ECA FINANCIAL SERVICES SUBGROUP

COMPARATIVE STUDY OF COMPETITION IN RETAIL BANKING AND PAYMENTS SYSTEMS MARKETS

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EXECUTIVE SUMMARY

Background

The Financial Services Subgroup was established by the ECA Directors at their meeting in Trier on 6 May 2004 with the intention of 'enhancing co-operation between the European Competition Authorities through the exchange of knowledge, the sharing of enforcement experiences and the development of joint views on market structures and trends'. The overall aim of the Subgroup is to explore the opportunities for synergy among ECA members regarding competition issues in the financial services industry and to propose an agenda of activities for a new ECA Working Group. The members of the Subgroup are the Netherlands, Ireland, Sweden and the UK.

The aim of this comparative study, which is based on existing knowledge and research, is to develop understanding of the main international similarities and differences among national retail banking and payments systems markets and the competition issues that have arisen in relation to these markets.

Methodology

A questionnaire was formulated by the Swedish and Irish authorities in relation to the following topics: the competition process and the parameters on which market players compete, market structure and trends in retail banking, market entry and entry barriers, and the organisation of national payment systems.

Regulation

The normal provisions of national competition law (modelled closely on Articles 81 and 82 of the Treaty of Rome) apply to retail banking and payments systems. However, the powers of each national competition authority (NCA) vary, both temporally and comparatively.

Banks in all four administrations require a banking licence, issued either by the relevant national central bank or a separate licensing authority. The conditions of these licences vary between the four countries but a licensed bank in one EU Member State is free to operate in a subsequent EU Member State.

In all four states, the role of the central bank extends to ensuring the stability of the entire banking sector, including payment systems. This role generally includes facilitating or overseeing the agreement of common standards for clearing and settlement of payments, as opposed to the *regulation* of payments systems. Self-regulation is a feature of the payments system market in all four states but to different levels.

Competition Issues Arising

The competition issues encountered by each national competition authority vary to an extent in accordance with the powers they have, or had at the time. Enforcement action has been rare in this sector.

Common competition issues in retail banking dealt with by the NCAs include:

- the payments infrastructure
- switching costs
- banking services to SMEs
- interchange fees.

On entry barriers, scale economies appear to be significant, particularly in terms of building a payments network, especially where the number of competing networks is small. Switching costs constitute a very significant entry barrier in all four states but consumer inertia and a lack of information are also seen as relevant in this regard.

Retail Banking Market Features

Rates of return on equity for full-service banks range from 14% to 21%, and average net interest margins vary between 1.6-2.6%. Cost to income ratios are around 55% in Ireland, 57% in the UK, and 70% in the Netherlands and Sweden. Cost to asset ratios are generally in the 1.6-2% range.

Retail banks compete on service levels, product range, convenience, customer relationships, reputation, and price (fees and interest rates). Also, consumers often choose a bank based on family history or habit. The importance placed on each of these variables does not appear to be consistent across the four countries examined. We can, however, infer that non-price variables are, in general, as important, if not more important, to consumers when choosing a banking product or service.

Internet banking is the most important alternative distribution channel in all four countries. Indeed, a number of internet-only banks have emerged in all but Ireland. Simultaneously, the role of bank branches has become less significant. Branch density has declined steadily in Ireland, Sweden and the UK due to rationalisations but remains consistently higher in the Netherlands. Bank branches nonetheless continue to play an important strategic role in competition between the retail banks.

Financial intermediaries play little part in the competition process of most markets, but there seems to be a role for intermediaries in the mortgages, personal loans and pensions sectors.

Switching rates are low, across many banking products, as the cost and hassle of switching is perceived to be high. Customers who do switch banks, cite poor service, credit refusals, and better fee/interest rate levels as the reasons for switching.

There has generally been innovation in the area of Internet banking. Very few maverick banks have been established.

Market Concentration, Entry and Ownership in Retail Banking

Retail banking markets are found to be national in scope. Although concentration levels vary considerably across markets and across countries, retail banking markets are in general characterised by moderate to high concentration levels.

Ireland and the Netherlands are serviced by just a small number of 'full-service' banks and, consequently, almost all of the product/service markets in those countries' banking sectors are highly concentrated (HHIs of at least 1800). Market concentration rates have remained stable over time in these two countries. Sweden and the UK have benefited from new entry over the past decade but their markets are nonetheless characterised by HHIs of over 1000 and over 1800 in many instances.

Small and medium sized enterprises (SMEs), in particular, appear to face highly concentrated retail banking markets at every turn. Market concentration for SME current accounts, for example, ranges from a HHI of 2180 in England and Wales to a HHI of 3288 in Ireland.

The rate of new entry varies across member states. In the past 10 years, seven new banks have entered the Irish banking market, Sweden has seen 18 new entrants, the Netherlands has attracted only two, while 45 new entrants have appeared in the UK (mainly from building societies that have converted to full banking status). A large proportion of this 'entry' has involved the acquisition of an existing bank by another (multi-national) bank, and so a certain amount of exit and entry has represented changing ownership (or 'churn'), rather than organic growth.

There have been few common entry strategies noticeable across member states: some have seen organic growth from a zero base, some from mergers and acquisitions, some sideways moves into banking from organisations already involved in financial services, some through partnership and joint venture arrangements. Target markets have equally varied widely; New entry has generally not been successful with the market shares of new entrants remaining in single figures, except in niche markets where some greater success has been observed.

Physical presence and access to payment services appear to be the most significant types of infrastructure necessary to compete fully in retail banking. Whether that includes a physical branch network, and the extent of that network, varies across states.

The presence of foreign banks varies from nothing significant in the Netherlands and 7-8% in Ireland[1] through around 14% of the market in Sweden to something over 50% in the UK.

[1] Measured by total assets of foreign-owned full-service retail banks

Payments Systems

Payment systems are the various schemes which are used to effect the transfer of value between individuals or businesses. They include: cash (ATMs), cheques, debit and credit cards systems and electronic funds transfer. Access to each of these systems, at a reasonable price, is key to a bank's competitive offering in certain markets. Hence the structure and rules governing payment systems can have important implications for competition in retail banking.

The mechanics and structures of payment systems in the various states inevitably vary considerably. Some systems use a third party operator, others involve webs of bilateral agreements between incumbent banks. Some payments systems have competing payments systems providers (e.g. Visa and Mastercard), many have only one network per country. The time taken to complete the transfer of value also varies across systems and across countries.

Generally speaking, ownership of the payment systems rests with the participating incumbent institutions, or at least the larger ones. While each state has procedures in place for admitting new members to payment schemes and infrastructures, there seems to be little uniformity. Determining who may, or may not, join a scheme is generally left to the scheme itself to decide (but always subject to the general provisions of competition law). This has been the subject of studies and cases in three of the four countries.

There is no overall pattern as to the fee structures for membership of schemes. Excessive pricing and discriminatory pricing cases have arisen in two jurisdictions.

The pace of innovation varies by state and by payment instrument – although some commonalities exist, such as the introduction of Chip & Pin credit cards.

Suggestions for further work

The overall aim of the subgroup is to explore opportunities for synergy among ECA members regarding competition issues in the financial services industry and to propose an agenda of activities for a new ECA working group. The aim of that working group would be to enhance competition policy platforms and report at the next ECA meeting in 2006. Based on the results of this working group the ECA will take a decision on whether this working group should be prolonged or not.

Based on the results of this study, the Subgroup has identified three areas where further analysis is likely to be fruitful:

1. Access to payments systems
2. Consumer Mobility
3. SEPA (The Single European Payments Area)

1. Access to payments systems

In all four jurisdictions physical presence and access to payment systems appear to be the most important types of infrastructures that new entrants must have access to in order to render entry successful. This is especially so for those banks aiming to offer full-service retail banking. An extensive branch network, along with ATM, telephone and internet banking facilities, and full membership of the payments clearing system, enabling cash withdrawal, card payments and credit transfers are identified as necessary for such entrants to be successful. Access to payment system infrastructure has given rise to competition concerns in all four states.

2. Consumer Mobility

In each of the four jurisdictions, there is a low level of switching by consumers between banks. The proposed solution of the banking institutions or regulatory authorities often takes the form of a 'Switching Code'. However, even in jurisdictions where such switching codes have been put in place, the problem of low switching is found. Switching costs represent an important barrier to rivalry and entry. Therefore, one relevant issue is to identify and discuss barriers that consumers face when considering switching bank. Is, for instance, having to learn to operate a new Internet/telephone system and having to change number on bank accounts and pin code an important obstacle and if so, what can be done in order to remove such an obstacle?

3. SEPA (The Single European Payments Area)

Although not a formal part of the study, recent developments and future legislation will play an important role in the field of financial services. The effect on national markets of the creation of a Single Euro Payment Area (SEPA), which possibly will allow citizens in the Euro area to make payments throughout the whole area from a single bank account using a single set of payment instruments, should be taken into account by national competition authorities. International cooperation between competition authorities and shared views on competition issues (e.g. transformation of infrastructure and future access to a European infrastructure) could be an important step.

INTRODUCTION

1.1 Background

1.1.1 Introduction

The financial sector is of great importance to the European economy. In addition to its own activities, the sector makes a significant contribution to the proper functioning of the economy in general, inter alia by facilitating payments, money transmission and extending credit. Examples are the provision of credit and payments facilities. The appropriate operation of the market in the financial sector, and therefore also sufficient competition, is of considerable importance. If there is insufficient competition in a sector, this may result in substantial social losses due to high prices, a lack of innovation and inefficient capital markets.

The financial sector is, however, particularly prone to the risk of restrictions on competition. This increased risk relates partly to the economic characteristics of the sector, like the generally high degree of concentration and the existence of network effects and entry barriers. Customers often do not possess sufficient countervailing power to balance the economic weight of financial institutions. Switching costs and a general lack of transparency are two important reasons for this imbalance. Also, specific regulation exists for the financial sector which affects the behaviour of market players. The body of national regulation and international standards (e.g. Basel II) adds to the already considerable complexity of the sector.

Financial institutions have different shapes and sizes. On one side of the spectrum are diversified financial conglomerates with global presences; on the other side are local niche players. This means that national authorities and the European Commission all have to deal with competition issues concerning financial institutions. This entails a need for common views – in so far as law, regulation and local circumstances permit – among the ECA authorities. Where the views of competition authorities diverge significantly the promotion of competition amongst financial institutions is impeded. This would be a harmful and unnecessary obstacle in view of the integration of financial markets within Europe.

1.1.2 Objectives

During the ECA meeting in Trier on the 6th of May 2004, four members of ECA set up a Financial Services Subgroup. This initiative seeks to enhance co-operation between the European Competition Authorities through the exchange of knowledge, the sharing of enforcement experiences and the development of joint views on market structures and trends. Ireland, Sweden, the UK and the Netherlands are the initial participants in the Subgroup. The Subgroup consists of delegates from the participating authorities and reports to the annual meeting of ECA.

The focus of the Subgroup is on retail banking and payment systems. For payment systems this can be justified by the similarities in competition issues that arise on account of the technological and economic characteristics of this sector. All participating authorities play an active role in payment systems, through decisions and/or market studies. The choice for retail banking has its roots in the fact that this sector has been the object of several studies by competition authorities and the similarities in competition issues that these studies have come up with. Examples are the Cruickshank report (UK) and a current study by LECG (Ireland). On first sight one may conclude that there are numerous similarities in the issues that are highlighted in these studies. It therefore makes sense to undertake a comparative study of the national retail banking and payment systems markets.

The Subgroup has met three times and agreed at its first meeting that two workstreams should be followed in order to achieve the main aims set by the ECA members:

- A workshop for officials of all ECA Member States to consider enforcement and intervention strategies such as advocacy, the use of task forces, reliance on self-regulation and monitoring; and to exchange their views and experiences of different types of interventions and enforcement strategies.; and

- A comparative study of competition in retail banking and payments systems markets between, initially, the four authorities in the Subgroup.

The workshop, arrangements for which were led by the Dutch and UK authorities, was arranged for Wednesday 9 March in Den Haag. The Subgroup had put together a case study for discussion in two 'break-out' groups looking at issues raised by the UK Competition Commission investigation into Banking Services to SMEs. The Subgroup had proposed that each break-out group would consider how they might have dealt with the issues referred to the Competition Commission in light of the powers available to participating member states and then come back to discuss the intervention and enforcement strategies used by the UK authorities in the case. In the event, however, only nine authorities of all the ECA member States accepted the invitation to attend the workshop and the Subgroup concluded that it would not be viable to run it on that basis. So as to be able to consider likely support for any similar event in the future, the Subgroup has since asked all those who either did not reply or advised non-attendance to explain whether the workshop was of interest to them.

The overall aim of the Subgroup is to explore the opportunities for synergy among ECA members regarding competition issues in the financial services industry and to propose an agenda of activities for a new ECA Subgroup. In order to do so a comparative analysis has been carried out.

1.1.3 Outline of the comparative study

The report begins with an introductory section on the application of competition law to national banking markets and the principal competition issues in retail banking or payment systems in each state. Thereafter the following topics are treated:

- Qualitative description of the competition process: On what parameters do market players compete? What are the features of typical customer behaviour? Do banking markets lack transparency, and if so, what effect does this have?
- Analysis of market concentration in retail banking: What are the concentration ratios for the various national markets? How is the market divided between large general banks and smaller niche banks? Are there any notable trends in growth patterns? Does a relationship exist between market structure and the size of the market?
- Analysis of market entry and entry barriers: Has market entry occurred? What are the main barriers to entry involved?

- Description of national payment systems: How are national payment systems markets organised? What are the reasons behind the most striking differences?

By carrying out a broad comparative study based on existing research and knowledge, we get a good understanding of the main international similarities and differences. These insights are presented in the final section of the report.

1.2 The Application of National Competition Law to Banking Markets

The competition law regime in each of the four states is broadly similar, and is characterised by adherence to the principles of competition law set out in the EC Treaty. In particular, Articles 81 and 82 of the Treaty tend to be replicated in national legislation in each state. Each state's competition legislation includes: prohibitions on cartels, prohibitions on abuse of dominance, and the supervision of mergers, takeovers and acquisitions. There are no special provisions relating to banking markets in national competition legislation.

However, the powers of each national competition authority (NCA) vary, both temporally and comparatively. While in Sweden and Ireland, NCAs evolved initially from granting or refusing negative clearances, to developing greater powers of oversight and investigation, it seems that the UK NCA, in particular, is able to exercise a greater range of powers, which assists in promoting competition in retail banking.

Ireland

The Competition Act, 2002 governs competition law in Ireland. The Act supersedes older legislation, notably the Competition Act, 1991, and the Competition (Amendment) Act, 1996. Certain mergers and acquisitions must be notified to the Irish Competition Authority, which must decide whether the merger will substantially lessen competition and thus whether to allow it to proceed.

Regulation of financial services is legislated for under the terms of the Central Bank and Financial Services Authority of Ireland Act, 2003. Banking fees and charges are price regulated, however, by the Irish Financial Services Regulatory Authority (IFSRA) under the terms of S.149 of the Consumer Credit Act, 1995. IFSRA is the statutory regulator responsible for the authorisation and supervision of banks and other financial service providers. It does not, however, regulate payment systems. The Central Bank has general oversight of payment systems, to ensure that they comply with best practice as regards robustness and resilience. It does not, however, regulate payment systems.

The Netherlands

The Act of 22 May 1997 (The Dutch Competition Act), modelled on EU Law, is fully applicable to Dutch retail banking and payment systems.

Sweden

The 1993 Swedish Competition Act, as subsequently amended governs competition law in Sweden. The Stockholm City Court, on the petition of the Swedish Competition Authority (Konkurrensverket, KKV), may prohibit a concentration between undertakings if it creates or strengthens a dominant position which significantly impedes, or is liable to significantly impede the existence or development of effective competition in the state as a whole, or a substantial part thereof.

UK

The Competition Act, 1998, which came into effect on 1 March 2000, applies to agreements or conducts that affect trade within the UK.

The banking industry in the UK is essentially self-regulatory, except to the extent that it is subject to general competition legislation. The Financial Services Authority is the single statutory regulator responsible for the authorisation and supervision of deposit-taking by banks, and, in order to maintain confidence in UK financial services generally by supervising exchanges, settlement houses and other market infrastructure providers. The Bank of England has general oversight of payment systems, to ensure that they comply with best practice as regards robustness and resilience. The Bank is not, however, a *regulator* of payment systems.

1.3 Principal competition issues in retail banking or payments systems in each state

An analysis of the responses received from each NCA indicates that there are great similarities in the principal competition issues encountered in each jurisdiction. Most of these have been dealt with in the course of studies, market investigations and the supervision of mergers and acquisitions activity. Enforcement action has been rare in this sector. The principal issues encountered are as follows.

A. Payment System Infrastructure

All four states reported that payment/clearing system infrastructure had given rise to competition concerns. In Ireland, Sweden, and the UK, analysis of the effects of this infrastructure has been conducted, while in the Netherlands, concerns gave rise to enforcement action.

Ireland

In Ireland, the clearing systems for paper and most electronic transactions involve webs of bilateral agreements between banks under the umbrella rules of the Irish Payment Services Organisation (IPSO). The Irish Paper Clearing Company (IPCC) is responsible for paper clearing; the Irish Retail Electronic Clearing Company (IRECC) is responsible for most electronic transactions. Financial institutions can either clear transactions directly as ordinary members of IPSO, or, as associate members, contract with an ordinary member to clear on its behalf under the terms of an "agency arrangement".

The Irish Competition Authority is conducting a study covering payments systems in Ireland and has recently published a preliminary analysis and draft recommendations.[2] Banks that clear transactions themselves (i.e. full members of IPSO) have cheaper unit costs of clearing at high volumes and faster clearing cycles. Being a clearing bank thus confers the advantage of being able to provide faster transfer of value to and from customers' accounts. This

[2] See "Study of Competition in the Provision of Non-investment Banking Services in Ireland: Report and Recommendations" at http://www.tca.ie/banking.html

allows clearing banks to offer their customers a speedier, more efficient service than non-clearing banks. While there have been some steps in the right direction recently, whereby potentially restrictive membership requirements have been removed, barriers to competition still persist in the payments clearing system. The absence of clear procedures for evaluating and admitting new members has the potential to limit competition. Competition may also be limited by the bilateral nature of the clearing system, which appears to delay entry by new members until the slowest incumbent has concluded all necessary steps required to accommodate the entrant.

The Netherlands

In the Netherlands, a risk of abuse arises from the fact that a dominant network services provider, Interpay, which provides processing, switching and clearing services, is owned by the major banks.

In April 2004, the Dutch Competition Authority (NMa) imposed a fine of €30,183,000 on Interpay for charging excessive rates for the provision of network services for debit card transactions. These are the rates which retail traders pay Interpay per transaction. In addition, NMa fined the eight banks which set up Interpay. The banks set up Interpay in such a way that Interpay is the only provider of network services for debit-card transactions. With regard to the sale of these services, the banks have eliminated competition amongst themselves.

In its assessment, NMa acknowledged that Interpay has incurred considerable expense in setting up the network necessary to provide retailers with network services. This network has made it possible for widespread use to be made of debit card transactions speedily and securely . In its assessment of the rates, NMa took into account the costs incurred by Interpay in doing so. Despite this, Interpay's rates are so high that since the introduction of the 1997 Competition Act they have generated a return which is five to seven times higher than the benchmark set by the NMa. NMa therefore concluded that this constituted an abuse of a dominant position.

Sweden

The KKV has taken a number of decisions concerning infrastructure cooperation in the financial sector. These have primarily involved applications for negative clearance/notifications for individual exemption.

In the 1997 CEKAB case, the KKV found that the discount scheme offered to high-volume users of EFTPOS[3] and ATM services, which, it transpired were the large banks who owned CEKAB, was discriminatory. On appeal, the Market Court overturned the KKV's decision, however. The Market Court ruling on the CEKAB case set the pattern for the way in which the KKV dealt with infrastructure cooperation under the Competition Act. Discount variations and other charge structures that risked placing small banks at a disadvantage were approved on the grounds that they were not anti-competitive.

The KKV also submitted a summons application to the Stockholm City Court concerning a proposed merger of Svenska Girot AB and Postgirot, which would have severely restrained

[3] Electronic Fund Transfer at Point of Sale

competition in payments systems. Then the parties announced that the merger would not be carried out.

Postgirot was later sold to Nordbanken (later Nordea) and the merger was approved by the European Commission, subject to conditions designed to eliminate concerns regarding control over the main bank payment systems

UK

The OFT's 2003 report, *United Kingdom Payment Systems*, found that there were profound competition problems and inefficiencies in price transparency, governance, access, wholesale pricing and innovation, caused by the underlying economic characteristics of the payment systems. It concluded, however, that some progress had been made but important questions remained requiring further action. It found that:

i. Although direct access to the schemes remains costly for smaller institutions, the terms for indirect access enable them to compete effectively with direct members;
ii. Clearing schemes charges account for less than 4% of the total cost of providing payment services in the UK. The bulk of the costs incurred in providing payment services to customers lie with the individual institutions and not the shared schemes. The impact of the level and structure of scheme charges on retail competition is therefore likely to be small;
iii. Features of the clearing schemes did not appear to hinder innovation. Institutions are able to develop differentiated products and compete for customers at the retail level. Examples of competitive innovations making use of the existing clearing schemes include electronic bill presentment and payment, person-to-person email payments and mobile telephone payments.

B. Switching

Each jurisdiction noted difficulties in switching; these are described in greater detail in Section 2.2.2 below. Obstacles to switching lead to customers becoming "locked in" to a particular financial service provider. Typically, consumers do not change their provider due to inconvenience, uncertainty about payment while the switching process is taking place, and inertia. The Irish Bankers' Federation has recently established a Switching Code for personal current accounts, which became effective on January 31st, 2005. A similar measure has already been enacted in the Netherlands, and the UK Banking Code was updated in March 2005.

C. SME Banking Services

Both Ireland and the UK identified problems in the provision of banking services to small and medium-sized enterprises (SMEs).

