

Payment systems

Introduction

1. This appendix considers the processes that transfer funds between two customers' accounts—and between two different banks. Each process consists of two parts: the payment system, which is the shared part of the process; and the two banks' respective internal systems. Payment systems are thus central to the operation of the overall banking system. There are a number of different UK-wide payment systems with specific roles: the banks operating in Northern Ireland all participate fully in all these systems, except one. The exception is cheque clearing, for which Northern Ireland has its own system. Payment systems can be divided into clearing systems and plastic card networks.

2. In 2004, UK clearing systems processed over 6 billion clearing transactions with a total value of over £95 trillion.¹ They are:
 - BACS,² which provides a three-day service for clearing electronic payments, such as direct debits, direct credits and inter-bank standing orders, throughout the UK (see Annex 1);
 - the Clearing House Automated Payment Scheme (CHAPS) which provides a rapid service for clearing systematically important and time-dependent payments throughout the UK (see Annex 2);
 - the Cheque and Credit Clearing Company Ltd (CCCC) which provides a three-day service for clearing paper payments, such as cheques and paper credits in Great Britain, but not in Northern Ireland (see Annex 3); and

¹Based on data from APACS (formerly known as the Association for Payment Clearing Services) that excludes cheques cleared in Northern Ireland.

²Formerly known as Bankers' Automated Clearing Services.

- the Belfast Bankers Clearing (BBC) system which provides a set of rules (the Belfast Clearing Rules), similar to those used by the CCCC, governing the exchange, processing and settlement of internal paper payments in Northern Ireland (see Annex 3).
3. In addition there are plastic card networks that cover transactions using debit, credit and ATM cards and are discussed in Annex 4.
 4. We outline the operation of each of the major types of payment system and the trends affecting them in Annexes 1 to 4. More detailed descriptions of the three UK-wide clearing systems is provided in a working paper on payment systems on our website and in the OFT's 2003 market study of payment systems,³ parts of which are summarized in the relevant sections of this appendix.
 5. Under Northern Ireland's cheque clearing system for local payments, cheques and paper payments are exchanged between the clearers in accordance with the Belfast Clearing Rules, which are administered by the Northern Irish Bankers Association. Banks have varying arrangements for handling cheques and paper credits passing between Northern Ireland and the rest of the UK; some handle them on a bilateral basis between the banks concerned and others have a variety of other arrangements to access the CCCC system.

Overall trends

6. Table 1 shows the volumes of transactions passing through the UK clearing systems in 2004. It does not include cheques cleared through the BBC system or inter-branch transactions cleared within individual banks; it is estimated that peak-day Northern

³UK payment systems: An OFT market study of clearing systems and review of plastic card networks, OFT, May 2003.

Ireland cheque clearings amount to about 2 per cent by volume and 5 per cent by value of the Great Britain cheque clearings shown in Table 1.

TABLE 1 Annual UK inter-bank clearing statistics, 2004

	Volume of transactions, millions	Value of transactions, £ billion*	Average value of transaction, £'000
BACS			
Standing orders	302	2,133†	1.1
Direct credits	1,711†		
Direct debits	<u>2,590</u>	<u>750</u>	0.3
Total BACS	4,603	2,883	0.6
CHAPS			
CHAPS Sterling	28	52,348	1,848.4
CHAPS Euro and other	<u>7</u>	<u>38,987</u>	5,961.4
Total CHAPS	35	91,335	2,620.0
CCCC			
Cheques	1,424	1,210	0.8
Other	<u>134</u>	<u>72</u>	0.5
Total CCCC	1,557	1,282	0.8
Total inter-bank payments‡	<u>6,195</u>	<u>95,500</u>	15.4

Source: APACS.

*The values of all Euro clearings are shown as £ sterling equivalent.

†Includes Euro direct credits.

‡Excludes a small volume of US\$ clearing.

7. Table 2 shows forecasts made by APACS in 2005 of the use of different types of non-cash payment. Over the last ten years, UK non-cash transaction volumes have risen by about three-quarters. Within the total, there have been substantial shifts between the various types of payment. The rapid increase in the use of plastic cards and automated payments (including direct debits, standing orders, and direct credits) is expected to continue, as is the long-term decline in the use of cheques.

TABLE 2 Payment volumes forecast in 2005

	Million transactions			Increase from 1994 to 2004 %
	Actual 1994	Actual 2004	Forecast 2014	
Automated payments*	2,197	4,827	7,030	120
Cheques	3,430	2,078	1,164	-39
Plastic card	<u>3,095</u>	<u>8,355</u>	<u>13,247</u>	170
Total	8,722	15,260	21,442	75

Source: APACS.

*Direct debits, standing orders, direct credits and CHAPS Sterling.

