

Oversight of non-cash payment schemes: objectives and implementation procedures

MARC ANDRIES, CARLOS MARTIN

Payment Systems Directorate

Oversight of Non-cash Means of Payment Division

The use of non-cash payment schemes is particularly widespread in France where the number of non-cash transactions is in fact well above the European average.

Though they have different features corresponding to users' varying needs (payments may be face-to-face, remote or recurring, for instance), non-cash payment schemes generally consist of an instrument that generates a payment order combined with the technical and organisational arrangements that enable this order to be processed. Putting these arrangements in place requires close co-operation between all participants of the payment «network», i.e., naturally, credit institutions that hold accounts for debtors and beneficiaries, and also their technical service providers.

The Everyday Security Act of 15 November 2001 entrusts the Banque de France with a specific task with regard to overseeing the security of non-cash means of payment. This task falls naturally within the purview of central banks, which guarantee both the value of the currency and the stability of payment systems.

To carry out its task, the Banque de France analyses the potential threats associated with payment schemes and defines, in consultation with the parties involved, the minimum security objectives designed to prevent the occurrence of payment-specific risk events. To assess the security of a payment scheme, the Banque de France ensures that the parties involved comply with these objectives.

Non-cash payment instruments such as cards, cheques, credit transfers and direct debits are used very extensively in France. Their use is on the rise and greatly superior to that observed in a large number of other European countries. This specificity, which is mainly due to (i) the fact that a large proportion of households hold bank accounts and (ii) the existence of laws providing for the compulsory use of non-cash payment instruments in a number of cases, notably for tax reasons, persists notwithstanding the emergence of a single European payments area. In fact, most transactions continue to be cleared and settled within domestic infrastructures and comply with national technical standards and organisational principles.¹

The Banque de France attaches particular importance to the efficiency and security of non-cash payment schemes given the prevalence of non-cash transactions. The Banque de France's statutory tasks in the area of the security of payment schemes have accordingly been clarified and its means of action strengthened by Law.

This article presents the main features of the payment instruments used in France (Part 1), sheds light on the rationale underpinning the Banque de France's oversight of payment schemes (Part 2) and describes the implementation procedures for this oversight task (Part 3).

1 | COMMON FEATURES OF NON-CASH PAYMENT INSTRUMENTS USED IN FRANCE

The range of non-cash payment instruments offered is wide and the ways in which these instruments are used vary depending on users' differing requirements. All payment schemes are nevertheless characterised by the combination of (see Box 1):

- a payment instrument (paper-based or electronic), which allows users to make payment orders by cheque, card, credit transfer, electronic purse, software installed on the user's computer, procedure for recording orders, etc.;

- the technical and organisational arrangements that support the processing of payment orders.

In fact, transmitting a payment order is not sufficient to transfer the funds held on account by a financial intermediary (account money). This intermediary has to carry out a number of operations in order to execute the transfer, which requires the implementation of a technical and organisational infrastructure that is more or less complex and aims to: (i) ensure the validity of orders issued by users, (ii) collect these orders and (iii) transmit the information required for the execution of the funds transfer (e.g. account identification). The actual transfer of funds, i.e. payment, is carried out *via* clearing and settlement functions between credit institutions.

The processing of a payment order may involve one or several financial intermediaries, depending on whether the payment instrument used is issued and accepted by all institutions – so-called “universal” payment instruments, for instance cheques –, whether it is used and accepted by a limited number or, lastly, by just one institution – e.g. store cards. When the debtor and the creditor have separate financial intermediaries, it is necessary for the payment instruments and orders to be standardised so that each intermediary is able to process them.

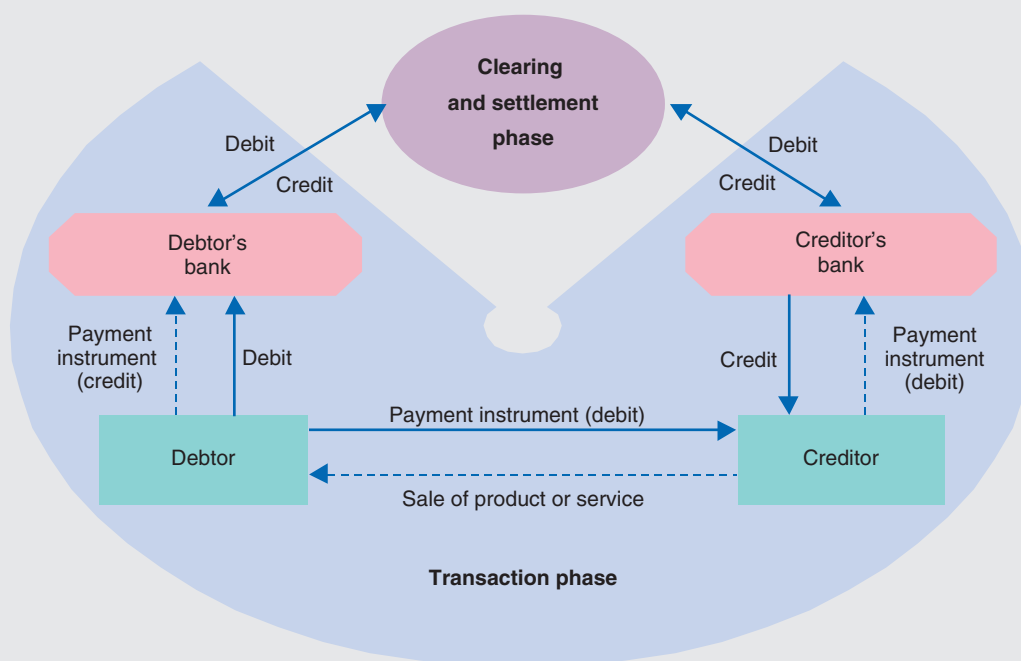
Under French law, only credit institutions are authorised to act as financial intermediaries in this type of activity because the provision of payment instruments to the general public as well as the management of payment schemes are considered banking operations that are subject to banking monopoly (Article L. 311-3 of the *French Monetary and Financial Code*).² The *Commission bancaire* (French Banking Commission) is thus called upon to supervise the credit institutions specialised in the management of means of payment on an individual basis. The *Commission bancaire's* supervision is not in fact limited to these specialised institutions, but extends to all credit institutions that issue and manage payment instruments. The *Commission bancaire* supervises this activity from the point of view of operational risk. Payment instruments issuance and management shall be subject to an *ad hoc* prudential treatment within the framework of the reform of the international solvency ratio introduced by the Basel II accord.