In March 2000, the UK Competition Commission was asked to examine competition in the SME sector of the market. Its report, published in March 2002, found the main clearing banks (Barclays, HSBC, Lloyds TSB and the Royal Bank of Scotland Group) to be charging excessive prices and therefore making excessive profits, with consequent adverse effects on their SME customers. The market for the supply of banking services to SMEs was highly concentrated and was dominated by the traditional banks, especially the big four which together had about 85% of the total. There were high barriers to entry, and there had been little change in suppliers' market shares.

The UK Competition Commission has defined a bank as *"an institution which conducts current accounts and other accounts and pays and collects pavements of, monies for customers."* It has further defined banking services, as follows:
"(i) Acceptance of deposits (whether on current accounts or on deposit accounts of various types);
(ii) Lending (including overdrafts, mortgage lending, factoring, financing of commercial transactions, asset finance, and letters of credit);
(iii) Financial leasing;
(iv) Money transmission services (including buying and selling foreign currency);
(v) Issuing and administering means of payment, such as cheques, credit cards, travellers' cheques, bankers' drafts, and merchant acquiring;
(vi) Giving guarantees; or
(vii) Related administration services. Such banking services are not necessarily supplied only by clearing banks or other banks."[4]

The Irish Competition Authority's Study of banking found in December 2004 that the working capital market is highly concentrated and the interest rates on working capital loans offered to small business customers tend to be higher where the customer has fewer alternative financing options. In addition, average monthly interest rate data show that changes in the ECB rate (the Marginal Lending Facility) are not fully passed through to borrowers of working capital loans. Indeed, if changes in ECB rates were fully passed onto SMEs by banks, in the period January 2001 to January 2004, Irish SMEs would have saved €85m in interest payments annually. This indicates that banks are exercising market power, to the detriment of small firms. Little switching takes place in SME working capital lending. Firstly, SMEs may be reluctant to change lenders because they fear the loss of valuable credit histories and relationships with their existing bank. Secondly, obstacles to current account switching inhibit working capital lender switching.

D. Market Structure - Mergers and Acquisitions

Mergers in the banking industry have been examined in both Sweden and the UK.

As noted above, in 2001 the Swedish Competition Authority submitted a summons application to the Stockholm City Court concerning Svenska Girot AB's purchase of Postgirot due to the effect this would have had on competition in the payment area. The parties subsequently announced that the merger would not be carried out.
In 2002, the UK Competition Commission blocked a bank merger as it believed that the loss of competition, if the merger went ahead, would lead to higher prices (higher fees and overdraft rates, and lower interest on credit balances) and a loss of innovation. This leads to the conclusion that the existing market structure may be problematic.

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[4] Competition Commission, 2002. *Report on the supply of banking services by clearing banks to small and medium-sized enterprises within the UK*. Available at http://www.competition-commission.org.uk/rep_pub/reports/2002/462banks.htm#full

E. Other issues identified

Other issues identified as being potentially problematic included:

- In the Netherlands, a culture of networking and consultation among officials and management of banks;
- In Ireland, customer lock-in in the personal current account market - the market is highly concentrated and a small number of players control the vast majority of the market (two banks control well over 70% of the market), as well as price regulation of bank fees and charges; and
- In the UK, the entrenched position of the Big Four (Barclays, HSBC, Lloyds TSB and RBOS).
- The NMa also found that x-inefficiency had increased sharply in Dutch banking markets during the 1990s.

2. PARAMETERS OF COMPETITION IN RETAIL BANKING

2.1 Competitive Behaviour of Financial Institutions

2.1.1 The bases of competition among full-service banks

Ireland	Service, product range, convenience, customer relationship, innovation
The Netherlands	Customer relationship, reputation, price, service
Sweden	Customer relationship, trust, convenience
UK	Pricing (fees and interest rates)

Each of the four NCAs cited different parameters on which the banks in their state compete.

Ireland

In Ireland, full service banks compete on a number of criteria, including service, product range, convenient access to services and (limited) innovation. Importantly, non-interest price competition is difficult to observe, or even achieve, due to the price regulations imposed under S.149 of the Consumer Credit, Act 1995. Under this legislation, all bank charges (whether relating to new products or charges, or changes to existing charges) must be notified to IFSRA for approval before implementation.
Recent competition has tended to be fiercest in the area of convenient access to services, and all of the full service banks have implemented remote banking distribution channels (telephone and internet banking). ATM services are also recognised as an avenue of competition.

Netherlands

In the Netherlands, relationships with customers, reputation, price and service, in that order are the parameters of competition.

Sweden

Major investments in personnel intensive branches and in establishing trust have created the foundations for full-service banks to develop strong customer relationships. One strategy often used by banks seems to be to offer and promote a wide range of services as well as rewarding customers who gather all their business in the bank by offering them more attractive terms and access to "a personal bank official". However, on the other hand a trend seems to have emerged which limits the range of services provided in branches and instead uses branches as a platform to build and keep up customer relationships by focusing on giving personal advice and selling investment products such as funds and annuities.

UK

Pricing competition characterizes competition in the personal customer market in the UK, except for overdrafts. The debt and savings elements of personal current accounts tend to cross-subsidise money transmission services. Banks also compete on interest rates on credit cards, personal loans, mortgages and savings accounts.

2.1.2 The bases of competition among other relevant institutions

In Ireland, other relevant institutions (post office, credit unions, niche banks, building societies) compete on broadly similar grounds as the banks themselves. Niche players may capitalise on a unique selling point in both Ireland and Sweden. While in the Netherlands price is the main factor, in Sweden new entrants try to attract custom with innovative services, lower prices, higher yield or higher interest on deposits, more generous loans etc. In the UK, other relevant institutions compete on broadly similar grounds, depending on the product they offer. Credit unions operate in specific geographic regions in the personal loan market. Supermarkets also offer various banking products and services, while the Post Office has begun to offer a range of personal banking, savings and loan products in recent years.

2.1.3 The role of full-service bank distribution channels

Each state identified internet banking as the most important alternative distribution channel to bank branches, although other channels also exist, notably telephone, postal and supermarket banking. The role of the branch has declined in significance, as alternative channels have become much more important for conducting transactions and branches lean more towards a sales and advisory role. In the UK, Ireland and Sweden, alternative distribution channels have not significantly altered the structure of the market and its players.

However, in both Ireland and the UK branches are still the most important distribution channel for full service banks, despite the decline in their pre-eminence since the introduction of alternative distribution channels, and despite rural branch closures in both states. Also common to both Ireland and the UK is the growth in third-party ATM providers, known as Independent ATM Deployers (IADs) in the UK, who situate ATMs in shops, airports and entertainment venues, for example. Nonetheless, the pivotal position of the branch is likely to continue in the short to medium term. Indicative of the continuing importance of branches is the very recent decision of Bank of Scotland to purchase the 54-branch retail network of ESB, the Irish state electricity company, preparatory to a move into full-service retail banking.

2.1.4 The role of other relevant institution's distribution channels

Institutions offering predominantly-internet, or internet-only banking have emerged in the UK (e.g. Smile, Cahoot), Sweden and Netherlands, but not in Ireland due in part to anti-money-laundering identification requirements, although Northern Rock offers savings accounts on a postal/internet banking basis. Examples of such co-operative approaches between financial institutions and retail chain stores can be found in all four states.

Many UK financial institutions offer internet-only or telephone or postal services. This is most likely in individual savings accounts (ISAs), or credit cards, for example Egg. ING Direct (a Dutch bank) offers Internet savings products in the UK.

In Ireland, branches would be the most important channel for the post office, An Post, which has an extensive legacy branch network, and little or no capabilities in alternative distribution channels. This would also be true of credit unions, which have a large branch network due to the requirement to have a "common bond" between members. In business banking, a number of banks maintain a very small branch network, typically composed of a headquarters in Dublin, together with offices or Business Centres in the regional cities. Because these banks specialise to greater or lesser degrees in particular types of business custom, they do not require an extensive branch network.

2.1.5 Innovation as a characteristic of each national market

Overall, there seems to be little innovation in the markets surveyed. What innovation there is tends to be piecemeal and limited in scope, although internet banking may be an exception to this generalisation. Importantly, innovation seems to be industry-wide rather than institution specific, which indicates that innovation tends not to be used as a tool of competition. The degree of innovation may be correlated to the market structure, with low innovation indicative of market structures which are not conducive to the emergence and sustenance of healthy competition.

Ireland

In Ireland, instances of innovation are easier to find in areas such as mortgage lending, which is comparatively competitive. For example, one institution launched a Current Account Mortgage in 2002, which uses the balance on current account to offset the interest payments on mortgages. The degree of innovation in current accounts is likely conditioned by the presence of price regulation (S.149 of the Consumer Credit Act, 1995). This was because banks can be reluctant to introduce new products, services or functionalities because they are not assured recoupment of R&D, launch and other costs under S.149 price regulation.

Netherlands

In the Netherlands, there are few real innovations, and most innovations are rapidly copied by all banks, which, the NMa states, is a disincentive to innovate. Some recent innovations were internet savings accounts and sales of third party investment funds. However, there has been electronic wallet functionality in the Netherlands for a number of years.

Sweden

Recent innovations in Sweden have been Internet banking and auxiliary services. They have also facilitated the sale of new types of short-term and long-term savings products.

UK

In the UK, innovation is not a feature of banking markets. It has generally been found in the UK that the lack of innovation stems from a lack of competition among the major players in each sector.

One innovation common to all states over the past two years has been the move to chip credit cards, known as Chip and Pin in the UK, Sweden and Ireland, and Chipknip in the Netherlands. This is principally designed to reduce the amount of credit card fraud in each state. It is not related to competition among banks.

Few maverick banks are identified: Bank of Scotland in both Ireland and the Netherlands, and Argenta and DSB Bank in the Netherlands, both of which compete on price (in certain markets, at least). DSB specialises in mortgages, personal loans and saving accounts. DSB tries to increase market share by offering high interest rates when it comes down to saving accounts and low rates with regard to personal loans and mortgages. Egg in the UK and GE Money and Resurs bank in Sweden also display maverick traits. Otherwise, a number of niche players are identified.

2.1.6 The presence of intermediaries in national retail banking markets

Financial intermediaries do not play a significant role in the retail banking market in any of the four jurisdictions.

In Ireland, brokerage/intermediary services are most important in the following sectors: mortgages, motor finance, leasing, term loans, pensions, invoice discounting and investments. In the Netherlands, intermediaries play a role in the mortgage and personal loans segments. In Sweden, “simple intermediaries” engage in such activity as an adjunct to their main business (real estate agents act as intermediary on mortgages, financial advisers on investment products and chain stores on credits). In the UK, IFAs (Independent Financial Advisors) tend not to interact with banks as they will advise the client how to restructure their debt (e.g. mortgage) and which bank accounts offer the most useful features.

2.1.7 Degree of rivalry in national retail banking markets in the past decade

In general across all four states, the degree of rivalry between banks seems to have remained fairly stable over the past decade, although rivalry may have increased in certain specific segments (mortgages, leasing, credit cards, term loans in Ireland; mortgages and personal loans in the Netherlands). In the UK and Sweden, there have been some changes to the financial landscape due to the emergence of niche players, mergers and acquisitions, but the overall effect on the banking landscape has not been hugely significant. Swedish banks have recently expanded into other Scandinavian and Baltic markets.

2.2 Consumer behaviour

2.2.1 Factors influencing personal and business consumers in their choice of financial institution

Ireland	Location, Family History
The Netherlands	Reputation/Trust, Service, Price
Sweden	Level of trust, habit, Family History, Personal Relationship
UK	Unclear, possibly geographical location or family history

There is no consistency in the factors which influence consumers’ choice of financial institution in each jurisdiction.

In Ireland, consumers tend to be influenced by two factors, location (close to residence or business), and for personal customers, a family history with a particular institution. Choice on the basis of better service or better products therefore tends not to be the most significant factor. Indeed, banks place huge emphasis on recruiting personal customers at second-level and third-level stages of education, on the assumption that these customers will not move away later. Sweden seems to have much in common with Ireland, as the most important factor when choosing a bank seems to be the level of trust, or habit, particularly based on a family history with a particular institution. The second most common explanation in Sweden is a strong relationship with officials at the local branch. The factors identified by Ireland and Sweden are both indicative of a tendency towards inertia, which is detrimental to switching. This is in contradistinction to the Netherlands, where reputation, service and price are the most important factors. In the UK, no study has quantified these factors, but location and family history may play a role. Pricing is unlikely to be a significant factor, given low interest rates on PCAs, and given that customers are not directly charged for account maintenance. Only a minority of customers shops around when choosing a financial product.

At SME level in Ireland, a greater number of factors tend to be taken into account when choosing a financial institution. In particular, corporations may be able to access international capital markets for their financing needs. Therefore, product choice, value for money and convenience are all important factors which SMEs take into account. SMEs are strongly influenced by a financial institution's expertise in their area of business, and frequently make their choice based whether the bank has a real understanding for the SMEs' banking needs and requirements.

2.2.2 Switching behaviour by personal and business consumers

Ireland	Poor service, Refusal to offer loan
The Netherlands	Poor service, Better prices or products elsewhere, Opportunity to obtain credit elsewhere
Sweden	Poor service, Better prices or products elsewhere
UK	Low switching levels. SMEs: Departure of lending manager, refusal of credit application

Each of the four jurisdictions reported low levels of switching. Difficulties encountered in the switching process, the complexity involved in comparing banking products and inertia contribute to consumers being locked in to their current bank.

Poor service emerges as one of the main triggers for consumers to switch provider. The possibility of obtaining credit at another bank is also highlighted in Ireland, the UK and the Netherlands. Better price or products also play a role in switching in the Netherlands and Sweden. However, in Ireland, these reasons are only considered after the decision to leave one's bank has been made.

Ireland

During the Authority's Banking Study, the IBF published a Switching Code for personal customers which took effect on January 31st, 2005. The Authority will monitor switching numbers, and if the IBF Code does not succeed in encouraging switching, it may recommend that the statutory regulator of financial services, IFSRA, implement a statutory Switching Code. Willingness to switch will also be circumscribed until customers can be assured that they will not lose their credit records with a particular bank, which are valuable in the context of seeking loans. In this respect, the Authority has preliminarily recommended that banks provide their customers with full three-year account histories upon request.

The Netherlands

Historically customers did not switch banks in part because there used to be no switching service. Nowadays most of the banks offer switching services. As a result there has been a slight increase in the number of people switching banks. In 2005 the Ministry of Finance will be evaluating the switching service. Number portability still does not exist in the Netherlands.

Sweden

In Sweden it seems that many consumers do not compare services and have a lack of interest and commitment when it comes to financial services. Studies show that consumers believe that conditions do not differ between banks and that it is therefore not worthwhile comparing services from different banks. Another common view is that they do not have the necessary information to compare services from different banks.

UK

The Cruickshank Report indicated high levels of inertia – consumers tend to hold personal current accounts ("PCAs") for a median period of 11.1 years, while 59% of consumers were still using their first ever PCA. Similarly, SME consumers are characterised by inertia, and a low propensity to switch is evident. Evidence suggests that there are tangible financial benefits for SMEs who stay with the same bank in the long term, including lower financing costs and reduced probability of requiring collateral. Value for money does not seem to be a consideration in the decision of UK SMEs to switch providers.

2.2.3 Additional issues on consumer behaviour

Consumer inertia seems to be a significant problem in Ireland and Sweden, if not in all four states. Dutch consumers and SMEs do not seem willing to negotiate with several banks to obtain the best conditions.

In Sweden, learning to operate a new Internet/telephone system and having to change number on bank accounts and pin code are important obstacles that consumers face when considering switching bank.

In the UK, the Cruickshank report found that consumers do not shop around much before choosing a current account supplier. Once a current account has been chosen, the consumer will typically hold it for a long period of time. Consumers tend not to shop around for mortgages, savings or personal loans either. Consumer behaviour nonetheless differed from that in other product markets: there was evidence that a number of consumers were buying new products on the market, either as additional credit cards or to substitute for an existing card.

3. ANALYSIS OF MARKET CONCENTRATION IN RETAIL BANKING

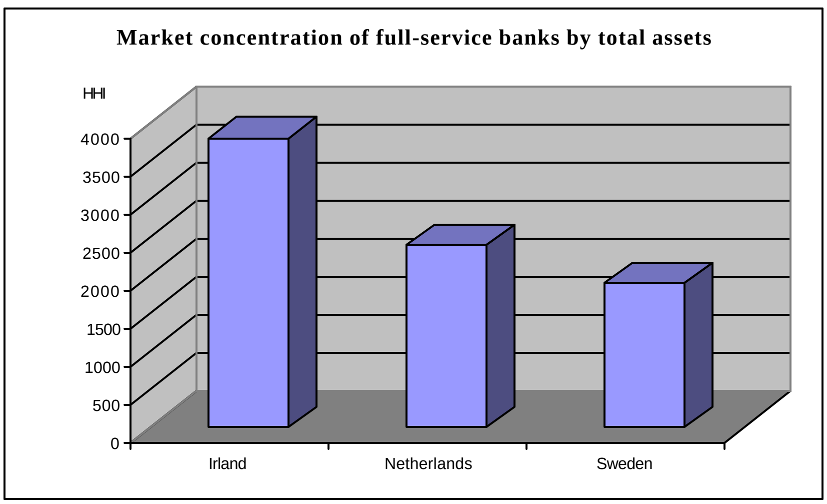
Section 3 of this Study examines market concentration figures in a number of banking markets in each of the four states. The data for this section has been derived from numerous sources, and as such, is not fully complete. Data sets used in the compilation of market concentration figures date from the late 1990s to 2004.

From a general point of view, there have not been any significant changes in the degree of market concentration across any of the sectors measured during the last decade. Very few new entrants have emerged. The relevant geographic market is in general national. Furthermore, measured according to HHI, almost every market is shown to be highly concentrated (HHI>1800), with the majority of the remainder being moderately concentrated (HHI = 1000-1800).

3.1 Market structure

3.1.1 Market concentration by total assets

The market concentration for full service banks, measured by total assets, ranges from a HHI of 3811 (3573) in Ireland[5] to 1902 in Sweden. The Dutch market for full service banks has a HHI of 2400. There has been little change in the degree of market concentration over the past decade in Ireland and the Netherlands, while the Swedish market is less concentrated today due to the increased competition from new entrants. No sufficient data are available for calculating the HHI for the UK.

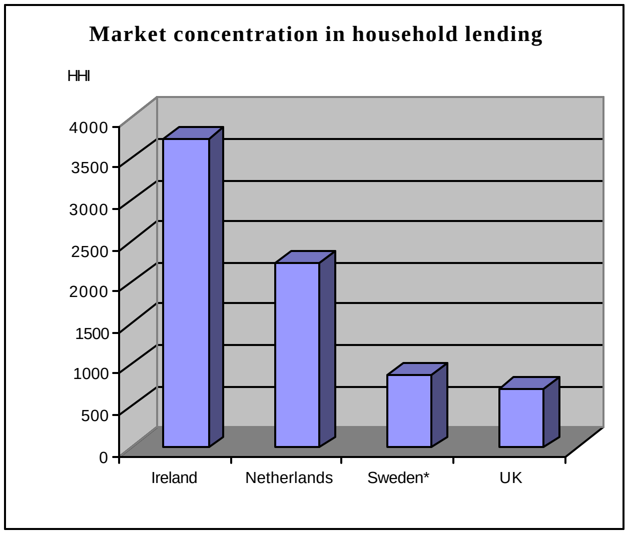


[5] The first figure for Ireland is calculated by reference to total assets. The figure is parentheses is calculated by reference to total Irish assets.

3.1.2 Market concentration in household lending

The relevant geographic market for lending is in general national. When it comes to relevant product markets the following markets can be defined; term loans, working capital loans, mortgages and other secured lending.

The market concentration in lending to households varies hugely across the four jurisdictions, with HHIs from 710 to 3737: 2700-3200 (3737) for Ireland[6], 2250 for the Netherlands, 879 for Sweden and 710 for the UK.



* Note that in the Swedish data it has not been possible to exclude mortgages

The market for personal loans is less concentrated in Sweden and the UK. Traditionally, credit unions have been a feature of the Irish personal lending market. In the UK bank lending to the non-financial private sector is slightly more concentrated than deposits, and loan concentration has increased over time. The UK and Ireland figures include outstanding credit card balances on which interest accrues.

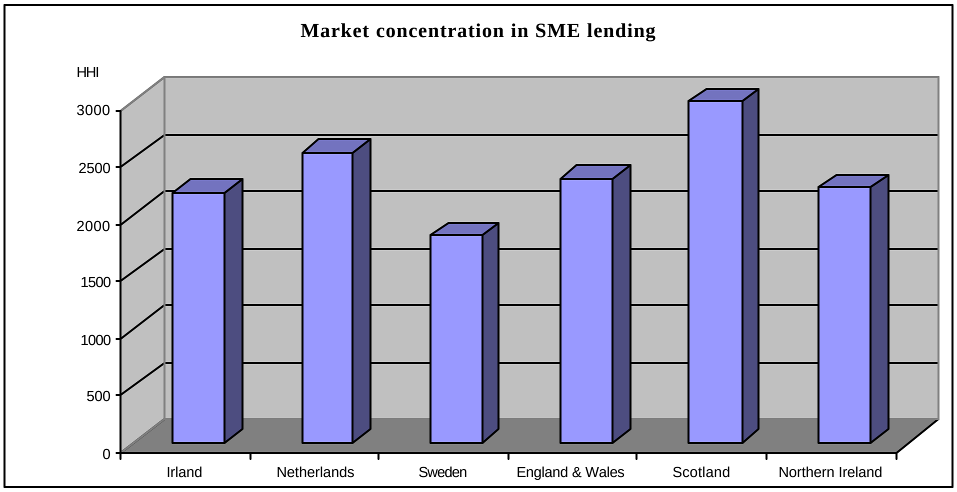
3.1.3 Market concentration in SME lending

There is no common definition used by the different states on how an SME is defined. Nevertheless, some conformity exists concerning the number of employees. In Ireland, Sweden and the UK, SMEs are usually defined as firms employing less than 250 persons.

