

**Central Bank of Cyprus**

**OVERSIGHT OF  
PAYMENT AND SECURITIES SETTLEMENT SYSTEMS  
POLICY DOCUMENT**

**Prepared by:  
Payment Systems Oversight Section  
Payment Systems and Accounting Services Department**

**S. Georgakis  
October 2005**

**Oversight of Payment and Securities Settlement Systems**

<u>Table of contents</u>	<u>Page</u>
1. Introduction	2
1.1 The importance of payment and settlement systems	2
1.2 Systemically important payment systems	3
1.3 Payment and settlement systems in operation in Cyprus	3
2. The scope of the oversight function	6
2.1 Definition	6
2.2 The legal framework	7
2.3 The role of the Central Bank of Cyprus	9
2.4 Objectives	12
2.5 Payment systems	12
2.6 Securities clearing and settlement systems	15
2.7 Payment instruments	17
3. Application of the oversight function	19
3.1 Risks in payment and settlement systems	19
3.2 Tools of the oversight function	20
3.3 Cooperation with other authorities	23
4. Accountability of the oversight function	25
4.1 Reporting	25
4.2 Information to the public	25
5. Conclusion	26
 <u>Appendices</u>	
A Classification of Payment and Securities Settlement Systems operating in Cyprus	27
 <u>Annexes</u>	
A. Summary of the Core Principles and central bank responsibilities	29
B. Summary of the General Principles for Oversight and the Principles for International Cooperative Oversight	31
C. Summary of the Standards for Securities Clearing and Settlement	33
D. Glossary of terms used in payment systems	37

## **1. Introduction**

### **1.1 The importance of payment and settlement systems**

A payment system is an arrangement with the purpose of enabling the transfer of funds between parties. "A payment system consists of a set of instruments, banking procedures, and, typically, interbank funds transfer systems which facilitate the circulation of money."<sup>1</sup> In a wider sense the arrangement also encompasses the participants, the settlement agent, the settlement asset, and any central counterparty or clearing house involved. Similarly, a securities settlement system enables the transfer of financial instruments and funds between the parties to a transaction.

Payment and settlement systems are important to the economy as a whole due to their significance for the safe and timely conclusion of commercial transactions; and to central banks in particular, due to their role in promoting financial stability, facilitating the implementation of monetary policy and maintaining confidence in the currency. The importance of payment and settlement systems became more evident with the substantial increase in activity in the financial markets and the rapid changes in technology. These developments exacerbated concerns relating to safety and efficiency in the systems, and the possibility of problems in one system spilling over into other systems and the financial sector.

For well over a decade the Group of Ten central banks (G-10) and other international institutions have been developing standards to promote the objectives of safety and efficiency. The first milestone in these efforts was the publication in 1990 of the "Report of the Committee on interbank netting schemes of the central banks of the Group of Ten countries". Included in this report were the "Minimum standards for the design and operation of cross-border and multi-currency netting and settlement schemes" (the Lamfalussy standards<sup>2</sup>). More recently, in 2001 the report on the "Core Principles for Systemically Important Payment Systems" and in 2004 the "Standards for Securities Clearing and Settlement in the European Union" report, were important milestones in the formulation of a widely accepted policy stance. These will be referred to in more detail in Sections 1.2 and 2.

---

<sup>1</sup> Taken from the Glossary (Annex 4) of the European Central Bank publication "Payment and securities settlement systems in accession countries", August 2002.

<sup>2</sup> These are included in the Glossary (Annex D) as "Minimum standards of the Lamfalussy report (Lamfalussy standards)"

### **1.2 Systemically Important Payment Systems**

Although all payment systems are important with regard to safety and efficiency, some systems carry more weight than others. The so-called systemically important payment systems (SIPS) are the systems, which, due to their significance, may transmit shocks across domestic and international financial systems and markets. Indeed in some economies these systems have a turnover which in a few days exceeds the value of the country's annual GDP. More specifically, "a payment system is systemically important where, if the system were insufficiently protected against risk, disruption within it could trigger or transmit further disruptions amongst participants or systemic disruptions in the financial area more widely".

