

# SPAIN

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## LIST OF ABBREVIATIONS:

AIAF	Association of Securities Dealers – <i>Asociación de Intermediarios de Activos Financieros</i>
BOE	Official Government Bulletin – <i>Boletín Oficial del Estado</i>
CADE	The Spanish Public Debt Book-Entry System – <i>Central de Anotaciones del Mercado de Deuda Pública en Anotaciones</i>
CECA	Spanish Confederation of Savings Banks – <i>Confederación Española de Cajas de Ahorro</i>
CEPS	Common Electronic Purse Specifications – <i>Especificaciones comunes de monedero electrónico</i>
CNMV	National Securities Markets Commission – <i>Comisión Nacional del Mercado de Valores</i>
EMV	Europay-MasterCard International-Visa International (integrated circuit card standards) – <i>Europay-MasterCard Internacional-Visa Internacional</i> (estándares para tarjetas con circuitos integrados)
INFOMEDAS	Network of book-entry public –debt inter-dealer brokers – <i>Red de Mediadores entre Negociantes de Deuda Pública Anotada</i>
MEFF RF	Spanish Futures and Options Market (fixed income) – <i>Mercado Español de Futuros Financieros (renta fija)</i>
MEFF RV	Spanish Futures and Options and Market (equities) – <i>Mercado Español de Futuros Financieros (renta variable)</i>
MEFFSA	Spanish Futures and Options Market S.A. – <i>Mercado Español de Futuros Financieros, Sociedad Anónima</i>
SCL Barcelona	Clearing and Settlement Service of the Barcelona Stock Exchange – <i>Servicio de Compensación y Liquidación de la Bolsa de Valores de Barcelona</i>
SCL Bilbao	Clearing and Settlement Service of the Bilbao Stock Exchange – <i>Servicio de Compensación y Liquidación de la Bolsa de Valores de Bilbao</i>
SCL Valencia	Clearing and Settlement Service of the Valencia Stock Exchange – <i>Servicio de Compensación y Liquidación de la Bolsa de Valores de Valencia</i>
SCLV	Securities Clearing and Settlement Service – <i>Servicio de Compensación y Liquidación de Valores</i>
SEMP	Spanish Society of Payment Instruments – <i>Sociedad Española de Medios de Pago</i>
SENAF	Fixed Income Electronic Trading System – <i>Sistema Electrónico de Negociación de Activos Financieros</i>
SIBE	Spanish Stock Market Interlinking System – <i>Sistema de Interconexión Bursátil Español</i>
SLBE	Banco de España Settlement Service – <i>Servicio de Liquidación del Banco de España</i>
SNCE	National Electronic Clearing System – <i>Sistema Nacional de Compensación Electrónica</i>
SNL	National Settlement System – <i>Sistema Nacional de Liquidación</i>
SPI	Spanish Interbank Payment Service – <i>Servicio Español de Pagos Interbancarios</i>

## INTRODUCTION

Spanish payment systems have undergone a great transformation during the last four years in order for Spain to be able to join the group of countries participating in the start of Stage Three of EMU.

In this respect, the two large-value payment systems which exist in Spain, namely the Banco de España Settlement Service (Servicio de Liquidación del Banco de España; SLBE) and the Spanish Interbank Payment Service (Servicio Español de Pagos Interbancarios; SPI), were either newly created in this period or experienced great changes.

The SLBE, created and managed by the Banco de España, started operations in 1996; it is the Spanish RTGS connected to TARGET. Besides settling cross-border transfers, it also settles domestic transfers and payments stemming from market operations and multilateral net systems.

The SPI, created and managed by the participating credit institutions, clears the transactions exchanged by its participants, settling the final positions at the Banco de España. The SPI has carried out the necessary changes to fulfil the Lamfalussy Standards in order to reduce the potential risks in the system.

In 1996, the low-value payment systems completed the task, begun in 1987, of exchanging electronically all the low-value payments in Spain through the National Electronic Clearing System (Sistema Nacional de Compensación Electrónica; SNCE), causing the disappearance of all the existing clearing houses. The SNCE, created by the credit institutions and Banco de España, and managed by the latter, clears all the low-value payment instruments which the participants exchange bilaterally, clearing their final positions on their accounts at the Banco de España. The SNCE also carried out the necessary changes for the introduction of the single currency, accepting the exchange of payments both in euro and pesetas, and settling the final positions in euro.

With regard to the use of different payment instruments by consumers, credit transfers and cheques are still the most used, followed by direct debits and bills of exchange and, finally, by debit and credit cards and electronic money. This last payment instrument has not developed as expected. Great changes are taking place in the means of communication used by customers, with increasing use of the internet instead of paper or magnetic media to initiate financial transactions. The transposition into Spanish law of the EC Directive on cross-border transfers has been achieved, allowing consumers to take advantage of better prices and execution times.

Payment systems oversight is a task explicitly conferred on the Banco de España under Spanish law.

As regards the securities settlement industry, it has developed significantly during the past five years, bringing the Spanish SSSs into line with new market needs. All of them were assessed as eligible for use in the Eurosystem's credit operations and, at present, they broadly meet the ESCB's standards.

Many changes have been introduced in the settlement procedures by the main Spanish SSSs, the Spanish Public Debt Book-Entry System (Central de Anotaciones del Mercado de Deuda Pública en Anotaciones; CADE) and the Securities Clearing and Settlement Service (Servicio de Compensación y Liquidación de Valores; SCLV), including the implementation of a gross real-time procedure in CADE for government debt securities, and the introduction of the settlement process cycle on T+3 in the SCLV.

Spanish law also establishes the requirements with which the SSSs must comply in order to be recognised as SSSs. The Spanish SSSs are limited liability companies (an exception is CADE, which is operated by the Banco de España), the main functions of which are to act as central registers and to manage the clearing and settlement of securities. They are not allowed to assume any risk in performing their functions and operate according to the cost recovery principle. All of them have DVP mechanisms in place. Payments are always made in Banco de España money.

The Spanish SSSs have set up bilateral links to other foreign CSDs for the cross-border transfer of securities on an FOP basis. It is also planned for these connections to provide DVP facilities in the future.

Within the context of the consolidation process which is taking place in Europe, two main events took place in Spain: the merger of the SCLV and Espaclear and the agreement reached between CADE and the SCLV, which aims to create one single CSD for all Spanish securities markets.

The SCLV and CADE, the latter managed by the Banco de España, have agreed to merge under the name IBERCLEAR. A joint-venture company was established in June 2000, establishing the basis for the future Spanish CSD. The SCLV owns 55% of the capital of this new company and the Banco de España 45%. This project is also open to the regional Spanish depositories (SCL Barcelona, SCL Bilbao and SCL Valencia) and to MEFFSA.

IBERCLEAR is not, for the time being, entrusted with operational activities. Its tasks are mainly to promote and prepare all legal, organisational and technical changes required in order to unify the CSDs and their SSSs. In addition, it is responsible for the international representation of both CADE and the SCLV and for strategic matters. Until the merger project is finalised, both CADE and the SCLV will continue to operate separately.

The finality of the payments and securities transactions channelled through the Spanish payments or securities settlement systems is legally ensured through the specific mention of both systems in the Law on Settlement Finality. This Law incorporates into Spanish legislation the EC Directive which regulates settlement finality in payment and securities settlement systems.

## 1 INSTITUTIONAL ASPECTS

### 1.1 The general institutional framework

The systematic regulation of the most important aspects of the payment and settlement systems was set up with the passing of Law 41/1999 of 12 November on payment and securities settlement systems, also known as the Settlement Finality Law. This important measure implements, inter alia, Directive 98/26/EC of the Council and the European Parliament regarding the finality of transactions in payment and securities settlement systems in Spanish legislation.

Furthermore, Law 41/1999 defines the criteria which the payment and securities settlement systems must meet in order to be legally recognised as such under Spanish law, as well as the complete legal regime with which they must comply.

In accordance with this law, the overseers of the payments and securities settlement systems are the Banco de España and the National Securities Markets Commission (Comisión Nacional del Mercado de Valores; CNMV).

Law 41/1999 on Settlement Finality specifically mentions the payment and securities settlement systems which, according to this law, are officially recognised in Spain. Even though other systems could be recognised in the future, those listed in the Law are:

- the SLBE;
- the SPI;
- the securities clearing and settlement systems of the different Spanish stock markets. Since January 2000 SCLV has also been responsible for the safekeeping and for the clearing and settlement system of the fixed-income private securities market of the Association of Securities Dealers (Asociación de Intermediarios de Activos Financieros; AIAF);
- CADE; and
- the clearing and settlement systems of the derivatives markets managed by MEFFSA.

#### 1.1.1 The regulation of payment settlement systems

The main law governing payment settlement systems is the above-mentioned Law 41/1999 of 12 November on payment and securities settlement systems. In addition, each system has its own internal regulations, which must comply with Law 41/1999.

The Banco de España determines the internal regulations of the SLBE. These rules are published in the form of circulars, orders, technical indications, etc. issued by the Banco de España and addressed to the member credit institutions. The Manual of the SLBE consists of all of these norms taken together. One of the most recent is Circular 3/2000 of 31 May, with the intention being to adapt the functioning of the SLBE to the rules established in Law 41/1999 of 12 November.

The SPI is governed by its own internal regulations, which have been adopted by the managing body of the system. The latest version of these internal rules is dated May 2000.

The SNCE was created by Royal Decree 1369/1987 of 18 September and Ministerial Order of 29 February 1988, which regulated the creation of the system. Its internal operating rules are determined by Banco de España's Circular 8/1988 of 14 June.

### 1.1.2 The regulation of securities settlement systems

All activities related to the Spanish securities markets are regulated by Law 24/1988 of 28 July on the securities market. This Law establishes the general principles to be observed by the organisation and operation of the primary and secondary securities markets, the basic rules governing the activity of individuals and institutions participating in those markets and their control and supervision.

This Law has been developed in different types of provisions issued by the central government (Royal Decrees)<sup>1</sup> and the Ministry of Economy (Orders), as well as by other provisions of lower rank issued by the CNMV and the Banco de España (Circulars). Specific operational and organisational rules for each securities market have – subject to the general provisions – been issued by the respective market governing companies or institutions (Rules and Regulations). In addition, some regional governments with powers in this field have the competence to issue provisions (Decrees and Orders) in respect of regional markets authorised by them.

Law 24/1988 of 28 July applies to all SSSs, namely the securities clearing and settlement systems of the stock markets, CADE, the clearing and settlement systems of the derivatives markets managed by MEFFSA and the clearing and settlement system of the AIAF fixed income private securities market (SCLV-AIAF).

Law 24/1988 has been modified by Law 37/1998 of 16 November on the reform of the securities markets, in order to incorporate into Spanish legislation Directive 93/22/EEC of 10 May, as well as Directive 95/26/EC of 29 June regarding investment services in the field of traded securities. It is worth pointing out two aspects of this reform: first, with regard to secondary markets, it establishes the rules of access to membership, regulates the lending facilities and amends the operational regime; second, the new regulation of financial intermediaries reorganises the types of entities participating in the markets and establishes their regime.

Law 37/1998 was the first law to regulate the IGFs, as required by Directive 97/9/EC on investor compensation schemes, so that no investment firm authorised in any EU Member State may carry on investment business unless it belongs to such a scheme. IGFs ensure that investors are covered in the event of an insolvency or when ISFs are for any other reason unable to meet their obligations to investors. They are similar to the deposit guarantee funds of credit institutions.

Although Law 24/1988 has a general purpose, there are specific laws which regulate particularly relevant aspects in greater detail, such as Law 2/1981 of 25 March on the mortgage market; Law 19/1992 of 7 July on assets securitisation; Law 46/1984 of 26 December on collective investment undertakings (repeatedly amended); and also the above-mentioned Law 41/1999 of 12 November on payment and securities settlement systems.

Finally, the set of laws, rules and regulations relating to credit institutions must also be taken into account, considering their important role in the field of securities markets (see Section 1.1.3).

Each SSS has specific rules which elaborate the above-mentioned laws. CADE is regulated by Royal Decree 505/1987 of 3 April, and elaborated by Ministerial Order of 19 May 1987.

The SCLV is regulated by Royal Decree 116/1992.