Market concentration in lending to SMEs varies somewhat across states, but each fall into the category of highly concentrated markets. Calculation of HHIs reveals market concentration levels of 3342 (2203)[7] for Ireland, 2550 for the Netherlands and 1810 for Sweden. However, in Sweden it is not possible to separate retail bank lending to small firms from lending to corporations. The 1810 HHI for lending to businesses in Sweden is thus likely to represent a lower limit on the HHI for lending to SMEs. Small and medium-sized

[6] 2700-3200 measured by the five clearing banks; 3737 measured by all providers
[7] 3342 measured by the five clearing banks; 2203 measured by all providers

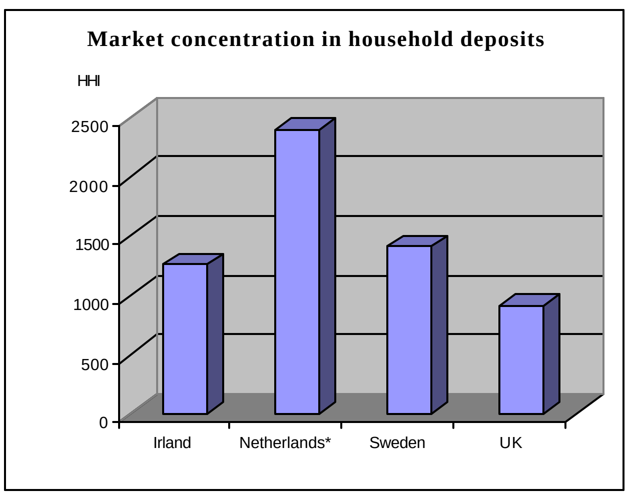
enterprises in the UK appear more reliant on banks for external funding than corporations. Bank lending to unincorporated businesses, which are an important part of the SME population, seems to be more concentrated than to public non-financial corporations (PNFCs). In the UK there are separate general-purpose business loans markets in England and Wales with a HHI of 2320, in Scotland with a HHI of 2990 and in Northern Ireland with a HHI of 2240.



In both Ireland and the Netherlands market concentration shares have not changed radically over the past decade, whereas in Sweden market concentration has fluctuated over time.

3.1.4 Market concentration for household deposits

The relevant geographic market for deposits is, in general, national. Market concentration with regard to household deposits, as measured by HHI, varies significantly, from 2747 (1258) for Ireland and 2400 for the Netherlands (including SME deposits), to 1411 for Sweden and 910 for the UK.

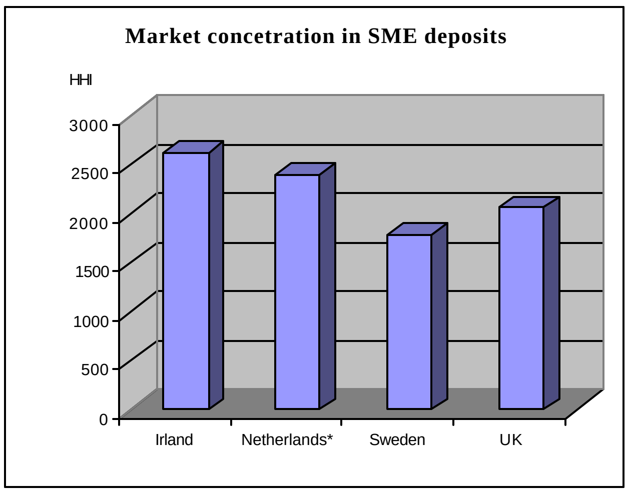


* Note that HHI for the Netherlands includes both household and SME deposits

Market concentration has decreased in Sweden over the past decade. In Ireland market concentration has not been significantly attenuated over the past decade. There has been one successful market entrant in Ireland. In the Netherlands market concentration has been almost constant. The majority of the private sector's deposits in the UK is concentrated in relatively few banks - the five largest banking groups held 71% of deposits in 2003. Deposit concentration has been relatively stable in the UK.

3.1.5 Market concentration for SME deposits

Market concentration with regard to deposits made by SMEs varies: 3421 (2625) for Ireland[8], 2400 for the Netherlands (including household deposits), 1786 for Sweden and 2060 for the UK, where the only comprehensive data available is for the "other deposits" market. Other deposits consist of SME deposits from suppliers that do not offer an SME current account, long-term SME deposits, and money market products held by SMEs.

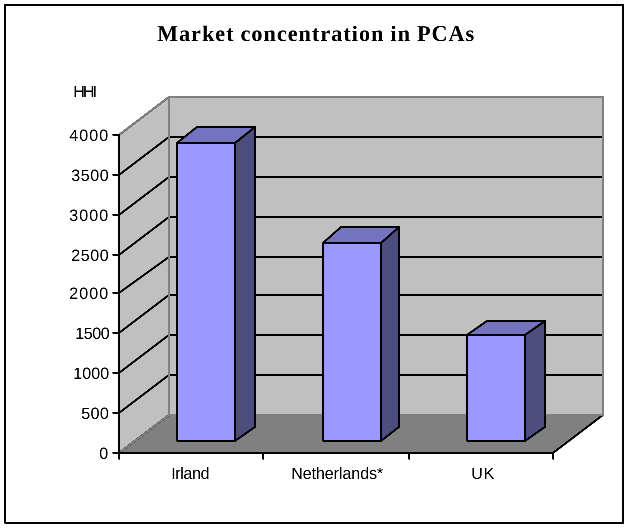


* Note that HHI for the Netherlands includes both household and SME deposits

3.1.6 Market concentration in personal current accounts (PCAs)

In Ireland and the Netherlands the relevant geographic market for current accounts is national. Market concentration in personal current accounts varies greatly, from 3767 (2939)[9] in Ireland, to 2550 in the Netherlands, (including both household and SMEs) and 1330 in the UK. For Sweden it has not been possible to calculate the HHI since data on PCAs are not available.

8 3421 measured by the five clearing banks; 2625 measured by all providers
9 3767 measured by number of PCAs, 2939 measured by value of PCAs

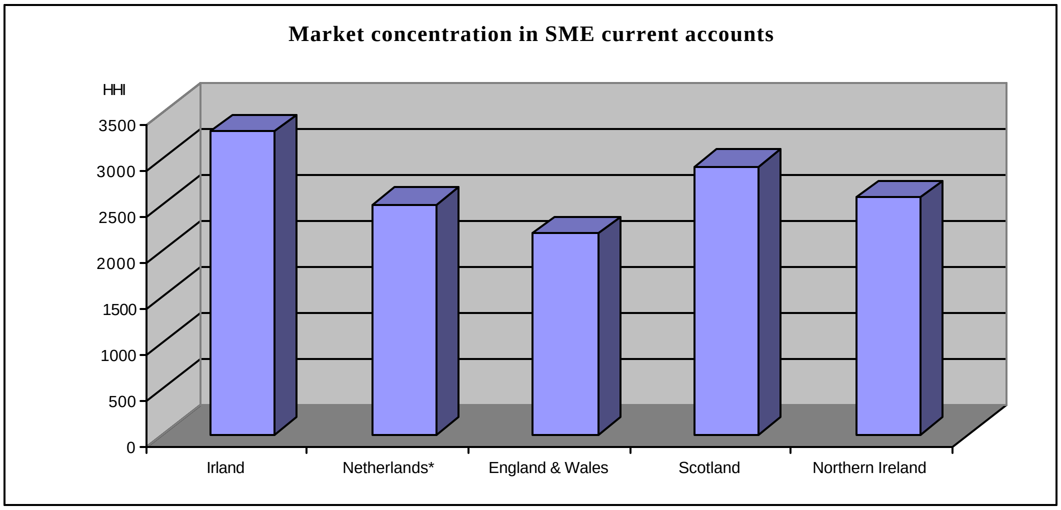


* Note that HHI for the Netherlands includes
both household and SME current accounts

Ireland's market for personal current accounts is highly concentrated, whether measured by the number of PCAs (3767) or the value of PCAs (2939). The PCA market in Ireland is dominated by two institutions that supply well over 70% of the market, and has remained so over the past decade. The high concentration levels are due in large part to the private-behaviour barriers to entry created by difficulties in switching and entering the clearing system, as well as the public-restriction barriers created by taxation and price regulation under S.149 of the Consumer Credit Act, 1995. Smaller providers of money transmission services have exited the marketplace over the past few years, indicating that these institutions were suffering losses by providing these services.

3.1.7 Market concentration in SME current accounts

The market for SME current accounts is highly concentrated across all four states. The HHI varies from 3288 for Ireland, 2550 for the Netherlands (including both household and SMEs). The UK has separate SME current accounts markets in England and Wales with a HHI of 2180, in Scotland with a HHI of 2910 and in Northern Ireland with a HHI of 2580. For Sweden it has not been possible to calculate the HHI since data on current accounts are not available.



* Note that HHI for the Netherlands includes both households and SME current accounts

In Ireland two institutions supply over 75% of the market. Ireland has specified that *"given our evidence that current account providers require direct access to the clearing system in order to be competitive, there has been no entry to this market, just as there has been no entry to the clearing system."*

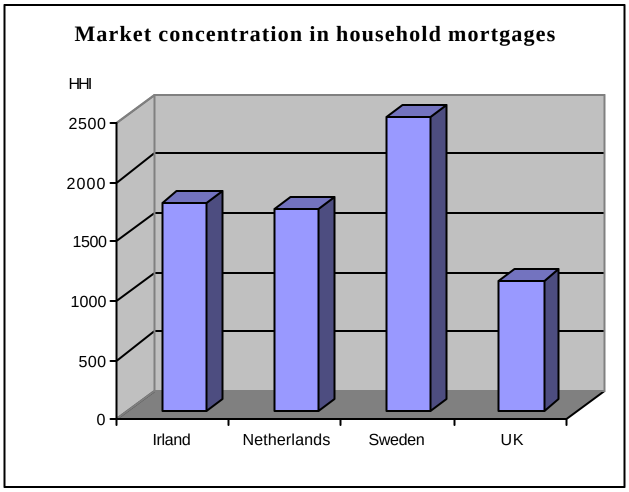
UK describes the liquidity management services market[10]. Four suppliers account for about 90% of the market in England and Wales. In Scotland three suppliers account for about 90% of the market and in Northern Ireland four suppliers account for approximately 96% of the market.

3.1.8 Market concentration in household mortgages

The relevant geographic market for mortgages is in general national. Market concentration for household mortgages varies considerably across the four jurisdictions: 3300 (1700-1800) for Ireland[11], 1700 for the Netherlands, 2477 for Sweden and 1100 for the UK.

[10] In its 2002 *Report on the supply of banking services by clearing banks to small and medium-sized enterprises within the UK* the Competition Commission defined a liquidity management services market composed of business current accounts together with short-term bank business deposit accounts and overdraft facilities when provided in conjunction with business current accounts

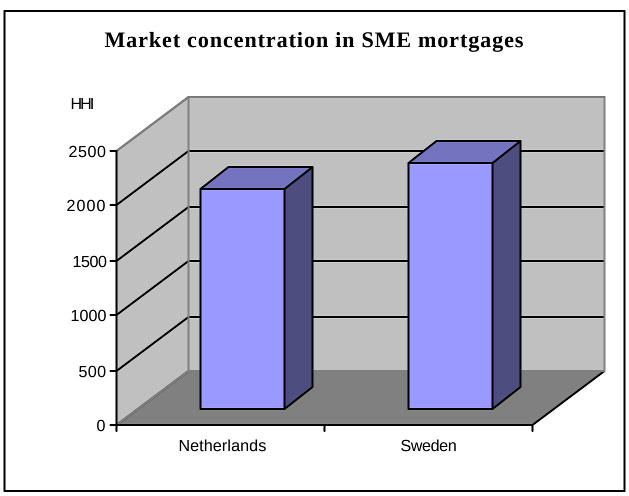
[11] 3300 for the five retail clearing banks, 1700-1800 for all providers



In Ireland market concentration has increased due partly to merger and acquisition activity and partly to the top three market players in increasing their market shares. There has been one new entrant in recent years, which has gained market share of less than 3%. In the Netherlands market concentration has decreased slightly over the last ten years and some new entrants have emerged. In Sweden the HHI has reached its highest level during the last four years. In the UK the big four banks have a relatively small share of the mortgage market.

3.1.9 Market concentration in SME mortgages

Market concentration for SME mortgages varies from 2000 for the Netherlands to 2235 for Sweden. Note that in Sweden it is not possible to separate mortgages to SMEs and corporations.

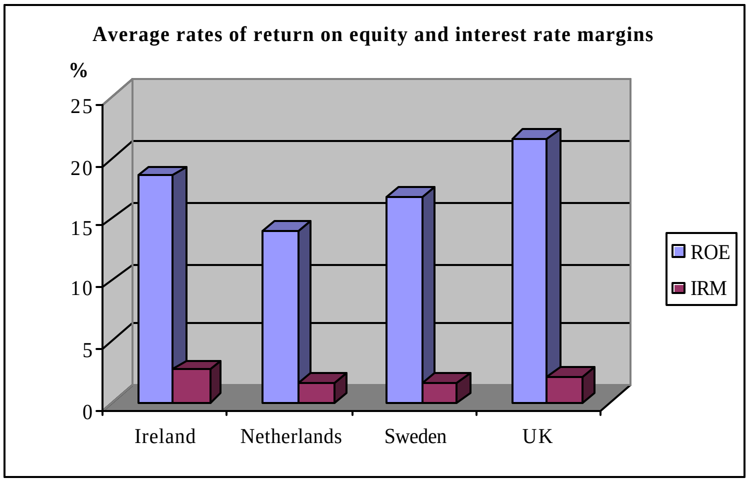


For Ireland it has not been possible to calculate HHI for the SME mortgages due to a lack of detailed data. However, Ireland expects that the SME mortgage market is less concentrated than residential mortgage market. In the Netherlands market concentration has decreased slightly over the last ten years and some new entrants have emerged. Market concentration has increased in Sweden since 1997. For the UK, separate data is not available for SME commercial mortgages and is included in the general purpose loans data.

3.2 Profitability and Efficiency

3.2.1 Rates of return on equity and net interest margins for full-service banks

Overall, the rates of return on equity for the full-service banks range between 14% and 21.6%, whereas the average net interest margins vary between 1.6-2.6%.

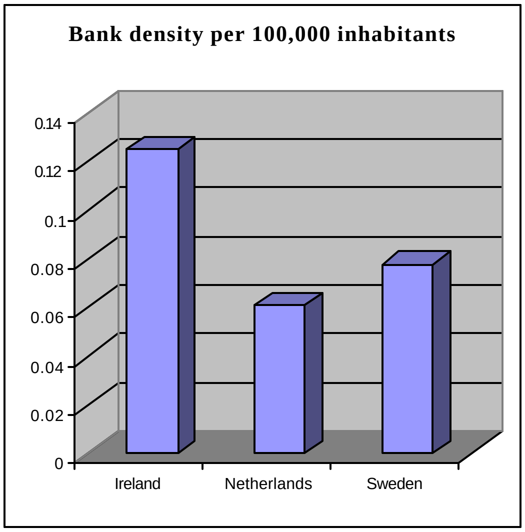


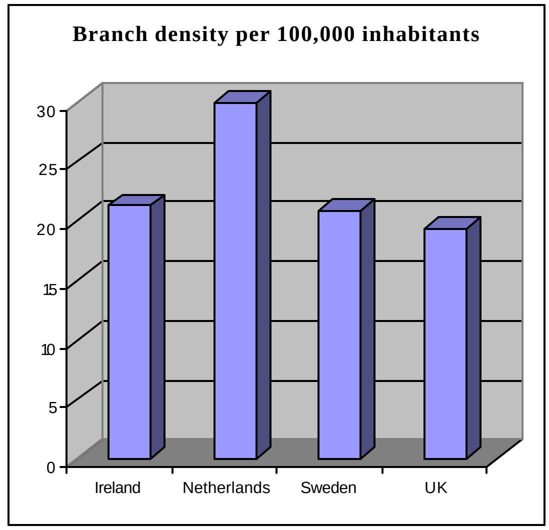
Irish banks have experienced declining net interest margins since the early 1990s, while the profits and margins of the Dutch banks have behaved pro-cyclically and increased after 2002. Swedish banks have experienced declining ROE ratios and margins with rates improving during the recent years. The UK banks showed declining ROE ratios during a number of years but these rates have improved in the last two years. The net interest margins, however, have, on average, declined since the early 1990s. No clear-cut picture emerges from these results and general conclusions on the profitability of banks based solely on these financial ratios cannot be drawn.

3.2.2 ***Full-service bank density and the branch density ratios***

The banking markets in Ireland and Sweden are oligopolistic with 5 and 7 full-service banks in each state respectively. The number of universal banks in the Netherlands is 10 while the number of banks in the UK is 356 (few of which are 'full-service' banks, of course). Ireland has the highest full-service bank density per 100,000 inhabitants, while Sweden and the Netherlands have lower ratios given their larger populations.

Branch density has declined steadily in Ireland and Sweden due to rationalizations and continuous efforts to facilitate the transition of customers to telephone or Internet banking. However, the recent purchase by Bank of Scotland (Ireland) of a chain of 54 retail electrical stores for the purpose of setting up a retail network may slow down, though not reverse, the trend in Ireland. The UK also displays declining branch density ratios. The branch density ratio for the Netherlands is somewhat higher and has remained at approximately the same level.

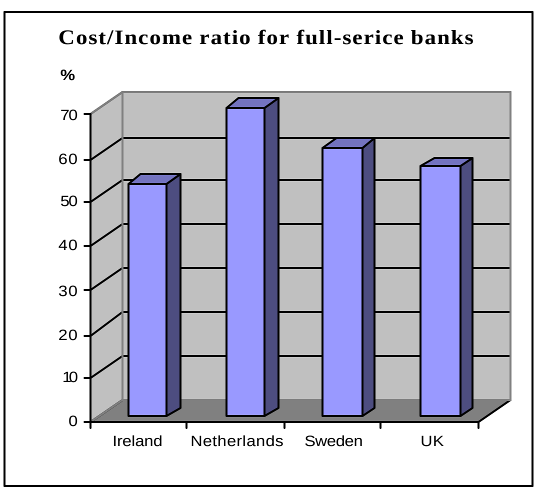


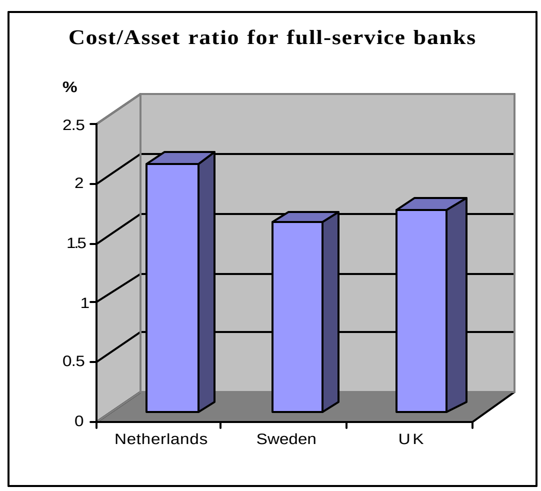


Overall, it appears unlikely that branch density ratios will change in the short run, given the entry barriers currently existing in the financial markets analysed. Furthermore, the new niche banks have merely pursued a non-branch intensive approach and have focused on Internet banking instead.

3.2.3 Cost/income and cost/asset ratios

The cost to income ratio for full-service banks is 55% for the Irish banks, 57% for the UK banks, and around 70% for the Dutch and Swedish banks. This ratio has gradually increased for the Swedish banks. The cost to assets ratio ranges between 1.6% for full-service banks in Sweden and 2.1% for banks in the Netherlands. Swedish banks have experienced decreasing rates of costs to assets in the last 10 years. This is possibly due to the fact that banks have incorporated a series of other financial services such as mortgage lending and insurance activities, leading in turn to a significant increase in bank total assets.





Overall, no conclusions can be drawn on the efficiency of banks providing full services based only on these ratios.

3.2.4 Additional issues on profitability and efficiency

Studies assessing the operating cost efficiency of Swedish banks estimate inefficiency levels ranging between 12-21%. This implies that banks can, on average, reduce their costs by 12-21% and still produce the same level of output, without any adjustment in input prices, output volumes, or the branch network. There is thus capacity for improvements in the industry in the form of further input reductions. In general, scale efficiency in Swedish banking is estimated to be relatively small, suggesting that most banks on average operate very close to optimal scale.

4. Analysis of Market Entry and Entry Barriers

4.1 Market entry, exit and change of ownership

Overall the turnover of banks, defined as market entry and exit, has been insignificant in the Irish market. There has also been very little organic growth and the largest Irish banks have not lost significant market share. While there has been some organic market entry in the Netherlands, predominantly in lending sectors, no new entrant has managed to accumulate significant market share. There has been significant entry and exit in the Swedish market, largely due to merger and acquisition activity by insurers and the retail sector, while there has been variable success in attracting market share. In the UK it is uncertain whether the retail banks can continue to operate and maintain or increase their market shares.

4.1.1 Market entry and exit

Ireland

During the past 10 years, 7 new banks have entered the Irish banking market. All except one are foreign banks. The majority entered by acquiring an existing bank. There have also been some attempts at banking in partnership with a supermarket, only one of which has been successful. There has been some market exit; it is estimated that 5 banks have left the Irish market in the past 10 years.

Netherlands

In the Netherlands there has been some entry, mainly mortgage banks and banks offering personal finance. The owners of the new entrants are generally domestic but enter through new distribution channels such as supermarkets, department stores and petrol stations. There has hardly been any exit at all; some of the smaller banks have exited some specific market segments.

Sweden

Sweden has seen 18 entrants in the retail banking market, however some due to mergers and acquisitions. The entrants are, to a large extent, domestic and owned by insurance companies and, in some cases, supermarkets. Close to ten banks have exited the market, mainly due to mergers and acquisitions and one due to market failure

UK

In the UK there have been 45 new entrants into personal consumer banking over the past five years, including the converted building societies. The entrants have come either from a related industry such as insurance or from foreign banks. All retailers offering banking services were originally joint ventures. Many still do not have their own licence. The joint venture structure has allowed the partnership bank to develop their business into new segments.