In January 2001 the Committee on Payment and Settlement Systems of the G-10 (CPSS) published a report entitled "Core Principles for Systemically Important Payment Systems" ("the Core Principles") (Bank for International Settlements, BIS), from which the above definition is taken. The report cited and developed ten core principles to be complied with or exceeded by SIPS (as two of the principles are minimum acceptable standards). Although there is no legal requirement as to the implementation of the Core Principles, they have since become established as the benchmark for the adequacy of payment systems. The Governing Council of the European Central Bank (ECB) adopted the Core Principles as the standards it uses with respect to its oversight function. Furthermore, even though they have been prepared primarily for SIPS, these principles can easily be adapted and applied to a variety of systems (large-value or retail, domestic or cross-border, in emerging or developed economies). In addition, the report established four responsibilities that central banks have in applying the Core Principles. A summary of the Core Principles and central bank responsibilities is included in Annex A.

### **1.3 Payment and settlement systems in operation in Cyprus**

There are five payment and securities clearing and settlement systems currently in operation in Cyprus<sup>3</sup>. These are: the Large-value Credit Transfer System (LCTS), the Cyprus Clearing House for cheques and postal drafts, the payment cards system, the retail credit transfer system (JCCTransfer) and the Cyprus Stock Exchange system. Indicative volumes and values handled by each system in 2004 are included in Table 1.

---

<sup>3</sup> These are described in detail in the ECB report "Payment and securities settlement systems in accession countries", August 2002, which can be downloaded from the ECB website ([www.ecb.int](http://www.ecb.int)) or accessed via the Bank's website ([www.centralbank.gov.cy](http://www.centralbank.gov.cy)).

## CENTRAL BANK OF CYPRUS

---

The LCTS handles mainly large-value interbank transactions and is de facto a SIPS without detailed analysis being necessary, as it is the only such system in Cyprus. It is a gross deferred settlement system, which is operated by the Bank and settles in central bank money. It utilises the SWIFT network for automated processing. The payment instructions of non-SWIFT participants are processed manually. In addition to banks, participants include various government departments and semi-government organisations.

The Cyprus Clearing House is the largest retail payment system, both in terms of volume and especially in terms of value of transactions. It is an automated clearing house for the clearing and settlement of cheques and postal drafts and is operated by the Bank. Optical Character Recognition (OCR) technology is utilised in the automated capturing and processing of the information. Settlement takes place in central bank money on a multilateral net settlement basis.

The payment cards system is owned and operated by JCC Payment Systems Ltd (JCC), a joint venture company established by banks in Cyprus. This system handles the clearing and settlement of debit and credit card transactions, including cash withdrawals from ATMs, of locally issued cards and cards issued abroad when used in Cyprus. JCC also operates the National Authorising Centre for payment cards and the National POS Network. Settlement takes place on a net bilateral basis (JCC with each bank) in commercial bank money.

The JCCTransfer system is a relatively new retail payment system, as it commenced operations on 9 November 2001. It is owned and operated by JCC, and handles the processing of retail credit transfers between banks, for amounts up to £10,000. The system settles on a net multilateral basis in central bank money.

The Cyprus Stock Exchange (CSE) operates the Trading System and the Central Depository-Central Registry, Clearing and Settlement System (CDCR). Trading takes place through a fully automated computerised system, and all quoted securities (except government securities) are in dematerialised form and “deposited” in the CDCR. The CSE system facilitates Delivery versus Payment (DVP). For the completion of a trade, the system ensures the availability of the securities to be traded by pre-validation. On settlement date, at T+3, and prior to the commencement of trading for the day, the securities are delivered electronically by the CDCR and, at the same time, the Holding

## CENTRAL BANK OF CYPRUS

---

Bank<sup>4</sup> transfers the funds between the participants' accounts. Thus settlement is effected in commercial bank money. The Central Bank of Cyprus participates in the CSE system, in order to be able to directly intervene in the secondary market for quoted government securities when deemed necessary. As the dematerialisation process has yet to extend to the quoted government securities, the Bank, acting as the government's agent for the management of public debt, is responsible for the maintenance of the registry of holders of domestic debt. The settlement of government securities continues to take place under the regime which was applicable prior to dematerialisation, i.e. settlement at T+9.