¹ A detailed presentation of the use of the various means of payment and the ongoing changes in the European framework is provided in the Appendix.

² These credit institutions may have recourse to agents for the provision of technical services.

Box 1

The two processing phases of a non-cash payment



The processing of a non-cash payment may be broken down into two phases.¹

The **transaction phase** corresponds to the initiation, validation and transmission of the payment order. Depending on the type of instrument used, it is:

- a credit order (e.g. a credit transfer) given directly by the debtor to its financial intermediary, or
- a debit order (e.g. cheque, payment card or direct debit) transmitted from the debtor to the creditor (or initiated directly by the latter in the case of a direct debit), then remitted by the creditor to its financial intermediary. The latter then requests the debtor's intermediary to debit its customer's account.

Several functions are implemented in the transaction phase. They aim mainly to verify the identities of the parties involved and the authenticity of the payment instrument used.

In the **clearing and settlement phase** the payment is completed through the clearing and settlement of the payment order between the financial intermediaries of the debtor and creditor. The functions implemented in this phase consist of gathering the different orders received for batch processing, calculating the respective claims, and exchanging them together with the information required for the identification of debtors and creditors in order to finalise the payments. The exchanges may be direct between two financial intermediaries, either because these intermediaries belong to the same bank or group ("intra-bank" or "intra-group" exchanges) or because two different intermediaries have signed "bilateral" exchange agreements. More frequently, the exchanges transit through exchange and clearing systems such as the *Système Interbancaire de Télécompensation - SIT*, the French Interbank Teleclearing System.

¹ See Bank for International Settlements (2000): "Clearing and settlement arrangements for retail payments in selected countries", September.

By way of illustration, the Appendix includes a simplified description of the way in which cheque payments work following the switch to truncated cheques (Box 3), as well as a presentation of the “CB” bank card payment scheme (Box 4).

2| UNDERPINNINGS AND OBJECTIVES OF THE BANQUE DE FRANCE’S OVERSIGHT

Payment instruments users’ confidence in the procedures implemented by the financial intermediaries with whom they entrust their funds is an essential factor in their acceptance of these instruments. In this area, the security and efficiency of payment schemes – the primary responsibility of financial intermediaries – are important issues, particularly given the specific risks associated with the payment business.

2|1 Risks liable to jeopardise the smooth functioning and security of payment schemes

Issuing and executing a payment order call for the implementation of a more or less complex technical and organisational infrastructure (see Box 1) that may engender various risks, which in turn could jeopardise the security and efficiency of the payment scheme:

- *Risks of malfunctioning.* A credit institution may, for example, be temporarily or permanently unable to process its customers’ orders or collect amounts due. Besides the financial difficulties that could result from this for the institution and, possibly, the other banks with which it does business, such malfunctioning could significantly disrupt the smooth execution of economic transactions and undermine the confidence of the users of the payment scheme in question.

- *Risks of fraud* (misappropriation of the payment instrument by a wrongful beneficiary). Both the payment instrument itself and the technical and

organisational arrangements that support the processing of payment orders must be adequately protected from fraudulent misuse. This risk is particularly strong when both the instrument and the arrangements for the processing of orders are computerised because the technical security of the payment scheme then depends directly on the existing computer environment. The changing nature of information technologies spawns new threats linked to the increasing sophistication of hacking techniques and the development of vectors that propagate these hacking attacks. It is therefore crucial to be constantly reactive in the face of such threats.

- *Governance risk.* This could be triggered by lack of anticipation, responsiveness, transparency or oversight by institutions that play a role in the payment chain, leading to the inadequacy of the technical, operational and organisational solutions adopted by these institutions.

- *Legal risks* that usually arise from non-compliance with legal requirements and emerge in situations of conflict linked to the contractual relations between the parties involved (issuers, service providers, customers, merchants, etc.). The risks can also result from possible contradictions between rules, professional standards or contractual obligations.