Entry and exit in the past 10 years
Ireland

Entry	Exit
1997 - GE Money acquired Woodchester Bank	December 2000 - ICC Bank acquired by Halifax Bank of Scotland
1999 - KBC Bank acquired 100% shareholding in IIB Bank	December 2004 - National Australia Group (National Irish Bank acquired by Danske Bank)
December 2000 - Halifax Bank of Scotland acquired state-owned ICC	EBS (refocused on core loans, savings and investment business)
2000 - Royal Bank of Scotland acquired Ulster Bank	November 2001 - TUSA joint venture fails due partly to poor marketing strategy)
2002 - Rabobank acquired state-owned ACC	
January 2004 – Royal Bank of Scotland acquired First Active	
December 2004 - Danske Bank acquired National Irish Bank from National Australia Group	
October 1999 - TUSA joint venture established between permanent tsb and Superquinn supermarket	
May 2000 – Tesco supermarket establishes joint venture with Ulster Bank	
1999 - Northern Rock enters the Irish market	

Netherlands

Entry	Exit
Royal Bank of Scotland	
Argenta	

Sweden

Entry	Exit
Wasa	Bohusbanken (acquired by Wasa, insurance company)
SkandiaBanken (insurance company)	Östgöta Enskilda Bank (acquired by Danske Bank)
Postgirot Bank (exit 2002, acquired by Nordea)	Föreningsbanken (merged with Sparbanken into Föreningssparbanken)
IKANO Banken (retailer in furniture)	Sparbanken (merged with Föreningsbanken into Föreningssparbanken
Tryggbanken (insurance company, exit 1998, acquired by SEB)	Stadshypotek Bank (acquired by Svenska Handelsbanken)
Stadshypotek Bank (mortgage institute, exit 1997, acquired by Svenska Handelsbanken)	Tryggbanken (acquired by SEB)
Länsförsäkringar Bank (insurance company)	Wasa (acquired by Länsförsäkringar)
HSB Bank (exit 2002, acquired by Föreningssparbanken)	Postgirot Bank (acquired by Nordea),
GE Money Bank	HSB Bank (acquired by Föreningssparbanken)
Danske Bank (acquired Östgöta Enskilda Bank)	Trevise Bank (acquired by Nordea)
Föreningssparbanken (merger between Föreningsbanken and Sparbanken)	COOP Bank

SalusAnsvar (insurance company).	JP bank (acquired by Kaupthing Bank)
Trevise Bank (exit 2003, acquired by Nordea)	
ICA Bank (chain of grocery stores)	
COOP Bank (chain of grocery stores, exit 2004)	
Resurs Bank	
Forex Bank	
Kaupthing Bank (acquired JP bank)	

UK

Entry	**Exit**
Abbey National	
AIB Bank	
Bank of Ireland	
Beneficial Savings Bank	
Capital Home Loans	
Capital One	
Citibank	
Direct Line Insurance	
Egg	
First Active	
First-e	
Flemings	
Friends Provident	
GM	
Goldfish	
Halifax	
Hamilton Direct Bank	
HFC Bank	
Household Mortgage Co	
Legal & General	
Liverpool Victoria	
Lombard	
Marks & Spencer	
MBNA	
Mortgage Trust	
Nationwide	
Norwich Union	
Paragon	
Peoples Bank	
Phone-a-Loan	
Prudential	
RBS	
Safeway	
SAGA	
Sainsbury's Bank	
Scottish Widows	
Smile (Co-operative Bank)	

Standard Life	
Tesco	
The Associates	
The Mortgage Business	
Triados	
Verso	
Virgin Direct	
Virgin One Account	
Woolwich	

4.1.2 Strategies of the new entrants

Market entry strategies vary considerably across states, with mergers and acquisitions, organic growth and partnerships/joint ventures enjoying pre-eminence in each of the four states. Entry has also varied between full-service banking and niche markets. In Ireland mergers and acquisitions has been the main strategy for new entrants. There has been one attempt at organic growth from a zero base which was successful due to the focus on a particular niche, the personal savings market, and operating on a distance basis, thereby saving on branch overheads. Entry in the Netherlands has been primarily organic, though in niche markets. The entrants in the Swedish market consist of a mixture of insurance companies, retailers and supermarkets that have grown through acquisitions. Less than half of the new entrants have relied on organic growth from a zero base. In the UK the strategies have mainly been growth through partnership and joint ventures. Those new entrants which did not enter through partnership arrangements with an established bank have adopted a much more aggressively competitive pricing strategy and have encouraged their customer to use new technologies more than other providers. Overall organic growth has been limited.

New entrants in the Irish retail banking market have tended to target the full service banking sector or a niche like personal savings, agricultural lending, corporate lending and residential mortgages. A change to this pattern occurred in March 2005 when Bank of Scotland, the “maverick” bank in Ireland, agreed to purchase the 54-branch network and loan book of ESB Retail, the retail arm of the state electricity company, for €120m. This will allow BOSI to establish a nationwide branch network, as well as providing opportunities for cross-selling to consumers on ESB’s loan book. In the Netherlands the focus of the new entrants has been on mortgages and personal loans. Full service banking is not offered by new entrants. The entrants in the Swedish market are characterized by either targeting full-service banking or household lending and deposits. In the UK the new entrants have been very selective about the market they have entered. They have tended to target current accounts, mortgages, personal loans, saving accounts or credit cards. Very few offer current accounts, and only recently have new banks of any size deployed a significant marketing effort to challenge the strong position of the well established banks in this segment of the market.

4.1.3 Development of market shares

Overall, incumbent banks tend to have successfully retained market share following market entry by other banks. This is especially the case for full service retail banks. Where new entrants have gained market share, this has tended to occur in niche segments. In Ireland some new entrants have been fairly successful in growing and gaining market shares particularly where they concentrated on niche markets. However, in the Netherlands no new entrant has been able to gain significant market shares. In Sweden the small banks have lost market shares in the last 10 years. This can partly be explained by that several regional banks have been acquired by a foreign bank and are therefore no longer included in statistics. In spite of this, the development from the late 1990s demonstrates an increase of market shares to 10-15% in the market for household lending and deposits, while the SME market is fairly small with market shares less than 5%. In the UK new entrants' success in securing new business has varied considerably between product groups. While gaining in some market segment and losing grip in some others, the new entrants have yet to establish a real presence to affect in any substantial way the competitive strategies of the major incumbents.

4.1.4 The presence of foreign banks

Though numerous foreign banks have entered the market in Ireland and the Netherlands, they have not tended so far to establish a leading presence in either state's market for full-service retail banking (7-8%, measured by total Irish assets). Nonetheless, it is possible that this situation may change in Ireland as two of the full service retail banks are foreign-owned, though they have comparatively small market shares, while recent moves by Bank of Scotland (Ireland) to acquire a branch presence indicate an intention to aggressively compete in this market. In the Netherlands the foreign banks have targeted only large corporations and private banking for wealthy individuals. In Sweden the foreign banks started to expand their market shares in the mid 1990s and today they hold a share of 14% in household lending and 12% in lending to firms. The market shares in deposits are similar to those for lending. However, market share for household deposits is low at around 2%.There are also some niche players without a significant impact on the retail banking market. According to the British Bankers' Association, foreign banks account for 52% of UK banking sector assets.

4.2 Entry Barriers

4.2.1 Effects of economies of scale and scope on the competitive situation

Scale economies appear to be considerable, particularly in payment services.

Ireland

Scale economies are associated with full membership of the payments clearing system and operating efficiencies in general.

Netherlands

Customers generally demand full –service from banks, and so smaller banks have to limit themselves to niche markets and this is an important entry barrier and determinant of the stable oligopoly in the banking sector.

Sweden

The Internet offers considerable economies of scale in that the larger the number of the financial services offered through the Internet, the higher the income with which to cover the fixed costs of investment in IT platforms and infrastructure. Financial firms entering the market have an incentive to increase operations and the number of services, after having invested in the Internet.

UK

In the UK economies of scale are particularly important for building up a retail banking branch network, and for money transmission, where network effects are present. Where network effects are strong, the number of competing networks is likely to be small and the entry barriers facing new networks will be high. As for the economies of scope, clearing banks have an advantage as they act as the ‘first port of call’ and supply services above and beyond the markets for liquidity management and general purpose loans. Such advantages limit scale and prospects for entry.

4.2.2 Legal requirements for banking institutions and the existence of “quasi” banking entities

The legal requirements for a financial institution to conduct banking activities vary between the states in this analysis. However, banks operating in one EU Member State are licensed to operate in other Member States whilst being subject to prudential supervision in their home state only.

The Irish Financial Services Regulatory Authority is responsible for the authorisation of banks and building societies, their prudential supervision on an ongoing basis and the development of supervisory guidance and requirements for their operations. In order to conduct banking activities in Ireland, a financial institution is granted a banking licence, if it is defined as a “credit institution” by CBFSAI, or is licensed to carry on banking business in its home state, if it is an EU financial institution. Banks operating in the Netherlands need a licence issued by the Dutch Central Bank. A European bank which wants to enter the Dutch market and which is supervised by its own national bank, can however easily enter the Dutch market. Banks operating in Sweden need a licence from the Swedish Financial Supervision Authority. In the UK, the Financial Services Authority is the single statutory regulator responsible for the authorisation and supervision of deposit-taking by banks, for supervising exchanges, settlement houses and other market infrastructure providers.

Existing “quasi” banking entities in Ireland include (a) An Post, the national postal service, which provides a range of financial services through a subsidiary, (b) the credit union movement, which is the market leader in personal loans and increasingly offers functionality approaching that of the retail banks, and (c) the building societies. These types of institutions are, however, exempted from the requirement to hold a banking licence, which also prevents them from offering full-service banking facilities or from joining the clearing system. There are no significant “non-banking” suppliers in the Netherlands. In Sweden “quasi” banking entities include ordinary business firms and economic cooperatives that can take deposits, currency exchange firms and money transfer firms. These types of institutions need to be registered at the supervisory institutions but are not under constant supervision.

4.2.3 Types of infrastructures needed to ensure successful entry in the banking market

Physical presence (branches) and access to payments services appear to be the most important types of infrastructures that new entrants must have access to in order to render entry successful. This is especially so for those banks aiming to offer full-service retail banking. An extensive branch network, along with ATM, telephone and internet banking facilities, and full membership of the payments clearing system, enabling cash withdrawal, card payments and credit transfers are identified as necessary for such entrants to be successful. Considerable investments in infrastructure and IT systems are additional barriers to entry. Nevertheless, niche banks have successfully entered with less expensive infrastructure, in Ireland, for instance, by using regional Business Centres and a highly-centralised back-office function in Dublin.

4.2.4 The importance of branch networks as a possible entry barrier

Though the increased usage of ATMs and the emergence and expansion of Internet banking have diminished the role of bricks and mortar branches, having a branch network is still seen as a crucial part of a retail bank's strategy, in particular in relation to personal customers.

Ireland

The need for a branch network does not constitute an entry barrier in SME lending in Ireland, although some SMEs may require convenient access to branches. Irish banks can successfully offer business loans with just a few business loan centres located strategically in the major cities. Overall, branches have become less important for delivering retail banking services but some sort of local presence is still deemed necessary, at least as far as the personal current account market is concerned. It is also recognized that the requirements of the Criminal Justice Act of 1994, aimed at counteracting money laundering, serve as a barrier to entry into the marketplace.

Netherlands

Physical presence through ATMs and branch offices for advice and cash services to retailers appear to be very important in the Netherlands, and it is reasonable to deduce that this would constitute an important barrier to entry.

Sweden

Early investments in personnel intensive branches and in establishing trust give existing banks advantages relative to new entrants, and have laid the foundations for an oligopoly market with substantial barriers to entry. Nevertheless, it is believed that the emergence and growth of the Internet banking has diminished the importance of the branch network as an entry barrier. Price competitive telephone banks entered the market after the deregulation of the financial sector, and later converted into Internet banks. As more financial services will begin to be offered through the Internet in the future the trend towards lower entry barriers should continue.

UK

It appears that an extensive branch network is becoming less important with the rise of internet and telephone banking. The clearing banks, for instance, have pointed to the reduced importance of branch networks for deposits and certain loan activities. On the other hand, suppliers without branch networks regard their absence as a critical factor inhibiting their growth. This implies that new entrants' lack of an extensive branch network is one of the factors giving rise to significant barriers to entry to the market for liquidity management services for SMEs.

4.2.5 The importance of brand and consumer trust as a possible entry barrier

Brands and consumer trust do not appear to constitute a significant barrier to entry in Ireland, whereas in the Netherlands they are important. They have been important in Sweden for a long time, and the existing banks have invested in confidence capital over many years. However, as the Internet tends to diminish necessity for a branch presence, the possibilities to sell many products to the same customer are also reduced and brand loyalty diminishes. In addition, new entrants challenge the existing banks by offering innovative financial services. In the long run, brand loyalty and consumer trust may have diminishing effects as barriers to entry. In the UK the importance of reputation for providing the required quality of service may constitute an entry barrier in the credit market for SMEs. The UK has found that assessing the effects of branding in the retail banking market is difficult and no consumer surveys have been conducted on this issue.

4.2.6 The importance of consumer mobility as a barrier to entry

All four states identified switching costs as a key barrier to entry. Switching costs arise from: consumers' difficulties in assessing and comparing banking products, absence of a workable process for switching, the lack of account number mobility, and consumers' perceptions of the difficulties involved in switching.

Ireland

Switching costs are found to be an extremely significant barrier to entry in Ireland, both with regard to the personal current account market, where the customers tend to become "locked in" to their provider, and the SME lending market. Additional barriers to switching are also identified with regard to business current accounts. The belief is that entry into the supply of money transmission accounts is much more likely to occur once entry barriers are lowered and account switching is made easier. The recent implementation of a voluntary Switching Code is a welcome first step, although it is too early to say how successful it has been in encouraging and facilitating switching.

Netherlands

In the Netherlands switching costs and consumer inertia due to psychological factors are high and both make market entry difficult. Attempts have been made to facilitate switching by introducing a switching service for consumers. The possibility for account number mobility is believed to reduce switching costs even further.

Sweden

In Sweden there is an increasing tendency to use more than one banking provider. The degree of consumer inertia is still considerable, however, as customers perceive it to be difficult to find out which bank offers the best terms and conditions for them. Overall, consumer mobility, both in terms of switching costs and consumer inertia, appears to constitute an important barrier to entry.

UK

The UK also identifies information problems and the costs of switching as the main barriers to switching. With regard to information problems it is asserted that consumers need to understand the terms of the products they hold and to be able to make informed comparisons with the products of other providers in order to draw meaningful comparisons between products. The evidence suggests that neither of these conditions is met in the UK. Consumers do not generally have an accurate idea of the terms and conditions of their current accounts, savings accounts, their credit cards as well as certain features of mortgage products. The costs of switching appear to be higher for current accounts and mortgages and loans. In addition there is some evidence that credit suppliers discriminate against active switchers, who find it difficult to get bank credit, on the grounds that they are likely to be more aware of prices and terms.

4.2.7 Other important barriers to entry

Ireland stresses that entry into the provision of working capital loans is more difficult than other types of business lending due to the link between these types of loans and business current accounts. It appears that a new working capital lender needs to be able to provide such accounts in order to monitor the financial condition of its borrowers and thus become an effective competitor. This creates a barrier to entry as a branch network is needed in order to service these accounts, as is adequate access to the payment system, therefore few consumers tend to switch.

According to the NMa, entering several markets at the same time is a necessity in order to be successful in gaining a large market share.

The UK concludes that the most significant barriers to entry exist in the markets for liquidity management services for SMEs and for general purpose business loans.

5. National Payment Systems

5.1 Payment Systems Oversight and Standards

Payment systems are the various schemes which are used to effect the transfer of value between individuals or businesses. Payments can take many forms, such as cash, cheques, credit, debit or charge cards, electronic fund transfer (EFT), direct debits or standing orders. Each of these forms of payment requires a mechanism to effect transfer of value from one bank account to another. Without access to payments systems, transactions across financial institutions cannot be completed.

For cash payments, access to an ATM network is indispensable. For other types of transactions which use cash substitutes, a payment system, also known as a clearing system, is necessary to ensure the transfer of value. Payments may be completed on a bilateral basis (e.g. Irish paper clearing), facilitated by a third party (VISA, Mastercard), or completed through a central hub, known as an ACH or Automated Clearing House (clearing in the UK). There may be only one clearing house per payment method, or there may be competing clearing houses.

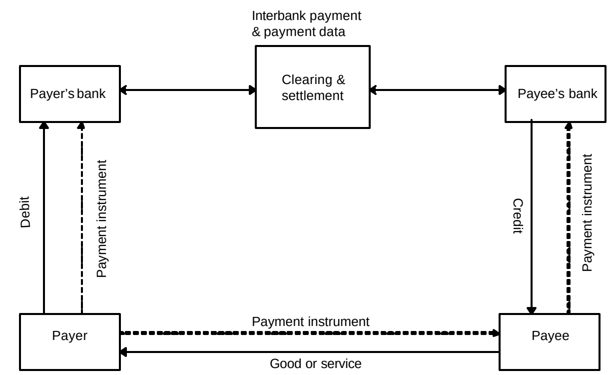
Payment systems play a central role in the settlement of payments and transfer of funds. Due to the pivotal roles which payments systems play in facilitating the business of banking, each of the four NCAs has scrutinised payments systems, and concluded that competition concerns arose, particularly with respect to barriers to entry. While some barriers to entry are natural and unavoidable, other, *strategic*, barriers to entry are not strictly necessary for the efficient running of clearing systems and need to be carefully analysed to determine their effect upon competition.

Though the structures and specific details of payments systems can be very different, of common concern has been the membership/ownership of payment systems, whereby incumbent banks tend to have joint ownership, and the potential effects which this has for new entrants seeking to participate in clearing. Indeed, concentration in ownership gives a prima facie case for examination. Accordingly, governance and the way in which clearing systems tend to self-regulate has been identified as an issue of potential concern.

Work undertaken separately by each of the NCAs has shown that payment and clearing systems tend to encounter problems with ensuring access for all participants. The NMa took enforcement action in 2004, having found that the clearing network services provider, Interpay, and its eight constituent member banks had abused a dominant position by charging excessive rates to retailers for processing debit card transactions.

Difficulties in accessing clearing services on an equal footing can also create barriers to entry into other markets, such as full-service retail banking. This is because clearing access is required to provide money transmission services which, in some markets, such as Ireland, act as a key gateway product, used to cross-sell other financial products and services to consumers.

Fig. 1   Example of a generic payment process



The generic payment process consists of six steps;

- (i) Authentication of the parties involved,
- (ii) Validation of the payment instrument,
- (iii) Verification of the payer's ability to pay,
- (iv) Authorisation of the transfer between the payer's bank and the payee's bank,
- (v) Information transmission between the two banks and, possibly, a clearing organisation and
- (vi) Clearing and settlement. The process may look somewhat different depending on the payment instrument and channel, e.g. credit transfers are initiated by the payer whereas card payments and direct debits are initiated by the payee. Two examples may clarify this.

Example 1: A credit transfer is initiated at the payer's request to his bank to transfer some amount to the payee's account (arrows between "Payer" and "Payer's bank"). His bank performs steps (i)-(iv), debits the payer's account and transmits the payment data to a clearing house. This is followed by an interbank transfer and an information transmission to the payee's bank which credits the payee's account.

Example 2: For a debit card transaction, steps (i)-(iv) are typically made online at the point of sale (POS), e.g. by a PIN-code (arrows between "Payer" and "Payee"). The payee's request and the payer's authorisation are often routed over telecommunication lines and through a computer that works as a telephone switch, which contacts the card issuing and acquiring banks during the transaction process described in steps (i)-(iv). Then a clearing and settlement process takes place, an interbank transfer is made and subsequently the payer's and payee's accounts are debited and credited, respectively.