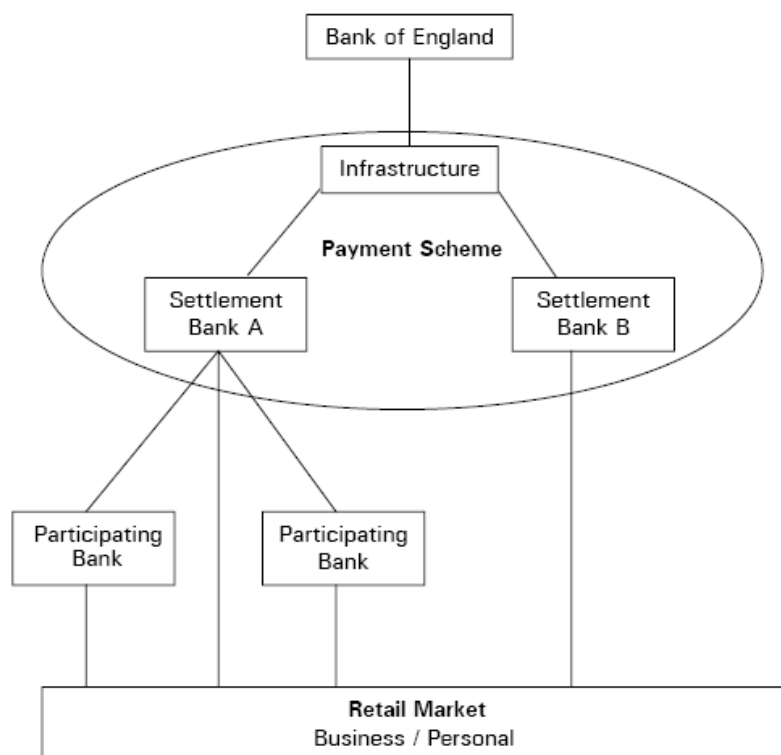
Note: The totals are subject to rounding differences.

The structure of payment systems

8. A payment system⁴ is a system through which banks and other institutions exchange non-cash payments on behalf of their customers by means of a central clearing agency. Payment systems generally comprises a set of rules (the payment scheme) governing the payment processes and a physical infrastructure (eg IT systems). Although their technologies differ, payment systems all combine a network, through which settlement members communicate, with a mechanism for inter-bank settlement, usually through accounts held at the BoE. The typical clearing process for transmitting and settling payments is illustrated in Figure 1.

FIGURE 1

The typical structure of a payment system



Source: OFT.

9. The settlement members jointly set the operational rules and pricing policies through small secretariats. New members must satisfy access criteria decided by the existing

⁴Payment systems include clearing systems, but not all payment systems are described as clearing systems.

members. All the clearing systems have a two-tier membership structure that enables indirect members to access the payment scheme through an agency arrangement with a settlement member.

Features of payment systems

10. As different payment instruments have different features, the system a customer uses depends on the nature of the particular transaction. Significant features of payment services include:
 - reliability and security;
 - any guarantees provided by members of the payment system;
 - the degree of certainty about when the payment will arrive;
 - the time taken for the payment to clear;
 - convenience and cost;
 - the documentation needed; and
 - whether the payment instrument provides credit.

11. A number of payment systems can thus coexist for different purposes. At one extreme, cash payments have the advantage of certainty, speed and convenience for small payments; they do not, however, provide security, credit or documentation. By contrast, credit cards offer credit, certainty and often other benefits and are used by consumers and merchants primarily for higher-value payments.

APACS

12. APACS is the UK trade association for payments and for those institutions that deliver payments to end-customers. Before concerns about payment systems were highlighted in the Cruickshank Report (see paragraph 20), all payment schemes operated under a mutual governance model, in which members of the associated schemes were required to be members of APACS. In 2004, major changes were

made to the constitutions of APACS and its associated clearing schemes; the individual schemes are now independent of APACS, are legally separate entities, and decide their own governance arrangements, which are discussed in the annexes.

13. APACS still provides a forum for its members to discuss non-competitive issues relating to money transmission and represents the payments industry in its relationship with media and government departments.

Costs

14. The OFT's 2003 market study of payment systems found that the costs and charges associated with the clearing schemes and infrastructures were a relatively small part of the total costs of providing payment services to customers. It did not identify any evidence that these costs were unreasonable. The OFT estimated that central costs only accounted for a small proportion of the total costs of money transmission systems and the majority of costs were incurred in the banks' internal systems. In particular:
 - CCCC costs accounted for much less than 1 per cent of the costs associated with the overall cheque clearing system;
 - CHAPS costs accounted for less than 5 per cent of overall CHAPS clearing costs; and
 - BACS costs accounted for about 10 per cent of the costs associated with clearing automated payments.
15. Each payment scheme charges tariffs to settlement members.⁵ These normally take the form of an annual fee and volume-related charges. The BoE and other

⁵In the cheque clearing schemes, the settlement members are also referred to as clearers.

organizations providing services also levy fees from members for their role in the settlement process.

16. CHAPS and CCCC operate on a not-for-profit basis and costs are recovered mainly through a quarterly general call on settlement members (in proportion to clearing volumes). CCCC recovers the charges for inter-bank data exchange (IBDE) services separately based upon actual infrastructure and facilities used by each member. Following the split of the scheme from its infrastructure in the BACS system (see Annex 1), BACS Payment Schemes Ltd (BPSL) operates on the same basis as CHAPS and CCCC. Voca Ltd (Voca), the company that operates the BACS system, is a for-profit company. In the BBC system each clearing bank which is a member bears its own costs.

