therefore submitted to the Ministry for Consumer and Administrative Affairs. In March 1985, the Ministry replied that the Directorate of Prices should not grant exemption, and requested that the Directorate should abide by this decision. The Banking Association's application was therefore denied.

2.5 Introduction of prices

As mentioned, banks received considerable negative press because of their proposal that charges be introduced, and a number of banks may have felt that there was little likelihood that they would lose more standing by actually implementing the proposal. The largest commercial banks accordingly elected individually to introduce charges on payment services despite the rejection of their application for a coordinated introduction. The introduction of charges received little media coverage and aroused relatively little attention. It is not believed that any of the banks that introduced prices experienced a major customer exodus. One of the reasons was probably that the charge issue had been thoroughly debated, and that customers were no longer very interested in the subject. Another possible reason is

Table 1 Developments in prices for selected services 1990–2006*. Banks (commercial and savings banks) and Postgiro/Postbanken separately until 1996, thereafter joint for all types of banks. Prices in NOK

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2002	2004	2006
Mail giros	Banks				3.52	3.67	3.83	3.92							
	Postgiro	0.00	0.00	0.00	2.00	2.00	2.00	3.50	3.88	4.04	4.25	4.84	5.67	6.52	6.92
Over-the-counter giros	Banks	6.22	6.32	6.52	8.89	9.30	9.73	10.19							
	Postgiro								12.73	13.30	15.28	16.92	25.10	29.99	33.37
Giros paid in cash	Banks	8.90	10.55	10.35	11.41	11.84	15.62	17.23							
	Postgiro	3.70	4.50	4.50	5.50	6.50	6.50	16.00	17.95	18.46	23.40	25.67	31.69	41.58	42.00
Internet giros	Banks									1.98	2.03	1.91	1.86	1.88	2.06
	Postgiro														
Cheques	Banks	5.59	5.79	6.34	8.14	8.87	8.84	9.04							
	Postgiro	3.00	3.00	3.00	3.00	3.00	5.00	5.00	9.79	10.72	12.30	15.00	20.70	20.64	27.34
Electronic card payments	Banks	1.74	1.56	1.14	1.90	1.98	2.16	2.07							
	Postgiro	0.00	0.00	0.00	0.00	0.00	2.00	2.00	2.20	2.13	2.07	2.19	2.07	2.11	2.37

* 1 January each year. In some cases prices are from 31 December the previous year.

Blank fields indicate that the banks did not offer the service. A price of zero shows that the service was offered free of charge.

that customers purchase many services from banks, and that the majority of customers consider that it demands considerable time and resources to change banks. The costs of changing banks were therefore disproportionate to the costs imposed on customers by the charges.

After the largest commercial banks had introduced charges, smaller commercial banks followed suit, and after a while the savings banks. Towards the end of the '80s, Postgiro also increased the extent of its pricing.

During the banking crisis in the late '80s and early '90s, the Ministry of Finance, the Banking Inspectorate and Norges Bank all pointed out that banks should increase their income from charges, among other things on payment services. In March 1992, the Government Bank Insurance Fund sent a letter to the banks that had received support, requesting an overview of their losses on payment services, and proposed measures for reducing these losses. The three commercial banks that had received support implemented price increases as a result of the request.

In the Revised National Budget for 1992, the Government submitted a proposal for the coordination of the payment services of banks and the Post Office. One proposal was that cost coverage through direct pricing should increase by stages in both the state-owned Postgiro and banks. The prices should also reflect the difference between the costs of the individual services. In the budget balancing proposal of autumn 1992, the Government proposed a specific scheme for pricing Postgiro's services.

Norges Bank's price statistics show that prices increased substantially in 1992 (see Table 1). Postgiro/Postbanken was somewhat slower than the banks to introduce prices, and for a long time had lower prices for the same services. The table shows that prices for paper-based payment services have increased steadily since the early 1990s. Prices for electronic services have been more stable, and in 2006 are considerably

lower than prices for paper-based services. This largely reflects the differences between the production costs of the various services.