**Table 1:** Volumes and values of transactions of payment and securities settlement systems in Cyprus for 2004.

<b>Payment and Settlement Systems</b>	<b>Volume (thousands)</b>	<b>Value (£'mn)</b>
Large-value Credit Transfer System	85	52.575
Cyprus Clearing House	19.287	14.530
<i>of which:</i>		
<i>cheques</i>	17.382	14.119
<i>postal drafts</i>	1.905	411
Payment cards system	19.311	1.000
<i>of which:</i>		
<i>payments</i>	17.530	825
<i>cash withdrawals</i>	1.781	175
JCCTransfer	205	99
Cyprus Stock Exchange <sup>1</sup>	140	129

<sup>1</sup> Includes data for traded government securities and excludes off-floor transactions.

---

<sup>4</sup> This is the commercial bank where the participants' escrow accounts are held and at which the cash settlement takes place.

### **2. The scope of the oversight function**

#### **2.1 Definition**

Payment systems oversight is defined in the ECB Blue Book (“Payment and securities settlement systems in accession countries”, August 2002) as “a central bank task, principally intended to promote the smooth functioning of payment systems. The objectives of oversight are to protect the financial system from possible “domino effects” which may occur when one or more participants in the payment system incur credit or liquidity problems and to foster the efficiency and soundness of payment systems. Payment systems oversight is aimed at a given system (e.g. a funds transfer system) rather than at individual participants. It also covers payment instruments”.

From the definition it is clear that this responsibility is borne by the central bank due to the importance bestowed upon it for the smooth functioning of payment (and settlement) systems. This task is instrumental to the primary roles of modern central banks, namely those of maintaining financial stability and defining and implementing monetary policy. As modern monetary policies tend to rely more and more on money markets to transmit monetary policy impulses to the whole economy, this can only be achieved through systems that are safe and efficient. Historically, central banks were always the issuing institutions for banknotes, a function which is associated with the maintenance of confidence in the currency – an end achieved through the smooth functioning of payment systems. Furthermore, central banks are traditionally lenders of last resort, and only settlement in central bank money is considered absolutely final. Another reason is that the central bank is best positioned to achieve equilibrium between cost, efficiency, reliability and safety considerations, either in its own initiatives in this field or acting as a catalyst for cooperation between traditional competitors, while at the same time ensuring that the rules of free market competition and a level playing field are maintained.

The definition also distinguishes between the role of oversight of payment systems and the supervision of credit institutions. The scope of payment and settlement systems oversight encompasses the individual entities instrumental to the transfer of funds or securities (such as participants, operators, clearing houses, settlement agents); the payment instruments themselves; and the technical infrastructure that links the said entities. An exposed participant is a potential risk to the robustness of the system and the other participants, and conversely, a system that is not sound is a potential risk to the participants. Therefore, with regard to the oversight of the institutions involved, the

overseer and the supervisory authority share the same objectives and their mutual interests are best served by smooth cooperation; thus the fostering of cooperation between the overseers and the supervisory authorities is promoted by the Core Principles under central bank responsibility D. Furthermore, the oversight of payment and settlement systems is concerned with the avoidance of risks faced by the individual entities “spilling over” into the system, and thus the primary objective is addressing what is collectively known as systemic risk.

Although no unique definition of oversight exists, a working definition given most recently by the CPSS in the report “Central bank oversight of payment and settlement systems” (BIS, May 2005) is the following:

“Oversight of payment and settlement systems is a central bank function whereby the objectives of safety and efficiency are promoted by monitoring existing and planned systems, assessing them against these objectives and, where necessary, inducing change.”

As the concept of oversight has matured over time, its definition has gradually shifted from early descriptions that took pains at explaining the function and differentiating it from the supervisory function to a more focused definition that incorporates the public policy objectives of oversight (safety and efficiency), its scope (payment and settlement systems) and its application (monitoring, assessing and inducing change). The latest definition highlights some important issues that were not previously prominent, such as the inter-relation between systems and the activities involved in carrying out the oversight function.

The CPSS report, drawing from the previous work of the CPSS and the experiences of the contributing central banks, takes stock of the oversight function and its effective application. In addition to the descriptive and analytical part, it includes ten principles for effective oversight. Five principles are generally applicable to oversight arrangements, whereas the other five specifically address cooperative oversight arrangements. A summary of the General Principles for Oversight and the Principles for International Cooperative Oversight is included in Annex B.

### **2.2 The legal framework**

In line with the evolution of the oversight concept, central banks’ powers to apply the oversight function have developed from the implicit and the deduced to the explicit and the direct, now increasingly being founded on a sounder legal basis. Gradually

## CENTRAL BANK OF CYPRUS

---

more central banks have made provisions for safeguarding, by statutory means, the oversight powers.