Access

17. The level of investment required in payment system infrastructure discourages small banks from seeking direct access to the clearing schemes and encourages them to seek access through agency arrangements with settlement members.
18. The OFT market study (see paragraph 14) found that the entry fees for joining were mainly accounted for by payments to recover the costs of adapting individual settlement members' systems. Although the OFT found that the terms that settlement members of the Great-Britain-based schemes offered to smaller banks for agency access to the clearing schemes varied considerably, it also noted that several respondents said that there was intense competition for agency business.
19. If a settlement member wishes to provide an agency service to a non-member bank, the two banks concerned negotiate the agency charges bilaterally. They thus differ from the fees charged to the settlement members. Settlement members may both

provide a wholesale service to indirect members and simultaneously compete with them at the retail level. From a non-member's point of view, an agency arrangement has the advantage that it can use a settlement member's existing IT infrastructure and back-office support functions, thus avoiding the need to invest in its own systems.

Industry studies and other initiatives

The Cruickshank Report

20. In 2000, the Cruickshank Report concluded that there were profound competition problems and inefficiencies associated with UK payment systems. The report found that the systems did not deliver price transparency, good governance, non-discriminatory access, efficient wholesale pricing or innovation. It also concluded that existing competition law was not sufficient to deal with these problems. The report suggested a new framework for competition that should include licensing and regulation.

21. In response, HMT asked the OFT to prepare for legislation that would give it the power to act as a specialist regulator of payment systems. In 2003, the OFT carried out a review of payment systems that concentrated on open access, innovation and charging. Its report⁶ noted a number of reforms undertaken by the industry to address problems identified by Cruickshank. These included the governance changes to APACS and the payment systems companies described in the annexes. Nonetheless, even after these changes the OFT considered that a number of competition problems would remain. HMT agreed that some, at least, of the problems identified by Cruickshank remained and responded by suspending the proposed legislation and asking the OFT to establish a task force to resolve the competition problems over a period of four years from 2004.

The Payment Systems Task Force

22. The Payment Systems Task Force (the Task Force) is chaired by the OFT and brings together representatives from the industry and others with an interest in payment systems. Its remit is to identify, consider and seek to resolve competition, efficiency and incentive issues relating to payment systems. The Task Force has established several specialist working groups to examine particular payment systems.
23. In its first annual report, published in May 2005, the Task Force⁷ recommended that a faster payments service be introduced for telephone banking and Internet banking payments, with the ability to provide an improved service for standing order payments. The payments industry agreed to form an 'Implementation Group' to consider how the recommendations of the Task Force could be put into practice. Detailed proposals on the faster payments service were presented by APACS to the Task Force at its December 2005 meeting. It was decided that the faster clearing system would, from the end of 2007, provide a same-day or next-day (depending on the time of day that the payment is initiated), 24-hours-a-day, seven-days-a-week service, for electronic payments (ie telephone- and Internet-initiated payments) in place of the current three-day electronic clearing cycle. Standing order payments would leave the payee's account and appear on the recipient's account on the same day, but only from Monday to Friday. This means that the 'float' interest earned by banks on standing orders would be eliminated.
24. In November 2005, the Task Force announced the establishment of a working group to examine issues relating to cheque clearance. These issues include whether there is a business case for improvements to the current cheque and clearing systems that would promote greater efficiency and benefits to users. Changes to cheque clearing, the governance of the two cheque-clearing systems and arrangements for access to

⁶Ibid.

them are being considered. These may include changes to the clearing cycle and associated aspects of cheque clearing and credit processing. The working group is expected to report in October 2006.

25. In parallel, the settlement members of the BBC system asked a consultant to review the Belfast Clearing Rules, differences from the CCCC rules in Great Britain, settlement processes, and whether IBDE is needed to achieve faster 'certainty of fate' for cheques.
26. In May 2006, the NIBA sent a draft statement to the OFT on behalf of the settlement members of the BBC system. This statement committed the clearing banks to faster cheque-clearing times, matching those being discussed by CCCC in Great Britain.
27. Recently, governance issues have been discussed in the working groups established by the Task Force. The industry has proposed a new, high-level body with responsibility for governance across all the payment systems. This body would include independent directors from outside the industry and would be responsible for promoting innovation. If the new body is established it could short-circuit some of the work of the Task Force. The Task Force and the OFT Board believe that this proposal could potentially resolve outstanding governance issues and remove the need for the Task Force to examine the payment systems it has yet to look at.
28. During its four-year life, the Task Force also intends (subject to current discussions on a new overall governance body) to look at the payment cards networks and the CHAPS clearing scheme, as well as generic issues such as pricing, transparency and innovation.

⁷Following the work of the BACS Payment Schemes Ltd Innovation Working Group.

EU initiatives

29. EC Regulation 2560/2001 provides for equal charges for national and cross-border payments in euros within the EU. It applies to ATM cash withdrawals, purchases by payment cards and credit transfers but does not cover payments in sterling. The regulation initially covered payments up to €12,500 but now covers payments up to €50,000.

30. On 1 December 2005, the European Commission put forward further proposals on payment services in the internal market.⁸ The aim was to make cross-border payments as easy, cheap and secure as payments within one member state. The proposed directive would cover payments by electronic bank transfer, direct debit, debit card or credit card but not by cheque. It is intended to guarantee fair and open access to national payments markets for all appropriate providers and to provide standardized consumer protection. The European Commission expects it to result in a more efficient and competitive single payments market and cheaper banking services. The directive would apply to all 25 member states and to all currencies, as well as providing the legal platform for a single euro payments area. It is intended that the single payments area should come into operation by 2010.

31. The directive would standardize the rights and obligations of the providers and users of payment systems. The standards would ultimately include a guarantee of full and timely payment and a mandatory next-day execution time for electronic payments without currency conversion. However, up to 1 January 2010, a payer and his or her payment service provider may agree on an execution period of no longer than three days.