- *Reputational risk*, which could harm the reputation of a payment scheme or one of its promoters. This risk mainly hinges on the real or supposed gravity of one or several of the risks described above as well as the level of media coverage given to the risk.

2|2 The extent and limits of initiatives taken by managers of payment schemes

The risks liable to affect payment schemes (see above) must be controlled in order to ensure the smooth and secure functioning of these schemes. As described in Box 1, a payment scheme may be presented as a “network” whose “nodes”³ are the operators involved in the payment (debtors, creditors, financial intermediaries, etc.), which

³ See McAndrews (J.J.) (1999): “Network Issues and Payment Systems”, Federal Reserve Bank of New York.

exchange the information required to settle the transaction – information flows for example from the creditor to its bank, then possibly from the creditor's bank to the debtor's bank *via* a clearing and settlement system.

The development of such a “network” is based on the complementarity of the requirements of the operators involved. To be used by the largest number of people, a payment scheme must first meet users' (debtors and creditors) needs. This means the widest possible acceptance, low cost of use and sufficient security to guarantee final settlement of transactions and protection from fraud. This virtuous circle is particularly apparent in card payment schemes: the greater the number of card holders, the more worthwhile it is for retailers to put in place acceptance systems to facilitate their sales, and the greater incentive card holders have to use cards to settle their purchases. Users therefore assess the utility of a payment scheme based on the size of the “network”.

The need to develop the “network” while keeping the related investments in check leads naturally to co-operation between credit institutions. This co-operation calls for compatibility between the technical rules and standards that generate payment orders and processing. The various operators involved in the provision of payment instruments and the processing of payment orders must agree upon the methods and formats for the exchange of information. This compatibility is generally based on the standardisation of the procedures associated with processing, as well as strong governance of the payment “network” in order to guarantee the effective implementation of standards by all parties involved (mainly banks and creditors). Standardisation is therefore a vital vector of efficiency and generally results in economies of scale for all members of the “network”.

To meet this need, in 1930, the French banking industry set up the *Comité français d'organisation et de normalisation bancaires* or CFONB (the French Committee for Banking Organisation and Standards). It brings together all the financial institutions in the main aim of defining the rules and standards required for the smooth and secure functioning of payments. The *Association française de normalisation* (AFNOR – the French Standards Association) considers it as the bureau of standards in the field of banking. In the area of card-based transactions, a co-operative structure, the *Groupement des Cartes*

bancaires “CB” (“CB” Bank Card Consortium) was set up in 1984 on the initiative of the major French credit institutions. Currently made up of some 150 members, the “CB” Consortium is responsible for setting standards for cards issued by its members and ensures the security of the entire system of issuance and acceptance of approximately 48 million “CB” cards.

In such a co-operative system, the organisational and technical solutions adopted by the institutions must therefore also combine efficiency with the security of their payment network. Indeed, supplying the public with overly expensive payment services could lead to the public shunning these payment schemes, as could the provision of means of payment that are insecure or easy targets for fraud. An optimal balance between the efficiency and security of payment services must therefore be constantly sought.

Seeking this balance, which is a key element in the success of any payment scheme, is a task that falls first and foremost to credit institutions. A public authority may nonetheless take action to help to maintain the level of co-operation required for this optimal balance. Monitoring the co-operative initiatives necessarily undertaken by the industry is therefore, naturally, one of the objectives of the oversight of non-cash payment schemes.

2|3 The role played by the Banque de France

Historically, central banks have acted as guardians of the currency, a public good whose value must be preserved. This guardianship extends to non-cash payment schemes, which now stand in for cash in the overwhelming majority of economic transactions. It is therefore crucial for payment orders to be properly executed and for financial intermediaries that are in charge of funds held on account to be managed in a sound and prudent manner. This is the aim of the prudential regulation with which credit institutions are required to comply.

The oversight of payment schemes is therefore a natural concern for central banks – public authorities that have the independence required to ensure a level playing field for all parties involved.

This concern shared by all central banks became a legal obligation for the Banque de France with the passing of the Everyday Security Act of 15 November 2001.

In accordance with the Act, which amended Article L. 141-4 of the *Monetary and Financial Code*, the Banque de France is charged with “overseeing the security of means of payment other than banknotes and coins, as well as the relevance of standards applicable thereto. To perform its duty, the Banque de France may carry out assessments and collect any useful information. In addition, if it considers that any such means of payment provides insufficient security guarantees, it may recommend that the issuer takes all the necessary measures to remedy this situation. If the Bank's recommendations are not put into effect, it may, after having solicited the observations of the issuer, decide to issue a negative opinion in the *Journal officiel* (the French government *gazette*)”. The Banque de France's legal powers have thus been strengthened.

The task assigned to the Banque de France also falls within the framework of the Eurosystem's duties. The Maastricht Treaty in fact entrusts the European Central Bank (ECB) and the European System of Central Banks (ESCB) with the task of ensuring the smooth functioning of payment systems (Article 105-2), which also means overseeing the non-cash payment instruments processed by these systems (see ECB statement, June 2000).

3| THE BANQUE DE FRANCE'S CONDUCT OF PAYMENT SCHEMES OVERSIGHT

3|1 The principles

To conduct its oversight, the Banque de France analyses the potential threats associated with payment schemes and defines, in consultation with the parties involved, minimum security objectives designed to prevent the occurrence of payment-specific risk events. To assess the security of a payment scheme, the Bank ensures that the parties involved comply with these objectives.