The derivatives markets managed by MEFFSA are governed by Royal Decree 1814/1991 and by the internal MEFFSA rules approved by the CNMV.

The fixed income private securities market of the AIAF is regulated by Ministerial Order of 1 August 1991, later amended by Ministerial Orders of 11 May 1993 and 19 November 1996. These Orders approve the rules governing the market and the regulation of the AIAF, which is in charge of promoting and organising the market.

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<sup>1</sup> Royal Decrees, in hierarchical terms, come immediately below Laws. They are central government provisions which set rules detailing and completing those established by Laws.

### 1.1.3 Other legal rules

Law 41/1999 establishes that the disciplinary regime applicable to the members of payment and securities settlement systems supervised by the Banco de España is Law 26/1988 of 28 July on discipline and intervention of credit institutions (*Ley de Disciplina e Intervención de las Entidades de Crédito*). With regard to the SSSs supervised by the CNMV, the disciplinary regime should be the one stated in Law 24/1988 of 28 July on securities markets.

Another, more general, but relevant, legal provision to be mentioned because of its importance in relation to the payment and securities settlement systems is Law 1/1946 on the banking system (*Ley de Ordenación Bancaria*), which establishes the legislation applicable to credit institutions in Spain. This law has been adapted to EC regulations by means of the Legislative Royal Decree 1298/1986 of 28 June. By contrast, the creation of new banks in Spain and the entry of foreign credit institutions are governed by Law 3/1994 of 14 April and Royal Decree 1245/1995 of 14 July. The latter regulations adapt Spanish legislation on credit institutions to the Second Banking Co-ordination Directive (now modified by Directive 2000/12/EC), allowing the free establishment in Spain of EEA credit institutions.

The Antitrust Law (*Ley de Defensa de la Competencia*, Law 16/1989 of 17 July, broadly amended by Law 52/1999 of 28 December) should also be mentioned. This law, applicable to payment and settlement systems, prohibits any abuse of a dominant position and any agreements which restrict competition.

The protection of credit institutions' customers, as well as the transparency of the banks' transactions with them are guaranteed by Law 26/1988 of 28 July on discipline and intervention of credit institutions. These provisions, which concern customers' rights, were further detailed in Ministerial Order 31/1989 of 12 December, which elaborated the above-mentioned law. This Ministerial Order delegated to the Banco de España the powers to determine and enforce several measures relating to the banks' legal duty of transparency and public disclosure in respect of the conditions which they offer their customers. It also determined the creation of the Complaints Service of the Banco de España (*Servicio de Reclamaciones del Banco de España*), a body which deals with complaints from the customers of credit institutions. The rules of this Banco de España service are detailed in the Circular 8/1990 of the Banco de España of 7 September, later modified by several other Circulars.

Finally, the rules applicable to the transition process to the euro are established in Law 46/1998 of 17 December on the implementation of the euro. This law establishes the legal measures necessary for a smooth transition to the new currency, as well as measures to ensure the continuity of contracts under the new currency. The law is complemented by Organic Law 10/1998 of 17 December 1998.

## 1.2 The role of the Banco de España

The main tasks of the Banco de España are defined in Law 13/1994 of 1 June, called the Autonomy Law of the Banco de España (*Ley de Autonomía del Banco de España*). The Autonomy Law defines the Banco de España as a government institution subject to public law, which, although reporting to the government in general terms, enjoys full autonomy as far as monetary policy is concerned, with the main objective of such policy being price stability. The Autonomy Law has recently been adapted in view of Spain's participation in Stage Three of EMU by way of a reform of the Autonomy Law (Law 12/1998, of 28 April). The aim of this reform is the full integration of the Banco de España into the ESCB and the recognition of the authority of the ECB in the field of monetary policy given Spain's integration into the euro area.

Other fundamental legislative measures which define the nature, purposes and functions of the Banco de España are the Banking System Law (*Ley de Ordenación Bancaria*) of 31 December 1946, Royal Decree 18/1962 of 7 June on the nationalisation and reorganisation of the Banco de España, and Law 26/1988 of 29 July on discipline and intervention of credit institutions (*Ley de Disciplina e Intervención de Entidades de Crédito*).

With regard to payment and securities settlement systems, the Autonomy Law states that the Banco de España must promote the sound functioning and stability of the financial system as a whole and, in particular, of payment settlement systems. To this end, the Banco de España may regulate interbank and foreign exchange markets. It is also authorised to directly manage payment settlement systems.

Law 41/1999 also establishes the general requirements for membership and operating rules of the different payments and securities settlement systems which the Banco de España (or the CNMV in the case of securities markets) must approve if the systems are to be recognised by law. On the other hand, for a payment or securities settlement system to be legally recognised, a resolution of approval by the government is necessary. This decision is taken on the basis of a report issued by the Banco de España and addressed to the Government.

The Banco de España (or the CNMV in the case of securities markets) is responsible for reporting to the European Commission on the various payment and securities settlement systems which comply with the requirements laid down in Law 41/1999.

The Autonomy Law stipulates that another function assigned to the Banco de España is banking supervision. In addition, the Banco de España is in charge of the oversight of the payment settlement systems, namely the SLBE, the SNCE and the SPI. CADE, the SSS for the government debt book-entry system, is the only SSS managed by the Banco de España, and the oversight function of the system is thus exercised by the Banco de España in conjunction with the Spanish Treasury.

The SLBE is owned and directly managed by the Banco de España. The central bank acts as the overseer of the system and it is also responsible for the operating rules of the system (see Section 1.1.1).

The Banco de España does not manage the SPI, but the central bank oversees the system via the Monitoring Board of the SPI (Comisión de Seguimiento), the Chairman of which must be a staff member of the Banco de España. One of the important functions of this Board is to oversee the drafting of the internal regulations of the system.

## **1.3 The role of other private and public sector bodies**

### **1.3.1 The National Securities Markets Commission**

The CNMV is a public law institution created under the Law on securities markets (Law 24/1988 of 28 July). This Commission is in charge of the supervision and oversight of the securities markets and of the individuals and institutions participating in such markets.<sup>2</sup>

All the SSSs are supervised by the CNMV, with the exception of CADE, which is supervised by the Banco de España.<sup>3</sup>

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<sup>2</sup> See Section 4.1.1.3.

<sup>3</sup> See Section 4.3.1.3.

## 2. PAYMENT MEDIA USED BY NON-BANKS

### 2.1 Cash payments

The preference of Spanish customers for cash payments still prevails for several historical reasons, among which tradition seems to be an important reason. Not even plastic cards have affected this trend, since the existence of a widespread ATM network permits fast cash withdrawals. Banknotes and coins are widely used, as shown by the upward trend in the M1 aggregate (approximately 13% on average in recent years).

Spanish banknotes in circulation have different denominations, such as ESP 10,000, 5,000, 2,000 and 1,000 (€60, 30, 12 and 6). Coins of ESP 2000, 500, 200, 100, 50, 25, 10, 5 and 1 (€3, 1.2, 0.60, 0.30, 0.15, 0.03, 0.006) are also in circulation (sometimes commemorative coins with legal tender status are issued).

### 2.2 Non-cash payments

Non-cash payments are based on transferable deposits, which include current accounts and savings accounts. Credit institutions are free to set the interest rates they pay on these accounts provided that they inform the Banco de España as well as their customers in a timely manner. This approach reflects the Banco de España's commitment to consumer protection, covering several issues from the provision of information to the resolution of conflicts through its Complaints Service.

Credit transfers, direct debits and, to a wider extent, debit and credit cards have contributed to a significant decline in both the number and value of cheque transactions. In terms of volume, direct debits take the lead (50.56%), followed by debit and credit cards (24.28%), credit transfers (14.48%) and cheques (10.68%). In terms of value, the most important payment instrument is the credit transfer (47.20%), followed by cheques (38.66%), direct debits (12.92%) and debit and credit cards (1.23%).

#### 2.2.1 Credit transfers

Both the public and private sectors employ this payment instrument for paying labour-related liabilities, i.e. wages, subsidies and pensions. Since 1992 all transfers have been communicated and cleared in a fully automated way through the SNCE (see Section 3).

The increasing importance of information technology (IT) in the banking business, including its economies of scale, have led most credit institutions to provide traditional customers with alternative means for communicating their transactions.

#### 2.2.2 Cheques

Unlike other European countries, cheques are very widespread in Spain and are one of the most important payment instruments in terms of value. However, the flexibility of credit transfers, direct debits and cards (both credit and debit) favours the replacement of the former by the latter.

Cheques are still of great importance (and represented an estimated 38.66% of the total of cashless instruments used in terms of value in 1999) owing to ingrained customer habits and their cost-transfer effect, i.e. the beneficiary bears the corresponding charges when presenting the cheque to his/her credit institution. It should also be noted that cheques as well as bills of exchange imply a very strong legal obligation.

#### 2.2.3 Direct debits

Being the most significant payment instrument in terms of volume, direct debits are steadily being used for all manner of public utility services (telephone, water, electricity, etc.). Given the nature of the related obligations

the average amounts are rather small. Indeed, in terms of value, they are the least significant compared with all other cashless payments.

A direct debit order is issued in a standardised way by the creditor, who has been previously authorised by the debtor to charge the account. Sometimes, before the amount is charged to the payer's account, the payer is sent an advance notice, which gives it the opportunity to challenge an incorrect payment.

Direct debit orders are cleared and settled in the SNCE.

## 2.2.4 Payment cards

Payment card issuing institutions belong to one, or more, of the three different existing network providers<sup>4</sup> in Spain. The Spanish Society of Payment Instruments (Sociedad Española de Medios de Pago; SEMP), Sistema 4B and the Spanish Confederation of Savings Banks (Confederación Española de Cajas de Ahorro; CECA) manage their respective networks and provide their members with their own clearing house services. Settlement is later performed via the SNCE.

Both types of payment card, the credit and the debit card, have gained substantial market shares by comparison with other payment instruments. However, in spite of this increase, card-related payments still constitute only a small proportion of all cashless payments in Spain.

The use of ATMs and EFTPOS terminals is remarkably low given the number installed: approximately four cash withdrawals per year per card at ATMs and eight transactions per year per card at EFTPOS terminals. In 1999 the average value of each transaction was €61.23 (ESP 10,187) via EFTPOS and €72.30 (ESP 12,029) at ATMs.

The use of debit and credit cards is not regulated; thus it is the issuers which impose conditions upon cardholders and retailers when signing membership agreements.

### *Debit cards*

These payment cards<sup>5</sup> issued by credit institutions allow their customers to have transactions directly debited from their current accounts. They can be used at ATMs and for EFTPOS transactions. In the latter case, as with credit cards, retailers receive the proceeds of sales by debit card on their current account on the following day and their bank, in turn, deducts a percentage of the sales turnover paid by cardholders. Though traditionally free of charge, almost all debit cards now bear a relatively low fixed commission on their issuance and renewal.

Debit cards are more common than credit cards. Figures for 1999 show that approximately 1,073 cards existed for every 1,000 persons.

### *Credit cards, travel and entertainment cards*

Only credit institutions are legally authorised to issue credit cards. The latter are widely used under various internationally recognised brands such as Visa, Euro/MasterCard, American Express or Diners Club. Visa, the most widely used credit card in Spain, is managed by two companies: Visa España and Visa International. As with debit cards, an annual fee is charged for credit cards and is paid by the holder.

Cardholders often enjoy additional benefits, such as life/travel insurance and travel assistance services.

As with debit cards, almost all transactions (98.33% is the estimate for 1999), whether authorisation or data transmission, are performed electronically.

<sup>4</sup> Currently CECA and Sistema 4B are finalising a merger agreement which will result in a decline in the number of service providers.

<sup>5</sup> Debit cards in Spain are usually ec-cards.

*Retailer cards*

Retailer cards are typically issued by department stores and can therefore only be used for purchases in the issuer's store or in a chain of stores (or in shops which have bilateral arrangements). It is advantageous for issuers that these cards allow cashless payments as it makes them less dependent on high levels of liquid assets in cash form. Usually these cards are free of charge and some of them also include additional advantages such as the ability to pay for goods and services in several instalments at no extra cost, or to accumulate points which are exchangeable for goods or services sold in the issuer's store. Hence these cards are intended as a means of encouraging customer loyalty, increasing the number of customers and consequently boosting sales.