In the national context, the Central Bank of Cyprus Laws of 2002 and 2003, provide that one of the main tasks of the Bank is the promotion, regulation and oversight<sup>5</sup> of the smooth operation of payment and settlement systems (Article 6(2)(ε)). Furthermore, Article 48 of the Central Bank of Cyprus Law expands on the role of the Bank regarding payment and settlement systems. This article provides that the Bank may operate, participate in, or become a member of any payment and settlement system. The Bank may place under its oversight payment and settlement systems operating in the Republic, which shall be published in the Official Gazette of the Republic. Article 48 also empowers the Bank to issue directives governing the functions and the operating procedures of systems under its oversight. The directives may be of a general nature, encompassing all systems, or of a specific nature, addressing a particular system or group of systems. Furthermore, it may impose administrative penalties on any member or operator of a system, or suspend the operation of a system, or terminate the participation of any member in any system under its oversight.

In its regulatory capacity accorded by the Central Bank of Cyprus Law, the Bank prepared the Settlement Finality in Payment Systems and in Securities Settlement Systems Law of 2003, transposing the provisions of the Settlement Finality Directive (98/26/EC) into domestic legislation, which came into force upon accession to the European Union on 1 May 2004. The Law defines the Bank as the competent authority empowered to designate systems for the purposes of this law. The scope of the law was to achieve the following objectives with regard to designated payment and settlement systems, even in the event of insolvency proceedings being initiated against a participant:

- Ensuring the finality and irrevocability of transfer orders and netting.
- Safeguarding the use of funds and/or securities of a participant in a system to fulfil its obligations towards the system.
- Safeguarding the application of collateral security for the purpose for which it was pledged in connection with the system.

---

<sup>5</sup> The Law does not distinguish between “supervision” and “oversight”. In this document references in the Law will be made as referring to “oversight”, as the Law is currently under revision with the view, inter alia, of introducing the correct terminology.

## CENTRAL BANK OF CYPRUS

---

The Bank, as the competent authority, designated, on 18 June 2004, the Large-value Credit Transfer System and the Central Depository Central Registry as systems that fall under the provisions of the Settlement Finality Law. The designation has been duly notified to the European Commission.

In addition to the provisions for ensuring the fulfilment of the objectives of the Directive, the Law authorises the Bank to access any information it deems necessary in carrying out the assigned responsibilities under the Law. This information may include rules, regulations, procedures, recommendations, instructions, and data, which are either in writing or in electronic form. The information may be collected from any of the following: operator, direct and indirect participants, a central counterparty, a clearing house, or a settlement agent. The Bank may impose administrative penalties for non-compliance.

It is evident that the provisions of both the Central Bank of Cyprus Law and the Law on Settlement Finality in Payment and Securities Settlement Systems give the Bank sufficient authority and powers to obtain all the information and data required in undertaking the oversight function effectively.

### **2.3 The role of the Central Bank of Cyprus**

The role of the Bank regarding payment and settlement systems is defined by the provisions of the Central Bank of Cyprus Laws of 2002 and 2003, which were outlined above. Within this framework, the Bank formulates and enforces the applicable policy, carries out the oversight function and is prepared to address any contingencies. Regarding the formulation of policy, compliance with the international standards and principles is pursued and especially with those adopted by the ECB and the ESCB of which it is part. The Cyprus pound joined the ERM II on 29 April 2005 and thus the eventuality of Cyprus's entry into the Eurosystem prescribes that the oversight policies of the Eurosystem are adopted in full.

As already mentioned in section 1.3 the Bank owns and operates the two most important payment systems in Cyprus, namely the Large-value Credit Transfer System and the Cyprus Clearing House. The Bank is also a participant in and settlement agent for these two systems. Furthermore, the Bank is the settlement agent for the retail credit transfer system, JCCTransfer, and a participant in the securities settlement system of the CSE for government paper only. As operator of the LCTS, the Bank is currently upgrading it in order to satisfy the Core Principles. In its capacity as Chairman of the Cyprus Clearing House Committee, and as a result of a commitment made to the House