⁸See <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/461&format=HTML&aged=0&language=EN&guiLanguage=en>.

Further prospects for the future of clearing systems

32. Likely developments to the individual payment systems are discussed in more detail in Annexes 1 to 4. In addition to the responses to regulatory pressures to examine the business case for reduced clearing times, improve governance and increase transparency and efficiency, technological developments are likely to open up further possibilities. For example, banks are developing new payment products, such as Internet banking. The separation of the BACS schemes from the operation of the BACS infrastructure might make inter-infrastructure competition more feasible. Plastic card networks might, for example, be able to use their infrastructure to offer competing clearing systems. CHAPS Euro now faces some competition from other euro-based real-time gross settlement (RTGS) systems around Europe.

Electronic payments: BACS

1. BACS is the automated clearing house for all UK electronic payments, including direct debits, direct credits, inter-bank standing orders, and inter-bank payments initiated by Internet and telephone banking channels. BACS has recently separated the overall control of the scheme by its membership from the ownership and operation of its infrastructure. BPSL is now responsible for setting the rules and running the scheme under a mutual governance model. Voca is responsible for operating and developing the system under a seven-year contract with BPSL.

2. BACS currently has 14 settlement members and many indirect participants that use agency arrangements (Agency Banks). The Agency Banks include a multitude of financial institutions, including smaller Building Societies and UK branches of overseas banks. Halifax, A&L, Northern and Abbey are settlement members of BACS;⁹ Ulster, Bol and First Trust are all Agency Banks.

3. The banks operating in Northern Ireland that are not settlement members of BACS told us that they had the following arrangements for accessing the BACS system:

<i>Bank</i>	<i>Agent</i>
Bol	[✂]
First Trust	[✂]
Ulster	[✂]

Following its acquisition by Danske Bank arrangements for Northern to access BACS changed in April 2006. Northern told us that its parent company has recently obtained full membership of BACS and that it now had access to BACS through Danske Bank.

⁹In the first three cases through their parent companies.

4. Aside from financial institutions, over 100,000 companies and organizations have access to the BACS system (eg for the submission of payments): approximately 40 per cent have direct connectivity and the others have indirect access using the services of a 'BACS Approved Bureau'.
5. BACS payments currently operate on a three-day processing cycle. (This is described as a processing, rather than a clearing cycle, as BACS transactions are normally treated as cleared funds once they are credited to the beneficiary's account.)

Recent trends

6. Between 2003 and 2004, the value of UK direct debit, direct credit and standing order payments increased by 12 per cent and the number of direct debit and direct credit transactions increased by 7 per cent and 27 per cent respectively. Customers are increasingly choosing to use direct debits for regular payments; the number of transactions is expected to reach about 3 billion in 2011. Until recently, automated wage transfers, which have increased substantially, accounted for about half the direct credits. The Direct Payment programme to migrate state benefit, tax credit and state pension payments to direct credit resulted in nearly 1 billion direct credit transactions for those purposes in 2005. This has changed the mix: benefit payments are expected to account for around 40 per cent of transactions, and payroll payments 20 per cent, by 2014. Internet and telephone payments have also increased recently.
7. Standing orders are predicted to grow steadily, but more slowly, to about 408 million payments in 2014, compared with 302 million payments in 2004. Using Internet banking, customers can easily, for example, set up standing orders to transfer regular fixed amounts to savings accounts or charities.

8. In 2003, the OFT found that the BACS systems were unable to cope with the increasing loads, costly to maintain and outdated. BACS had already recognized the need for new technology in 2001 by initiating its £75 million 'NewBACS' renewal programme, which has subsequently been completed. This programme was aimed at meeting the growing demand for automated payments and to implement new technological and security features. The delivery channel to members and the 40,000 or so direct users has been upgraded to an Internet-based service, known as BACSTEL-IP, which incorporates cryptographic security. Migration to the new system was completed at the end of 2005. Data management processes are also being upgraded and a new electronic payment engine is to be introduced. This will fully automate direct debit transfers between banks and final customers and allow the three-day clearing cycle to be reduced.

9. The Task Force established two working groups to examine issues concerning BACS. Following the work of the BACS Payment Systems Ltd (BPSL) Innovation Working Group, it is intended to introduce a faster payments service for telephone banking and Internet banking payments, with the ability to accept standing order payments. The industry has agreed that the new services will be in place by the end of 2007. As a result, customers will be able to transfer funds via the new system in a matter of hours and potentially faster.

10. Following the publication of the BACS Access and Governance Working Group's report in February 2006, BPSL has agreed to adopt broader, more user-based objectives. It will establish an Affiliates Interest Group to enable users to raise issues directly with the BPSL board and introduce a formal consultation process for potential major changes.