*Prepaid cards*

Three different multi-purpose prepaid card schemes are currently in operation in Spain under the aegis of the previously existing payment card network providers: Visa Cash, Monedero 4B and Euro 6000. They offer a reloadable electronic purse product, issued by a credit institution which is supposed to replace banknotes and coins for low-value payments. These cards are not widely used, as only 2 million operations with a total value of €5.7 million (ESP 949 million) were recorded in 1999, despite the fact that they can be used in more than 130,000 terminals.

The card is charged online by the holder in ATMs which are specifically designed for this purpose, while purchases are made offline, without recourse to a PIN or the issuer's authorisation. Money stored on prepaid cards is subject to compulsory minimum reserve requirements since it is legally defined as repayable funds by Royal Decree 1245/1995 of 14 July. Similarly, the Spanish deposit guarantee scheme is also extended to this type of card, covering up to €20,000.

Single-purpose prepaid card schemes are mainly limited to universities or enterprises, in addition to the telephone cards issued by Spain's leading telecommunication company, which permits national and international calls to be made from public telephone boxes.

*ATM and POS networks*

Three networks have been operating in Spain since the 1970s: Servired, Sistema 4B and Red 6000. Almost all credit institutions are linked to one of these networks, be they a savings bank (CECA is the manager of Red 6000) or another type of credit institution.

These networks are fully interoperable and so any card issued by a credit institution linked to one of the schemes can be used at any ATM or POS, regardless of the scheme's provider.

The large number of ATMs and POS, which is partly due to the extensive network of bank branches, is currently expanding owing to a customer-oriented strategy which explains why Spain still has one of the largest networks in Europe (in 1999, Spain had 1,051 ATMs and 18,695 POSs per million inhabitants, one of the highest proportions in the EU).

Spanish-issued debit and credit cards can also be internationally used as a result of various agreements with other international network providers, particularly in Europe, as is the case with Sistema 4B in Portugal, Andorra, Italy, the United Kingdom and Belgium. Trademarks such as Visa, American Express or Diners Club are internationally recognised and Red 6000 cards<sup>6</sup> are compatible with ATMs belonging to EUFISERV (European Savings Banks Financial Services Company) members.

**2.2.5 Postal instruments**

The use of postal instruments in Spain is negligible. Furthermore, the Spanish Post Office, though still a public enterprise, does not have credit institution status. Thus the Post Office cannot directly provide any payment-

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<sup>6</sup> Red 6000 is a brand of debit and credit cards, which are issued by some of the Spanish savings banks belonging to CECA.

instrument related services; this can only be done by a credit institution which offers its services through the Post Office. Therefore, clearing and settlement is performed by the credit institution in the same way as explained above.

### **2.3 Recent developments**

All card network schemes (namely Servired, Sistema 4B and Red 6000) have agreed on common specifications in order to achieve the full interoperability of prepaid cards within the next few years. By taking part in the Common Electronic Purse Specifications (CEPS) and the Europay-MasterCard International-Visa International integrated circuit card standards (EMV) projects, card network schemes are effectively extending their interoperability to an international level.

Software-based e-money developments are still at a very early stage and only a few issuers have thus far carried out pilot schemes within small communities. Nevertheless, e-commerce, mobile banking and home banking are spreading rapidly and aim to provide faster and more efficient services.

Mobile banking (m-banking) is growing, with a whole new range of services to be announced over the short and medium term. M-banking will be implemented through several agreements reached between the country's main credit institutions and telecommunication operators. Although these will initially be for low-value transactions, no limits on the amounts have yet been set.

## 3. INTERBANK EXCHANGE AND SETTLEMENT SYSTEMS

### 3.1 General overview

A clear difference between high and low-value payment systems still exists in Spain, although all of them have undergone great changes during the last four years. The SLBE has become an RTGS system and the SPI, the other large-value payment system, has developed into a multilateral net system, conforming to the Lamfalussy Standards. Both systems guarantee the finality of payments channelled through them in accordance with the Law on Settlement Finality (Law 41/1999).

With regard to low-value payment systems, the development of the SNCE has been completed, meaning that the netting and clearing of all kinds of instruments are performed electronically by different sub-systems. The SNCE performs nearly all the tasks of the traditional provincial clearing houses, which ceased operating in 1996.

### 3.2 Real-time gross settlement system: Banco de España Settlement Service

The SLBE is the Spanish RTGS system connected to TARGET. It has been operating since 1996.

The system was developed by the Banco de España, which also acts as the operator and overseer of the system. Most of the credit institutions in the Spanish financial system, 230 at present, are direct participants in the SLBE. It settles domestic and cross-border transfers, secondary markets transactions, multilateral net systems and monetary policy operations. Furthermore, it offers additional services such as the matching, registering and procurement of market transactions statistics.

Through the SLBE, the participating institutions can manage the liquidity of all their accounts held at the different branches of Banco de España. The participants may initiate money transfers between those accounts depending on their liquidity needs, with the purpose of keeping all the liquidity available in the RTGS account.

#### 3.2.1 Operating rules

The system rules are laid down in the Circulars and Technical Applications released by the Banco de España, which are contractually binding on the participants. These contracts and the obligation to open an RTGS account in the SLBE books are the main pre-conditions for participation in the system.

#### 3.2.2 Participation

The SLBE is an open system in which credit institutions may participate, provided that they are based in the EEA and are subject to prudential oversight in accordance with Directive 2000/12/EC on banking co-ordination. Furthermore, investment companies subject to the same criteria (Council Directive 93/22/EEC), treasury institutions and their equivalents at the regional level and clearing houses can be participants in the system.

Remote access to the SLBE may also be granted to credit institutions with a permanent base in any EEA country.

In November 2000 there were 230 direct participants in the SLBE, 33 of which were branches (subsidiaries) of foreign credit institutions, of which 22 were from EU countries.

#### 3.2.3 Types of transactions handled

The SLBE settles the large-value payments of its participants, both on their own behalf and also on behalf of their customers.

In terms of value, the main financial transactions settled in the SLBE are the cash leg of transactions relating to public debt registered in CADE and the cross-border credit transfers channelled through the national Interlinking component. These are followed by domestic credit transfers and transfers relating to money market operations. Finally, the multilateral net systems which settle their net balances in the SLBE should be mentioned (stock exchanges, low-value payments, derivatives, the SPI, etc.).

Transactions on behalf of the Banco de España are also processed and settled in the SLBE, provided that the Banco de España is a normal participant in the system.

### **3.2.4 Operation of the transfer system**

The insertion of payment orders into the SLBE can be performed through the SWIFT network or by means of a single-purpose terminal workstation with an online connection to the Banco de España computer. In the latter case, the participants may choose between the transmission of files (batches of payments) or the manual entering of payments on a transaction-by-transaction basis. While using the SWIFT network, the necessary security measures (authentication, confidentiality, integrity and non-repudiation) are guaranteed by SWIFT. If the online connection to the Banco de España is used, the necessary security checks (institution codes, operator codes, message encryption, etc.) are performed by the software designed by Banco de España.

The SLBE participants can choose one of these three types of communication procedure (transaction-by-transaction through terminal, batches of payments through terminal or communication via SWIFT) or a combination of them to enter their payment orders into the system and to receive payments addressed to them. The fact that they can choose the way in which they participate enables credit institutions to take into account their business requirements (number of operations, available resources for internal development, etc.), makes the system flexible and facilitates the participation of both large and small institutions.

The possibility of using an alternative system for access as a backup contributes to the very high availability and reliability of the SLBE.

Sending institutions are the only ones which must communicate their transactions, except for those transactions which originate from the secondary market (interbank deposits and public debt registered in CADE) which require communication from both participants involved in the operation in order to be matched, registered and settled in the SLBE. For this kind of operation, the SLBE offers online information on transaction discrepancies between the parties in order to resolve incidents swiftly.

The SLBE also settles the balances arising from the clearing of multilateral net systems. The manager of each system reports the final positions to the SLBE by simply using a computer terminal. The SLBE carries out clearing, ensuring that credit positions are not credited before all debit positions have been debited.

The transfers received at the SLBE are processed in real time, debiting the originating institution's account (and crediting the beneficiary account, as the case may be). Where insufficient funds or collateral are available for a possible overdraft, the order will be queued. The position of the order in this queue will depend on the priority assigned to that type of transaction and, if two or more have the same priority, the transactions will appear according to the FIFO principle. The participating institutions can give top priority to one of their transactions. Once funds are received, the first transaction in the queue is settled, unless its value is higher than the new available balance. In this case, the system will continue the search until it finds a transaction which can be settled.

Payments and their final settlements are fully transparent for credit institutions provided that the whole process can be monitored online by the terminals connected to the Banco de España's computer. The same applies to those orders entered through SWIFT. From these terminals, credit institutions can also obtain detailed information on the status of the participants' accounts (balance, settled and queued transactions, payments in its favour retained due to a lack of funds on the originating side, statement of the multilateral net systems settlement, statement of cross-border transactions, etc.). This gives all participants an overview of the settlement process, facilitating both payment flows and cash management.

### 3.2.5 Settlement procedures

Transactions are settled as and when they are received provided that there are sufficient funds or collateral.

In order to optimise liquidity management, the SLBE has several optimisation mechanisms. If a participant enters a payment order and there are no funds available, the SLBE checks whether the receiving institution also has payments for the first participant which are queued. If this is the case, it will try to match them, and, if possible, to settle them. This process is continuously and automatically performed during the whole session.

In order to resolve gridlock situations, the SLBE operators may start optimisation processes which take into account the queued transactions, the multilateral systems' credit transfers which are pending owing to non-settled debit positions, public debt transactions registered in CADE and available balances. With the aid of this information, a virtual balance is calculated as if all the transactions were going to be settled. (These optimisation processes can be initiated, on a discretionary basis, whenever necessary.) If there are sufficient funds the transactions are settled, and if there are not, the institution faced with a lack of liquidity is required to supply more funds or its transactions will be excluded.

At the end of the day, non-settled transactions are cancelled.

### 3.2.6 Credit and liquidity risk

As the system is an RTGS system, it does not carry any credit risk.

In order to reduce the liquidity risk, the SLBE has specified a settlement timetable for the different multilateral net systems. In this way, institutions can manage their liquidity efficiently and avoid the accumulation of non-settled payments.

Credit institutions can also obtain intraday credit, at no cost, by pledging securities or by means of reverse transactions based on repurchase agreement operations. The greater part of intraday credit in Spain is obtained through these repo operations.

Repo operations are fixed the afternoon before, D -1, and are settled at the start of day D. If a credit institution finds that its liquidity is higher than expected, it can reduce the surplus during the session by cancelling repos in advance; this will be carried out immediately, insofar as CADE settles in DVP. The remaining transactions will be cancelled at the end of the day.