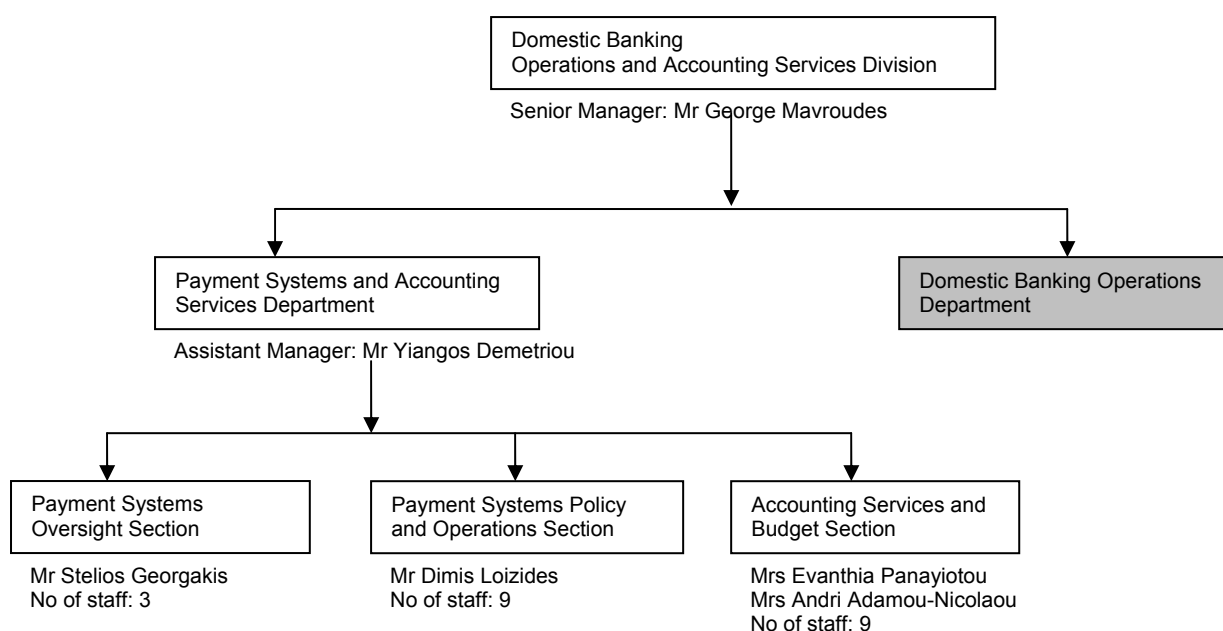
## CENTRAL BANK OF CYPRUS

---

of Representatives to reduce dishonoured cheques in the economy, the Bank introduced as of 1 February 2003 a Central Information Registry for the Issuers of Dishonoured Cheques (CIR). More details on the CIR are provided under section 2.7.

In addition to its operational role, the Bank is entrusted with the task of regulating and overseeing payment and settlement systems. The Bank, with this document, is disclosing in a transparent manner its relevant policy, which will be equally applicable to both internal and external systems to the Bank. More than the payment and settlement systems already described in section 1.3, the scope of the oversight function may include any internal operations of a financial institution or group of financial institutions that might be deemed to constitute a payment or settlement system, any future developments in the area of payments, such as e-money and e-commerce, and the payment instruments used. The Bank has taken proactive measures to clarify how it performs its dual role as operator and overseer. Therefore the oversight function is performed in a completely transparent and independent manner from the Bank's own payment systems operations. Care is taken in the allocation of staff and duties in order to ensure that, in compliance with the ECB decision of 9 January 2003 on the oversight framework of TARGET, there is clear separation between the oversight function and payment systems' operations. Furthermore, the same oversight regime is applicable to both in-house operated and externally run systems. Qualified staff well versed in payment systems performs the task of oversight. The organisational structure of the Bank, which is relevant to payment and settlement systems, is shown in the following diagram.

# CENTRAL BANK OF CYPRUS



**Chart 1:** Organisation Chart relevant to Payment and Settlement Systems  
(Extract from the organisation chart of the Central Bank of Cyprus)

The Bank should not be perceived as hindering free market forces. In fact, the Bank welcomes private initiatives especially in retail payments. On the other hand, the efficiency of private sector operations cannot justify jeopardising the safety, reliability and soundness of payment and settlement systems. The Bank will not hesitate to intervene where market deficiencies are recognised or failures may occur, i.e. where there is a difference in the incentives of the individual organisation and society as whole. Examples of such market deficiencies are inefficiencies, inadequate risk management procedures, inadequate contingency planning and the failure to provide certain services to the market.