Fig. 2 Example of a bilateral clearing system (e.g. Paper clearing in Ireland)

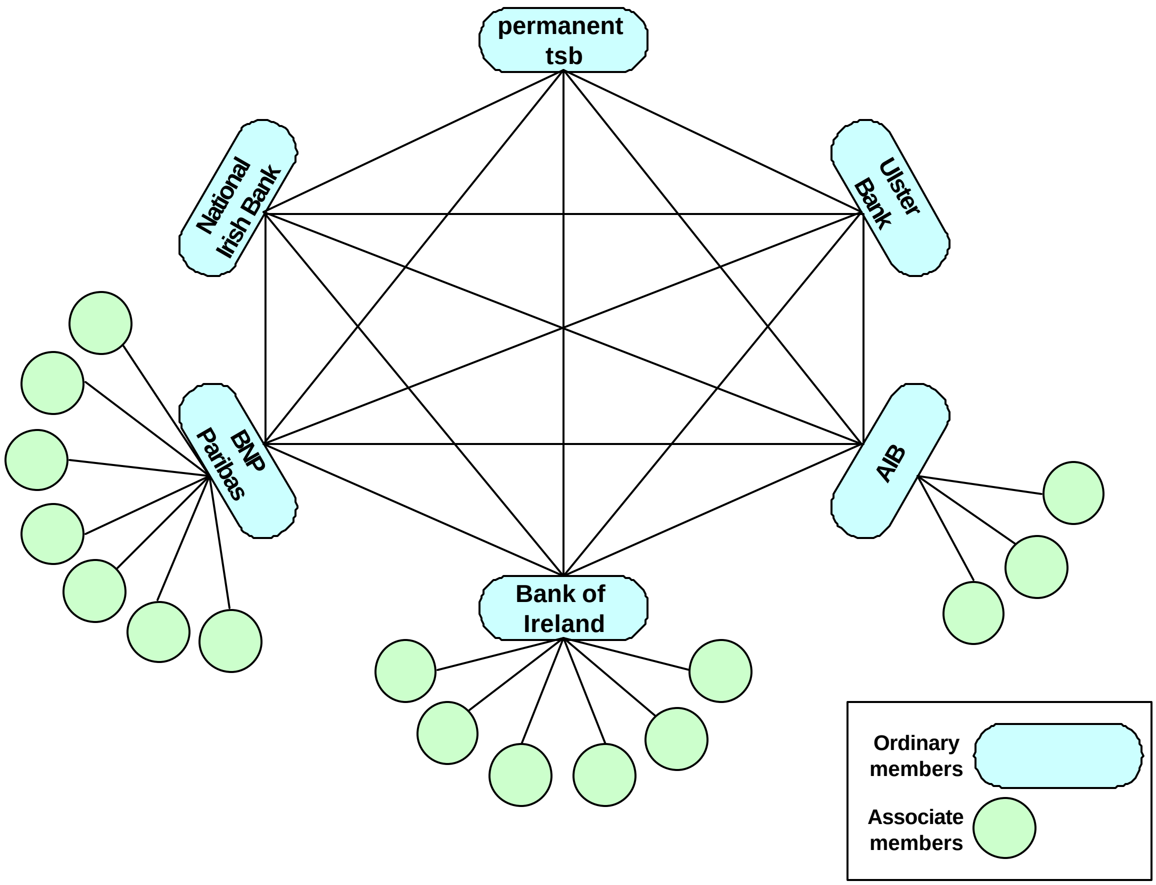


Fig. 3 Example of a 3rd-party facilitated payments system (e.g. credit card payment)

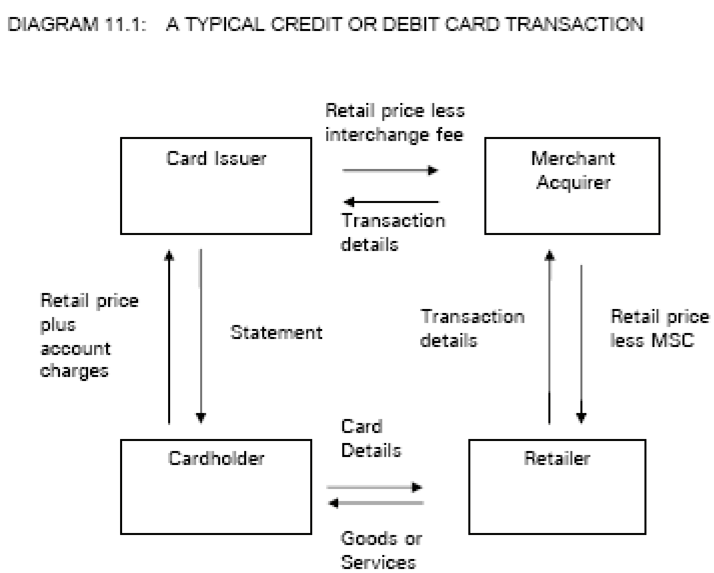
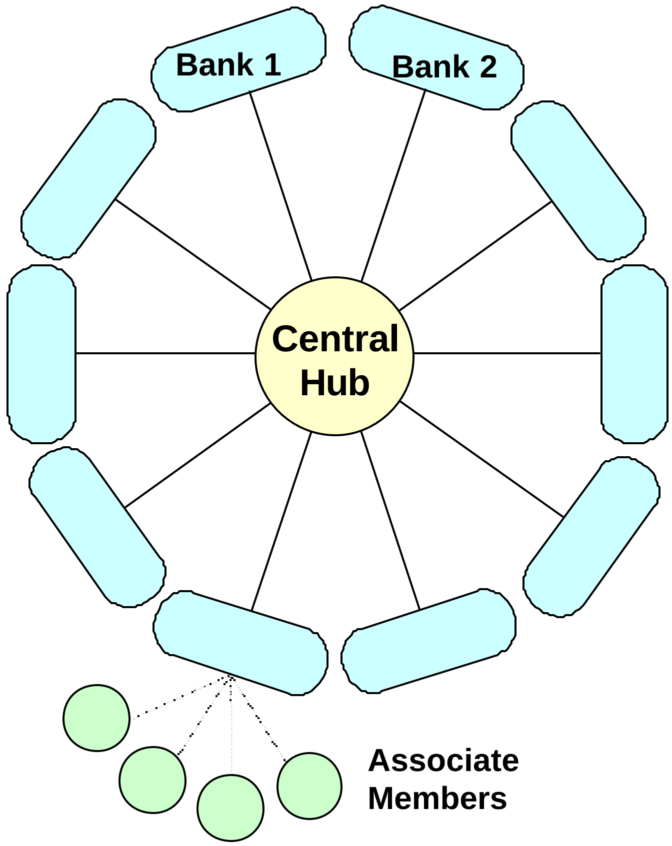


Fig. 4 Example of an ACH



5.1.1 The role of national central banks in overseeing payment systems and/or setting of standards

In all four states, the role of the central bank extends to ensuring the stability of the entire banking sector, which includes payment systems. This generally includes facilitating or overseeing the agreement of common standards for clearing and settlement of payments.

Ireland

Under the Central Bank Act, 1997, the Central Bank and Financial Services Authority of Ireland (CBFSAI) (previously the Central Bank) is responsible for the regulation and oversight of the Irish clearing system. As such, it sits on the board of the Irish Payment Services Organisation (IPSO) and the Irish Paper Clearing Company (IPCC). The CBFSAI regulates the impact costs payable to existing clearing company member for facilitating the entry of new clearing company members. The Central Bank also acts as the central clearing house for inter-bank payments following completion of paper and electronic clearing each day.

The Netherlands

The duties of the Dutch Central Bank (DNB) are set out in the 1998 Bank Act, the 1993 Insurance Business Supervision Act, the Prepaid Funeral Services Insurance Business

Supervision Act and the Pensions and Savings Funds Act. The various supervisory acts are expected to be subsumed into a single Financial Supervision Act in 2005.

DNB's supervisory duties in particular are currently undergoing far-reaching changes. In early 2002, supervision of the Dutch financial sector was divided between 'prudential supervision' (monitoring the health of financial institutions) and 'conduct of business supervision' (assessing the actions of players in the financial markets). In the context of this fundamental change, the two prudential supervisors, DNB and the Pensions and Insurance Supervisory Authority of the Netherlands (Pensioen- en Verzekeringskamer), have been merged under the name of De Nederlandsche Bank. The other financial sector supervisor, the Netherlands Authority for the Financial Markets (Autoriteit Financiële Markten), is responsible for conduct of business supervision. The new model of financial supervision is to be regulated by a single unifying Financial Supervision Act as of 2005

Sweden

One of the primary functions of the Swedish Central Bank (the Riksbank) is to promote a safe and efficient payments system. The Riksbank monitors and analyses continuously the risks and other relevant factors that may pose a threat to the stability of the financial system. It also observes and follows closely the development of the financial and payment system infrastructure.

RIX is the Riksbank system for payment settlements. It was developed in 1988-1990 and launched in 1990. The Riksbank supplies the computer system and is the central institution for the communication through SWIFT (Society for Worldwide Interbank Financial Telecommunication).

UK

The Bank of England has responsibility for the oversight of UK payment systems, seeking to ensure that they comply with best practice as regards robustness and resilience. This role and these responsibilities were formalised in the Memorandum of Understanding with HM Treasury and the Financial Services Authority (FSA) agreed in 1997. The main objective of the Bank's payment systems oversight is to assess and, if necessary, seek to ensure mitigation of, risks to the wider economy - "systemic risk".

Specifically the Bank assesses system operators' management of these risks against the internationally-recognised benchmark provided by the Core Principles for Systemically Important Payment Systems drawn up by the Bank for International Settlements in 2001. These Core Principles provide a set of minimum standards for payment systems, covering legal, financial and operational risks, as well as efficiency, access criteria and governance.

5.1.2 The role of national financial regulators in overseeing payment systems and/or setting of standards

The role of financial regulators in overseeing payment systems varies across the four states.

Ireland

The Central Bank, formerly an independent entity, has formed, since 2003, one of two constituent parts of the CBFSAI, along with IFSRA, the national financial regulator. IFSRA plays no role in overseeing payments systems.

The Netherlands

The financial services regulator ('Authority Financial Markets'), which is becoming more powerful, will start supervising conduct of banking and payments institutions in 2005. Currently oversight rests with the Dutch Central Bank.
The Netherlands Authority for the Financial Markets (AFM) has been responsible for supervising the operation of the financial markets since 1 March 2002. This means that AFM supervises the conduct of the entire financial market sector: savings, investment, insurance and loans. In supervising the conduct of the financial markets, AFM aims to make a contribution to the efficient operation of these markets.

Sweden

The Swedish Financial Supervisory Authority (Finansinspektionen) plays an important role in assuring the effectiveness and stability of the financial system. It monitors and analyses trends in financial markets and assesses the financial health of individual companies, the various sectors and the financial market as a whole. Finansinspektionen examines the risks and control systems in financial companies and supervises compliance with statutes, ordinances and other regulations.

UK

In promoting safe and efficient payment systems, the Bank of England cooperates with a number of other UK public authorities. In particular, it operates a partnership approach with the Financial Services Authority and payment systems. The Bank's oversight of the embedded payment arrangements in CREST and LCH.Clearnet Ltd must dovetail with the supervision of these systems by the FSA, which is responsible for ensuring that CREST and LCH.Clearnet Ltd comply with the recognition requirements laid down under the Financial Services and Markets Act 2000.

Since the publication of the BIS Core Principles for Systemically Important Payment Systems, central banks and securities regulators have jointly developed recommendations for the safe and efficient design and operation of securities settlement systems and central counterparties (CPSS/IOSCO Recommendations for Securities Settlement Systems, 2001 and for Central Counterparties, 2004).

5.1.3 The prevalence of self—regulation as a feature of national payments system oversight

Self-regulation, to one degree or another, occurs in each state, although the nature of this self-regulation tends to vary. The Irish payments system, for example, is characterised by a high degree of self-regulation. In Ireland, the CBFSAI has ultimate oversight of the payments system. Technical standards and operational matters, however, are dealt with by the members of the payments system themselves. The ability of the payments system to self-regulate is undoubtedly aided by the fact that the CBFSAI is a member of both IPSO and the IPCC. In general terms, the Swedish payment systems are self-regulated. However, Finansinspektionen has oversight.

UK

The governance structures of the major UK payment systems ensure a strong role for self-regulation. Most of the main UK payment systems are member-owned and not for profit, e.g. CHAPS, BACS and the CCCL, so that each participant has a direct stake in ensuring the safety and resilience of the system. The OFT is not currently using its competition powers in this arena, as the Treasury Payment System Task Force is currently engaged in analysis of the area.

5.1.4 Additional issues on payment systems oversight and standards

Ireland

In Ireland, the governance structure of the clearing companies is undergoing a number of changes. The clearing companies will be re-established as committees under a single company in order to address corporate governance issues, and concerns about possible unwieldiness. Furthermore, an independent chairman will be appointed, and non-bank stakeholders will be brought onto the Board. These will include consumer representatives and large-volume users, such as utility companies who bill their customers on a monthly or bi-monthly basis.

UK

The nature and scale of risk affecting UK payment systems is changing, as a result of past and present initiatives to reduce credit and liquidity risks. At the same time, consolidation, international integration and increased technical sophistication of the key systems are changing the focus of risks and creating new dependencies. This highlights the importance of an oversight framework that can respond effectively to such evolution.

5.2 Cash withdrawal, card payments and money transfers

5.2.1 Descriptions of national payments systems

Ireland

Cash Payment

Strictly speaking, there is no ATM scheme in operation in Ireland. ATMs are owned and operated by five retail clearing credit institutions (AIB, Bank of Ireland, NIB, Ulster and PTSB). Each credit institution manages and operates its own ATM network, and following the introduction of bilateral agreements that were instituted in 1996, the five networks are interlinked. Consequently, for definitional purposes, Ireland is deemed to have just one ATM network.

An ATM card that has been issued by any of the five retail-clearing institutions may gain access to the system via any ATM. All of these networks accept a wide range of national and international card brands and schemes.

Cheque Payment

Cheque payment is undertaken on a bilateral basis according to procedures determined under the auspices of the IPCC. Final clearing takes place with the assistance of the CBFSAI.

Debit Card Payment

The only debit card issued in Ireland is the Laser Card. The same terminal is used for Laser cards as for credit cards.

Credit Card Payment
The provision of credit card services is divided into two levels, credit card issuers and credit card acquirers. Issuers provide the actual cards, related account and credit facilities to consumers, subject to the Issuer's terms and conditions. The main Issuers and Acquirers in the State are Allied Irish Banks and Bank of Ireland. In addition, to enable a credit card to be accepted for payment it is necessary for the relevant Issuer and Acquirer to be a member of the same payment system. The two main international payment systems are VISA and MasterCard, both of which are wholly owned by their respective members. The payment systems provide a global framework and rules for use of affiliated credit cards

The Netherlands
Virtually all payment processing services (transfers and POS payments) are done by Interpay, a national payments facility owned by the major banks. Interpay is also the main facility for credit card (Maestro/Mastercard) and transfer services between banks. The Dutch central bank coordinates the supply of cash to banks, who (through private transportation services) operate their own ATMs. Interpay has a facilitating role for clearing between banks. The NMa does not have detailed knowledge of the process flows for cash and transfer services.

Point of Sale (POS) payment instruments

Cash (for smaller payments) and debit cards (for larger payments) are the main POS payment instruments

Almost all bank account holders have an electronic purse (chip card to store money on, mostly combined with debit card), but its importance in terms of the number of transactions and volume is very limited and seems unlikely to increase significantly in the near future

The penetration rate of credit cards is not very high (mainly for use in restaurants, internet purchases and travel). 25% of all bank account holders have a credit card. Cheques are no longer in use.

Non-POS payment instruments

Direct debits and bank transfers are the main methods of conducting non-POS payments

Standing orders and giro collection forms are also used, but to a lesser extent

Sweden
The interactions between parties involved in the payment process for account-based payments are illustrated in detail in Appendix I.

UK
BACS

BACS is an automated clearing house, responsible for bulk clearing of electronic payments, between bank accounts. It is the sole processor of the UK's direct debit, direct credit and standing order payments. BACS is a retail-orientated scheme, involving payments such as wages, utility bills, insurance premiums and other subscriptions and the transactions are predominantly large volume and low value.

CHAPS

CHAPS is the real time gross settlement system (RTGS) for credit transfers. There are two separate clearing systems, one in sterling, the other in Euros. Payments are irrevocable with no restrictions on type or value of transaction handled. CHAPS handles low volume, high value transfers and can be used to facilitate the transfer of low value retail funds, for example domestic property deals.

CCCL – Cheques
CCCL is responsible for cheque and paper credit clearings in the UK (except Northern Ireland). Cheque and credit payments in Northern Ireland are processed locally. Credit transfers are pre-printed credit transactions in paper form. CCCL handles predominately large volume, low value transactions.

Card Schemes
Visa, MasterCard and Switch, the principal credit, charge and debit card schemes in the UK are four party schemes. However the smaller card schemes such as American Express or Diners Club are three party schemes, as the issuer of the card is also the merchant acquirer, therefore there is one fewer party to the transaction. The Visa and MasterCard schemes together account for the vast majority of credit and charge card transactions in the UK.

LINK ATM Network
The LINK ATM network is a cash withdrawal channel in the UK. The ATM network enables the cash machines deployed by different banks, building societies and independent deployers to share cash acquisition transactions.
Many ATM transactions are 'us-on-us' transactions where the information flow between the acquirer and issuer takes place within one bank or building society ATM network. 'Shared transactions' are ATM transactions where the card issuer and the ATM owner are different.

Shared transactions now account for more than half of all ATM transactions. LINK provides the central switch facility through which the information flow for the shared transactions passes. The LINK scheme applies only to shared transactions (i.e. those transactions that pass through the central LINK switch).

5.3 Ownership of payments schemes and infrastructures

Generally speaking, payments systems tend to be owned by the participating institutions, or at least the larger participating institutions.

Ireland

- ATMs are owned and operated by five retail clearing credit institutions.
- Credit Card payment infrastructure is owned by the participating financial institutions which issue the credit cards. The POS terminals are leased by retailers from the acquiring bank, while the actual credit cards themselves remain proprietary to the issuing financial institution. The credit card companies have no ownership interest in the infrastructure; rather, they are responsible for delineating norms and rules of operation, fund exchange and settlement. In this respect, they own the intellectual property which underpins the operation of the physical infrastructure.
- The only debit card issued in Ireland is the Laser Card. Laser Card Services Ltd. is wholly owned and managed by the 7 financial institutions participating in the Scheme.
- The payment clearing system infrastructure is owned by the participating financial institutions, who are members by virtue of the bilateral agreements which they have concluded with each other. Although the infrastructure is proprietary to the

institutions concerned, rules and norms of operation are concluded on the basis of agreement at clearing company level.

The Netherlands

Interpay is owned by the major general banks

Sweden

- Both the Bankgirocentralen (BGC) and Centralen för elektroniska kortbetalningar (CEK AB) are ultimately owned by the banks (SEB, Föreningssparbanken, Svenska Handelsbanken, Nordea, Kaupting Bank Sverige, LänsförsäkringarBank, Danske Bank and Skandiabanken)
- Dataclearingen is owned by the Swedish Bankers' Association
- RIX is owned by the Swedish State

UK

BACS

BACS is wholly owned by the UK's leading banks and building societies.
On 1 December 2003, BACS Limited was separated into two companies to separate the ownership of clearing schemes from their technical infrastructure. The two companies formed at separation were:

- BACS Payment Schemes Limited (BPSL). BPSL is a membership-based industry body whose role is to develop, enhance and preserve the integrity of automated payment and payment-related services. BPSL is a 'not-for-profit' company limited by guarantee; and
- Voca Limited. Voca Limited retained the name BACS Limited upon separation, until October 2004 when the Voca name was adopted. Voca Limited focuses on its core competency: the provision of data processing services especially in relation to payments. Voca has a commercial mandate to operate in various markets and it is anticipated that the company will evolve over time as it develops a number of new commercial initiatives. Voca is a profit-oriented company limited by shares.

BPSL has a contractual relationship with Voca for the supply of Automated Clearing House (ACH) processing services required for the 'BACS' Direct Credit and Direct Debit schemes it operates. The contract with Voca to provide these services is for a 7 year period (5 years plus a 2 year exit period) which commenced on 1 December 2003.

CHAPS

CHAPS is owned and run its members who are the banks. Similar to BACS, CHAPS members who are responsible for the networks' development sit on the board. Presently CHAPS Sterling operates with 13 members and CHAPS Euro has 20 members.

CCCL – Cheques

CCCL is owned and run by its members, which are a number of banks and building societies. Both the cheque and credit clearing have the same members and these members cannot opt out of one or the other scheme. Membership of CCCL is currently at 12, one of which is the Bank of England.

Card Schemes

Each of these schemes is a membership association which has a board on which member banks may be represented. They handle the technical aspects of authorisation and settlement of transactions, the marketing of the brand and the administration of the scheme. The board of members decides upon the rules of the scheme and the level of various scheme fees, including the multilateral interchange fee (MIF).

The Cruickshank Report expressed numerous concerns about this mutual governance model, in particular, how it restricted competition, innovation, access to schemes and transparency.

LINK ATM Network

Link interchange Network Ltd is a private company limited by share and is wholly owned by 22 financial organisations. Link has two constituent parts: the card scheme, which determines the operating rules, and procedures which govern the LINK ATM Network; and the operating company which manages the card scheme and provides the technical, commercial and settlement services which make ATM sharing possible.

5.4 Gaining access to and regulating payments schemes and infrastructures

Evidence suggests that, while each state has procedures in place for admitting new members to payment schemes and infrastructures, there is little uniformity from state to state.

Ireland

- There is no specific ATM scheme, rather a series of bilateral arrangements between the five credit institutions that own and operate their own ATM networks.
- Access by financial institutions to the Laser card scheme is by means of membership of Laser Card Services, Ltd. In order to access a credit card scheme, a financial institution agrees to offer its customers a particular credit card brand or brands, which obliges the institution in question to abide by the credit card company's rules of operation.
- Access to paper and electronic fund transfer mechanisms is by way of membership of the clearing companies, which has been described earlier in this paper.

The Netherlands

Interpay has its own licence requirements, parts of which are regarded as being unfair by some (potential) new entrants.

Sweden

In the Swedish system, probably the cheapest way for smaller bank to offer cash withdrawals and card payments is to issue international cards, like Visa and Mastercard. Card holding customers automatically qualify to use existing ATMs, owned mostly by larger banks.

A bank has to be a member in Visa Sweden Förening to issue and acquire Visa cards in Sweden. There is a one-off cost of 600,000 SEK (€66,000) to join this association and variable costs are divided according to size.

CEK AB is a Swedish firm clearing payment transactions on the market. New entrants pay a one-off connection fee of 50,000-100,000 SEK (€5,500-€11,000) and a volume based discount system is used for transaction fees. Larger banks have about 10% lower costs for each transaction than smaller banks.

UK

BACS

BACS has a two-tier structure of settlement and 'indirect' members. Many settlement members provide access to indirect members through a sponsoring relationship. 'Indirect' members include a multitude of financial institutions, utility companies, local councils and supermarkets to name a few. There are in the region of 60,000 of these 'indirect' organizations. Users are allocated a BACS user number by their sponsor and are able to submit payment instructions directly to the system or via their sponsor.

Banks cannot join BACS without holding an account at the Bank of England where inter-bank settlement takes place. The Bank of England does not involve itself in settling the accounts of these 'indirect' members. New entrants (full members) into the BACS system also need to meet numerous entry criteria.

CHAPS

Both CHAPS systems run on a two-tier membership structure. Settlement members can provide indirect access to additional users via agency agreements. Presently, there are 425 indirect members connected to the CHAPS Sterling system and a further 100 or so in CHAPS Euro. New entrants into the CHAPS system need to meet a number of objective criteria.