Real-time payments: Clearing House Automated Payment System

1. CHAPS Clearing Company Ltd (CHAPS) provides the RTGS system for systematically important and time-dependent credit transfers. There are two separate systems: one for sterling payments and the other for euros. Under RTGS, each individual payment is settled in real time across members' accounts at the BoE. CHAPS Sterling is used extensively for urgent transactions and for payments arising from trading in financial markets and from housing transactions. CHAPS Euro was established in 1999 to facilitate similar payments in euros arising from financial market transactions and cross-border retail transactions. In both systems, there is no limit on the value of transactions and payments are irrevocable.¹⁰

2. As at 11 January 2006, CHAPS Sterling had 15 settlement members and around 400 financial institutions using agency arrangements through one or more settlement members; CHAPS Euro had 19 settlement members and around 100 financial institutions using agency arrangements through one or more settlement members. Abbey is a settlement member of CHAPS Euro in its own right and has agency facilities to access CHAPS Sterling pending full migration of its Sterling operation.¹¹ The other banks operating in Northern Ireland have agency arrangements to use the two systems.

3. The banks operating in Northern Ireland that are not settlement members of CHAPS Sterling told us that they had the following arrangements for access to the CHAPS Sterling system:

¹⁰A Payment Message is considered to have been entered into CHAPS from the point at which the relevant member's Settlement Account is debited. At this point a Payment Message is not capable of being revoked by the sending member or any other party.

¹¹With effect from November 2005, Abbey became a direct settlement Member of CHAPS sterling.

<i>Bank</i>	<i>Agent</i>
Bol	[✂]
First Trust	[✂]
Northern	[✂] ¹²
Ulster	[✂]

4. In 2001, CHAPS launched an improved service called NewCHAPS. Both CHAPS Sterling and CHAPS Euro now use the global messaging system operated by the Society for Worldwide Interbank Financial Telecommunication SCRL¹³ (SWIFT). This transition was intended to support changes to the payment and securities infrastructure and to simplify potential entry into the eurozone. The NewCHAPS programme also provided a central scheduling facility to support members' payment scheduling and liquidity management. These technical changes have reduced the cost of accessing the scheme and are considered to have reduced scheme entry costs substantially.

5. A payment is entered into the CHAPS system by a settlement bank sending a payment message to the SWIFT network on behalf of its customer. SWIFT intercepts the payment message, places it in an internal queue and copies part of the payment data to the BoE as a settlement request. In processing the settlement request the BoE's RTGS processor verifies that the sending bank has enough funds in its account to honour the payment, debits its settlement account, credits the receiving bank's settlement account and returns a positive response to SWIFT. This positive response causes SWIFT to remove the payment message from its internal queue. SWIFT then sends the payment message to the receiving settlement bank together with an additional authentication code as evidence of settlement at the BoE. Each CHAPS transaction is settled individually and immediately. Subject to funds being

¹²[✂]

¹³SWIFT is an industry-owned cooperative supplying secure messaging services and interface software to 7,000 financial institutions in 198 countries.

available within the settlement bank's account, the settlement process takes around 60 seconds.

6. Like BACS, CHAPS has separated the control of the schemes from operating their infrastructures. The board of CHAPS Clearing Company Ltd (CHAPSCo) has ultimate responsibility for the system and the operation of the core CHAPS processing infrastructure—the RTGS system—is outsourced by CHAPSCo to the BoE. There is much less central infrastructure in place to support 'CHAPSCo-specific' requirements than in the case of the BACS system.
7. Customers normally pay charges for same-day transfers using CHAPS. A study for the European Commission in September 2005 found that for CHAPS Sterling these typically ranged from £18 to £25. The study found that customer charges for CHAPS Euro payments were normally between €26 and €36 for senders and between nil and €10 for receivers.

Recent trends

8. In 2004, the average CHAPS Sterling transaction value was over £1.8 million and 28 million transactions were processed, totalling £52 trillion. Payment volumes have increased by over 130 per cent since 1994. CHAPS transactions include retail payments by business and personal customers, housing market payments and financial payments.
9. In 2004, the average CHAPS Euro transaction value was the equivalent of £6.0 million and 6.5 million payments were processed, totalling the equivalent of £39 trillion.

Cheques and paper credits

1. For cheques and paper credits, different clearing systems operate in Great Britain and Northern Ireland. Ulster told us that the separate Northern Ireland system existed purely for historical reasons. CCCC told us that, over the years, several discussions had taken place over possibilities to merger the two clearing systems, but their different rules and procedures had restricted progress to date.

Cheque and Credit Clearing Company Ltd

2. CCCC is responsible for clearing cheques and paper credit transfers¹⁴ in the UK (other than Northern Ireland).¹⁵ CCCC members have always been responsible for their own cheque processing, which they have largely outsourced over the last seven years or so (see Annex 3). Cheque processing now takes place at one of four independently controlled processing centres owned by Intelligent Processing Solutions Ltd (iPSL), Electronic Data Services (EDS), Abbey National and Nationwide. CCCC operates two Clearing Exchange Centres (CECs) in Milton Keynes and Edinburgh, where the physical exchange of cheques and paper credits takes place.
3. CCCC has 12 settlement members, including Abbey, A&L, Barclays, HBOS, the Co-operative Bank, HSBC, Nationwide and the Royal Bank of Scotland. There are also several hundred banks and building societies with agency arrangements. The banks operating in Northern Ireland that are not members of the CCCC told us that they had the following agency arrangements to access the CCCC system:

¹⁴Credit transfers are transactions consisting of a pre-printed paper credit accompanied by cash or cheques to an equivalent value.

¹⁵It also covers the Channel Islands, the Isle of Man and Gibraltar.