Oversight is a continuous process and as such, progress in this area will be publicly disclosed through the Bank's official communication channels, such as the Annual Report and its website. Section 4 of this report is relevant to this public responsibility. In discharging its oversight duties the Bank will be in close cooperation with other relevant supervisory authorities. This aspect of the Bank's role is addressed in section 3.3. In addition to the adopted Eurosystem policy stance, the bank envisages studying further the CPSS "Central bank oversight of payment and settlement systems" general principles, in order to incorporate them into its current framework; some

principles have already been adopted, as their basis lies in the central bank responsibilities included in the Core Principles report.

### **2.4 Objectives**

The aim of the oversight of payment and settlement systems is to ensure that the systems are adequate for the effective implementation of monetary policy, the maintenance of financial stability and confidence in the currency. The two objectives of the oversight function are safety and efficiency. The objective of safe and smooth operation of payment and settlement systems is achieved by ensuring that a sound legal framework exists, systems are robust in design and technically secure, and that proper risk management procedures are in place, including contingency planning. On the other hand, efficiency is achieved by safeguarding competition, ensuring a level playing field between participants and fair access conditions. A timely and reliable service must be provided at a reasonable cost, so as to achieve cost effectiveness. However, mention should be made that the competitive environment primarily falls under the scope of work of the appropriate competition authorities. In Cyprus these are the Competition and Consumer Protection Service of the Ministry of Trade, Industry and Tourism (policy formulation and legislation) and the Committee for the Protection of Competition (supervision and enforcement).

The primary focus of the oversight function is on the systems that are deemed to be systemically important. The extent of the oversight effort is proportionate to the assessment of the systemic or system-wide risks posed by a system. In other words, the oversight effort is commensurate with the extent of the potential losses. In order to be able to assess the risks and efficiency of the systems, they are monitored on a continuous basis: Firstly, to fully comprehend the arrangements themselves and their significance to the economy, and secondly, to shift the emphasis of the oversight function as early as possible whenever new developments so dictate. Monitoring and understanding are also the tools for achieving the over-reaching aims of the oversight function.

### **2.5 Payment systems**

As previously mentioned, the subject of payment systems and their oversight has been on the agenda of various international bodies for more than fifteen years. Therefore, appropriate provisions were made in the Treaty establishing the European Community (Article 105(2)) and the Statute of the European System of Central Banks (Article 3), which state that one of the basic tasks to be carried out through the ESCB

shall be the promotion of the smooth operation of payment systems. Although the oversight function is not explicitly mentioned, it is clearly deduced. Furthermore, Article 22 of the Statute provides that the Eurosystem may have an operational role and the ECB may have a regulatory role in the field of payment systems. In line with the above, the ECB issued, in June 2000, a policy statement entitled the “Role of the Eurosystem in the field of payment systems oversight”, which applies to payment and settlement systems that process transactions in euro. This statement explains the objectives and principles of the oversight function of the Eurosystem in the field of payment systems. It determines the activities and allocation of tasks within the Eurosystem and establishes as the basis of the oversight function the principles that are included in the following documents:

- “Report of the Committee on Interbank Netting Schemes of the central banks of the Group of Ten Countries”, BIS, 1990.
- “Minimum common features for domestic payment systems”, EMI, 1993.
- “Report on electronic money”, ECB, 1998.

The report also emphasises the need for cooperation between payment system overseers and banking supervisors. In this respect, and in the spirit of Article 105 of the Treaty whereby the ESCB shall promote the smooth operation of payment systems, a Memorandum of Understanding (MoU) on Cooperation between Payment System Overseers and Banking Supervisors in Stage Three of Economic and Monetary Union was adopted in January 2001. The MoU gives in written form, even if not legally binding, the relationship between the two parties, its scope and objectives, and the principles for the exchange of information. Although it is directed at large-value interbank funds transfer systems, it is stated therein that it can serve as the basis for the cooperation between the parties in relation to retail payment systems, including e-money schemes. The new member-states agreed to adhere to the contents of the MoU with effect 17 June 2004. At the same time, the new member-states agreed to adhere to the contents of the Memorandum of Understanding on High-level Principles of Cooperation between the Banking Supervisors and Central Banks of the European Union in Crisis Management situations, of March, 2003, which promotes cross-border cooperation and the setting up of the appropriate logistical infrastructure for the timely flow of information in crisis situations. The latter MoU is without prejudice to other arrangements, including the former MoU, and will ensure consistency with its provisions on information sharing and cooperation.