Although prices for paper-based payment services have increased substantially, the price for an "average" payment has not increased correspondingly (see Chart 1). This is because there are good and inexpensive electronic alternatives to expensive, paper-based services. The prices have led to customers increasingly choosing the electronic services. Electronic giros have taken over from paper-based giros, and card payment has taken over from cheques.

3 From extensive use of cheques to world leader in use of cards

3.1 Motivation for improving efficiency

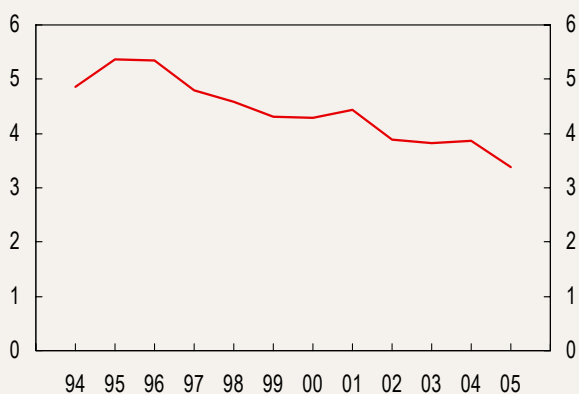
In an efficient payment system, payments are effected quickly, securely and at low cost. According to surveys, there are lower costs associated with payments made with cards than with cheques. An extensive degree of electronic processing is generally more efficient than manual processing. Payment of accounts over the Internet and direct debiting (Avtalegiro) are thus more efficient than paper-based systems (Gresvik and Øwre, 2002). Debit cards (where amounts are charged to the account immediately) are more cost-effective than credit cards, and for large amounts it is generally more cost-effective to use a card than cash (De Nederlandsche Bank, 2004, and National Bank of Belgium, 2006). The economic costs associated with the payment system are often estimated to total 1–3 per cent of GDP. Although this estimate may be slightly high for Norwegian conditions, the potential savings for banks and society of a switch to more efficient payment systems are considerable.

Throughout the '70s and most of the '80s, the Norwegian payments system was characterised by extensive use of cheques. The peak was reached in 1984, with 101 million drawn cheques. Today cheques have been virtually phased out, and electronic payment instruments hold a dominant position (see Chart 2). Norway is a world leader in the use of payment cards (see Chart 3). Although cash continues to play an important role as a means of payment, cash holdings per person in Norway remain stable, by comparison with many other countries, where they are growing (see Chart 4). In the remainder of this section we will take a closer look at important factors behind the extensive use of cards in Norway.

3.2 Standardisation and coordination

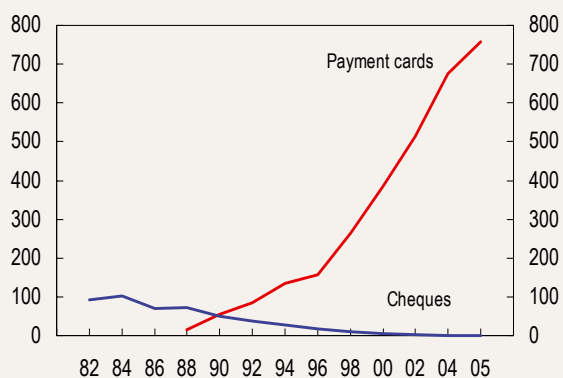
Payment systems generally have high fixed costs, among other things for computer systems and for the

Chart 1 Weighted nominal average prices for payment services for private individuals 1994-2005 Current weights. In NOK