CCCL – Cheques

The two-tier system described above for BACS and CHAPS, is prevalent in CCCL clearings, with both settlement and indirect members accessing the system.

Card Schemes

The Cruickshank report took issue with three entry criteria to Mastercard, Switch and VISA.

LINK ATM Network

Membership of the LINK network is open to financial institutions and commercial organisations that meet the required minimum criteria. LINK is an open Scheme in which membership is open to any organisation that meets the published legal, regulatory and security criteria. Membership can either be as a Card Issuer or as an ATM deployer (an 'Acquirer') or both.

Access to payment infrastructures or schemes is not heavily regulated in Ireland, and determining who is allowed to join a scheme, and by what means, is generally left to the scheme itself to decide. The CBFSAI has overall responsibility for regulation of financial services, and in this respect, would potentially have a role to play in regulating access. Access is not regulated at all in Sweden, the UK or the Netherlands.

Gaining entry to and regulating payment systems presents important and tangible competition concerns. Access criteria and regulation need to avoid creating strategic barriers to entry which dampen competitive forces by hindering access by new entrants and retarding the development of competition in other markets, such as retail banking.

5.5 Payment System Fee Structures

While there is little uniformity in payment system access requirements, there seems to be even less uniformity in respect of fee structures, and no overall patterns emerge.

Ireland

The non-interest fees charged to consumers of payment services are regulated by IFSRA under S.149 of the Consumer Credit Act, 1995. Fee structures may also include a government levy. This is the case with cheques, ATM cards, credit cards and debit cards, all of which are subject to government Stamp Duty.

Fees between service providers are agreed on a bilateral basis, for example, the ATM fees which banks pay each other when their customers use another bank's ATM facilities.

Interbank Fees

There is no formal document that details all ATM interchange fees. There are a series of bilateral arrangements. ATM fees were historically set on a bilateral basis, between card-issuing credit institutions, with tiered pricing based around number of ATMs deployed.

Customer Fees

Most card-issuing credit institutions do not charge a fee to their cardholders; however, one institution does impose a fee of €6.35 per annum. There is also a Government duty levy of €10 per annum for the ATM function.

ATM withdrawals denominated in euro and effected in the euro-area are charged a transaction fee that can range between 15 and 28 cent. This charge is paid to the card-issuing credit institution. Cash withdrawals effected outside the euro-area attract charges ranging between €1.27 and €12.00. This charge is also payable to the card-issuing credit institution.

The Netherlands

There is no multilateral interchange fee between issuing and acquiring banks. The banks have recently requested permission to introduce one, but the NMa so far has opposed it (talks on this subject are still ongoing).

Sweden

Table: Summary of entrance fees and discounts

	Entrance fee, €	Entrance fee, SEK	Discount, %
BGC	55,000	500,000	0-22
CEK AB	5,500-11,000	50,000-100,000	0-10
Dataclearingen	110,000	1,000,000	Yes (through BGC)
Mastercard	0	0	No
RIX	8,200	75,000	Yes (4 fixed levels)
The Swedish Bankers' Association	0	0	No
The Swedish Financial Supervisory Authority	11,800	107,000	No
Visa	66,000	600,000	No

UK

BACS

Charges to members comprise a flat fee (currently £50,000p.a.) plus a further contribution to cover the costs of the company based on the volume of business per member that passes through the clearing. The maximum payable by any member is capped at 22.5% of the total. The overall projected cost of membership (excluding special legal costs in connection with Settlement Agreements) will range from £53k to £503k per member in 2004.

CHAPS

Members must pay an entry fee of £100,000.

CCCL – Cheques

CCCL operate on a not-for-profit basis. Costs are recovered primarily through a quarterly general call on members, together with separate volume-related and fixed charges for IBDE services in the case of CCCL. Similarly, the BACS scheme aims to make a limited profit (of no more than around £1 million per year), and charges are calculated accordingly.

Card Schemes

A switching and settlement fee may be payable to the schemes for transactions processed through the scheme's central switch which routes the transaction from acquirer to issuer. The schemes can also obtain revenue through licence or membership fees charged to members.

LINK ATM Network

There are a number of charges associated with a shared ATM transaction. These include the interchange fees charged in relation to the part of the transaction which takes place between the card issuer and acquirer, fees charged to the cardholder by the card issuer and acquirer for services provided and fees charged to the card issuer by the system such as the switching and settlement fee, and the gateway fee for access, via LINK, to other networks, principally the VISA and MasterCard networks.

5.6 The State and Pace of Innovation of National Payments Systems

Innovation in payment systems varies both by state and by payment instrument. Some commonalities exist, such as the introduction of Chip and Pin credit cards in all four states in 2003 and 2004.

Ireland

Cash Withdrawal –As well as accessing bank services at ATMs, customers may now purchase credit for their mobile phones at ATMs. Secondly, over the past 18-24 months, there has been a rapid increase in the provision of in-store ATMs which are replenished by the store owner, increasing the supply of ATMs nationwide.

Card Payments – The greatest innovations in the card payments market have been the introduction of Chip and PIN credit cards, and the introduction in 1996 of the Laser Card, a national debit card.

Money Transfer services[12] - Over the medium term, new technology can be introduced into the clearing structure, and over the longer term, the clearing structure itself can change. Because clearing arrangements necessarily operate between banks, if the system is to adopt advancements in technology, they must be implemented by all of the clearing banks together.
Processing of paper transactions is much costlier than the processing of electronic transactions. It is estimated that moving from paper to electronic transactions would save the economy several hundred million euros annually.
Nevertheless, consumers find that cheques provide ease of use and other advantages. Thus, paper transactions may continue in large numbers for the foreseeable future. Technology now exists, however, to facilitate the clearing of paper transactions via electronic systems. This technology includes imaging, or truncation. Truncation has the potential to reduce significantly the costs of processing paper transactions. However, the benefits of introducing innovation to cheque clearing are questionable, given the desire of stakeholders to migrate payments to more efficient electronic methods.
Potential longer-term changes include modifying the overall clearing structure itself. One potential change is the adoption of an Automated Clearing House or ACH.

The Netherlands

State: very good (based on international efficiency and quality comparisons);
Innovation: fairly good (risk of limited innovation incentives due to current high quality and apparent lack of competition).
The last real innovations in the card payments market have been the introduction of Pin and Chipknip cards. Like in Sweden, with the internet a new channel for traditional payment functions has been introduced.
Another innovation can be identified: just like in Sweden one can access all the ATM's in the Netherlands with the same card. Finally, private label cards (like store cards) are being transformed into credit cards. For the record, cheques can no longer be used in the Netherlands.

Sweden

During the last few decades there has been little innovation in payment functionality. The Cashcard is, however, one exception. In a joint venture an association called Svenska Cashföreningen (Nordea, SEB and Föreningssparbanken) launched the Cashcard in 1998. This was a system for electronic money and the card was a substitute for small payments with cash. The card did not reach critical mass and in January 2004 Svenska Cashföreningen decided to end the scheme in Autumn 2004.
There have been dramatic changes in payment channels, with the Internet emerging as a new channel for traditional payment functions.

CEK AB was founded in 1989 and is a jointly-owned processor of electronic card-based payment transactions such as ATM and EFTPOS transactions. The owners in November 2004 were Nordea (39%), Svenska Handelsbanken (37%), Föreningssparbanken (21%) and Danske Bank i Sverige AB (3%).

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[12] This Section is an abridged version of *Potential Innovation in Payment Systems*, one of the sections of the Authority's Banking Study Report.

During the 1970’s two separate systems of ATMs emerged, (Bankomat and Minuten, formed in 1972 and in 1976 respectively). Today, however, there is a compatible system of ATMs and almost all cards can be used in all of them.

Sweden has a long tradition of having two, distinctive, system for handling transfers; Postgirot and Bankgirot. Postgirot Bank AB, named Postgirot until 1994 when the bank activities started, is a clearing institute. Since 1925 it has been owned by the government but in 2002 it was acquired by Nordbanken. Governmental and municipal units are the most important customers for Postgirot. In March 2005 Postgirot changed name to Plusgirot.

UK

BACS

Cruickshank found that innovation was at the pace of the slowest and the Payment Systems Task Force has been looking at possible innovations to BACS. Likely innovations include faster clearing and innovations requested by heavy users (e.g. Corporates). A report is due to be published in May 2005. There is also a Subgroup considering changes to the BACS membership criteria to allow greater influence from users/stakeholders (non financial institutions).

CHAPS/CCCL

Similar to BACS Cruickshank found innovation to be slow in CHAPS and CCCL. The Task Force will be considering CHAPS Access and Governance issues and faster cheque clearing in due course.

Card Schemes

The Cruickshank Report took issue with three entry criteria to Mastercard, Switch and Visa.

5.7 SEPA - European Developments in Payment Systems

According to the Commission’s website, ‘Payments are the "oil in the wheels of the Internal Market". It is of major importance that those wheels run smoothly and safely. The objective is a Single Payment Area, in which citizens and businesses can make cross-border payments as easily, safely and efficiently as they can within their own states and subject to identical charges’.

5.7.1 Future legislative proposals

In December 2003, the European Commission published a consultation document called *Communication on a New Legal Framework for Payments in the Internal Market*[13]. After considering the results of the consultation, the Commission decided to proceed with two separate pieces of legislation – a Directive for payments services and a Regulation implementing Financial Action Task Force Special Recommendation VII:

“VII. Wire transfers

Countries should take measures to require financial institutions, including money remitters, to include accurate and meaningful originator information (name, address and account number) on funds transfers and

[13] Available at http://www.europa.eu.int/comm/internal_market/payments/framework/communication_en/htm

related messages that are sent, and the information should remain with the transfer or related message through the payment chain.

Countries should take measures to ensure that financial institutions, including money remitters, conduct enhanced scrutiny of and monitor for suspicious activity funds transfers which do not contain complete originator information (name, address and account number)."[14]

5.7.1.1 Directive on a New Legal Framework for Payments in the Internal Market

It should be noted that this is currently a Commission working document which has not been officially published. It has been shared with government experts on the Payment Systems Government Experts Group (PSGEG) and payment market participants via the Payment Systems Market Group (PSMG). The European Commission chairs both groups and the European Payments Council is represented at PSMG. The directive is currently in its fifth draft. The Commission circulated a draft impact analysis in February 2005 and a legislative proposal is expected in September 2005.

The aim of the draft Directive is twofold.

- To remove all legal obstacles to the creation of an internal market for payments within the EU in the wider context of EU single market measures
- Secondly, to create a new regulatory regime for previously unregulated 'payment institutions' (that is, institutions which neither take deposits nor issue e-money but provide payment services).

The scope is to be a general text covering all types of payment instrument (excluding cheques and transfers solely in cash, although deposits and withdrawals in cash will be within scope) and includes transactions where only one of the payment service providers is located within the EU.

The text can be divided into two main sections:

- An authorisation regime and some prudential controls for payment institutions (i.e. any institution that is not a bank or e-money institution but which carries out payment transactions) and

- Conduct of business regulation for all payment service providers (i.e. any institution, including banks, building societies and e-money institutions, which offers a payment service)

The rationale behind the second section is to provide consumer protection, to address functionality issues so that there is legal certainty across Europe about how payment systems operate and to create the right environment for the development of Pan-European payment systems.

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[14] FATF Special Recommendation VII at http://www.fatf-gafi.org/document/9/0,2340,en_32250379_32236920_34032073_1_1_1_1,00.html#VIIWire

5.7.1.2 Regulation on payer's information accompanying credit transfers and transfers sent by money remitters [FATF Special Recommendation VII]

The Financial Action Task Force (FATF) is an inter-governmental body with 33 member states. It agrees international standards to combat terrorist financing and money laundering. In 2001 FATF agreed a series of measures called the 40 Recommendations. After September 11th, FATF issued a further eight Special Recommendations. SR VII deals with originator information accompanying transfers. The EU decided to implement this at Community level, by means of a regulation, in order to ensure common standards across all member states.

The aim is to ensure that financial institutions send information on the originator of a payment with the transfer to prevent terrorists and other criminals having unfettered access to move their funds and to assist the authorities in tracing suspicious transactions.

- Content
    - Cross-border wire transfers must carry full originator information (that is, name, account number or unique reference number and address);

    - Domestic wire transfers need carry only minimum information (that is, account number or a unique identifier) but the other information must be recorded and made available to the law enforcement authorities within three days if requested; and

    - The EU will be considered a single jurisdiction in this regulation so transfers within the EU will count as domestic transfers.

5.7.2 The Drive to Create a Single Euro Payments Area (SEPA)

The introduction of Economic and Monetary Union and the euro have set the foundations for the development of an integrated European market. From the European Commission's political and regulatory perspective the goal is the creation of a Single Market underpinned by a Single Euro Payment Area (SEPA).

Since 1 January 1999 the European Central Bank (ECB) has been responsible for conducting monetary policy for the euro area. The legal basis for the single monetary policy is the Treaty establishing the European Community and the Statute of the European System of Central Banks and of the European Central Bank. The Statute established both the ECB and the European System of Central Banks (ESCB) as from 1 June 1998. The tasks of the ESCB and of the Eurosystem are laid down in the Treaty establishing the European Community[15]. They are specified in the Statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB). Included in the basic tasks set out in the Treaty is the promotion of the smooth operation of payment systems.

[15] The Treaty refers to the ESCB rather than to the Eurosystem. It was drawn up on the premise that eventually all EU Member states will adopt the euro. Until then, the Eurosystem will carry out the tasks. For further information, see www.ecb.int

Since 1999, the ECB has issued a number of reports regarding the establishment of SEPA, including its most recent progress report entitled “Towards a Single Euro Payments Area, published on 2 December 2004[16]. In it the ECB states, “a real SEPA will be achieved [for citizens in the euro area] when they can make payments throughout the whole area from a single bank account, using a single set of payment instruments, as easily and safely as in the national context today”. It is seeking delivery of a “SEPA for citizens” by 2008, with cross-border and national use of pan-European instruments.

More specifically, the ECB is looking for Credeuro (a credit transfer scheme) and the associated EPC Interbank Convention on Payments (ICP) to “become the compulsory minimum standard” for Regulation-compliant retail payments by 1 January 2006, whilst “euro area wide citizens should have Credeuro and Prieuro [an as yet undefined priority payment scheme] available as optional standards for national credit transfers from 1 January 2008”. A PEDD (a Pan-European Direct Debit) scheme should be made available as an option for national payments by 1 January 2008 and for euro-area wide use by 2010. From a cards perspective, “interoperability among card schemes will need to be achieved so that cardholders who request it will be able to use their cards in the same way nationally and within the SEPA well in advance of the 2010 deadline”.

By 2010 the transformation of infrastructures should be fully underway, either by the conversion of national infrastructures into pan-European infrastructures (i.e. such that there are no longer parallel domestic and cross-border systems), or by their elimination as several PE-ACH (Pan-European Automated Clearing House) operators gradually absorb payment volumes across Europe. The Eurosystem supports the PE-ACH concept and envisages completion of a SEPA for infrastructure (i.e. a consolidation of market providers) with a target date of 2010. Thus, between now and then, the expectation is that banks, as users or as shareholders of the existing systems, will choose either to “close the system and move to another infratructure or to transform proven and efficient national arrangements into a PE-ACH-compliant system”.

The December 2004 progress report clarifies that if banks were to backtrack on their promised deliverables to achieve a SEPA, the Eurosystem may consider offering an ECB Regulation if necessary. It should be noted that as the UK is outside of the euro zone, such a regulation would not apply at UK level and there is no compulsion for the UK banking industry to meet the Eurosystem’s objectives. However, the ECB’s ultimate vision is aligned to the European Commission’s goal of a Single Market and there remains a significant possibility of Commission-led intervention.

5.7.2.1 Establishment and Role of the European Payments Council

In March 2002 a workshop attended by a number of banks and their associations was held to consider ways of making SEPA a reality, the conclusions of which were consolidated into the White Paper “Euroland: our Single Payment Area”. The European Payments Council (EPC) was subsequently established in June 2002 to facilitate the development and

[16] Towards a Single Euro Payments Area – Third Progress Report, 2 December 2004 – see: http://www.ecb.int/pub/pdf/other/singleeuropaymentsarea200412en.pdf

implementation of SEPA in line with the industry vision and an associated Roadmap as laid out in the White Paper.

The European Payments Council (EPC) is the decision-making and coordination body of the European banking industry in relation to payments. It defines common positions for core payment services, provides strategic guidance for standardisation, formulates best practices, and supports and monitors implementation of decisions taken. Following re-structuring and expansion in the second half of 2004, it now consists of 64 Members[17], composed of banks or banking associations. It and its constituent bodies and working and support groups meet on a regular basis and are responsible for undertaking a wide programme of activities. Over 250 professionals are engaged in the work programme, from 27 states and representing all sizes and heritages of credit institutions across the market from the co-operative, savings and commercial bank sectors.

5.7.2.2 The EPC's SEPA Vision, Definition and Focus[18]

The EPC recently reviewed progress towards SEPA and agreed an updated roadmap at its plenary meeting in December 2004. The EPC's vision, agreed at the March 2002 workshop, remains unchanged:

"We, the European banks and Credit Sector Associations,

- *Share the common vision that Euroland payments are domestic payments,*
- *Join forces to implement this vision for the benefit of European customers, industry and banks,*

And accordingly,

- *Launch the initiative "Euroland – Our Single Payment Area".*

This forms the foundation for setting the EPC's objectives, supported by the European banking community: namely the creation of SEPA by 2010, with all payments treated as domestic as far as speed, security, convenience and cost are concerned.

The EPC defines SEPA as follows:
"SEPA will be the area where citizens, companies and other economic actors will be able to make and receive payments in euro, within Europe[19], whether between or within national boundaries under the same basic conditions, rights and obligations, regardless of their location."

The EPC's primary focus is on delivering SEPA payment schemes for credit transfers, direct debits and debit (and account-linked) cards, since these instruments will create a set of core pan-European payment instruments to be provided by banks to their personal and corporate customers. Work is also continuing on cash and other cards issues, such as fraud prevention. The EPC agreed at the December 2004 Plenary meeting that the concept of a "SEPA

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[17] Membership of the EPC Plenary (as set out in the EPC Charter) reflects market reality in payments, aiming to achieve at all times a fair representation of all credit sectors and types of players. As such, seats are allocated at state level based on the number of non-cash transactions effected by state, adjusted by the state's population statistics and taking into account sectoral market shares. National communities recommend candidates for election as Members.

[18] Source: EPC Roadmap – December 2004

[19] Europe is currently defined by the EPC to consist of the EU 25 Member States plus Iceland, Norway, Lichtenstein and Switzerland

payment scheme" from a cards perspective should be replaced by "SEPA framework" so as to avoid ambiguity and confusion, in recognition of the particular meaning of a "scheme" in the cards industry.
The stated priority of the EPC is delivery of SEPA within the eurozone. However, Member States within Europe but outside the eurozone will have "opportunities to participate in euro payment systems, and communities will be able to adopt SEPA standards and practices"[20].

The EPC has taken the decision to separate "scheme" from "infrastructure". A PE-ACH framework was agreed in 2003[21] regarding the latter but will be enhanced to reflect this separation. The EPC has now developed a vision for the scheme framework to underpin the delivery of the SEPA payment instruments. Thus, a SEPA payment scheme is defined as a common set of rules and practices for the provision and operation of a SEPA payment instrument agreed at interbank level in a competitive environment.

As currently envisaged[22], SEPA payment schemes would be under the governance of a multi-scheme or a single scheme not-for-profit bank-owned vehicle to be further defined in due course. Such vehicle(s) would be open to all banks and would have the role of safeguarding intellectual property and providing rule-making and change management procedures. An operator would be defined as a service provider processing the interbank elements of a SEPA payment scheme. Whilst there is one scheme, there may be multiple operators all complying with a common set of scheme rules.

5.7.2.3 EPC 2005-2006 Deliverables[23]

The EPC has been restructured into four Payment Instrument Working Groups (PIWGs)[24] and two Support Groups[25], which are at present developing the work plans to underpin their respective deliverables.

The EPC's Electronic Credit Transfers Working Group (ECTWG) is responsible for defining a fully-fit-for-purpose SEPA credit transfer scheme (known as Credeuro2) by the end of December 2005, covering payments initiated by the paying customer for transfer to the bank account of the beneficiary. This scheme will be capable of servicing both cross-border and intra-state transactions. The Working Group will also scope and evaluate Prieuro (a priority credit transfer scheme).

The Electronic Direct Debit Working Group (EDDWG) aims to define the SEPA Pan-European Direct Debit scheme, which will allow institutions to collect authorised direct debit payments from the accounts of their customers throughout Europe. The scheme requirements and rules will be established by the end of September 2005. The intention is to launch and implement the pilot by the end of September 2006, to allow rollout from 2007.

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[20] EPC Roadmap approved December 2004.
[21] In January 2003 EPC Plenary endorsed the definition of PE-ACH as: "A business platform for the provision of euro retail payment instruments and basic related services, made up of governance rules and payment practices and supported by the necessary technical platform(s)."
[22] Draft public text version of the EPC Roadmap – as yet unapproved by EPC Plenary
[23] ibid.
[24] The four PIWGs are: Electronic Credit Transfers WG, Electronic Direct Debit WG, Cards WG and Cash WG.
[25] The two Support Groups are: Operations, Infrastructure & Technology Standards SG and Legal SG.

The Cards Working Group aims to extend interoperability such that a cardholder will have a common customer experience throughout the SEPA and will have the widest reach of cash dispensers and point-of-sale terminals. Another important deliverable is a Europe-wide card fraud prevention programme.

The Cash Working Group's prime objective is to establish a Single Cash Area for banks as intermediaries and for other participants in the cash distribution chain. Cross-border cash distribution arrangements and infrastructure are to be put in place by the end of December 2005. Recommendations on harmonisation of central banks' practices for cash issuance and recycling will be proposed[26], and a Cash rulebook will be developed (in conjunction with the ECB), before the end of 2005. Activities to raise awareness on euro cash counterfeiting will be carried out in the first half of 2005, whilst implementation of the nine cash-related recommendations approved at EPC Plenary in January 2003 will be ongoing between 2005 and 2006.