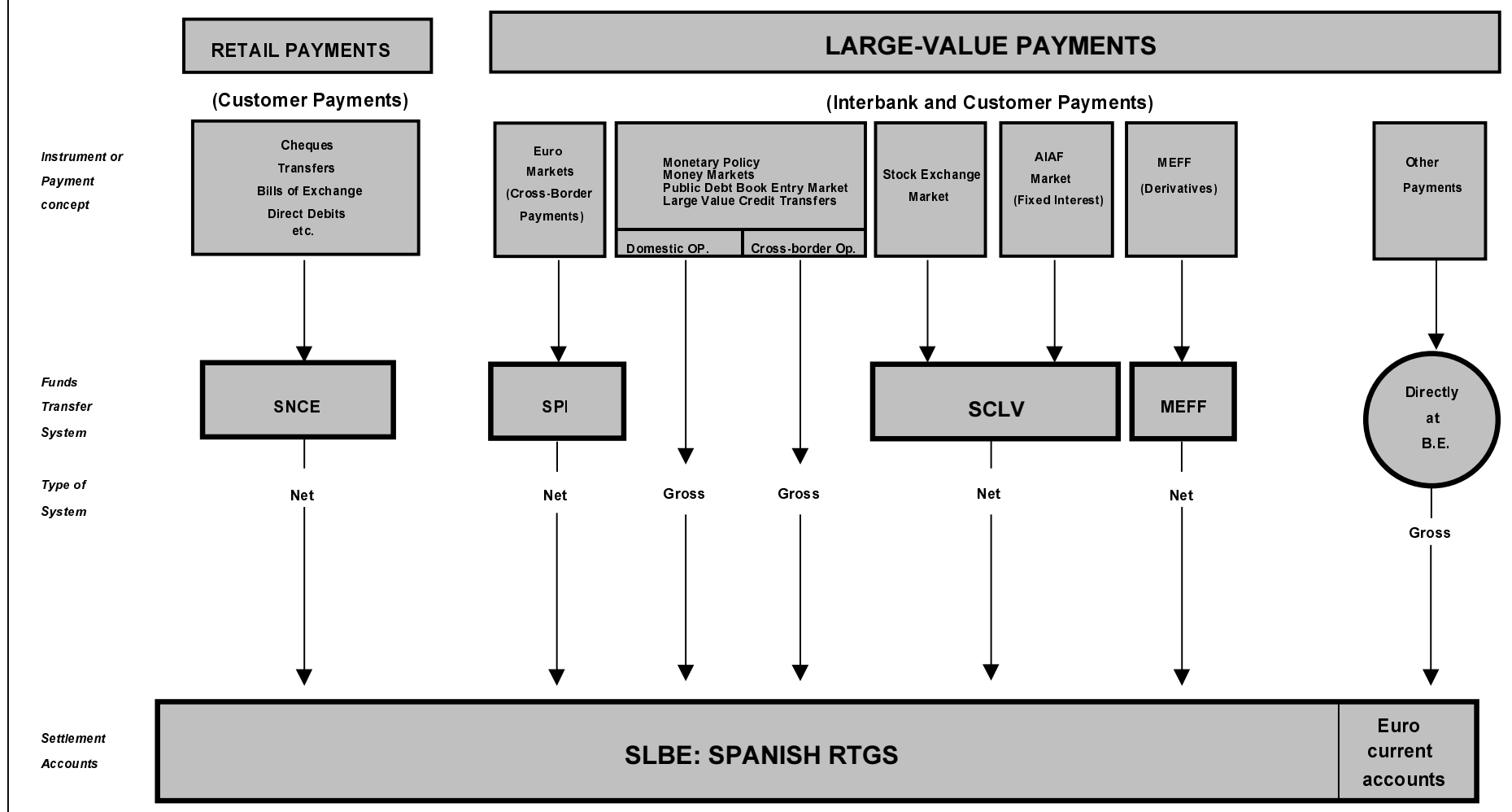
If the intraday credit cannot be returned at the end of the day, credit institutions can use the Eurosystem's standing facilities, turning their intraday credit into overnight credit, provided that the institution has sufficient collateral.

### 3.2.7 Prices

The SLBE has fixed a monthly fee, as well as a price per transaction, which depends on the additional services provided according to the type of transaction (matching, registering, reports, statistics, etc.). Both fees are calculated according to the cost recovery principle.

The connection and communication charges are borne by the participants. Access to the SLBE through a computer requires a PC with specific software, and a flat rate must be paid for the telecommunication. When accessing through SWIFT, the costs are those inherent to the technical requirements of the network and the rates fixed for each transaction.

## THE ORGANIZATION OF THE SPANISH INTERBANK PAYMENT SYSTEM



### **3.3 The Spanish Interbank Payment Service**

The SPI is a net settlement system which clears and settles large-value payments in euro.

The SPI was set up in 1997 as the result of the upgrade of the former Second Session of the Madrid Clearing House in order to comply with the Lamfalussy Standards. This transformation was performed in order to control the risks inherent in this type of system, and consisted of establishing limits on the participants' exposures and the reinforcement of settlement finality.

Since 1 January 1999 all payment orders processed have been denominated in euro. The SPI has thus become one of the European large-value net settlement systems.

#### **3.3.1 Operating rules**

The SPI is owned by its participants. The SPI Monitoring Board manages the Service, and is responsible for issuing, laying down and amending the system's operating rules, which are compiled mainly in the Basic Functioning Regulation and the Operating Instructions. These rules, which must be given final approval by the Banco de España, are compulsory for the participants, as indicated in their partnership agreement.

The Banco de España chairs the SPI Monitoring Board and supervises the activity of the service. The President of the SPI must also be a staff member of the Banco de España.

The finality of payments settled through the SPI is guaranteed as the SPI is recognised as one of the Spanish settlement systems included in Law 41/1999 (Law on settlement finality), which incorporates into Spanish legislation Directive 98/26/EC of the Council and of the European Parliament of 19 May 1998.

#### **3.3.2 Participation in the system**

All the credit institutions established in the EEA, as defined in Directive 2000/12/EC on banking co-ordination, can be SPI members, provided that they are under the prudential supervision of their domestic qualified authority. Participants must also comply with the admission requirements in terms of solvency, technical capacity, SWIFT equipment, and acceptance of the SPI rules.

There are two forms of participation, either as a direct member (associate) or as an indirect one (through an associate). Associate members take part directly in the exchange, clearing and settlement on their own behalf, and some associates also act on behalf of indirect participants. Remote participation is also possible.

With regard to the December 1999 figures, the number of participants is 203, of which 39 are direct members. Six of these are subsidiaries of foreign banks (three of EU banks and three of non-EU banks).

#### **3.3.3 Types of transactions handled**

The SPI currently clears large-value payments denominated in euro. The bulk of the operations settled through the SPI can be considered as cross-border (95%) and include payments related to transfers to or from accounts held in Spain by non-residents. The so-called domestic transactions (5%) mainly relate to the settlement of the euro leg of foreign exchange transactions, the exchange of cheques denominated in EMU currencies, and those transfers resulting from trading in the economic rights attached to securities (i.e. coupons).

#### **3.3.4 Operation of the transfer system and transaction processing environment**

Payment orders can be exchanged all day via the SWIFT network, while the clearing process takes place between 7.30 a.m. and 4 p.m. (C.E.T.).

Whenever a transaction is entered into the system, the SPI central computer checks, by using the SWIFT FIN copy functionality (Y copy), whether the payment is within the established limits. Provided that this is the case, the SPI calculates the new net positions of the participants involved and forwards the message to the beneficiary. From this point onwards, the transaction is considered irrevocable. If the payment is not within the established limits it is sent to a waiting queue and the SPI periodically tries to settle it by means of bilateral and multilateral optimisation procedures. The bilateral optimisation procedures are automatically triggered whenever a payment cannot be cleared. The multilateral optimisation procedures can be initiated by the SPI's operators if necessary. This latter mechanism is rarely used.

The participants can determine and change the order of the queued payments by setting and changing the priorities assigned to each payment order.

The application also provides participants with real-time tools for monitoring the status of their limits. In addition, and in compliance with the Lamfalussy Standards, the application has a backup system in the event of technical failure.

### **3.3.5 Settlement procedures**

Once the clearing process has finished (4 p.m. C.E.T.), the final position of each member is calculated and communicated to the participants and to the SLBE at the Banco de España, which conducts the settlement by means of the accounts which the participants hold with it. Once all short positions have been debited, the crediting of the long positions takes place immediately. This process is usually carried out between 4.10 p.m. and 4.15 p.m.

### **3.3.6 Credit and liquidity risk**

In order to control the systemic credit and liquidity risks, the system was designed with two objectives:

- To limit the exposure of the participants; two different limits are applied.

Each participant establishes a bilateral credit limit for every member. This limit represents the largest credit position which a participant wishes to maintain with each of the other members. On the basis of the addition of all the bilateral credit limits given to a participant by the others, the SPI calculates the multilateral debit limit, which is a percentage (5%) of this aggregate. This limit represents the maximum overall debit position granted to that participant.

Compliance with these limits is checked whenever a new payment reaches the system. If a payment order does not fulfil both limits it goes to a waiting queue.

- To ensure that settlement is possible even if the participant with the largest debit balance fails to meet its payment obligation. This objective is achieved by means of two measures:

First, the participants establish guarantees in favour of the SPI. Every participant contributes an amount of collateral which is proportional (5%) to the highest bilateral credit limit granted to other participants. In addition, they can afford more guarantees which automatically increase their limits. Guarantees can be constituted on the basis of a pledge of securities, repurchase agreements or a liquid deposit. The securities admitted are Banco de España Certificates and other securities recorded in CADE. These securities are subject to different haircuts, depending on their liquidity.

Second, an agreement has also been reached by the participants in order to cover the shortfall caused by the failure of any participant to meet its payment obligations. The contributions to be made by each participant are proportional to the bilateral credit limit granted to the member causing the failure.

### 3.3.7. Pricing

The SPI's operating costs are shared among its members. All participants must pay an annual fee, which varies according to whether participation is direct or indirect. The participants also have to bear the transmission fees charged by SWIFT for the messages channelled through its network.

In order to join the system, participants must pay an access fee and the connectivity costs inherent in the technical projects required.

## 3.4 The National Electronic Clearing System

The first ACH system to be operational in Spain was created in 1990. Though initially small (only cheques could be exchanged), the SNCE has grown rapidly and has finally taken over all the duties of traditional clearing houses (all of which disappeared in November 1996), thus clearing electronically all transactions related to retail payment instruments, regardless of their value, such as paper cheques, traveller's cheques, direct debits, credit transfers, bills of exchange and petrol cheques. Petrol cheques are a special kind of payment order on a customer's current account by which the customer can pay at petrol stations.

Most commercial banks, savings banks and credit co-operatives belong to the SNCE since it has turned out to be the fastest and most efficient way of communicating all the data necessary for rapid clearing of retail payments. This has become possible due to a well-structured legal framework which has brought about various market-efficient solutions, of which truncation (cheques and bills of exchange under €30,050.61 (ESP 5 million) are not physically exchanged) and liabilities agreements appear to be forming the basis. Other solutions, such as arbitration procedures or document standardisation have also promoted the implementation of the SNCE.

The system takes advantage of the paperless communication networks by providing each associated participant with an infrastructure through which all the relevant payment data are bilaterally exchanged between the interested parties. Later on, once the net amount has been confirmed, the settlement takes place at the Banco de España.

Owing to the variety of payment-related documents, the SNCE's operating scheme relies on several clearing sub-systems, each of which specialises in a single instrument. Currently, according to its governing law, these subdivisions are: cheques, credit transfers, petrol and traveller's cheques, direct debits and bills of exchange.

### 3.4.1 Participation in the system

The following institutions are entitled to become participants in the SNCE: Banco de España (as a member of the system, in order to channel the retail payments of the public administration), commercial banks, saving banks and credit co-operatives, provided that they comply with the criteria for becoming a member of the SNCE (such as compliance with the rules and solvency requirements, adequate technical capacity, scale of activity, discipline and financial support for the system).

There are two forms of participation:

- Direct participation, i.e. participating in the exchanging stage of clearing on the institution's own behalf (and also having the possibility of representing one or more indirect participants), and subsequently taking part in the settlement process.
- Indirect participation, i.e. being represented by a direct participant (requirements for indirect participation are less onerous). An indirect participant does not take part in the settlement stage of clearing.

The figures for 1999 showed 28 direct and 226 indirect participants in the cheque clearing sub-system, while the credit transfer sub-system had 27 direct and 226 indirect participants.

### 3.4.2 Types of transaction handled

Clearing is carried out for cheques, bills of exchange, credit transfers, direct debits and petrol and traveller's cheques. Only for documents whose amount exceeds a given threshold does a traditional exchange become necessary, provided that their basic data have already been electronically swapped.

At the end of 1999 €502 billion was settled in cheque-related transactions, whereas the figure for credit transfers was €328 billion, for bills of exchange €139 billion, for direct debits €138 billion and for petrol and traveller's cheques €474 million.

### 3.4.3 Operation of the transfer system and transaction processing environment

The SNCE has adopted an intermediate solution which is neither a completely centralised nor a completely decentralised clearing and settlement system. Information is exchanged bilaterally between the parties involved. If no discrepancies are found, the settlement can take place in a centralised way on the RTGS accounts which each credit institution holds with the Banco de España. All communications are carried out on a private virtual network which complies with a set of security standards.

Documents are no longer physically exchanged, but rather their relevant data, i.e. telecommunication lines between the SNCE and member institutions are the main channel for communicating, via common software, the required information which permits rapid clearing. Each document is processed in its respective sub-system, so a net balance for each pair of institutions is obtained in each of the sub-systems. These bilateral balances are reported to the Banco de España.