In January 2001, the CPSS issued a report entitled “Core Principles for Systemically Important Payment Systems” (BIS). This report lays down the uniform basis for the evaluation of payment systems in the form of ten core principles that must be fulfilled or exceeded (as two of the Standards are expressed as minima). They have been drafted and elaborated upon in such a way so as to be widely applicable, not only for SIPS but also for all types of payment systems, in both developed and emerging economies. Furthermore, the report also discusses four responsibilities that central banks have in applying the Core Principles. A summary of the Core Principles and central bank responsibilities are included in Annex A of this report, whereas the full document can be accessed from the BIS website ([www.bis.org](http://www.bis.org)). The ten Core Principles deal with the following issues: Sound legal and regulatory basis, risk management, timely completion and finality of settlement, quality of settlement asset, security and technical robustness, efficiency, open access and effective governance. The Core Principles were adopted by the ECB in January 2001 as the minimum standards to be satisfied by large-value payment systems.

In June 2003, the ECB issued another policy statement, this time elaborating the Eurosystem’s stance regarding the oversight of retail payment systems. The “Oversight Standards for Euro Retail Payment Systems” document explains the methodology followed by the Eurosystem in categorising retail payment systems, states the standards applicable to each category and gives guidance for possible designation and notification of retail systems under the provisions of the Settlement Finality Directive. Under this framework, retail payment systems could be classified as SIRPS (these are systemically important retail payment systems; where disruption to the retail system threatens the stability of financial markets), PIRPS (these are retail payment systems of prominent importance; where disruption to the retail system could have severe impact on the real economy) and ‘other’ (these are retail payment systems that do not fall in either of the previous two categories). Retail payment systems that are classified as SIRPS, similarly to large-value SIPS, have to comply with the complete set of the Core Principles, whereas PIRPS have only to comply with a sub-set of these standards, the so-called Retail Standards (standards I, II and VII – X). It is deemed that standards III – VI, which relate to financial risks, should not be obligatory for PIRPS. Regarding other retail payment systems, the applicable standards are left to the discretion of the national authority.

Based on the Eurosystem oversight policy framework described above, which is adhered to by the Central Bank, the payment systems operating in Cyprus have been classified as described in Appendix A.

The central bank responsibilities included in the Core Principles report (Annex A) deal with the obligations of a central bank: to formulate and publicly disclose its payment systems policy; to apply the oversight function to both own and externally operated systems; and to cooperate with other relevant authorities. The Bank is committed to assuming the responsibilities as described in the said document. The first responsibility is fulfilled by formulating and disclosing the Bank's payment systems role and policy through the Central Bank of Cyprus Laws of 2002 and 2003 and this oversight policy statement, which are available to the public through the Bank's website. The Bank is also working towards fulfilling the other three responsibilities. It is stated publicly, in this policy statement, that the oversight policy shall equally apply to systems owned and operated by the Bank, as well as to those operated by third parties, as required by the second and third responsibilities, respectively. In January 2003 the Bank signed a Memorandum of Understanding with the other Supervisory Authorities in Cyprus, namely the Securities and Exchange Commission (SEC), the Office of the Superintendent of Insurance, and the Co-operative Societies' Supervision and Development Authority, which will facilitate closer cooperation between them, as required by the fourth responsibility.

The infrastructure of the payment and settlement systems in Cyprus were the subject of an evaluation by the ECB, which was carried out on behalf of the European Commission. This was concluded in September 2002, and focused on issues relating to accession to the European Union. In this respect, the current infrastructure was found sufficiently efficient and robust to allow the smooth integration of Cyprus into the EU.

### **2.6 Securities clearing and settlement systems**

The supervision of the Cyprus Stock Exchange (CSE), which is the only securities clearing and settlement system presently in operation in Cyprus, is assigned by law to the Securities and Exchange Commission (SEC). However, the smooth functioning of the CSE system is also of interest to the Central Bank of Cyprus as overseers of payment and settlement systems, for the following reasons:

- The cash leg of the system is settled in commercial bank money, in what is deemed to be a payment system arrangement.