5.8 Additional issues on cash withdrawal, card payments and transfer services

Ireland

Banks have submitted to the Competition Authority that cash is a very costly payment instrument for them and that they would like to see more use of electronic methods of payment in Ireland.

The Netherlands

Additional card payments issues arise: from a competition viewpoint there is a need to stimulate market entry in the processing market (competitors of Interpay); according to the banks there is a need for multilateral interchange fees to keep the system running.

UK

The OFT chairs the Payment Systems Task Force which has been set up to seek to resolve competition issues in payment systems. The Task Force is due to issue its first annual report in May 2005.

[26] For further information see: http://www.ecb.int/pub/pdf/other/recyclingeurobanknotes2005en.pdf

6. CONCLUSIONS

The overall aim of this study is to explore the opportunities for synergy among ECA members regarding competition issues in the financial service industry and to propose an agenda of activities for a new ECA Working Group. Based on the results from the questionnaire and the analysis in this summary, three areas have been identified for further analysis; Access to payment systems, Consumer Mobility and the development of SEPA (Single European Payment Area).

6.1 Access to payment systems

Ireland	Bilateral clearing amongst full and associate members. Competition may be stymied by absence of clear procedures for new members
The Netherlands	Competition concerns arise from the existence of a monopoly clearing services provider, Interpay, which is jointly owned by 8 banks
Sweden	Numerous infrastructure cooperation agreements have been considered by the KKV in the area of clearing
UK	Profound competition problems and inefficiencies in price transparency, governance, access, wholesale pricing and innovation, although some progress has been made

In all four jurisdictions physical presence and access to payment systems appear to be the most important types of infrastructures that new entrants must have access to in order to render entry successful. This is especially so for those banks aiming to offer full-service retail banking. An extensive branch network, along with ATM, telephone and internet banking facilities, and full membership of the payments clearing system, enabling cash withdrawal, card payments and credit transfers are identified as necessary for such entrants to be successful.

An analysis of the responses received from each NCA indicates that in all four states access to payment system infrastructure had given rise to competition concerns. In Ireland and the UK, an analysis of the effects of this infrastructure was conducted, while in the Netherlands, concerns gave rise to enforcement action. In Sweden the Competition Authority has expressed concerns about the pricing of payment systems, particularly with respect to the potential for discrimination against smaller actors in the market.

Ireland

The clearing systems for paper and most electronic transactions involve webs of bilateral agreements between members under the rules of the Irish Payment Services Organisation (IPSO). The Irish Paper Clearing Company (IPCC) is responsible for paper clearing; the Irish Retail Electronic Clearing Company (IRECC) is responsible for most electronic transactions. Financial institutions can either become ordinary members or associate members. Over the past year potentially restrictive membership requirements have been removed. Even so, some barriers to competition remain in the payments clearing system. The absence of clear procedures for evaluating and admitting new members has the potential to limit competition. Competition may also be limited by the bilateral nature of the clearing system, which could delay entry by new members.

Netherlands
A risk of abuse arises from the fact that one dominant network services provider, Interpay, which provides processing, switching and clearing services, is owned by the major banks. The Netherlands Competition Authority has imposed a fine of €30,183,000 on Interpay for charging excessive rates for the provision of network services for debit-card transactions. These are the rates which retail traders pay Interpay per transaction. In addition, NMa has fined the eight banks which set up and own Interpay. The banks set up Interpay in such a way that Interpay is the only provider of network services for debit-card transactions. With regard to the sale of these services, the banks have eliminated competition amongst themselves. The existence of this dominant provider, which is owned by the major banks in the Netherlands, still gives rise to some competition concerns. Potentially, Interpay (and its shareholders) could block market entry.

Sweden
The KKV has taken a number of decisions regarding infrastructure cooperation in the financial sector. The authority dealt with several infrastructure cooperation agreements. Despite placing small banks at a disadvantage, these were approved because of a ruling in the Market Court. In Sweden the Competition Authority submitted a summons application to the Stockholm City Court concerning Svenska Girot AB's purchase of Postgirot due to severe restraint of competition in the payment area. Subsequently, the parties announced that the merger would not be carried out.

UK
A recent report has shown that there were profound competition problems and inefficiencies in price transparency, governance, access, wholesale pricing and innovation, caused by the underlying economic characteristics of the payment systems. However, some progress had been made. Although direct access to the schemes remains costly for smaller institutions, the terms for indirect access enable them to compete effectively with direct members. Moreover, the bulk of the costs incurred in providing payment services to customers lie with the individual institutions and not the shared schemes. The impact of the level and structure of scheme charges on retail competition is therefore likely to be small.

6.2 Consumer Mobility

Ireland	A voluntary switching code was introduced in January 2005, which will be monitored for effectiveness
The Netherlands	Switching procedures introduced in January 2004 have led to slight increase in switching numbers
Sweden	Consumers feel that all banks are similar and therefore generally do not make the effort to compare prices and services
UK	Customer immobility is high, which could be seen as a barrier to entry, Consumers also find it difficult to identify what financial services offer them the greatest benefit

In every jurisdiction consumers are influenced by different factors in their choice of financial institutions. These factors vary from family history and location (Ireland, UK) to service, price and level of trust (Netherlands and Sweden).

In each of the four jurisdictions one can notice a low level of switching by consumers between banks. Even in jurisdictions where ‘Switching Codes’ have been put in place by the banking institutions or regulatory authorities, the problem of low switching is found.

Ireland
The Irish Competition Authority will monitor the effects of a switching code for personal customers which took effect on January 31st this year. If switching is not successfully encouraged by the Code, a statutory Switching code may be recommended.

The Netherlands
As of 2 January 2004, it became easier for consumers to switch from one bank to another due to the introduction of a switching service. Under this system, the former bank ensures that all income, such as salary and benefits, are automatically credited to the new account for 13 months. The customer must take the initiative to inform his employer or the organisation from which he receives a benefit of the amendments. With regard to debits, the bank informs companies which submit instructions for automatic debt collection of the change in the account number. As a result there has been a slight increase in the number of people switching banks.

Sweden
It seems that many consumers do not compare services and have a lack of interest and commitment when it comes to financial services. Consumers seem to believe that the conditions do not differ between banks and that it is therefore not worthwhile comparing services from different banks. Furthermore, information for consumers to compare services from different banks is not easily made available.

UK
This information problem is also identified in the UK. Customers are believed to find it difficult to find out which bank offers the best terms and conditions. In the UK studies show that consumers tend to hold personal accounts for more then 11 years. Consequently, switching between banks is rather rare.

Consumer immobility due to high switching costs, information problems and consumer inertia can therefore be seen as an important barrier to entry. Switching services could make market entry easier. It is also believed that number portability might increase competition between banks.

6.3 SEPA: Important European developments

Although not a formal part of the summary, recent developments and future legislation will play an important role in the field of financial services. The effect on national markets of the creation of a Single Euro Payment Area (SEPA), which possibly will allow citizens in the Euro area to make payments throughout the whole area from a single bank account using a single set of payment instruments, should be taken into account by national competition authorities. International cooperation between competition authorities and shared views on competition issues (e.g. transformation of infrastructure and future access to a European infrastructure) could be an important step.

6.4 Further Suggestions

Members of the ECA will consider at the meeting on 18 April whether this work should continue. Those authorities who responded positively to the invitation to the workshop have all expressed their hopes that it might be possible to hold the workshop at a future date. More immediately, and subject to agreement at the 18 April meeting, the Subgroup has it in mind to send this Study to all ECA member states and, if they are interested, to ask them to complete the questionnaire used to carry out the comparative study. Based on the questionnaire results we would then ask a limited number of those interested to join the Subgroup and take forward consideration of the issues raised by the study.

APPENDIX I TECHNICAL DESCRIPTIONS OF PAYMENTS SYSTEMS

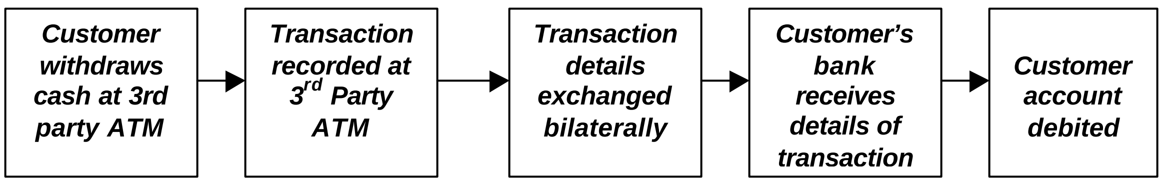
Ireland

Cash Payment

Strictly speaking, there is no ATM scheme in operation in Ireland. ATMs are owned and operated by five retail clearing credit institutions (AIB, Bank of Ireland, NIB, Ulster and PTSB). Each credit institution manages and operates its own ATM network, and following the introduction of bilateral agreements that were instituted in 1996, the five networks are interlinked. Consequently, for definitional purposes, Ireland is deemed to have just one ATM network.

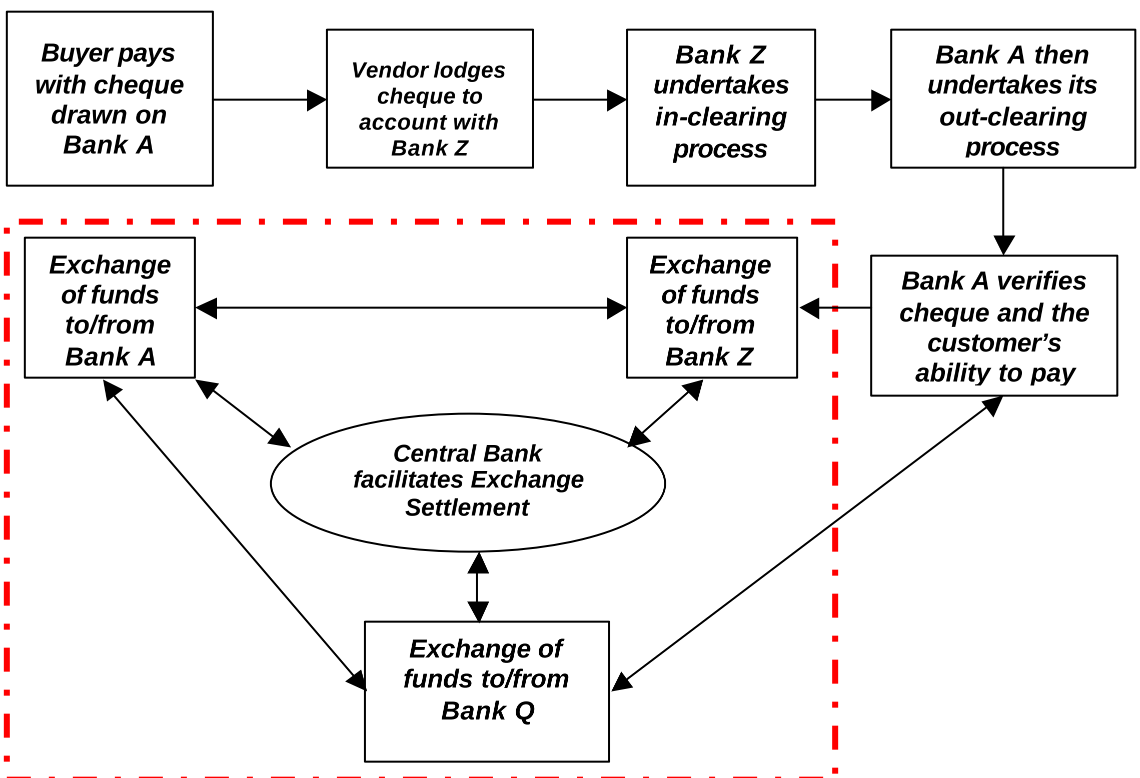
An ATM card that has been issued by any of the five retail-clearing institutions may gain access to the system via any ATM. All of these networks accept a wide range of national and international card brands and schemes.

Fig.5 Irish ATM Payment Processing Cycle



Cheque Payment

Fig.6 Irish Cheque Payment Processing Cycle



Step 1 The buyer pays for a good or service using a cheque drawn on his/her current account in Bank A, accompanied by a cheque guarantee card, if requested.

Step 2 The vendor accepts the cheque and lodges it to his/her account in his/her bank (Bank Z).

Step 3 That evening, the cheque is processed through Bank Z's in-clearing process, which processes all paper items from all banks, lodged in Bank Z's branches during the day.

Step 4 Bank Z records a value against the cheque and sorts it along with all the other cheques drawn on Bank A. All cheques drawn on other institutions are then prepared for physical dispatch to the other banks' clearing operations.

Step 5 The following morning, Bank A receives and processes all paper items drawn on it, transacted in other banks' branches. This is known as the out-clearing process.

Step 6 During the out-clearing process, Bank A verifies that the cheque is authentic and that there are sufficient funds in the customer's account to complete the payment.

Step 7 If no problems arise, funds are transferred from the buyer's account to the vendor's account. If the cheque "bounces", both the vendor and the buyer are notified. This stage is known as Exchange Settlement. Settlement is facilitated by the Central Bank and is conducted by fax. A first settlement, for all items of value under €20,000 occurs at 10.30am, while a second settlement for items exchanged on the 2nd exchange over that value occurs at 1.45pm.

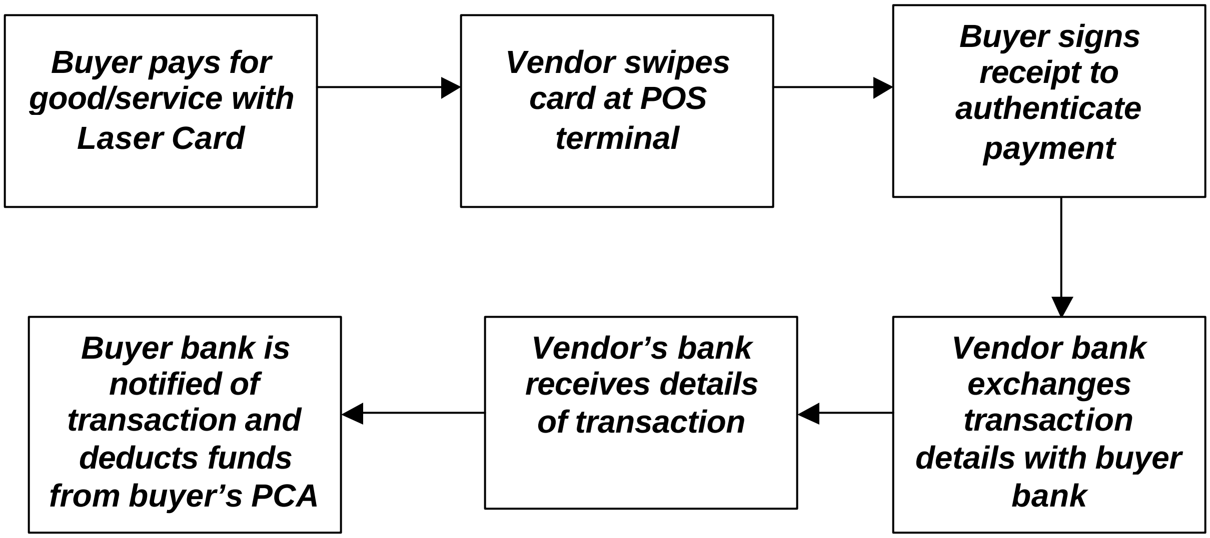
Debit Card Payment

The only debit card issued in Ireland is the Laser Card. The same terminal is used for Laser cards as for credit cards.

When paying for goods and services at a Point-Of-Sale terminal:

- The cardholder gives the shop assistant their card which is swiped through the point-of-sale terminal.
- The shop assistant enters the purchase amount and the transaction is entered into the terminal, which prints a receipt. The cardholder checks the receipt details and signs it to authorise the transaction. The shop assistant retains this signed receipt and gives the cardholder a printed copy
- The transaction amount is debited from the cardholder's account and credited to the retailer's account. This transfer normally happens within a few days. If the customer would like Laser Cashback, the amount requested is added to the cost of the purchase and detailed on the receipt.

Fig.7   Irish Debit Card Payment Processing Cycle



Credit Card Payment

The provision of credit card services is divided into two levels, credit card issuers and credit card acquirers. Issuers provide the actual cards, related account and credit facilities to consumers, subject to the Issuer's terms and conditions. The main Issuers and Acquirers in the State are Allied Irish Banks and Bank of Ireland. Acquirers provide credit card acceptance facilities to merchants. An Acquirer will arrange payment to a merchant for credit card transactions and will in turn be reimbursed by each relevant Issuer. With credit card transactions there are potentially four parties. The *cardholder* or customer presents the credit card to the *retailer* who reads the card details and forwards them to the *merchant acquirer* (the retailer's bank) who in turns forwards them to the *card issuer* (the customer's bank). The issuer pays the acquirer the retail price minus a *multilateral interchange fee* ("MIF"). The acquirer pays the retailer the retail price minus a *merchant service charge* ("MSC"). Finally, the card issuer debits the retail price from the cardholders account. Note that the MIF imposes a floor on the amount of the MSC – if the MSC were smaller than the MIF, the merchant acquirer would be making a loss on the transaction.

In addition, to enable a credit card to be accepted for payment it is necessary for the relevant Issuer and Acquirer to be a member of the same payment system. The two main international payment systems are VISA and MasterCard, both of which are wholly owned by their respective members. The payment systems provide a global framework and rules for use of affiliated credit cards

The Netherlands

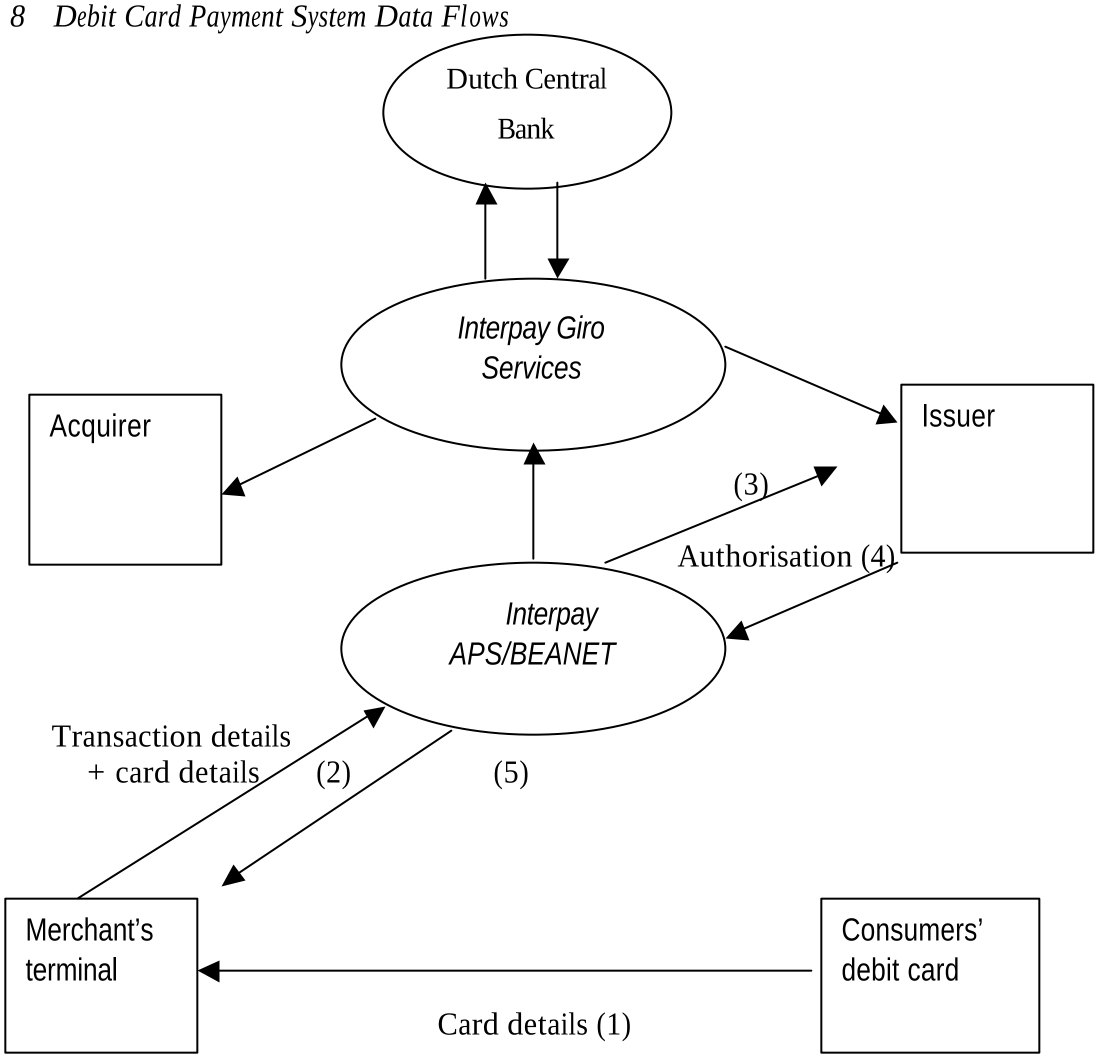
Virtually all payment processing services (transfers and POS payments) are done by Interpay, a national payments facility owned by the major banks. Interpay is also the main facility for credit card (Maestro/Mastercard) and transfer services between banks. The Dutch central bank coordinates the supply of cash to banks, who (through private transportation services) operate their own ATMs. Interpay has a facilitating role here for clearing between banks. The NMa does not have detailed knowledge of the process flows for cash and transfer services.

Point of Sale (POS) payment instruments
Cash (for smaller payments) and debit cards (for larger payments) are the main POS payment instruments
Almost all bank account holders have an electronic purse (chip card to store money on, mostly combined with debit card), but its importance in terms of the number of transactions and volume is very limited and seems unlikely to increase significantly in the near future
The penetration rate of credit cards is not very high (mainly for use in restaurants, internet purchases and travel). 25% of all bank account holders have a credit card. Cheques are not in use anymore

Non-POS payment instruments
Direct debits and bank transfers are the main methods of conducting non-POS payments
Standing orders and giro collection forms are also used, but to a lesser extent

Figure 8 gives an overview of the data flows between the parties involved in the debit card payment system in the Netherlands.