In order to prevent the system from suffering prolonged downtimes or hardware/software crashes, several recovery procedures have been established. Under exceptional circumstances, the EDItran can be used as well as (to a lesser degree) communication via magnetic tapes.

Each sub-system has its own timetable for communications. The earliest communications can be made at 4.30 p.m. in the direct debit sub-system, while the bills of exchange sub-system starts at 1 a.m.

### 3.4.4 Settlement procedures

The clearing of instruments which are settled in the SNCE is mainly performed on an electronic basis since the so-called truncation agreements allow for a net settlement without a physical exchange of the documents. The clearing of card transactions follows a two-step approach: first, the card networks determine the net balance of each credit institution, and second, these balances are settled in the SNCE.

Since every pair of institutions report their bilateral net balances to the Banco de España, the latter is entitled to verify their matching and, in the event of discrepancies, to inform the institutions. All discrepancies must be eliminated within a short period of time in accordance with the previously agreed dispute criteria.

Once the bilateral balances have been reported to the Banco de España, the National System for Settlement (SNL) obtains a net net balance (either credit or debit) by consolidating the bilateral balances for each institution in each sub-system. The latter are then settled on the participant's RTGS accounts at the Banco de España by first debiting short participants' accounts before crediting the long ones.

In the event of any incident of a technical nature that prevents communication within a set timetable, the Banco de España is free to extend the timetable, to open a special session or, as a last resort, to permit alternative procedures to solve the problems.

Settlement is considered final at the moment it takes place.

### **3.4.5. Pricing**

Participating institutions incur no costs for their adherence to the SNCE. There are, however, connectivity costs arising from communications and computer equipment as well as from the compulsory rate charged for the software licence.

In addition, each institution must also pay the SLBE's fees for each entry made in its centralised accounts which refers only to the net net amount in each sub-system.

### **3.4.6 Main projects and policies being implemented**

As there are still residual transactions requiring the physical exchange of documents, several initiatives have been taken to remove this last obligation. Among other things, several studies are under way with a view to replacing a document which is physically delivered with a scanned image of the document, which is transmissible along with all other information. This procedure may also be extended to truncated documents as a way of increasing the amount of useful data exchanged at very low cost.

## 4. SECURITIES SETTLEMENT SYSTEMS

### 4.1 Trading

#### 4.1.1 Institutional aspects

##### *4.1.1.1 Organised securities markets and their specific regulation*

Law 24/1988 defines official secondary securities markets as those which operate in complete accordance with the provisions of that law and its implementing provisions, in particular with regard to the conditions of access, admission to listing, operating rules and information procedures. Other markets regulated under the general principles of Law 24/1988, although not “official”, may also be created with the prior approval of the Minister of Economy. All markets must be authorised by the central government, if they are on a national scale, or by the regional governments, if the markets in question are on a local scale.

In 1999 the Spanish government provided the European Commission with the official list of the regulated secondary securities markets, comprising the public debt book-entry market, the four stock exchanges, the AIAF market<sup>7</sup> and the futures and options markets of MEFFSA.<sup>8</sup>

Settlement systems are established for regulated markets and a ruling body is responsible, among other functions, for the definition and control of market access as well as for the quotation and trading systems.

##### *Market ruling bodies*

The Banco de España is entrusted with the management and regulation of the public debt book-entry market. In the stock markets, the stock exchange governing companies are special private limited companies which have no financial functions and are non-profit-making. They are legally entrusted with the organisation and operation of the market and their sole shareholders are the members of the relevant stock exchange. The Sociedad de Bolsas is the stock exchange company, a private limited company comprising the stock exchange governing companies. Lastly, the AIAF and MEFFSA act as ruling bodies in their relevant markets.

##### *Specific aspects of the Spanish secondary securities markets:<sup>9</sup>*

##### *Public debt book-entry market*

Royal Decree 505/1987 of 3 April 1987<sup>10</sup> created this market and specifically regulates it. It was elaborated by Ministerial Order of 19 May 1987<sup>11</sup>, by a number of Treasury Resolutions and also by Banco de España Circulars.

The Banco de España is entrusted with the management of the book-entry system. CADE, legally regarded as a public service, a division of the bank without legal autonomous status, is in charge, as central depository, of the registration and the organisation of the trading and settlement system of this market, so that there is no managing company legally separate from the bank. Leaving aside the organisational competence of the Banco de España, there is also an Advisory Committee, the members of which are representatives of the bank, the CNMV and the Treasury.

<sup>7</sup> The market in which mainly corporate fixed-income securities are traded.

<sup>8</sup> There are two different markets, depending on the type of underlying assets: equities and fixed-income instruments.

<sup>9</sup> For the type of instruments, see Section 4.1.2.1.

<sup>10</sup> Although the specific regulation came into force prior to Law 24/1988, the general principles already established for the government debt market were incorporated into the Law, and thus were given stronger legal support. However, this Royal Decree was later amended, inter alia, by RD 54/1988 of 29 January and RD 1009/1991 of 21 June.

<sup>11</sup> The drafting of this provision was later amended.

Although this is primarily a decentralised market, where OTC operations prevail, there are also two electronic trading platforms<sup>12</sup> which settle their operations through CADE:

- the network of book-entry public debt inter-dealer brokers (INFOMEDAS)<sup>13</sup> managed by the Fixed Income Electronic Trading System (SENAF) the shareholders of which are brokerage companies and the AIAF. In 1999 four separated trading screens of the “blind-broker” system merged into one single screen to which dealers have access.
- EuroMTS.

### *Stock exchange*

The SIBE is a common trading platform for highly traded securities which interconnects the four local stock exchanges (Madrid, Barcelona, Bilbao and Valencia) operating in Spain. At the request of the issuer and on the basis of a prior report by the Sociedad de Bolsas, the CNMV determines which of those securities listed on at least two stock exchanges are to be traded on the SIBE. In addition, the CNMV may decide which of those securities can exclusively be traded on the SIBE. The Sociedad de Bolsas is the manager of the SIBE (its only task) and the four stock exchanges governing companies own its capital in equal proportions.

Every stock exchange has its own SSS<sup>14</sup> managed by a central depository structured as a private limited company, the shares of which are owned by the market participants. The SCLV, the CSD competent for the SIBE, is also in charge of the settlement of the Madrid Stock Exchange operations.

Among the stock exchange markets, there are two further markets which have recently been created for which the SCLV acts as the SSS and the central depository: the new market (*Nuevo Mercado*) and Latibex.

The new market is intended for securities issued by firms which mainly focus on innovative high-technology industries or sectors offering great growth opportunities. The creation of this new market was authorised by Ministerial Order of 22 December 1999 as a special segment of the Stock Exchange Interlinking System run by the Sociedad de Bolsas. This Order establishes that the CNMV will set the general criteria for determining which firms' securities are to be traded on this market, as well as the listing requirements.<sup>15</sup>

The creation of Latibex, the market in euro for Latin American securities, as an organised system for trading securities and other financial instruments, was authorised by a resolution of the Council of Ministers of 29 October 1999. The CNMV is responsible for the supervision of this market. Equities and debt securities can be traded on Latibex.

### *The AIAF market*

The AIAF market is regulated by Ministerial Order of 1 August 1991, amended by Ministerial Orders of 11 May 1993 and 19 November 1996, which approve the rules governing this market for corporate debt securities. The AIAF is the ruling company in charge of promoting and organising this market. The registration, clearing and settlement functions are carried out by the SCLV (formerly by Espaclear). The CNMV supervises this market.

<sup>12</sup> Setting aside the small portion of securities which, although registered in CADE, are traded on the stock exchange.

<sup>13</sup> It is a market to which only leading institutions (dealing entities) have access, and is characterised by the fact that the contracting parties do not know the identity of their counterparties.

<sup>14</sup> For the locally traded (mainly fixed-income) securities.

<sup>15</sup> The CNMV published Circular 1/2000 of 9 February in order to fulfil this mandate. As for the listing requirements, the Circular refers to the general rules. With regard to the specific trading conditions, it refers to the specific regulation to be established by the stock exchange. The Sociedad de Bolsas Circular 1/2000 subsequently set the rules for trading on the new market and Circular 2/2000 the rules for acting as a specialist on it.

### *Derivatives markets*

There are derivatives markets in Spain for the trading of financial futures and options contracts. These markets are governed by Royal Decree 1814/1991, amended by Royal Decree 695/1995 in order to include commodities as underlying assets.<sup>16</sup>

There are two markets for futures and options on financial underlying assets: one for equities and another one for fixed income, and they are both run by MEFFSA. This company integrates the trading, clearing and settlement into one single company acting as central counterparty. The rules and regulations of these markets were approved by Ministerial Order of 8 July 1992. The Citrus Fruits Futures Exchange in Valencia was authorised by Ministerial Order of 14 July 1995.

#### ***4.1.1.2 Financial intermediaries operating in the securities markets: types and rules of access to membership***

##### *Investment services and Investment Services Firms*

Law 24/1988 reflects the essence of Directive 93/22/EEC by including a list of investment services and complementary activities. The category ISFs only includes securities dealer companies, securities agencies and portfolio management companies. The creation of ISFs is authorised by the Ministry of Economy on the basis of a prior proposal from the CNMV. In addition, the government may regulate the creation of other entities, and may also allow access to business for other individuals or entities which, not being ISFs, may perform some of the activities included in the investment services list, or which may help to improve developments in the securities markets. Credit institutions are also granted the right to provide these services.<sup>17</sup>

##### *Market members*

In accordance with Law 24/1988, the following institutions have the right of access to membership to official secondary securities markets:

- Spanish securities dealer companies and securities agencies.<sup>18</sup> The securities dealer companies may operate on their own account and on behalf of third parties, whereas the securities agencies can only operate on behalf of third parties;
- Spanish credit institutions;
- investment services firms and credit institutions authorised in other EU Member States, provided that, in addition to fulfilling the requirements laid down in Law 24/1988 to operate in Spain, they are empowered to provide investment services in their home country;
- ISFs and credit institutions authorised in a non-EU state, provided that, in addition to fulfilling the requirements laid down by this Law to operate in Spain, they are empowered to provide investment services in their home country. The Ministry of Economy may refuse access in respect of these entities or impose conditions for prudential and reciprocity reasons;
- such others as the regional governments with responsibilities in this area may determine.

Access to each market is conditional both on the fulfilment of their specific requirements and on admission by the market-ruling company. Admission is based on the capacity of the applicants and their commitment to respecting the market rules. In the case of stock exchange markets there is an additional membership

<sup>16</sup> It was subsequently amended by Royal Decree 2590/1998.

<sup>17</sup> Credit institutions also have the right of access to membership of organised secondary securities markets, which has been acknowledged as a consequence of the principle of universality of banking business, as foreseen by Community law.

<sup>18</sup> Investment Services Firms, with the exception of portfolio management companies.

requirement: participation in the capital of the market-ruling company. The same is applicable to the AIAF market. With regard to the public debt book-entry market, the Banco de España and other entities (as stated in government regulations) may, alongside those entities specified for official secondary markets in general, be entitled to have the status of market members. Access to membership of this market is also granted to entities engaged in securities clearing and settlement activities.

In order to be accepted as a member of a securities market, it is necessary to be recorded in one of the financial institutions' official registers and thus be subject to supervision by the body in charge of the relevant register.<sup>19</sup>

Market members are authorised to introduce orders into the trading systems, either on their own account, on the account of customers only, or on the accounts of both, depending on the type of institution. In addition, any transaction carried out on the markets requires the participation of a market member in order to provide the relevant information on trading between parties. Market membership currently allows access to the respective SSS.

#### *“Market-makers” and “dealing entities” in the public debt book-entry market*

There are two special categories of member of the public debt book-entry market: market-makers and dealing entities. Their current status is regulated by Ministerial Order of 10 February 1999, and implemented by Resolutions of 11 February and 4 March 1999 of the Treasury (as amended by two Resolutions of 10 April 2000). These provisions detail their rights and obligations as well as access and exit criteria.