<i>Bank</i>	<i>Agent</i>
Bol	[REDACTED]
First Trust	[REDACTED]
Northern	[REDACTED] ¹⁶
Ulster	[REDACTED]

Northern Ireland cheque and credit clearing

4. Cheques and paper credits are exchanged and settled in Northern Ireland through the BBC system which comprises a set of rules governing the exchange, processing and settlement of paper payment instructions by participating banks (the Belfast Clearing Rules). The rules are supervised by the Belfast Bankers' Clearing Committee, a part of the Northern Ireland Bankers Association (NIBA). Unlike the CCCC rules, the Belfast Clearing Rules do not define service levels that must be achieved. The four member banks have each outsourced their clearing process to third-party service providers. Two banks jointly own a service provider based in Belfast, and two banks use a service provider based in Dublin.

5. The settlement members of the BBC system are the Bol, First Trust, Northern and Ulster. In addition, 13 banks have access through agency arrangements. To become a member, a bank must apply to NIBA and must have the capability to participate fully in the processes specified in the Belfast Clearing Rules. There have been no applications for membership in recent years.

6. The settlement members of the BBC system told us that they provided agency cheque clearing in Northern Ireland for the following banks:

¹⁶[REDACTED]

<i>Bank</i>	<i>NI agent for</i>
Bol	[✂] [✂] [✂]
First Trust	[✂] [✂] [✂]
Northern	[✂] [✂] [✂] [✂]
Ulster	[✂]

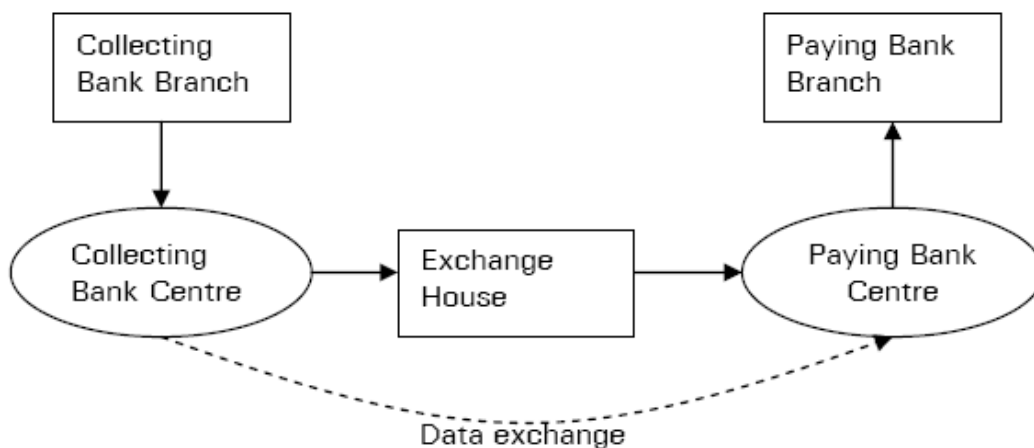
7. Nobody suggested to us that the BBC system had any significant effect on overall unit costs relative to banks in Great Britain. First Trust told us that, as far as it was aware, no organization has been refused access to the system and there had been no complaints from non-clearing banks about access to it.

The cheque-clearing cycle

8. The process involves the physical exchange of paper. The cheque-clearing cycle is illustrated in Figure 2.

FIGURE 2

Simplified cheque/paper credit processing cycle



Source: OFT.

9. As the BBC system operates in a similar way to the CCCC system in Great Britain, we describe the CCCC system below and note points where the BBC system diverges from it. For a cheque submitted before mid-afternoon on day 1, the three-day cycle proceeds as follows.

10. *Day 1:* Bank A's customer has issued a cheque in favour of Bank B's customer, who submits it for payment into his or her account at a branch of Bank B (the collecting bank branch). Cheques are typically accepted for processing until late afternoon. The branch of Bank B then sends the cheque, with the rest of the day's cheques, to its clearing centre for processing. They are received there either late that night or early the following morning. A single courier provides a cheque collection service for all the clearers in Northern Ireland.

11. *Day 2:* In the early hours of day 2, Bank B's clearing centre receives all the cheques deposited on day 1. Bank B's clearing centre processes the cheque and credits its customer with the amount of the cheque paid in. It sorts all the cheques by paying bank, using high-speed readers. In Great Britain, electronic files of data are prepared from the cheques. This information is transmitted electronically through a secure data exchange network, IBDE, from Bank B's clearing centre to Bank A's clearing centre. These electronic files will form the basis of settlement at the BoE during the morning of day 3 of the cycle. By contrast in Northern Ireland, where IBDE has not been implemented, Bank B has to encode the amount of each cheque in magnetic characters at the bottom of the cheque when it is processed. In the absence of IBDE, several steps then depend on manual analysis.

12. In Great Britain, the cheques are delivered by Bank B after processing to one of CCCC's two CECs from where they are collected by Bank A. This happens between 06.30 and 11.00. The cheques for each paying bank are then transported to its

processing centre. In Northern Ireland each clearer is responsible for the collection of its own clearing items from each of the other clearers. This is generally facilitated at a central location which changes with the agreement of all parties (currently Clearco Services Ltd provides this service). In the case of banks based in Great Britain, Northern Ireland cheques are sent direct from one settlement bank's clearing centre to each of the other settlement member's clearing centres.