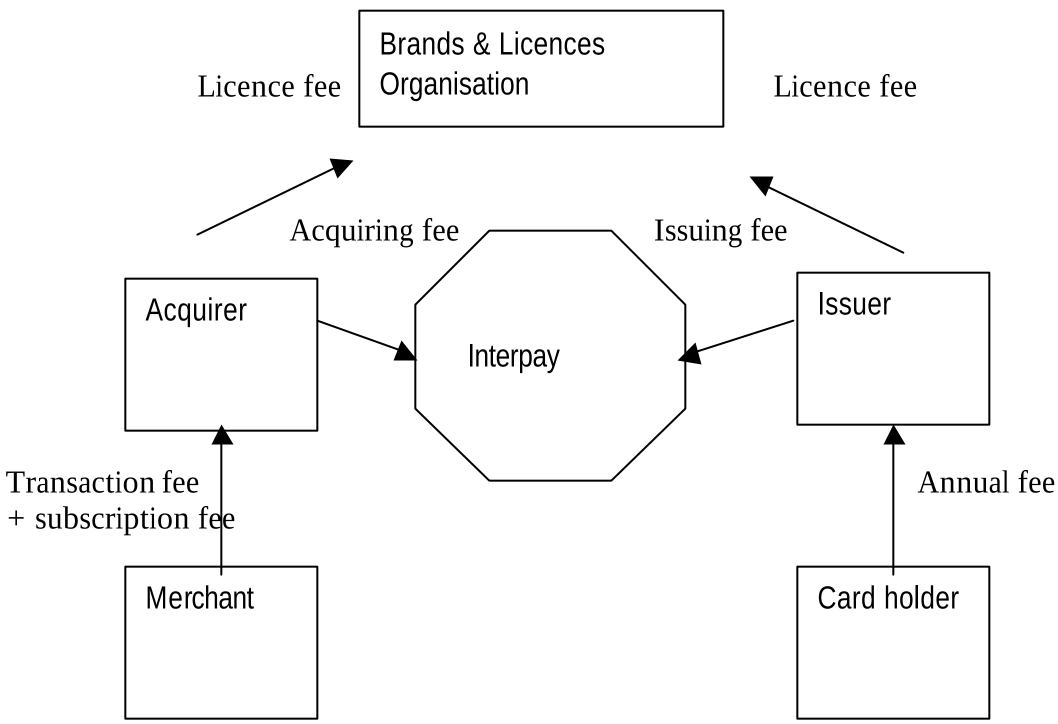
Fig. 8 Debit Card Payment System Data Flows



When a consumer pays with a debit card, the merchant's terminal reads the card details (1). All transactions are verified by means of a PIN (personal identification number) and authorised online. From the merchant's terminal the card details together with the transaction details flow to Interpay APS/Beanet (2), which acts as a switch and sends the data to the issuing bank of the cardholder (3). After having checked if the consumer has sufficient funds, the issuer gives permission to conclude the transaction. The results of the authorisation are sent back to Interpay APS/Beanet (4), which transfers the data back to the merchant's terminal (5). From Interpay APS/Beanet the data flow to Interpay Girale Services, which takes care of clearing. The Dutch Central Bank takes care of settlement.

Figure 9 gives an overview of the financial relations between the parties that are part of the Dutch debit card payment system.

Fig.9 Financial Relations in the Debit Card Payment System

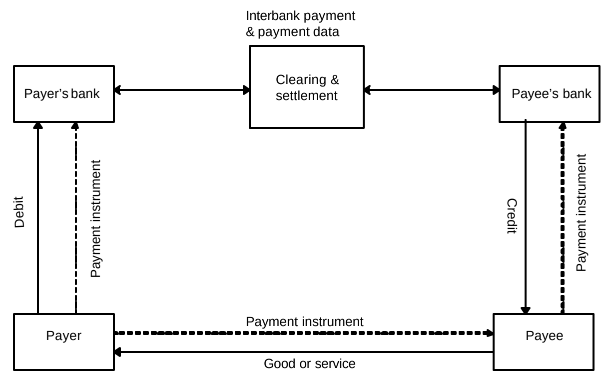


Since March 2004, merchants have contracts for debit card services with their (acquiring) banks. Previously they directly dealt with Interpay. Currently a new Brands & Licenses organisation is being established that owns the brand name ('PIN'), the logos and the technical standards of the debit card product. This way, it is easier for new entrants to compete with Interpay. There is no multilateral interchange fee between issuing and acquiring banks. The banks have recently requested permission to introduce one, but the NMa so far has opposed it (talks on this subject are still ongoing).

Sweden

The interactions between parties involved in the payment process for account-based payments are illustrated below.

Fig. 10 Example of a generic payment process



The generic payment process consists of six steps;

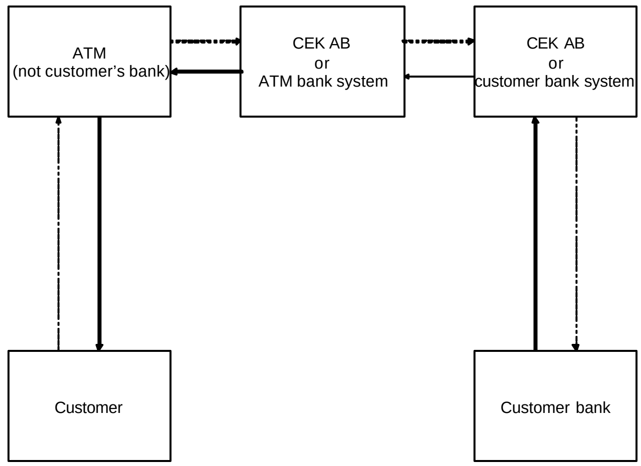
- (i) Authentication of the parties involved,
- (ii) Validation of the payment instrument,
- (iii) Verification of the payer's ability to pay,
- (iv) Authorisation of the transfer between the payer's bank and the payee's bank,
- (v) Information transmission between the two banks and, possibly, a clearing organisation and
- (vi) Clearing and settlement. The process may look somewhat different depending on the payment instrument and channel, e.g. credit transfers are initiated by the payer whereas card payments and direct debits are initiated by the payee. Two examples may clarify this in the figure.

Example 1: A credit transfer is initiated by the payer's request to his bank to transfer some amount to the payee's account (arrows between "Payer" and "Payer's bank"). His bank performs steps (i)-(iv), debits the payer's account and transmits the payment data to a clearing house. This is followed by an interbank transfer and an information transmission to the payee's bank which credits the payee's account.

Example 2: For a debit card transaction, steps (i)-(iv) are typically made online at the point of sale (POS), e.g. by a PIN-code (arrows between "Payer" and "Payee"). The payee's request and the payer's authorisation are often routed over telecommunication lines and through a computer that works as a telephone switch, which contacts the card issuing and acquiring banks during the transaction process described in steps (i)-(iv). Then a clearing and settlement process takes place, an interbank transfer is made and subsequently the payer's and payee's accounts are debited and credited, respectively.

Figure 11 illustrates one example of an ATM withdrawal, where the ATM owner bank and the customer's bank are different.

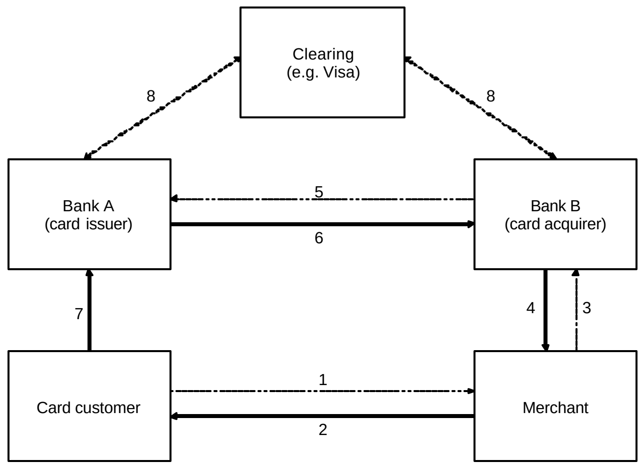
Fig. 11 ATM withdrawal process



The customer inserts the card in an ATM and types in a PIN code and the withdrawal amount. This information is sent to a separate clearing company, e.g. CEK AB or through the two banks' own system (dashed lines signify information transmission). The information is registered and sent back to the ATM, which returns bills if the account has cover. Finally, the customer bank receives information about the withdrawal and compensate the ATM bank, e.g. through CEK AB.

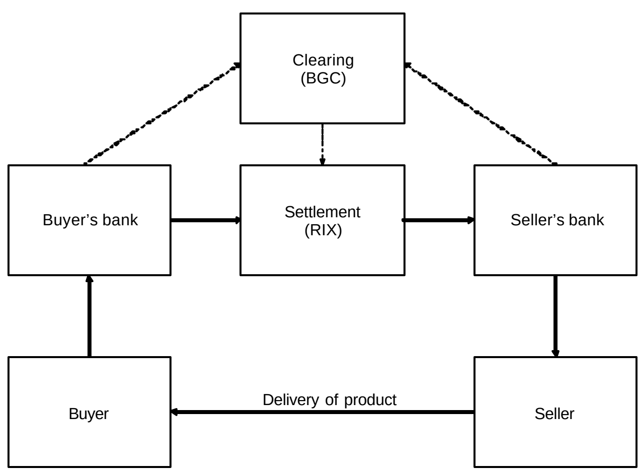
Figure 12 shows a card transaction process where the card issuer and acquirer are two different banks. Solid lines represent payment or product delivery and dashed lines signify information transmission. The customer uses the card as a payment (1) to the merchant for a delivery of a product (2). The merchant sends this information, electronically or paper based, to his bank, B, (3) and bank B pays the merchant (4). Bank B transfers the information to the customer's bank, i.e. bank A (5), which covers for the transaction amount (6). Finally Bank A receives payment for the transaction from the card paying customer (7). These seven steps are an example of one card payment but in most circumstances all transactions are gathered by a merchant and sent to his acquiring bank at certain intervals. Thereafter the banks transfer information to a clearing system (8), e.g. Visa (8).

Fig. 12 Card transaction process



One example of a credit transfer where the seller delivers a product to the buyer is illustrated in Figure 13. Dashed lines signify information transmission only. The buyer commissions his bank to transfer a certain amount to the seller account in another bank. The seller bank receives information from the buyer's bank about which customer is to be credited. When the seller is paid the payment process is completed for the buyer and the seller but not for the banks. The seller bank has a claim on the buyer bank. Information about this claim and other transfers is sent to a clearing institute, e.g. BGC, which calculates the net balance for all banks, i.e. clearing. Finally all active and passive debts between the banks are settled in RIX, which debits or credits the accounts held by the banks in RIX.

Fig. 13 A credit transfer process



UK

BACS

BACS is an automated clearing house, responsible for bulk clearing of electronic payments, between bank accounts. It is the sole processor of the UK's direct debit, direct credit and standing order payments. BACS is a retail-orientated scheme, involving payments such as wages, utility bills, insurance premiums and other subscriptions and the transactions are predominantly large volume and low value.

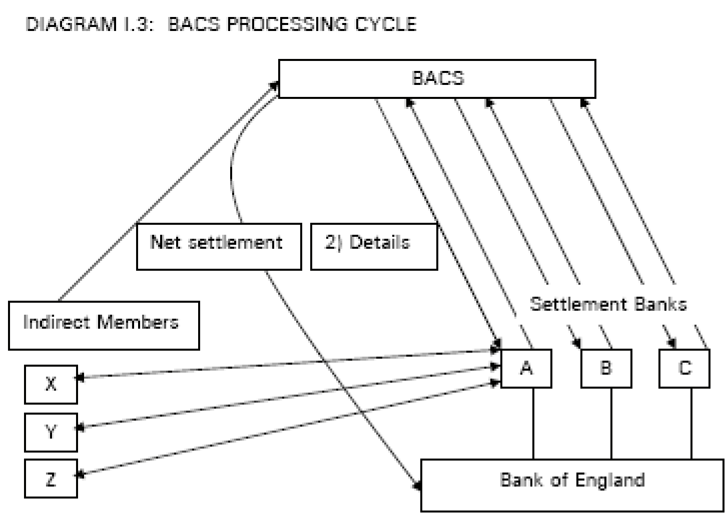
Banks A, B and C are settlement members with X, Y, and Z as indirect members. X, Y and Z may take the form of utility companies, banks, large corporations, local councils and/or supermarkets.

Day 1
Settlement members and indirect members submit direct debit payment details to the BACS system by no later than 10.30pm on day 1.

Day 2
Payment transfers require the sorting of payment information between collecting and paying accounts. BACS sorts the information transmitted on day one and forwards the payment information onto the necessary settlement member. This process must be completed by 6 am on day 2. Banks A, B and C receive a report confirming each submission and then process the payment data. BACS transmits the netted value of all transactions (credits and debits) to the Bank of England for settlement.

Day 3
Banks A, B and C's accounts are credited with the relevant payments and simultaneously all accounts are debited by 9.30 am. The netted value of payments received by the Bank of England by BACS in day 2 are settled by this time between banks A, B and C.

Fig. 14 BACS Processing Cycle



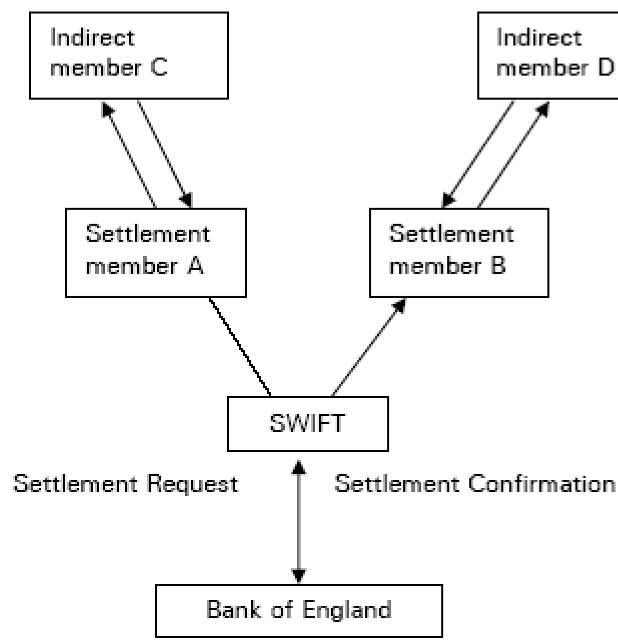
CHAPS
CHAPS is the real time gross settlement system (RTGS) for credit transfers. There are two separate clearing systems, one in sterling the other in Euros. Payments are irrevocable with no restrictions on type or value of transaction handled. CHAPS offers two separate clearing systems, one in sterling the other in Euros. CHAPS handles low volume, high value transfers

and can be used to facilitate the transfer of low value retail funds, for example domestic property deals.

Processing cycle
Both CHAPS systems operate on a common technical platform. This platform is based on the SWIFT FIN Y-Copy Financial Application Service. SWIFT acts as a secure messaging network, facilitating the transfer of electronic payment messages from one settlement member to another.

Fig. 15 CHAPS Processing Cycle

DIAGRAM J.4: ILLUSTRATES HOW THE CHAPS SYSTEM OPERATES.



Both systems start operations at 6am and the latest members can initiate payments is 4pm that day. Late paying banks can use the Enquiry Link to make payments up to 5pm under the Late Transfer Scheme. The Enquiry Link facility also enables settlement members to manage their outgoing payments, providing the banks with details of account balances and summaries of CHAPS payments. The Enquiry Link facility is linked to the Bank of England's RTGS system.

From the diagram above, settlement member A submits a payment request to settlement member B. Before this request is received by bank B, the SWIFT secure network holds the information in the FIN Copy service, and transmits a request to the Bank of England. This is to verify that bank A has sufficient funds in order to pay bank B. Once this verification is complete, the Bank of England returns a message to SWIFT to release the information held in FIN Copy to bank B. Bank B receives the message with the assurance that transfers have been completed.
Settlement between banks A and B and the Bank of England concludes once SWIFT releases the message to bank B. The whole process takes less than a minute and is

irrevocable. Indirect members C and D can also participate in this system via agency agreements with banks A and B respectively.

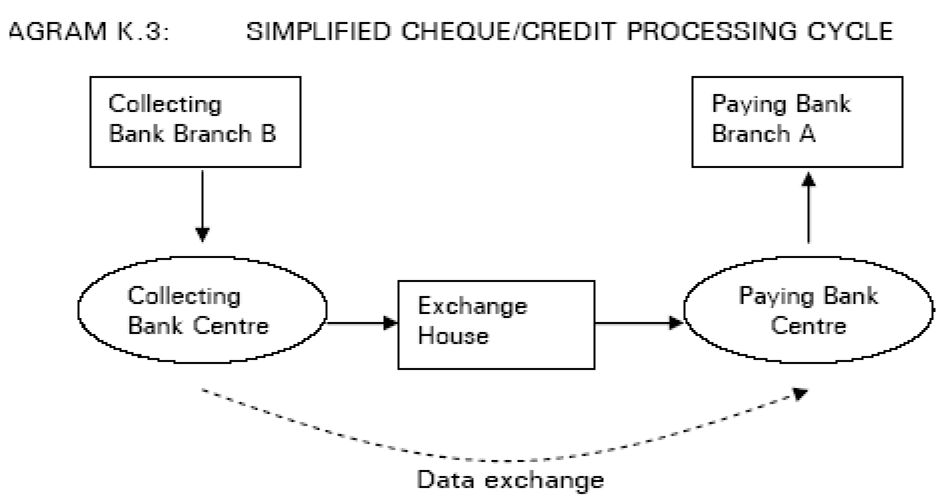
CCCL – Cheques
CCCL is responsible for cheque and paper credit clearings in the UK (except Northern Ireland). Cheque and credit payments in Northern Ireland are processed locally. Credit transfers are pre-printed credit transactions in paper form. CCCL handles predominately large volume low value transactions.

Within this system the clearing cycle involves the physical exchange of paper. Final customers submit cheque payments into their collecting bank branch, upon which the collecting bank branch will transport the cheques to the collecting bank centre for processing.

Members of the Cheque and Clearing Company are individually responsible for processing cheques drawn by or credited to the accounts of their customers. In addition, several hundred other institutions provide cheque facilities for their customers and obtain indirect access to the cheque clearing mechanisms by means of commercially negotiated agency arrangements with one of the full Members.

Processing cycle
The clearing process for cheques involves the transmission and settlement of payments between accounts held at different banks and different branches of the same account. This process operates on a 3-day cycle.

Fig. 16 Cheque Clearing Cycle



Day 1
Bank A's customer pays customers of bank B. At the end of the day bank B processes their received cheques. Each receiving bank records the values of cheques received for that day.

Day 2
Bank B's clearing centres receive all the cheques processed the previous day.
The information from all these cheques is transmitted electronically through a secure data exchange network, known as the Inter Bank Data Exchange (IBDE), to bank A's clearing centre, allowing bank A to begin to update its customer's account.

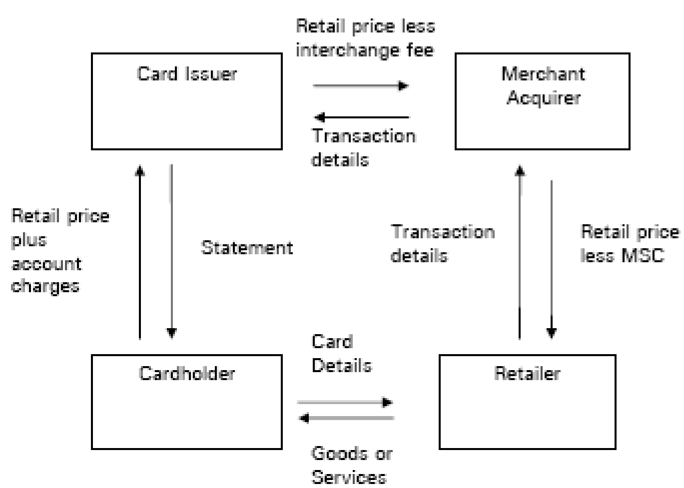
The clearing centres send the cheques to one of the two Clearing Exchange Centres (CEC), one in London and the other in Edinburgh, where the cheques are sorted between members. This process occurs between 6.30am and 11am. The CECs send the cheques to bank A's clearing centre to verify settlement values between A and B.

Day 3
Bank A receives the cheques drawn against it and makes a decision about whether to pay or return them to the collecting bank. Inter-bank settlement for the netted values of cheques exchanged between A and B takes place now over their Bank of England accounts. The cut off for this is 11am.

Card Schemes
Visa, MasterCard and Switch, the principal credit, charge and debit card schemes in the UK are four party schemes. However the smaller card schemes such as American Express or Diners Club are three party schemes as the issuer of the card is also the merchant acquirer, therefore there is one fewer party to the transaction. The Visa and MasterCard schemes together account for the vast majority of credit and charge card transactions in the UK.

Fig. 17 Debit/Credit Card Processing Cycle

DIAGRAM 11.1: A TYPICAL CREDIT OR DEBIT CARD TRANSACTION



LINK ATM Network

The LINK ATM network is a cash withdrawal channel in the UK. The ATM network enables the cash machines deployed by different banks, building societies and independent deployers to share cash acquisition transactions. There are three parties to an ATM transaction: the ATM owner (also known as the acquirer) who dispenses the cash; the card issuer (who operates the account from which the money is withdrawn); and, the cardholder/final customer (who withdraws the money).

Many ATM transactions are 'us-on-us' transactions where the information flow between the acquirer and issuer takes place within one bank or building society ATM network. 'Shared transactions' are ATM transactions where the card issuer and the ATM owner are different.

Shared transactions now account for more than half of all ATM transactions. LINK provides the central switch facility through which the information flow for the shared transactions passes. The LINK scheme applies only to shared transactions (i.e. those transactions that pass through the central LINK switch).

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