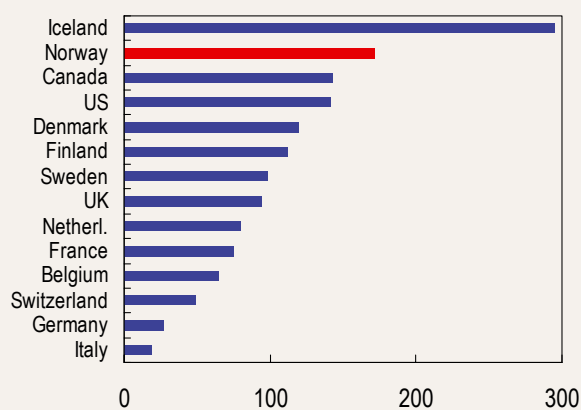
Source: Norges Bank

Chart 2 Use of cheques and payment cards 1982-2005.
In millions of transactions



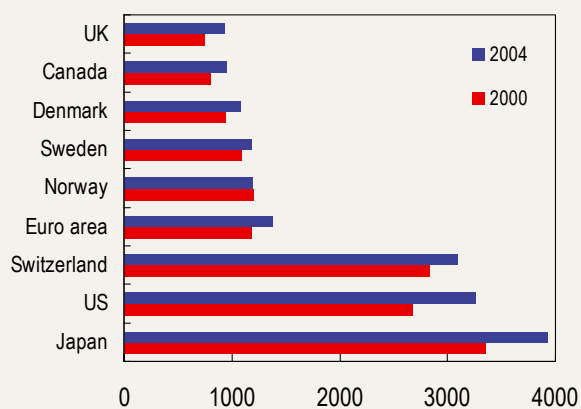
Source: Norges Bank

Chart 3 Number of card transactions (debit and credit cards) per inhabitant in 2004



Sources: Norges Bank, ECB Blue Book, BIS Red Book and Sedlabanki Islands

Chart 4 Cash holdings per inhabitant. 2000 and 2004.
In euros (exchange rate at 30.06.2006)



Sources: Norges Bank, ECB Blue Book and BIS Red Book

development of systems and software for processing transactions. This means that costs per payment fall with increased volume (economies of scale). Costs also often fall as services become mature, investments are written off and the technology used becomes less costly. Mature services therefore often have lower unit costs than completely new services, even if the volume is the same.

Payment systems are networks for the exchange of values between payers (consumers) on the one hand and beneficiaries (merchants) on the other. In two-sided markets like this, the benefit to existing users increases when new users join up. For example, the more merchants that accept card payments, the greater the benefit consumers will extract from their cards, and the more consumers with payment cards, the more attractive it will be for merchants to have point-of-sale terminals. Because of economies of scale and the two-sided nature of the market, it is efficient to increase the scope of the network. In order to exploit the network effects, the two sides of the market must be able to communicate appropriately, irrespective of whether there are several types of cards and terminals. This means that there must be a common set of rules and common standards for formats and interfaces for communication between the participants in the system.

Norwegian banks had high costs associated with the extensive use of cheques. After a while, banks developed solutions for the use of payment cards that charged accounts immediately – debit cards.³ However, a variety of technological solutions were chosen. In the mid-'80s, commercial banks issued cards with microprocessor technology (chip-based), while savings banks chose magnetic stripe technology. Moreover, Postbanken had its own magnetic stripe-based system. There were four different IT environments in the area of card payments with different collection, data entry, netting and settlement concepts. In consequence, there were limits on where customers could use their cards, expensive terminals, and unstable systems with security weaknesses. Norges Bank engaged actively in the work to increase coordination, among other things through the Technical Reporting Committee on Payment Systems. The banks also emphasised that card systems should provide a coordinated, effective service for both users and merchants. In 1986, the two banking associations and retailer organisations entered into an agreement of intent concerning the installation of point-of-sale terminals in shops, and in 1987 an agreement was signed between the two banking associations which partially fulfilled the requirements of increased coordination. Coordination work was difficult, however, partly because of the costs of preparing terminals that could read both chips and magnetic stripes, partly because of different views on the security aspects of the different solutions, and partly for market strategy reasons.

³ Oil companies were the first to introduce card payments in Norway (each company had its own card). In 1982 the Banking Association entered into framework agreements with oil companies on the use of banks' cards (ATM cards) in the oil companies' terminals. The first bank-operated card payment project took place in 1983/84 at the OBS department store at Løren, Oslo. Samvirkebanken was the bank behind the project.