The rights of market-makers are, inter alia, access to second rounds in Treasury tenders and to information unavailable to other members, and the exclusive right to strip and reconstitute strippable government debt. As to their obligations, they have to participate in tenders, submitting bids with a minimum value and at a maximum price, and ensure liquidity on the secondary market (quoting some bonds with a minimum value and at a maximum price). As to the dealing entities, they have exclusive access to the INFOMEDAS<sup>20</sup> platform and the possibility of acquiring market-maker status. They are also obliged to participate in quoting on the INFOMEDAS platform with a minimum value.

#### **4.1.1.3 Supervision of the markets and its members and the role of public institutions**

The Spanish public institutions in charge of supervising the securities markets and their members are the CNMV, the Banco de España and some regional governments where they have competence for a specific regional market.

The Investment Services Directive, introducing the principle of the Community passport or single licence for investment firms, has already been transposed into Spanish Law, as was the case for credit institutions in 1994. According to this principle, the oversight competence in respect of firms established in other EU Member States, but operating on Spanish markets, is shared between the authorities of both countries: their solvency is controlled by the Member State in which the entity is established and their activity on the Spanish markets by the Spanish authorities.

#### *The National Securities Markets Commission*

The CNMV was created under Law 24/1988 as a public law institution with its own legal identity. The entities under its oversight include the market-ruling companies and the specific securities markets intermediaries (i.e. the Investment Services Firms). Nevertheless, its competence extends to all other individuals and entities<sup>21</sup> involved in the investment business, as far as their activities on the markets are concerned.

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<sup>19</sup> See Section 4.1.1.3.

<sup>20</sup> See Section 4.1.1.1.

<sup>21</sup> Not only the financial companies themselves, such as credit institutions, but also the individuals who, directly or indirectly, control investment services firms.

The CNMV exercises its competence, inter alia, through the following functions: registration of entities and qualified shareholders, solvency supervision, inspection, imposition of penalties, regulation (Circulars) and advisory assistance to the government and the Minister of Economy.

#### *Other authorities*

The Banco de España also has supervisory competence for the securities markets. It is the prudential supervision authority for credit institutions and oversees the participants in CADE, of which the bank is the governing institution.<sup>22</sup> The public debt book-entry market is also controlled by the Ministry of Economy.

#### *Transparency in the operations of regulated securities markets*

The most recent reform of the Securities Market Law amends the transparency regime. It entitles the CNMV, the Banco de España and the market regulatory bodies to determine public information on market operations, disclosure of which is compulsory. Pending the elaboration of this Law through Regulations, CNMV Circular 3/1999 of 22 September 1999 dealt with the transparency of operations on the official securities markets since it was essential to implement the minimum standards laid down in Directive 93/22/EEC.

### **4.1.2 Operational aspects**

#### **4.1.2.1 Types of instrument**

The three securities markets (book-entry government debt, stock exchange markets and private sector fixed-income<sup>23</sup>) trade securities exclusively by book entry.<sup>24</sup> These markets employ high-tech methods as they use computer networks for the quotation, trading and communication of transactions.

Equities, which can only be traded on the stock exchanges, include ordinary and common shares, preference shares, convertible debt securities and securities bearing acquisition or subscription rights. Those determined by the CNMV (such as debt securities, public and corporate) can also be traded on these markets. All listed securities on the stock exchange markets are dematerialised and kept at the central depository, the SCLV. The majority of the SCLV-eligible shares are, from a legal point of view, bearer shares.<sup>25</sup> Warrants have medium and long-term maturities and give the right to buy or sell an underlying asset at a set price. Warrants are also listed on the Madrid Stock Exchange.

The public debt securities, which are traded on the public debt book-entry market, can be grouped into the following instruments: i) Treasury bills (*Letras del Tesoro*) issued by the Spanish Treasury, which are discounted instruments with maturities of 3, 6, 12 and 18 months; ii) Government notes (*Bonos del Estado*) issued by the Spanish Treasury are fixed-rate, bearer instruments with maturities of three and five years; iii) Government bonds (*Obligaciones del Estado*) have the same features as notes, and only differ in the term of maturity – 10, 15 or 30 years; iv) public debt securities issued by regional governments, other public entities and corporations and by international bodies to which Spain belongs, as well as securities issued by the ECB and NCBs; and v) strippable bonds with a maturity of 3, 5, 10, 15 and 30 years which can be stripped into principal strips and coupon strips; these are traded separately. Issues can be grouped and consecutive tranches of a single issue can be placed, thereby ensuring the volumes of homogeneous securities necessary for liquidity in the secondary markets.

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<sup>22</sup> See Section 4.1.1.1.

<sup>23</sup> AIAF market.

<sup>24</sup> However, in the AIAF market, paper securities are deposited and immobilised in the name of SCLV-AIAF, where they are evidenced by computer records to facilitate trading, clearing and settlement.

<sup>25</sup> The regime applicable to "registered securities" (as opposed to "bearer securities") involves particular requirements on the part of the issuer which cannot be considered fulfilled through the simple registration of the securities in book-entry form in the records of an SSS.

The fixed-income securities traded on the AIAF market are commercial paper (issued by private and public companies), medium and long-term bonds, mortgage bonds, mortgage-backed bonds, matador bonds, securitised bonds and preferred participation units. All these instruments are dematerialised and kept in the central register, the SCLV.

#### **4.1.2.2 Description of the trading systems and operating hours**

##### *Stock exchange*

Equities, corporate bonds and public debt instruments are traded on the stock exchange via two systems: the electronic system known as the Spanish Stock Market Interlinking System (SIBE) and the traditional open outcry.

The SIBE consists of four separate markets: the continuous market for the trading of Spanish shares, the fixed-income electronic market for the trading of debt instruments, the Latibex for the trading of Latin American shares and the new market. The SIBE is in charge of accepting orders, providing trading information and access to the market on a real-time basis.

- Continuous market: this order-driven market provides centralised and automated equity trading for the four stock exchange markets. It has two separate sub-markets, the principal trading market and the special operations market.

The principal market accounts for around 90% of the daily turnover. It is divided into two systems, the open system for most of the liquid shares and the fixing system for the less liquid. Trading hours for open transactions are from 9 a.m. to 5.30 p.m. During the trading session, prices may fluctuate by  $\pm 15\%$  in relation to the previous day's closing price. If the fluctuation exceeds this limit then the CNMV may allow additional margins. If the extra margin is not permitted, trading for this issue is suspended until 12 noon. In the fixing system, orders are grouped together in two sessions, one at 12 noon and the other at 4 p.m. in order to reduce volatility and achieve price efficiency. Limited and market orders with different conditions are accepted. Orders are assigned priority on the basis of price and input time. Trading by blocks takes place outside of normal trading hours and must be communicated to the stock exchange. Either a block trade by size (used for communicating blocks for sizes previously agreed where the minimum amount required is €600,000) or a block trade by price (used for trading and communicating blocks of shares with a 15% variation over the reference price) can be agreed.

The special operations market is open from 5.30 p.m. to 8 p.m. and it trades blocks of equities between agreed counterparties. Depending on the size of the trade, exceptional authorisation may be required (over €250 million).

- Fixed-income electronic market: trading of public and corporate debt takes place between 9 a.m. and 4 p.m. There are two types of trading, multilateral and bilateral. Multilateral trading is anonymous, screen-based and used in two markets: the market of orders (where operations are automatically closed on the basis of the best price and sequence of introduction) and the market of block trades (for blocks of public debt over €300,506.05 (ESP 50 million) in nominal terms and for blocks of corporate bonds over €150,253.03 (ESP 25 million) in nominal terms). Bilateral trading is when the trade is agreed upon between two parties and then entered into the system. The minimal volume is €150,000 for corporate debt and there is no limit for public debt. Prices in this fixed-income electronic market may not fluctuate by  $\pm 10\%$  in relation to the previous day's closing price. Should that be the case, the trading for that issue would be suspended.
- Latibex: this market was launched on December 1999 with the listing of Latin American companies. Shares traded here are subject to the same trading and settlement rules as Spanish shares traded on the continuous market.
- The new market: since December 1999, this has been a new segment of the stock exchange market and has different operating rules. For greater information transparency in this segment it is required that the risks associated with the company's activity are described in the listing prospectus, that lock-ups affecting shareholders with significant holdings are disclosed and, at least once a year, the progress of the business

and its future prospects are published. Finally, as regards quotation, the fluctuation limits are more flexible; there are no limits to quotation. Trading is only suspended if the limits exceed 25% (they may be increased during the session), as opposed to a 15% limit on the traditional market.

Securities of small companies (equities and corporate bonds) which do not fulfil the requirements for listing on the continuous market are traded by open outcry. At present, the activity in this market accounts for less than 1% of the combined trading of the four stock exchange markets. Trading takes place from 10 a.m. to 12 noon on the floor of the four exchange markets, in ten-minute rings which are organised by sector. Prices may fluctuate by  $\pm 10\%$ ; variations over this limit cause trading to be suspended for 30 minutes. Special operations may take place outside of normal trading hours and at a price agreed between the counterparties.

#### *Public debt book-entry market*

The design of public debt instruments and the primary market channels aims at developing the secondary market for Spanish public debt. On the one hand, the Spanish Treasury has always tried to issue public debt through open tenders and with a simplified list of instruments. On the other hand, adequate mechanisms have been established to achieve a deep and liquid official secondary market on which government debt securities can be traded.

Trading on the official secondary market for public debt instruments is carried out on different sub-markets. The first-step market is organised by a specialised trading intermediaries network known as SENAF (INFOMEDAS) and the second-step market is an interbank market conducted over the phone or via brokers' screens.

- SENAF-INFOMEDAS is the electronic trading system of financial assets (public and corporate debt securities) created in June 1999 in order to develop and exploit the electronic blind-trading system. It acts as a neutral company in the market. Only dealing entities<sup>26</sup> have access to this platform, on which trade is anonymous and at the best price. In order to deal with market risk, this trading platform marks-to-market the daily positions of each participant in such a way that, should an entity run at a loss, it must deposit through the SLBE<sup>27</sup> an equivalent amount which will be credited to the counterparty's account. It is connected to CADE for the purpose of reporting the settlement orders. The minimum amount for government bonds transactions is €1 million. Around 40% of the total trading volume of the secondary market is generated through INFOMEDAS.
- The second-step market is the decentralised segment conducted either over the phone or via brokers. All CADE participants have access to this OTC market on which transactions are carried out on a bilateral basis. Market members must report all their transactions to CADE through the SLBE.

#### *The AIAF market*

The AIAF, the regulated secondary market for the trading of corporate debt securities, is a decentralised market with two segments, one for short-term financial instruments (commercial paper) and the other one for bonds (long-term instruments). Most of the securities are dematerialised, although there is a small percentage of physical securities. Trading is mainly conducted through the OTC market and the information on offers and prices is available on screen. There is an electronic blind broker system, although the turnover in this trading platform is insignificant and no information on this is attached to the statistics tables.

#### **4.1.2.3 Types of transactions handled**

There are two types of transaction commonly used in the Spanish securities markets:

- Purchases and sales transactions among market members. These entail the dual settlement of cash and securities accounts. In the public debt book-entry market and the AIAF market, outright (spot or forward),

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<sup>26</sup> See Section 4.1.1.2.

<sup>27</sup> See Section 3.2.

sell-by-back transactions and repo operations (in general, two-stage operations) can be carried out. On the stock market, only outright operations are possible and trading is currently concentrated on the spot market.

- Securities transfers, which are normally the result of a purchase and sale operation between a participant and a third party (customer) who has no own account at the central register. In such a case, it is necessary to transfer securities between the participant's own account and the segregated account in which the participant may act as depository or registrar for the third party.

Another type of transaction is the total or partial immobilisation of the securities balance in order to issue certificates for collateral purposes.

#### **4.1.2.4 Connection to other systems**

Since September 1999 the securities eligible for CADE, traded on the public debt book-entry market, have also been tradable on the EuroMTS platform. Under the agreement signed by EuroMTS Limited and the Banco de España (as manager of CADE), transactions in Spanish public debt securities carried out in the electronic trading EuroMTS system are settled in CADE on T+3.

In this context, it should be mentioned that the cross-border links established by the SCLV and CADE with foreign central depositories allow trade in foreign securities on the Spanish domestic securities markets under the same conditions as domestic securities.