13. *Day 3:* Bank A examines the cheques drawn against it to validate authenticity and authority. It then decides whether to pay each cheque or to return it unpaid to Bank B and verifies settlement values. Members agree between themselves the values of the cheques exchanged on the previous day. In Great Britain, a multilateral inter-bank settlement then takes place over the banks' accounts at the BoE at 11.00. In Northern Ireland this settlement takes place bilaterally, using the CHAPS system. Returned cheques are normally dispatched either by first-class post to Bank B by close of business, or are exchanged in bulk the following morning.

14. The notification that a cheque has been dishonoured may not, therefore, reach Bank B until day 4 (or later if subject to postal or other delay). For this reason, banks normally do not allow customers to withdraw the funds until day 4 or day 5.¹⁷ (Cheques may also be returned later if found to be fraudulent.) Automation of the cheque dishonour process is being studied as a way of achieving 'certainty of fate' one day earlier (subject to the Task Force Cheque Working Group's examination of the business case for this and other possible changes to the cheque-clearing system.)

¹⁷The day from which funds can be withdrawn is referred to as the 'cleared date'. The day from which funds begin to earn interest is referred to as the 'value date' and may be one or more days before the cleared date, depending on the bank's policy.

15. From the payee's perspective, the two key events in the clearing process are when a payment received:
- begins to earn interest (when the payee is said to 'have value'); and
 - is available for withdrawal (when the funds are said to be 'cleared for withdrawal').
16. As far as the paying customer is concerned, the key stages are when:
- a payment can no longer be stopped;
 - funds earmarked for a payment can no longer be used for other purposes;
 - earmarked funds stop earning interest; and
 - the payment reaches the payee.
17. Each of these events can occur at a different point in the payment process, depending on the policies of the banks concerned. For example, a bank could decide to pay interest on a paid-in cheque from the time it is first deposited, even though it will not actually receive the funds from the paying bank until settlement occurs, two days later. It could also allow the final customer to withdraw funds to the value of the cheque instantly. These are commercial decisions for individual banks. When a bank pays interest on payments received before they are settled, it is doing so before it earns any interest on the money itself. If a bank allows paid-in money to be withdrawn before settlement, it risks not actually receiving the funds from the paying bank.
18. Banks generally give value (ie pay interest) on a payment received from day 3, when settlement occurs between the banks. The time after which funds can be withdrawn by the beneficiary currently varies by institution (bank/building society) and type of account. It has been regarded as a competitive matter for these institutions, which involves a credit risk decision. When a cheque is deposited at a beneficiary's own

bank, funds are often updated on their account as early as day 1 or day 2, but withdrawal might not at present be permitted until day 4 or day 5 for most current accounts. Some banks offer earlier withdrawal times, and on some products, such as savings accounts, this delay might be longer.

19. If a cheque moves through both the Northern Ireland and Great Britain clearing systems, an additional day is generally added to the clearing cycle. Some Northern Ireland banks have parent companies that are members of CCCC. In those cases the parent company provides an internal agency arrangement for access to the CCCC system. Cheques and paper credits passing between Northern Ireland and the rest of the UK are often handled on a bilateral basis between the banks concerned.
20. IBDE was introduced in Great Britain (but not in Northern Ireland) to improve the efficiency of the processes for handling high volumes of paper by enabling cheque details to be transferred electronically from the collecting bank to the paying bank. It dispenses with the need for the collecting bank to encode the amount manually on each cheque and for the paying bank to recapture details from the cheques received.
21. Where the collecting bank and the paying bank are the same, the above system can be replaced by an internal process. This is known as an 'on-us' process. For on-us items, the payment cycle may be completed on the day the cheque is deposited, depending on the internal procedure of the bank concerned.
22. As part of the Task Force's assessment of the CCCC cheque-clearing system—and the parallel review of the BBC system—the timescales for cheque clearing are under review and are likely to be standardized.

Recent trends

23. The use of cheques declined when ATMs became widely available for dispensing cash; it is declining further, currently by about 7 per cent a year in Great Britain, as debit and credit card payments and the use of automated payment systems increases. In 2004, only 1,557 million inter-bank payments passed through the CCCC system compared with 1,981 million in 2000. Volumes are expected to decline further with continuing migration to debit and credit cards and automated payment systems including the faster BACS payments service.
24. As cheque volumes have declined, unit costs have increased and many banks have turned to outsourcing to avoid losing economies of scale. There are two major UK outsourcing companies for processing CCCC transactions: iPSL and EDS. Large outsourcing companies hope that transactions will ultimately be processed internally within the firm. This is not yet possible as individual banks outsourcing to the same firm still operate different internal systems.
25. Outsourcing of clearing arrangements has until recently been less common in Northern Ireland than in Great Britain, where about 90 per cent of banks now outsource their clearing operations. [✂]¹⁸
26. Unlike BACS and CHAPS, CCCC has not undertaken a major development programme, although members have been running their own large infrastructure rationalization projects as a direct result of their move to outsourcing. There have been a number of additional initiatives to improve the efficiency of cheque clearing, including the introduction of IBDE in 1996. Other projects include the development of

¹⁸[✂]

new standards in relation to cheque printing and combating fraud, as well as new arrangements for netting and loss-sharing in relation to settlement.

27. The Task Force has established a working group to look at a number of issues relating to cheques, including:

- customers' understanding of cheque clearing and clearing times;
- whether there is significant customer demand for speeding up cheque clearance times;
- the costs and benefits of any changes to the system of cheque clearing;
- the different practices of financial institutions and awareness of these practices;
- arrangements for the governance of the cheque clearing schemes in Great Britain and Northern Ireland and for access to them;
- issues concerning other matters, such as the cheque guarantee scheme and the special presentation of cheques; and
- the customer costs and benefits of using payment methods other than cheques.