3.3 BankAxept

In 1990 the foundation was laid for further coordination of commercial and savings bank systems. The banking associations established the trademark “BankAxept” as a common logo for the banks’ coordinated card system, and made agreements for the issue and processing of BankAxept cards. The agreements were an important prerequisite for the member banks of the two associations entering into an agreement in October 1991 on the establishment of a joint company (Bank-Axept AS). The company, owned by savings and commercial banks jointly, was established on 30 November 1991. The company was to have operational responsibility for operating a joint infrastructure, choosing the technology for the system and approving the types of terminals before they were linked up to the system. By a given deadline all banks were to use only terminals linked to Bank-Axept AS’s system. When payments were made using BankAxept, cards were checked with respect to authorisation of card and person, and the balance on the payer’s account was checked for cover. All checking was carried out online. All purchases of goods and all cash withdrawals made with BankAxept cards were charged to the account immediately.

In connection with the establishment of BankAxept, the banking associations applied for approval of the agreement pursuant to Section 2–7: Cooperative agreements, of the Act relating to Financing Activities. The Ministry of Finance regarded the establishment of BankAxept as a satisfactory means of integrating the card systems of commercial and savings banks. However, Postbanken was not integrated in a satisfactory manner. The Ministry of Finance therefore postponed approval of the agreement pending full integration. However, the common card system was in operation even though the agreement had not been formally approved. In December 1992, an agreement was made that Postbanken customers should be able to use their cards in BankAxept terminals from September 1993. In September 1995, the commercial and savings banks and Postbanken entered into an agreement for the integration of Postbanken into the other banks’ joint systems. From 1995, all electronic payment terminals in Norway were thus linked up to BankAxept. In January 1996, the banking associations again applied for approval of the BankAxept agreement, which was approved by the Ministry of Finance in May the same year.

In 1992, banks introduced the possibility for retailers to offer cash withdrawals of up to NOK 500 in connection with purchases paid for with BankAxept cards. In 1997, the banking industry introduced a general set of rules for cash-back, and the limit for withdrawals was increased to NOK 1000. This service is now available to all retailers with terminals that read BankAxept cards provided that the retailer wants to take part in the scheme and fulfils the requirements of the rules. The

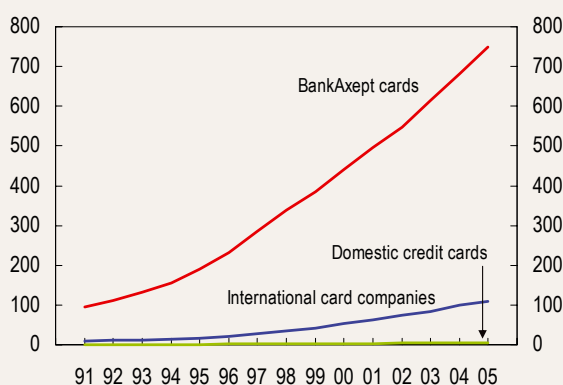
service has become increasingly popular, and is now the most frequently used manner of making cash withdrawals in Norway.⁴

BankAxept is today decidedly the most widespread card network in Norway (see Chart 5), and virtually all banks with activities in Norway offer BankAxept cards. Extensive integration as a result of the merging of previously separate card networks, and expansion of the range of services to include cash withdrawal have paved the way for economies of scale and network economies in the card payment system. Norges Bank regards this coordination as the deciding factor behind the high use of cards in Norway. The importance of this coordination is highlighted in a study from Sveriges Riksbank (Guiborg, 2001), which concludes that the best strategy for the authorities and others with interest in an efficient payment system is to promote the use of common standards and pave the way for coordination measures among market participants with a view to achieving this standardisation.