To this end, the Bank's oversight approach takes account of the changing nature of the information systems put in place. Even when there are no changes in the means of payment scheme itself, there is likely to be some modification in its operational environment. In addition, new threats may arise from regular improvements in hacking techniques. They may weaken the real level of technical protection and, hence, the security of payment schemes. Oversight must therefore be based on the regular monitoring and supervision of the security and efficiency of payment schemes.

The Banque de France acts in close co-operation with all the operators that make up the payment “network” (the general public, merchants, issuers, etc.). With a view to guaranteeing the required level playing field for all these operators, it defines with total transparency the criteria used to assess the efficiency and security of payment schemes. Lastly, it refrains from hampering technological innovation and addresses itself to remaining neutral in the competition between issuers of payment instruments and between the various payment schemes themselves.

3|2 Implementation procedures

The *Monetary and Financial Code* sets out the obligations of the Banque de France with regard to the oversight of means of payment by defining its tasks in this area and its scope of application (Article L. 141-4). To perform its duty, the Bank must:

- have precise knowledge of the operators and payment schemes subject to oversight;
- provide itself with means of action;
- outline criteria for assessing payment schemes security;
- regularly assess the security of payment schemes with regard to issuers and managers and monitor changes made to the payment scheme to resolve the problems identified.

SCOPE OF APPLICATION

The oversight scope should cover the security and efficiency of the payment scheme, from the transaction phase (see Box 1) right up to the validation

and transmission of the payment order. The oversight scope encompasses the payment instrument as well as the technical and organisational procedures that support the processing of the payment order.

All the operators involved in the payment “network” as described in section 2 therefore fall naturally within the scope of the Bank’s oversight: credit institutions and interbank bodies responsible for the joint management or monitoring of the security of certain payment schemes (e.g. the “CB” Bank Card Consortium for bank cards, *La société financière du porte-monnaie électronique interbancaire* –SFPMEI– and the *Billettique Monétique Services* –BMS– for electronic purses), technical operators whose services in respect of payment schemes may have a significant security impact and users of payment schemes (debtors or creditors) insofar as they may also contribute to fraud prevention.

MEANS OF ACTION

The *Monetary and Financial Code* states that the Banque de France “shall ask [...] for all relevant information concerning means of payment.” The Banque de France therefore has numerous sources of information (internal control reports, fraud statistics, public information, etc.). In this regard, it may call not only on credit institutions and interbank bodies, but also on all service providers or operators that play a role in the payment chain, for instance accepting merchants. This legal provision enables a first level of analysis and verification of the security of the payment scheme as a whole.

The analysis of the information collected may help to identify the payment schemes that have insufficient security guarantees and lead the Banque de France to carry out assessments pursuant to Article L. 141-4 of the *Monetary and Financial Code*, which sets out that “for the performance of its duties, the Banque de France shall conduct expert analyses” (see section Assessment).

THE DEFINITION OF SECURITY ASSESSMENT CRITERIA

To carry out its oversight task, the Banque de France first of all develops risk analyses. In consultation with all the parties involved, it then

defines the prerequisites for attaining the highest possible and economically viable level of technical security for each payment scheme considered.

Analysis of payment scheme risks generally takes the following elements into account:

- *the financial health of the issuer involved in the payment scheme*, with regard to the financial and operational risks that it faces;
- *the soundness of the contractual agreements between the parties involved*, which, *inter alia*, determines users’ protection from the risk of financial loss, the risk of the non-performance of transactions under the expected conditions and the risk of fraud;
- *technical and organisational security*, which involves protecting the payment scheme from dangers to applications or the technical infrastructure.

The analysis is based on the construction of a model for the payment schemes considered. Within the model, descriptions of the functions implemented must remain sufficiently generic so as not to interfere with the technical and organisational solutions adopted by the promoters of the payment schemes.

The risks incurred are then distinguished according to the gravity of their potential impact. All categories of risk are taken into account, with special attention being focused on those linked to fraudulent activities.

The results of this risk analysis determine the security objectives that represent the Banque de France’s criteria for assessing the security level of the payment scheme under consideration.

The risk analysis and the security objectives defined are submitted for public consultation. This enables parties involved to voice their opinions on the relevance and efficiency of the security objectives proposed. The final versions of the model, the risk analysis and the security objectives are published following this consultation.

The Banque de France has therefore taken part in the definition of the various security standards and frameworks. At the end of 2003 it launched a public consultation on a cheque security framework. With regard to credit transfers made *via* banking web sites, the Banque de France, the General Secretariat of

the *Commission bancaire* and the *Conseil des marchés financiers* (Financial Markets Council) have asked the CFONB to define a protection profile for Internet banking and financial services. The objective of this protection profile is to ensure that the dangers to users and payment services are satisfactorily addressed in a manner commensurate with the risks assessed by the institutions. The Banque de France has also contributed within the Eurosystem to the definition of security objectives for electronic money systems. This work led to the adoption by the Governing Council of the ECB of a report entitled "Electronic Money System Security Objectives (EMSSO)", which was published in May 2003 and is henceforth used by the Eurosystem as a reference for the assessment of electronic money systems.