The OFT intends to publish the resulting report in October 2006.

28. In response to this Task Force initiative, the settlement members of the BBC system asked a specialist consultant to carry out a review of its clearing cycle, the banks' internal processes and methods of achieving certainty of fate more rapidly for cheques. The consultant was asked to examine the Belfast clearing rules, differences in clearing rules between Northern Ireland and Great Britain, settlement processes and whether the introduction of IBDE was needed to achieve faster certainty of fate for cheques. The consultant produced a series of reports which, among other things, examined high-level differences between the CCCC and BBC clearing rules, governance arrangements and membership criteria.

29. Under the proposals being considered by the working group, giving value on day 3, allowing withdrawal on day 5 and providing certainty of fate on day 7 would become maximum standards throughout the UK for all paper payments, including 'cross-border' clearing between Great Britain and Northern Ireland. The clearers in Northern Ireland are committed to implementing these timeframes by November 2007. The Northern Ireland review found that the BBC system did not have a constitution or criteria for membership and proposed that it should adopt the CCCC rules and access criteria, so far as possible, given that the clearers currently have no intention to adopt IBDE in Northern Ireland. Meetings have been held between the members of the BCC system and CCCC to discuss possible synergies in governance arrangements and how to shorten the cheque transport times in the 'cross-border' clearing cycle. The BBC members have proposed that their clearing system should remain separate from the CCCC system and from the NIBA.

Card payments

Automatic teller machines: LINK

1. There are three parties to an ATM transaction: the owner of the ATM which dispenses the cash (also known as the acquirer); the bank that operates the account from which the money is withdrawn (the card issuer); and the customer who takes the money out. ATM transactions are either 'us-on-us' transactions, where the acquirer and the issuer are the same bank, or 'shared transactions', where they are different. Shared transactions account for more than half of all ATM transactions; LINK provides the central switch through which the information for shared transactions passes.
2. The LINK system has a multilateral net settlement process at the BoE, which takes place on the working day following the transaction. Each member has a single settlement figure representing its net position with respect to all other members.
3. UK card issuers do not currently charge debit card holders a fee for withdrawals.¹⁹ A study for the European Commission in September 2005 found that acquirers, other than banks and building societies, often charged a 'surcharge' ranging from £1.25 to £1.75 per withdrawal. These surcharges were charged at around 24,000 of the UK's 55,000 ATMs at the end of 2004. Issuers of credit and charge cards typically charge for cash advances from ATMs.

¹⁹Until late 2000, many debit and ATM card issuers charged 'disloyalty' fees, ranging from £0.50 to £1.50, to cardholders for using another bank's ATM. Following an abortive attempt by a number of banks to introduce surcharging when other banks' customers used their ATMs, these fees were withdrawn.

4. Some Northern Ireland banks also participate in the Irish Bank ATM Sharing scheme, which enables customers to use ATMs in both Northern Ireland and the Republic of Ireland.

Recent trends

5. There were 2.5 billion ATM withdrawals, worth a total of £161 billion, in the UK in 2004. This represented 72 per cent of cash withdrawn from accounts, compared with 48 per cent in 1994. At the end of 2004 there were more than 54,000 ATMs in the UK, nearly all of which were LINK-branded.²⁰ ATMs provide other services to customers, including the ability to check account balances and to order statements and chequebooks.
6. The OFT has considered the rules of both LINK and the MasterCard UK Members Forum under the Competition Act, in particular the level of the fees charged. In an ATM transaction a multilateral interchange fee is payable by the card issuer to the ATM provider. The OFT found in its LINK Competition Act decision that, although the LINK fee agreement restricted competition between LINK members, the criteria for exemption were met; a revised LINK agreement was granted exemption in 2001.

Credit, debit and charge card payments

7. Visa Europe Ltd (Visa) and MasterCard Europe (MCE) are the principal payment systems in the UK in relation to all payment cards, including charge and credit cards. We have not considered charge and credit cards further as they do not interact directly with PCAs.
8. Debit cards are usually issued as multifunctional cards that are part of a PCA. They frequently act as debit cards, cheque guarantee cards and ATM cards. Visa and

MasterCard are the main payment systems in relation to debit cards. Such cards are issued under the Visa Debit and Switch/Maestro/Solo brands respectively. Switch, Maestro and Solo are all brands owned by MCE. The Switch brand is migrating to Maestro, the primary brand of MCE.

9. The flow of funds for a card transaction depends on each system's arrangements. Taking the Switch/Maestro/Solo debit card scheme as an example, if a cardholder performs a card transaction on day 1, the retailer normally sends the transaction details to the bank that acts for it (known as the 'merchant acquirer') that evening. The merchant acquirer then includes these details in an electronic file that it sends to MCE on day 2 enabling the card issuer to settle on day 2 via the MCE net settlement system. The scheme rules do not prescribe when a merchant acquirer should credit a retailer's account or when a card issuer should debit a cardholder's account. However, the cardholder would normally be debited by day 3.

²⁰In Northern Ireland there were 741 clearing bank ATMs as at January 2006 and 550 LINK ATMs as at March 2005.