## **4.2 Clearing**

The Spanish SSSs are responsible for clearing and netting cash positions in the markets. However, MEFFSA is the only SSS which can assume settlement risks, since it acts as a central counterparty in the clearing of the transactions carried out on the derivatives market. MEFFSA is the only company which integrates the trading, clearing and settlement of the financial futures and options into one single system. There is no other clearing house in the Spanish markets.

## **4.3 Settlement**

### **4.3.1 Institutional and legal aspects**

#### *General legal aspects*

Settlement, as an activity relating to the securities markets, is regulated in Spain by Securities Market Law 24/1988 of 28 July, as amended by Law 37/1998 of 16 November. This Act establishes the general principles to be observed by SSSs and it has been elaborated through a number of different provisions<sup>28</sup>

Law 41/1999 of 12 November, which incorporates the provisions of the SFD, recognises the following SSSs in Spain:

- CADE, which acts as central depository and provides settlement services for the public debt book-entry market. The securities eligible for deposit and settlement in CADE are Treasury bills, bonds issued by the central government and regional governments and other public bodies as well as those securities issued by the Banco de España and the ECB. It is also possible to register public debt securities issued in EU CSDs through the existing links. CADE was created by Royal Decree 505/1987 of 3 April.<sup>29</sup>

<sup>28</sup> See Section 1.1.2.

<sup>29</sup> See Section 4.1.1.2.

- Royal Decree 116/1992 establishes the clearing, settlement and register system for all securities traded on the stock exchange and in the book-entry record of other dematerialised listed securities through the SCLV. In addition, there are three regional systems in Spain with limited scope: SCL Barcelona, SCL Bilbao and SCL Valencia, the regulatory framework of which is similar to that described for the SCLV. The CNMV and the respective regional governments provide for their regulation. The capital of the SCLV is held by the governing companies of the Spanish stock exchange markets and its participants.
- The clearing, settlement and safekeeping functions for the securities traded on the AIAF market were provided by Espaclear (the securities agency created for that purpose and fully owned by the SCLV) and since October 1997 have also been provided by the SCLV. In March 2000 Espaclear was taken over by the SCLV. Thus, in addition to the securities traded on the stock exchange markets, the SCLV also maintains the accounting register for the securities which are traded on the AIAF market (represented by book-entry form and the physical securities). However, the SCLV maintains two separate settlement systems, the SCLV system mentioned in the paragraph above, and the SCLV-AIAF system for the corporate debt securities listed on the AIAF market. It must be noted that these two systems are managed and operated by the SCLV, which, from a legal point of view, is a single limited company.

Law 41/1999, which implements the SFD, also regulates the consequences of finality with regard to insolvency proceedings which may be brought against a participant. Hence, there is no chance of revoking the sale of securities or the granting of collateral the instructions of which have been delivered and accepted by the system prior to initiation of the proceedings, or even following initiation, if cleared and settled on the same day. Article 11 of Law 41/1999 modifies the validity and finality of both the funds and securities transfer orders.

#### *Legal basis*

The regulatory framework adopted by the Spanish financial authorities for the Spanish SSSs is as follows:

- CADE: Securities Market Law 24/1988 of 28 July, amended by Law 37/1998 of 16 November; Royal Decree 505/1987; Ministerial Order of 18 March 1999; and Law 41/1999 of 12 November.
- The SCLV and the SCLV-AIAF: Securities Market Law 24/1988 of 28 July, amended by Law 37/1998 of 16 November; Royal Decree 116/1992 amended by Royal Decree 2590/1998; Order of 6 July 1992; Release 4/1992 of 21 October (passed by the CNMV); and Law 41/1999 of 12 November.
- Regional SCLs (Barcelona, Bilbao and Valencia): the legislation of the autonomous governments together with the legal basis applicable to the SCLV.

#### *Regulation and supervision*

In addition to the aforementioned general regulation, there are rules issued by the governing companies of each system with regard to the clearing and settlement procedures. In CADE, these rules are known as Circulars; the technical aspects which are mandatory are made public through Technical Applications. In the SCLV and the SCLV-AIAF, there are Releases and Operational Instructions. These rules are complemented by specific technical rules covering more detailed aspects of their activity. In many cases, the rules require the approval of the corresponding supervisor.

While CADE is supervised by the Banco de España, the CNMV oversees the SCLV, the SCLV-AIAF, MEFF RF and MEFF RV. As to the regional SSSs, the respective local governments are responsible for their regulation and supervision, together with the CNMV. The systems themselves are also audited externally and internally. In addition, the CNMV, the Banco de España and the aforementioned systems are empowered to carry out on-site examinations which focus on the adequacy of the management skills and the IT equipment as well as of the available human resources.

Although all supervisors and regulators have their own range of competence and carry out their activities on an independent basis, co-ordination takes place at a general level through cross-membership of the Boards of Directors of the different regulatory bodies.

### *Participation in the systems*

Law 41/1999 sets out that the general requirements for membership in the Spanish settlement systems must be approved by the relevant supervisory authorities and published in the BOE (Official Government Bulletin). In general, the participants are credit institutions and investment services companies.

- There are two main types of membership in CADE: direct account holders which are entities entitled to register their own securities holdings and entities which are allowed to register securities on behalf of customers as well as on their own account. The system clearly separates the participants' own holdings from the customers' holdings as there are two kinds of securities accounts: an account for the participants' holdings and another (omnibus) account for the customers' holdings.

The admission criteria are clearly established in Law 37/1998. In order to be admitted, an institution must belong to one of the categories listed in the aforementioned law (mainly credit institutions, investment firms, international financial institutions, CSDs and NCBs). Participants must meet solvency as well as technical and management capacity requirements. Remote access is allowed in CADE.

The authorisation and termination of membership is decided by the Ministry of Economy on the basis of a proposal from the Banco de España together with a report from the CNMV. Within each membership category, all members are subject to the same rules and conditions. The conditions under which membership can be revoked are as follows: insufficient trading volume, non-fulfilment of the membership requirements, insolvency procedures, sanctions and a formal request from the participant.

- The SCLV has the following participants: securities dealer companies, securities agencies, brokers, banks, saving banks, official credit institutions, the Banco de España and foreign entities with activities similar to those of the SCLV. Of these entities, those which are market members of a stock exchange must necessarily become participants in the SCLV, while the remainder must apply for authorisation. In order to gain access, the participants are required to have adequate control systems and technical equipment to develop their settlement functions and, where applicable, to participate in the capital structure of the SCLV. For the settlement of the cash leg, it is compulsory to have a cash account at the Banco de España or to designate a settlement bank. It is the CNMV which, on the basis of a report from the SCLV on the fulfilment of the requirements by the candidate, grants authorisation to participate in the system and which also terminates a participant's membership. The circumstances under which membership is rescinded are as follows: a formal request from the participant; non-fulfilment of the requirements; cessation of activities as securities dealer company or securities broker agency; where an entity goes into debt (as determined by the system); and where the settlement volume is insufficient.

Similar access and exit criteria are defined for the regional SCLs (Barcelona, Bilbao and Valencia).

- In the SCLV-AIAF, it is necessary, in order to become a participant, to be a member of the AIAF market (see Section 4.1.1.3). The scheme for the securities accounts is similar to that of the CADE system. (There is segregation of the securities accounts). With regard to the access criteria, adequate control systems and technical equipment must be in place; all technical and functional requirements must be fulfilled; and a cash account must be held at the Banco de España (or with a designated settlement agent). In addition, the SCLV-AIAF may require the fulfilment of any additional criteria laid down by the SCLV. It is the SCLV-AIAF system which grants authorisation and decides on the termination of the membership status. The three cases in which a participant will cease to be a member are as follows: where the participant makes a formal request, fails to fulfil the access criteria, or enters insolvency proceedings.

### **4.3.2 Operational aspects**

The Spanish SSSs follow three general principles: multilateral netting of the cash leg of the transactions, DVP and neutrality. CADE is the exception and employs a gross real-time settlement procedure. Payments from all the systems are settled on the cash accounts held at the Banco de España (centralised accounts) by the participants.

The central register of each of the securities markets is entrusted to the same institution, which is also in charge of managing the clearing and settlement system. Thus, CADE and the SCLV act as the central register of the securities for which clearing and settlement services are provided. The Banco de España, as operator of CADE, is the sole holder of government debt securities accounts integrated into a book-entry system. (All securities are dematerialised). As mentioned in Section 4.3.1.4, there are two types of accounts: an account for recording the securities holdings of the direct account holders and the customers' accounts for the securities held on behalf of customers. CADE makes use of the SLBE30 as far as the transfer of the orders and the matching and settlement of the securities transactions are concerned. (The SLBE is the settlement system managed by the Banco de España through which the cash leg of the securities transactions is settled). The SCLV manages the central register in accordance with a scheme similar to that of the CADE system whereby participants' accounts may be split into own accounts and customers' accounts.

#### **4.3.2.1 Operational aspects of settlement**

##### *Transfer system and transaction processing environment*

In the government debt book-entry market, participants report their transactions via the SLBE on the trade date, regardless of the settlement date. The SLBE matches the communications of each operation and records it as a traded transaction, provided that there are no discrepancies. The securities and the cash accounts (in central bank money) are held on the same IT platform (the Banco de España computing system).

If the trade date is the same as the settlement date, CADE is immediately notified in order to credit and debit the corresponding securities account, provided the seller's balance is sufficient. Transactions with a settlement date different from that of the trade date are reported to the CADE system on the relevant date, as participants may send the communications on a day prior to the settlement date.<sup>31</sup>

In order to update the balance of the customers' accounts, the dealers report the net overall change in the balance on each of their customers' accounts on a daily basis. Every week, information referring to all the transactions carried out with customers, broken down by purchase and sale, is submitted on magnetic media. CADE checks that these data are consistent with those reported on a daily basis.

In the SLBE, participants are connected to the central computer of the Banco de España through an online computer link. This terminal allows participants to communicate the transaction orders and to obtain online information about the securities transfers instructions as well as balances of the securities accounts. Participants are thus able to monitor the status of their orders (unmatched, matched, provisionally settled, final, etc.) during the entire matching and settlement process.

With regard to the SCLV, since February 1997 the settlement lag has been three days (T+3 on a gross basis) for all securities traded on the stock market. On the trade date, all transactions carried out are reported by the stock exchange members to the SCLV on an aggregated basis (either electronically or via file transfer). Stock exchange members have one day (up to the afternoon of T+1) to break the aggregated trading down into itemised transactions specifying the settling participant. A list of the transactions resulting from the breakdown is reported online by the SCLV to the settling participant. The settlement institutions have an extra day, namely until T+2, to accept or reject any transaction. No rejection implies that the trade is accepted by the settling participant and will therefore be irrevocably settled on T+3. After the net cash positions are settled in the cash account at the Banco de España, the settlement of the trades becomes final (T+3).

Settlement in the SCLV may also occur through the "traspaso", which is a securities transfer between two SCLV participants in which ownership cannot change, either free of payment or against payment, (i.e. when a portfolio is transferred to a different local custodian without change of beneficial ownership).

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<sup>30</sup> See Section 3.2.

<sup>31</sup> Repo operations are reported on the trade date, thus implying two reverse purchases and sales between the same institutions. The first is normally settled on the same trade date, and the second on the following day or on a later date, as agreed by the trading parties.

In the SCLV-AIAF, the settlement cycle is freely negotiable, although the shortest possible lag between trading and settlement is one day (T+1). Transfer instructions are communicated on the day prior to the settlement date. (The cut-off time is 3.30 p.m. on T-1). Trade details are reported to the SCLV-AIAF which performs a same-day matching of trades and reports any discrepancy. The local custodians pre-match instructions before inputting them into the SCLV-AIAF system on the previous day. Any discrepancy must also be rectified before 3.30 p.m. On the settlement date, the SCLV-AIAF transfers the members' netted securities to members' accounts. It also sends the members' netted cash movements to the Banco de España, which then affects the corresponding cash accounts.