3.4 Efficient pricing

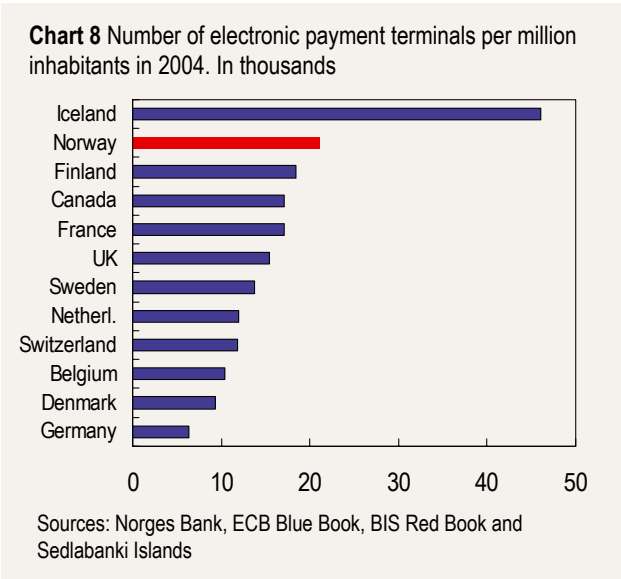
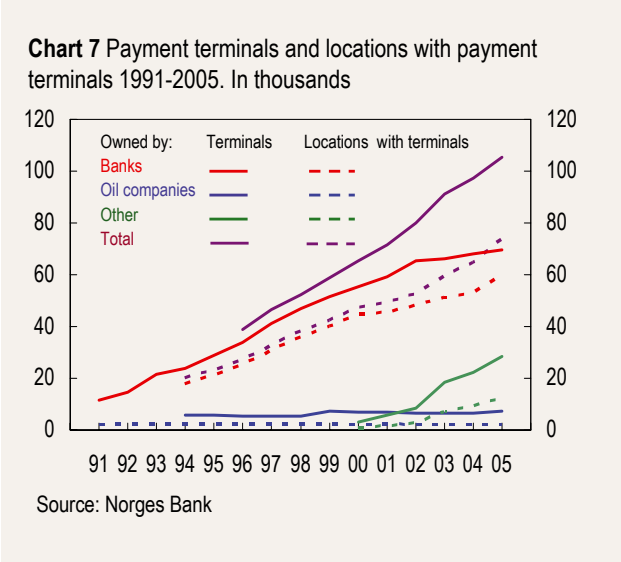
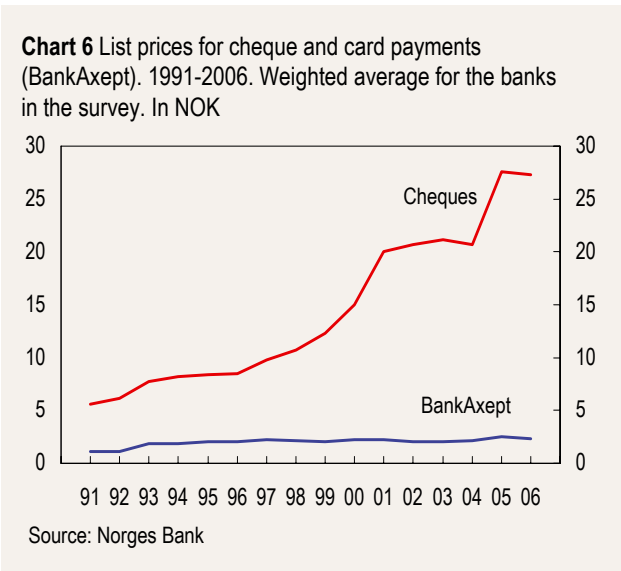
In addition to the important coordination factor described above, pricing may have contributed to the high use of cards. The price of using cards in shops has been stable for many years. Over the last ten years, the list price of card payments for a weighted average of banks has only risen by about 16 per cent. Payers have alternatives to using cards, primarily cheques and cash. Hence, the effect of pricing card services cannot be seen in isolation from how alternative instruments are priced. Developments in prices for cheques and cards are shown in Chart 6. The rise in prices for the use of cheques compared with the use of BankAxept has probably been a very important factor behind the strong growth in card use in Norway. Humphrey, Kim and Vale (2001) show that consumers react to prices and choose

Chart 5 Use of Norwegian payment cards 1991-2005. Goods purchases and ATM withdrawals. In millions of transactions



Source: Norges Bank

⁴ Source: Norges Bank (Annual Report on Payment Systems 2005, page 13)



the payment instruments that are cheapest for them.