ASSESSMENT

In addition to the analysis of information collected on payment schemes, regular on-site assessments help to enhance the efficiency of oversight.

In the interests of ensuring their independent nature, the assessments are conducted by the General Inspectorate of the Banque de France on the basis of the security objectives defined.

It is then incumbent upon the issuer to take the required steps to implement the recommendations made by the Banque de France.

3|3 Actions complementing oversight

As part of its task of overseeing payment schemes, the Banque de France performs various activities that contribute to the efficiency of this oversight.

FRAUD MONITORING

Combating payment instruments fraud relies on the implementation of efficient detection and reporting methods to assess the extent of the fraud and facilitate the definition of preventive measures.

An efficient reporting tool is based first of all on defining the range of acts considered to be fraudulent and the typology of the fraud cases observed, and then organising the collection of the information required for the compilation of fraud statistics from the parties involved (issuers, merchants, the police force, etc.).

Fraud prevention calls for joint efforts and is largely outside the competitive field. While protecting the interests of all parties involved and ensuring the confidentiality of personal data, the Banque de France, in co-operation with issuers, organises the exchange of the information required for the compilation of fraud statistics.

At the national level, the *Observatoire de la sécurité des cartes de paiement*, the Observatory for Payment Card Security (see Box 2), is charged with compiling fraud statistics for payment cards. To this end, it has issued recommendations aimed at harmonising fraud calculation methods in the different card payment schemes. It published the fraud statistics for the year 2002 in its 2003 Annual Report, and those for 2003 in its press release of 6 October 2004.

Fraud prevention is also intended to be coordinated at the European level. This is reflected in the work of the European Payments Council (EPC, see Box 6) in the area of card payments.

ANTICIPATING NEW FORMS OF FRAUD

The Banque de France maintains a technology watch. It aims to keep an eye on the emergence of new payment schemes, identify nascent threats that could undermine the security of payment schemes and analyse the impact of new technologies on the payment services market.

The Banque de France has developed its own expertise so as to be able to carry out in-depth analyses and form an opinion on the assessments it may commission from external experts. Its analysis capacity has been strengthened by closer co-operation with government organisations responsible for information technology security.

Box 2**The Observatory for Payment Card Security**

Set up by virtue of the Everyday Security Act of 15 November 2001, the Observatory is chaired by the Governor of the Banque de France. It is a forum for dialogue that brings together members of Parliament, representatives of the relevant administrations, issuers of payment cards as well as retail and consumer organisations. The Banque de France provides the Observatory's secretariat.

The Observatory carries out three main tasks:

- monitoring the implementation of the measures adopted by issuers and merchants to enhance payment card security; it keeps abreast of the principles adopted and the main developments in the area of security;
- compiling fraud statistics based on information disclosed by issuers of payment cards;
- a technology watch aimed at proposing methods for combating technological attacks.

Lastly, the minister of the Economy, Finance and Industry may refer to the Observatory for an opinion.

Every year, the Observatory submits an activity report to the minister of the Economy and Finance and to Parliament. The 2003 report may be consulted on the Observatory's website: www.observatoire-cartes.fr

BACKING THE DEVELOPMENT OF SECURE MEANS OF PAYMENT

The Banque de France relies heavily on consultation to achieve its objectives in payment schemes oversight.

In this respect, the Banque de France was charged in 2002 with leading a working group of the *Mission pour l'Économie Numérique* (Mission for Digital Economy), which is attached to the French ministry of the Economy, Finance and Industry. In consultation with both public and private sector representatives, the Banque de France thus produced a forward-looking analysis of online payment security. This work led to a set of technical and organisational recommendations aimed at strengthening the security of online payment instruments. Two of these recommendations, the implementation of services enabling reliable and mutual authentication of the parties involved in an online payment transaction and the setting up of infrastructures making it possible to provide all natural persons with an electronic identity, are today recognised as being prerequisites for the smooth functioning of online payments.

The Banque de France also encourages the banking industry to be a real source of proposals in French strategy in respect of e-governance. The *Agence pour le Développement de l'Administration Électronique* (Agency for the development of e-governance), an inter-ministerial service attached to the Prime minister's office, has been set up and charged with steering activities in this area. The banking community is a central player in the creation of an environment of trust for these types of online services.

PARTICIPATING IN THE WORK OF THE OBSERVATORY FOR PAYMENT CARD SECURITY

The Observatory's work, in particular, its technology watch and the compilation of fraud statistics should in all likelihood be useful to the oversight of card payment schemes. Consequently, and with a view to generating the synergies required for the efficient conduct of these two tasks, the secretariat of the Observatory and the oversight of payment schemes come under the remit of the same centre of expertise at the Banque de France.

The efficiency and security of payment schemes are vital to the smooth functioning of modern economies and the maintenance of financial stability. It is therefore in the interests of not only market participants but also central banks to maintain users' confidence in payment schemes.

The way in which credit institutions adapt to sustain the balance between the security and efficiency of means of payment to a large extent conditions the development of future risks and, therefore, users' confidence in payment schemes. In this ever-evolving environment, central banks must play their role to the full because they are the guarantors of confidence in the currency and must ensure the smooth functioning of payment systems. The Banque de France constantly adapts in order to take on board all the changes in this area and to be able to carry out the oversight task entrusted to it by the law.