#### *Settlement procedures and DVP arrangements*

Operational since June 1999, CADE is a system in which all securities transactions are settled in central bank money on a real-time basis. There is both an overnight and an end-of-day batch. In the interim period, CADE settles FOP and DVP transactions on a real-time basis. The overnight batch is available for all transaction orders communicated to CADE before 6 p.m. on T-1 and becomes final at 7 a.m. on the settlement day (T), provided that there are sufficient funds and an adequate securities balance in the corresponding accounts. The real-time settlement process runs from 7 a.m. until 4 p.m. during the settlement day. In this real-time process, the application first of all checks whether there is an adequate securities balance. If this is the case but the securities buyer has an inadequate funds balance, the transaction order is rejected and returned to CADE, remaining in a queue. The process is periodically activated until there is sufficient balance on the corresponding accounts to settle the pending orders with finality. If the balance in the securities account of the seller is insufficient, the operation remains queued. Whenever this securities account is credited, the system checks that the instructions queued can be carried out. At the end of the day, the system attempts for the last time to settle all transactions which were not settled in the first cycle or during the real-time process. The end-of-day settlement batch cycle takes place at 5 p.m. If the securities account of the seller has sufficient balance, it is blocked until the application checks (through the interface with the payment side) that there is also balance in the buyer's cash account. Once the transfers of cash and securities are completed, finality is achieved for each transaction.

The other settlement systems carry out gross settlement of securities and net settlement of cash in a single batch process. In the case of the SCLV and the SCLV-AIAF, the settlement batch procedure takes place at 11 a.m. every day. The settlement of the cash leg also occurs via a multilateral netting procedure on the cash accounts at the Banco de España at 11 a.m. and 10 p.m. respectively in accordance with the netted settlement report submitted by both systems. With regard to the regional systems, the procedures are similar; all have a single batch cycle and use central bank money for the settlement of the cash leg. In SCL Barcelona and SCL Valencia the time-lag between the trading date and the settlement date is T+3 and in SCL Bilbao T+1. In all systems, the participants must have a cash account at the Banco de España or they must designate a settlement bank. In compliance with the DVP principle, co-ordination is required between these systems and the Banco de España managers. Intraday finality is only provided with pre-deposited securities.

#### *Operating hours*

Transfer instructions can be reported to CADE from 7 a.m. to 6 p.m. for their processing by the SLBE. In the SCLV, online communications can be reported between 7 a.m. and 7 p.m., and for file transfers orders between 5 p.m. and 7 p.m. In the SCLV-AIAF, the time range for the transfer of orders to be settled on T+1 is 8 a.m. to 3.30 p.m. These deadlines can be extended under exceptional circumstances. Similar deadlines to that applied by the SCLV are also applied in the regional SCLs (with the exception of SCL Bilbao, which has an earlier cut-off time owing to its settlement cycle, T+1).

#### *Custody services*

The Spanish systems act as CSDs providing custodial services (depository and register functions) as well as corporate action services. These functions are not outsourced and are directly offered by the systems without the intervention of any third party.

All securities registered and deposited in all Spanish systems are represented in book-entry form (dematerialised), except for the SCLV-AIAF, in which there are also some physical securities. In the latter case, the paper format securities are deposited and immobilised in a depository in the name of the SCLV, which holds

the securities on behalf of its participants and customers. They are registered in the SCLV-AIAF by means of computer records. There is a contractual arrangement between the depository and the system.

### *Credit and liquidity risks and their management*

All Spanish SSSs apply the DVP principle as a basic measure for preventing principal risk, since DVP mechanisms ensure that counterparties are not exposed to principal risk in the course of the settlement process. As regards the settlement risk of the cash leg of the securities transactions, it is overcome, since it takes place through central bank money. Debit balances in securities are not permitted in any system, and neither is the partial execution of the securities transfer orders. The systems are not allowed to take any risk vis-à-vis the participants in the settlement process.

In addition to solvency and other financial and technical capacity requirements established as membership criteria, the following measures are laid down in respect of the Spanish SSSs in order to reduce risk:

- There is an automatic securities lending procedure managed by CADE, whereby any participant which does not have an adequate securities balance at the close of business receives the required securities. In order to become a member of the pool of lenders, the account holders must sign a contract with the Banco de España beforehand (as CADE manager), which specifies the rules governing this securities loan. The loan instrument consists of an overnight repo transaction between the lender and the borrower in accordance with the rules defined in the contract. Use is made of haircuts in order to remove the market risk for the lender, and the interest rate of such instrument is nil (penalty for the borrower). Within this lending facility, the system never acts as counterparty, since CADE cannot assume any risk.
- In order to avoid incidents both in centralised cash accounts and in securities accounts, the Banco de España has established a penalty fee of €1,000 for each securities or cash transfer carried out under the special procedure. The central bank monitors incidents and has established penalties and the possibility of exclusion (temporary or permanent).
- On the stock market, the SCLV has a collateral system to ensure the successful outcome of the trades pending from settlement, which is regulated by Royal Decree 116/92. The collateral may consist of cash deposits, bankers' guarantees or pledged securities. The total amount of the collateral deposited is determined, on a monthly basis, by a combined number of participants in accordance with a criterion based on the actual course of trading activity over the past month. The quota assigned to each participant is also reviewed every month and is based on the average of pending settlements which the participant has maintained during the past month. This collateral deposited by each participant is used without any limit in order to ensure the settlement of the obligations entered into by the participant. Should this be inadequate, the SCLV proceeds to use the other participants' collateral in proportion to the amount which each has provided. The SCLV may require the participant to deposit additional collateral.
- In the event of a failure to deliver securities, a mechanism called the centralised securities loan is applied by the SCLV. The purpose of this automatic securities lending procedure is to deliver securities to buyers on the settlement date. The non-performing seller obviously does not receive payment from its sale. The SCLV retains these funds, on which a return is obtained to pay interest on the securities borrowed.
- In order to ensure final payment on the settlement date, a guarantee of up to €30 million is provided to the Banco de España by three of the major credit institutions.
- On the AIAF market, the market's governing body obliges those participants trading on the electronic blind broker system to deposit specific collateral to cover the risk run by the system in guaranteeing the successful outcome of these transactions. As to the remaining transaction orders, only entities with a specific capital adequacy level are able to settle the cash leg through the system. On the securities leg, if there is an insufficient balance in the securities account, the SCLV-AIAF does not settle the transaction.

### *Operational reliability*

All Spanish systems ensure the operational reliability of the technical systems and computers which they use. Analyses have been made of the potential operational risks and threats and adequate measures taken. All of these systems have the necessary processing capacity and the corresponding backup facilities. In the event of a breakdown, the systems can keep the registering and communication functions running. There are also contingency plans for the latter.

The systems carry out regular analyses of the capacity of the equipment and its efficiency and have procedures in place to cope with the development of and modifications to the systems. Any potential modification to the system is adequately tested beforehand.

All the systems have security measures for preventing unauthorised access to the systems as well as unauthorised use of the securities accounts. Access is monitored continuously. In addition, all the systems have strict security measures which safeguard the authenticity, integrity and confidentiality of the information during the whole process, including during the exchange of messages.

### *Pricing*

The CADE pricing policy is defined, in general terms, within the SLBE in accordance with the operating cost recovery principle. No custody fee is charged to the participants and the transaction fee depends on the transaction type.

The SCLV and the SCLV-AIAF act in accordance with the principle of return on their own resources and their users must cover the cost of the services provided. The SCLV's budget seeks to cover all expenses with its ordinary income. There is an annual membership fee, a settlement fee which is defined by tiers according to the nominal value and a transfer fee. The SCLV-AIAF also has a flat membership fee, an annual custody fee calculated on the basis of the nominal value and a transaction fee.

### **4.3.3 Links to other SSSs**

Current Spanish legislation entitles Spanish SSSs to open securities accounts in foreign CSDs and likewise to have securities accounts in the name of foreign EU SSSs, which have the same legal status and perform similar activities. Each link is governed by an agreement which requires the approval of the competent economic authority, the Spanish Treasury for the CADE links and the CNMV in the case of the SCLV.

The contracts governing the connections to foreign SSSs have to be defined on the basis of the ECSDA model. All Spanish links which have so far been set up are genuine direct and bilateral links in which no third parties are involved. They have been established exclusively for the transfer of securities on an FOP basis. The links of Spanish SSSs have been assessed and approved as eligible for use in the Eurosystem's credit operations.

The SCLV has made an arrangement with SCL Barcelona, SCL Bilbao and SCL Valencia under which the SCLV has opened an account in these systems with a view to facilitating the transfer of the securities managed by these systems to those foreign depositories to which the SCLV is linked. The scope of this arrangement is limited to allow the SCLV to include in the links to foreign CSDs the securities recorded in the SCL Barcelona, SCL Bilbao and SCL Valencia systems. Thus, the SCLV becomes a member of the different systems and can only hold securities on behalf of the foreign CSDs to which the SCLV is linked, acting as "single entry point" for these securities. Securities cannot be moved from the SCLV to these systems nor can securities issued in the SCLV be transferred between SCL Barcelona, SCL Bilbao and SCL Valencia.

At present, the two main Spanish SSSs, CADE and the SCLV (whose links also cover the securities settled in the SCLV-AIAF), have the following links:

- CADE has set up links to Sicovam, CLEARSTREAM BANKING A.G., MONTE TITOLI and Necigef. The securities included in these links are public debt securities.

- The SCLV has links to MONTE TITOLI, Sicovam and Necigef. The securities included in these links are corporate bonds and equities. In addition, the SCLV has direct links to the register and settlement systems of Brazil and Argentina.

#### 4.3.4 Main projects and future developments

The main project under way in the securities settlement area in Spain is the agreement reached between the SCLV and CADE which aims at merging both systems into a single SSS. This agreement, which has been approved by the Spanish Treasury and the CNMV, aims to establish the basis for the future managing company of the Spanish SSSs, IBERCLEAR S.A.<sup>32</sup>

Until the merger is finalised, both CADE and the SCLV will continue to operate separately. From June 2001 onwards, it is foreseen that the SCLV will be the SSS for equities securities and CADE will be the SSS for all euro-denominated fixed-income securities, both public debt and corporate bonds. Thus, the current three SSSs in place for debt securities (CADE, the SCLV and the SCLV-AIAF) will be merged into the CADE platform and will continue to settle in central bank money. By 2002 IBERCLEAR will become the single CSD for all securities, taking over the settlement procedures run under the CADE and the SCLV systems. Thus, IBERCLEAR will be managing two SSSs: one for equities (T+3 DVP model 2) and another for all debt instruments (T+0/T+n DVP model 1). The reason for the settlement integration of fixed-income instruments in the Banco de España IT environment run by CADE is that this system is already fully compliant with the ESCB standards on securities settlement. In particular, CADE is not only a legally sound and technically advanced system, but it also provides real-time DVP model 1 facilities in central bank money and settles intraday repos.

#### 4.4 Use of the securities infrastructure by the Banco de España

The main responsibilities of the Banco de España in the securities settlement field are those derived from the management and operation of the CADE system and those connected with its role as provider of funds settlement facilities to all the Spanish settlement systems. These must, by law, settle the payments derived from the securities transactions through the cash accounts held by the participants with the Banco de España. On the other hand, the Banco de España has a significant relationship with the Spanish systems as user.

The Banco de España uses two main procedures and legal techniques to collateralise the monetary and intraday credit operations: the pool of assets pledged and the repo with transaction margining. In doing so, the Banco de España becomes a significant user of the SSSs and has securities accounts in CADE, the SCLV, the SCLV-AIAF and the regional SCL systems. These securities accounts register the securities which are delivered to the Banco de España as collateral in credit operations.

The Banco de España makes use of the securities accounts in accordance with the legal instrument allowed in each system. Hence, the securities accounts in CADE, the SCLV-AIAF and SCL Barcelona can be used for repo transactions and pledging, whereas the securities accounts in the SCLV, SCL Bilbao and SCL Valencia are only used for pledging. In Spain, the formalities required for pledging marketable securities have been simplified. Thus, the securities registered in book-entry form benefit from a more straightforward procedure which does not require a signature in an official deed. In Spain, the pledger of the securities is, from a legal point of view, the owner of the securities and therefore the coupon payments are paid to the latter.

Apart from the aforementioned use, only the securities account in CADE registers securities held by the Banco de España which are a part of the portfolio within the context of the reserve management. However, the balance maintained for this purpose is not significant.

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<sup>32</sup> See the introduction to this chapter.