There are high fixed costs in payment systems. In the introduction it was stated that in the long term prices should cover both variable and fixed costs. However, Atkinson and Stiglitz (1980) show that it may be correct from an economic viewpoint for fixed costs to be covered through cross-subsidisation.⁵ This is based on the assumption that costs are covered by higher prices on products where demand is relatively insensitive to price changes. Card systems are as mentioned two-sided markets, with consumers and their banks on one side of the market and retailers and their banks on the other side. Turnover in two-sided markets are affected not only by price level, but also by how a given price level is distributed between the two sides of the market. Rochet and Tirole (2002) and Bergman (2003) show that the price charged to each user group in two-sided markets should reflect the extra benefit the user in question adds to the network. This means that the price imposed on the participant category that adds most value to the network should be lower than the marginal cost this user imposes on the system. The users that are most valuable to the expansion of the network may vary over time. If the deployment of more terminals is regarded as the most important means of achieving higher card use, the theory implies that merchants can be subsidised. This will make it more attractive for them to join the network. If the greatest need is to attract more consumers, they can be subsidised.

The dominant position in connection with the introduction of new payment systems in Norway was that payers should cover costs. For example, a report from the Payment Systems Committee argued as early as in 1974 that it was unfavourable to finance a common card scheme that was planned at that time by charging the merchant side (*NOU 1974: 38 Bank cards*). It was argued that this would lead to costs being passed on to all consumers, including those who did not use cards. The view was that the costs should be borne by those consumers who paid with payment cards. Consumer organisations held a similar view. Cost surveys carried out by Norges Bank in 1994 and 2001 showed that a substantial share of the total costs associated with the BankAsept system have been covered through prices charged to consumers. In most other countries, the bulk of the costs associated with card systems is borne by merchants (Bergman 2003).

The number of terminals has increased sharply in recent years, and is high compared with other countries (see Charts 7 and 8). Prior to the sharp rise in payment terminals, bank cards were already widely used in Norway. Whereas the number of terminals has increased sixfold since 1991, the number of cards with BankAsept function has increased 2.5 times.

The development of BankAsept in parallel with the charging of high prices for the use of cheques has been one factor behind the extensive use of cards in Norway.

⁵ Atkinson and Stiglitz (pp. 461-464) discuss an analogy to this issue, often called the Ramsey problem.

Acceptance for imposing prices on payers has entailed a substantial contribution on the part of payers to covering the costs associated with the card system. This has probably led to a higher number of terminals than would have been the case if merchants had to pay a larger share of total costs.

4 Conclusion

Most Norwegian banks still price payment services directly. However, free services are increasingly being offered. A few banks offer free payment services to all their customers, while several banks offer free or substantially discounted payment services through customer retention or loyalty schemes. Norges Bank has traditionally promoted the principles that the party that chooses the payment service should also pay for it, and that services that are costly to produce should be priced higher than services that are less expensive to produce. However, this does not mean that all services should be priced so as to fully cover the production costs of the individual service. Nor does it exclude the possibility of pricing one or more services higher than their production costs.

When payment services are free, consumers do not receive clear signals about the costs of producing the services. However, the negative consequences are limited if only the most efficient payment services are free. The Norwegian banks that offer free payment services primarily offer electronic services. Similarly, most customer retention and loyalty schemes only offer a discount for electronic services. The differences between prices for efficient electronic services and for less efficient paper-based services will thus be maintained or increased, and customers will still be motivated to choose the most cost-effective payment services. However, a lack of profit opportunities in the payment system may make it less attractive for banks to invest in the development of new payment services in the long run. Extensive use of free services may therefore have negative consequences for the efficiency of the Norwegian payment system in the long term.⁶

Norway is a world leader in the use of cards. Surveys performed by the central banks of the Netherlands and Belgium show that paying by means of debit cards is more efficient than using cash for amounts over 10–12 euros. The results of these surveys cannot be applied directly to Norway, but they indicate that continued growth in the use of cards may improve efficiency here too. The number of cards in Norway is high, and further growth will probably have to be achieved by inducing increased use among existing card-holders, or by increasing the number of terminals and merchants that accept cards. The pricing of card services has probably influenced developments so far, and will probably also influence further growth. In order to encourage the use of services in a two-sided market, banks may choose to

charge one side of the market less than its share of actual costs would imply. This may be used strategically, and the pricing may be varied over time in order to achieve growth in the side of the market that is most important for the further growth of the network. The appropriate price structure in the years ahead will therefore depend on the price sensitivity of the various services offered by banks, and what is regarded as most important for further growth in the use of cards.

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