APPENDIX

The various payment instruments used in France

"TRADITIONAL" PAYMENT INSTRUMENTS

The table below indicates the breakdown, in number of transactions and amount, of the main non-cash payment instruments used in France since 1998. Data for 1998 and 2002 are taken from the latest edition of the "Red Book" published annually by the Bank for International Settlements (BIS).¹

While traditional payment instruments require the use of physical devices – e.g. payment cards or paper cheque forms – credit institutions execute the payment orders initiated by these instruments electronically, which facilitates the processing of mass transactions. Boxes 3 and 4 of the Appendix describe the procedures implemented in cheque or card-based transactions.

THE SPECIFICITIES OF THE FRENCH RANGE

In 2002, an average of 130 non-cash payments was made per year and per inhabitant in the euro area. The use of non-cash payment instruments in the euro area has been expanding in volume since 1998 at an

annual rate of around 5%. This regular rise is mainly due to the increasing use of payment cards. France is the European country where usage of non-cash payment instruments is most widespread: French citizens made an average of 218 non-cash payments in 2002. Some 25% of all non-cash transactions made in the EU are carried out in France.

France is one of the few remaining European countries, along with the United Kingdom, where cheques are widely used. Cheques issued in France represent roughly 53% of the total volume recorded in the European Union (28% for the United Kingdom).

As they are in France, payment cards are the most frequently used payment instrument in the EU, accounting for 32% of transactions. They rank ahead of credit transfers (28%), direct debits (25%) and cheques (14%).

A profoundly changing environment

THE EMERGENCE OF NEW PAYMENT SCHEMES

On the initiative of new entrants from sectors of activity such as telephony or the Internet, new payment schemes that are better adapted to the new types of commercial relations such as e-commerce have emerged.

Breakdown of the main non-cash payment instruments used in France

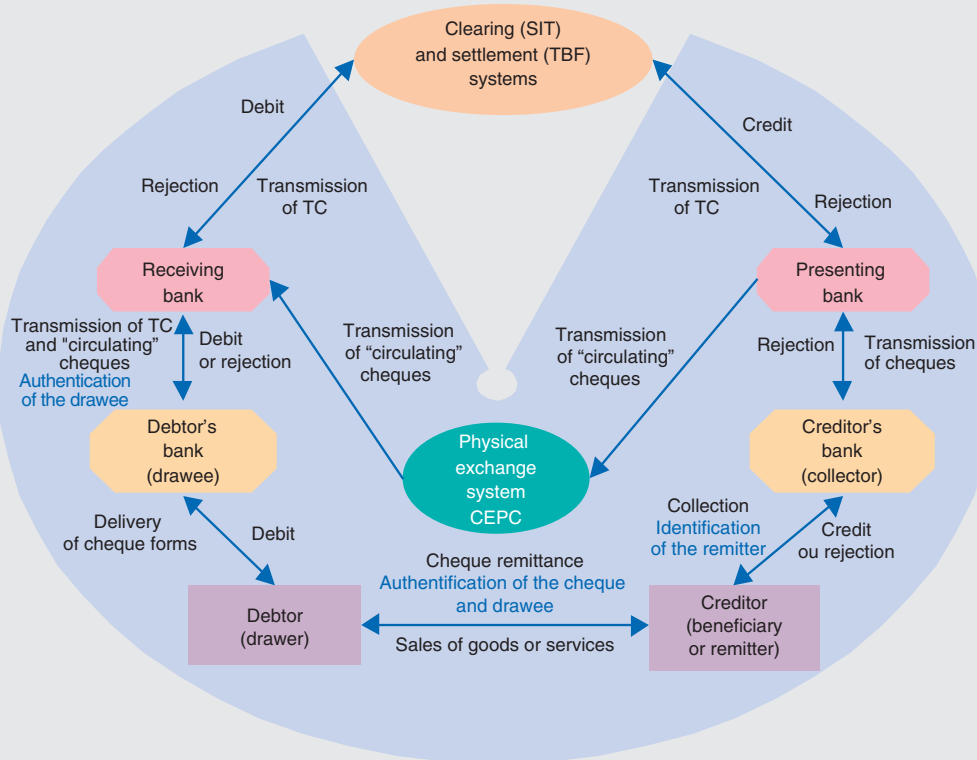
(Amount : volume in millions and value in USD billions ; share as a %)

	1998				2002			
	Volume		Value		Volume		Value	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share
Cheques	4,825	44	2,318	2,6	4,577	34	2,352	2,3
Cards (payment)	2,580	23	121	0,1	4,096	31	190	0,2
Credit transfers	1,951	18	84,900	96,7	2,493	19	96,181	96,7
Direct debits	1,578	15	525	0,6	2,183	16	751	0,8
Total	10,934	100	87,864	100,0	13,349	100	99,474	100,0

¹ Committee on Payment and Settlement Systems of the Group of Ten Countries (2004): "Statistics on payment and settlement systems in selected countries - Figures for 2002", Bank for International Settlements, March

Box 3

Organisation of a cheque transaction



Since June 2001, cheques have no longer needed to be physically exchanged in order to be cleared between institutions, as was previously the case in about a hundred "clearing houses" in France.

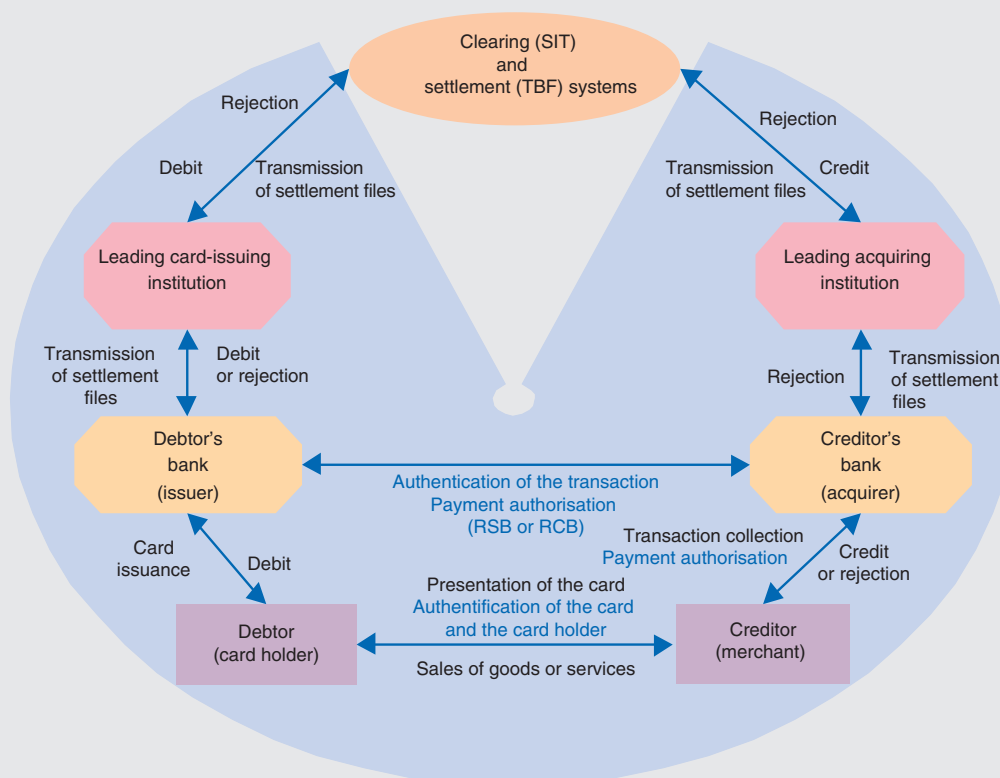
Henceforth, after being remitted for collection, cheques are "dematerialised" into computer files. These files known as truncated cheques (TC) incorporate the information required for their clearing and processing and are cleared via SIT, the French Interbank Teleclearing System.

The drawer therefore continues to use the paper cheque since it continues to receive blank cheque forms from the bank holding its account, which it may subsequently remit as payment instruments to creditors. The creditor remits the cheques it accepts for collection with its own bank, which, if it is itself a "presenting" bank in the exchange system, will carry out the data processing required to create the truncated cheque. The TCs are then transmitted via SIT.

However, only the TCs are cleared. The presenting bank does not transmit the paper cheques but stores them for a period of ten years. However, pursuant to criteria defined by the banking industry, the bank selects a small number of "circulating" cheques that are sent to the drawee bank concurrently with the data, solely for verification and not accounting purposes. These paper cheques are then exchanged via the Centre d'échange physique de chèques (CEPC – Centre for the physical exchange of cheques). In addition, the drawee bank may also wish to receive copies of certain cheques stored at the presenting bank. In such cases, the drawee bank requests a copy via SIT. Most often it will receive a reply directly by fax, and in some cases, via the CEPC.

Box 4

Organisation of a “CB” card transaction



In France, the “CB” bank card enables card holders to make payments to merchants affiliated to the “CB” system. The card holder is authenticated by means of a payment card and the keying-in of a secret four-digit personal identification number (PIN), and for transaction amounts exceeding a certain threshold, by signing a credit card slip. The acquiring institution guarantees the settlement of transactions presented for collection. Abroad, payments are made using international cards; the customer is authenticated by signing a credit card slip.

To combat fraud, “CB” cards incorporate mechanisms for checking the identity and authorisation of the card holder (verification of his/her identity and signature or PIN) and the authenticity of the card (detection of counterfeit cards). The verification is carried out by the chip (micro-processor) embedded in the card or via the telematics services provided on the computer servers of the card-issuing institution.

In a transaction involving the presentation of the physical card, the system thus uses the following main components:

- the chip card, which is the payment instrument and generates the electronic payment transaction;
- the acceptance system (payment terminal, ATM, etc.) which, inter alia, checks the authenticity of the card;
- the IT platform of the acquiring institution, the interface between the terminal and the RCB (Réseau des cartes bancaires) or RSB (Réseau de services aux banques) interbank networks;
- the RCB or RSB networks, which transmit requests for authorisation;
- the IT platform of the card-issuing institution, which replies to requests for authorisation.

The clearing system (SIT) ensures the clearing and settlement of payment orders between acquiring and issuing institutions.

These new schemes are often backed by one or more “traditional” payment instruments that have been adapted to the new communication channels (Internet and mobile telephone networks).

Cases in point are online payment mechanisms aimed at enabling fund transfers between individuals (“peer-to-peer”). In these transactions, the initiator first opens an account with a financial intermediary and credits it *via* a credit transfer, direct debit or card payment. The initiator then provides the details of a beneficiary that it contacts, for instance through e-mail, to inform him/her that the funds have been made available with an intermediary. It is then up to the beneficiary to contact the intermediary to obtain the funds through a transfer to his/her own bank account.

Other payment solutions put in place by telephone operators or Internet access providers are generally based on similar principles. They make it possible to settle purchases made from merchants that accept this type of payment *via* a telephone call or by logging on to a website. There are several procedures. In some cases the operator includes the amounts due to merchants in the telephone bill that it sends to the caller. The bills are then settled by cheque, transfer or direct debit. In other procedures, the caller pays the operator in advance by purchasing prepaid cards or crediting an “account” using a “traditional” payment instrument. Once the purchases have been made, the operator transfers the amounts owed to the merchants.

CHANGES AT THE EUROPEAN LEVEL

Payment schemes are part of a European environment that is undergoing profound legal and regulatory changes.

Almost two years ago, the European Commission took the initiative of launching a broad-based consultation on the appropriateness of, and procedures for, creating a harmonised legal framework for payment services within the European Union. The Commission made

proposals on regulations in the areas of efficiency and security of means of payment, access to payment services markets, competition and user protection (see Box 5).

The different phases of consultation conducted thus far by the Commission have clearly revealed a broad consensus on the need for the harmonisation and simplification of the rules governing payment schemes. They have nevertheless also shown that the choice of methods used to this end is under debate.

While significant efforts have also been undertaken by European banks they have so far had a limited impact on the euro area payments markets. In June 2002, the European banking industry set up a European Payments Council (EPC, see Box 6). The Council has outlined an ambitious working programme to create a Single Euro Payments Area and has proposed significant changes to the organisation of payment services in the European Union. A new European payment service for euro credit transfers has thus been set up. A number of other initiatives geared towards the establishment of the Single Euro Payments Area, such as the development of the Pan-European Direct Debit (PEDD) scheme, are also underway.

To ensure the smooth operation of the euro payment system, the Eurosystem is focusing on identifying obstacles to the creation of an integrated European area for non-cash payments and working out how to overcome them.

The Eurosystem has thus published four reports in five years on euro area payment services, initiated an ongoing dialogue with the EPC and developed security and efficiency objectives for electronic money systems. Studies are currently underway on the payment instruments that are of common interest to all euro area countries and whose potential cross-border use is significant. At present, they concern first and foremost card payment schemes.

Box 5**New legal framework for payments in the internal market**

The provisions set forth in the new legal framework should apply to all instruments intended for the European market. These are essentially credit transfers, direct debits, card payment schemes and various electronic payment schemes. Cheques and cash do not come under the scope of application of the new legal framework.

The principles defined for the drawing up of the new legal framework cover the efficiency and security of payment services, conditions of access to the payments market and user protection.

The efficiency and security of payment services should include aspects such as the irrevocability of payment orders, commitments in respect of payment order processing times.

Service providers that wish to develop payment services should be subject to an authorisation procedure based on terms and conditions that are yet to be defined. The principle of Europe-wide mutual recognition of authorisations should be maintained: a service provider that has obtained authorisation in one EU Member State should automatically receive authorisation in the other Member States of the Union.

The protection of users of payment services should focus mainly on information disclosure requirements as well as the rights and obligations of the parties involved in the payment in the event of dispute or fraud.

The Banque de France and the Commission bancaire support the Commission's undertaking to promote efficient and secure payment services, a level playing field, adequate customer protection and the technical, as well as legal, security of payment transactions by implementing an appropriate legal framework. The fact that payment services providers include funds to be transferred in their assets is a source of financial risk for the public and puts the case for a statute. In his regard, the Banque de France and the Commission bancaire are in favour of establishing a procedure for authorising and supervising all institutions that are liable to provide payment services, within the framework of statutes adapted to the diverse features and risks of these services. The development of these activities must be promoted under conditions that are satisfying from the standpoint of financial stability.

Box 6**European Payments Council**

The European Payments Council (EPC), which was set up in June 2002 by the European banks, has developed its own project for creating a single European payments market, known as the Single Euro Payments Area (SEPA). The EPC, which is the forum for consultation and decision-making among European banks, has set 2010 as the year for the achievement of this ambitious objective.

The EPC's work is based on close collaboration with the Eurosystem. The European Central Bank takes part in the different working groups set up by the EPC as an observer.

The pan-European harmonisation of payment instruments and the designing of an integrated clearing infrastructure have been considered indispensable to the implementation of the SEPA.

The harmonisation of instruments has taken concrete form in the creation of a pan-European credit transfer known as Credeuro, which is fully automated and has a maximum total execution time of three banking business days, and in the decision to create a pan-European direct debit whose pilot tests should be launched at the end of 2006. Work on combating international payment card fraud is also underway.

The EPC has defined a model for clearing infrastructures known as PE-ACH (Pan-European Automated Clearing House). All European infrastructures shall be required to comply with the criteria defined in PE-ACH. The STEP 2 system, which is operated by the Euro Banking Association (EBA), is the first infrastructure to comply with these criteria.