## CENTRAL BANK OF CYPRUS

---

- The securities, which are used in monetary policy operations, are listed and traded on the CSE.
- The CSE system is an integral part of the infrastructure serving the economy, the stability of which is one of the Bank's objectives.

In this respect, and in a similar exercise to the assessment of payment systems for the purpose of EU accession, the Bank was involved during 2003 in the ECB assessment of the CSE settlement system against the standards for the use of securities settlement systems in ESCB credit operations. This evaluation was carried out against the nine standards established in the January 1998 EMI report "Standards for the Use of EU SSSs in ESCB Credit Operations" (the "User Standards"), with the objective of limiting the risks to which the ESCB will be exposed to when the new member-states connect to TARGET and participate in such credit operations. The exercise produced a number of recommendations for compliance and/or improvement of the system, the early adoption of which would limit potential deviations in the formal assessment that will be carried out prior to joining the Eurosystem. A report detailing the outcome of the assessment process in the new member-states was published by the ECB in January 2004 under the heading "Assessment of Accession Countries' Securities Settlement Systems Against the Standards for the Use of EU Securities Settlement Systems in Eurosystem Credit Operations". It should be noted that the exercise regarding the CSE settlement system was carried out based on the assumption that the listed government securities would be dematerialised and deposited in the CDCR so that, when denominated in euro, they would be eligible assets for use in ESCB credit operations.

In November 2001, the "Recommendations for Securities Settlement Systems" (BIS) were published jointly by the CPSS and the Technical Committee of the IOSCO, in an effort to determine a relevant framework for securities settlement systems comparable to that of payment systems. One year later, in November 2002, the CPSS published the assessment methodology to be applied in evaluating the compliance of securities settlement systems based on the above Recommendations. These Recommendations were adapted and adopted as standards by the Eurosystem in a joint effort with the Committee of European Securities Regulators (CESR). The first product of this effort, which involves extensive consultations with market participants and other supervisory authorities, is the ESCB-CESR "Standards for Securities Clearing and Settlement in the European Union" report, which was published in September 2004. A

summary of these standards is included in Annex C<sup>6</sup>. Currently, the ESCB-CESR Working Group, in which the Payment Systems Section is actively involved, is developing the assessment methodology for the evaluation of securities clearing and settlement systems in the EU. It is envisaged that the standards will, with suitable amendments, supersede the “User Standards”, and will help in streamlining the assessment effort both on the side of the assessor as well as on the part of the assessed system.

Upon completion of the assessment methodology a new assessment exercise will be initiated by the Bank, with the cooperation of the CSE and the SEC, to evaluate the CSE system against the ESCB-CESR standards. However, it should be emphasised that the competent authority for the supervision of the CSE is the SEC, and the Bank’s primary interest lies in the maintenance of financial stability, the efficiency and safety of the payment facilities in the settlement system and the transfer/collateralisation of securities used in monetary policy/payment systems operations in the securities depository.

### **2.7 Payment instruments**

Since payment instruments constitute the medium through which the payment instruction is transmitted in each payment system, ipso facto these also come under the relevant oversight provisions. The oversight of payment instruments is concerned with those characteristics of the instruments that influence the safety and efficiency of payments. An illustration of the Bank’s interest in payment instruments is the introduction of the Central Information Registry for the Issuers of Dishonoured Cheques (the CIR) in recognition of the disruption that dishonoured cheques may inflict on the economy. The CIR was introduced on 1 February 2003, and has since contributed to the reduction in the issue of dishonoured cheques.

In addition to the introduction of the CIR, the Bank initiated a change in the Bills of Exchange Law that was enacted in July 2003, in order to facilitate the introduction of cheque truncation. Although such initiatives in retail payments are left to the banking industry, the Payment Systems Section is following closely developments, as the changes to be implemented using cheque imaging have legal, operational and infrastructural

---

<sup>6</sup> The full document, as well as the abovementioned User Standards, can be accessed from the ECB website, [www.ecb.int](http://www.ecb.int). These standards address legal, credit, liquidity and operational risks, finality, the settlement asset, efficiency, access, governance and oversight issues.

## CENTRAL BANK OF CYPRUS

---

repercussions, which affect the Bank as participant, settlement agent and overseer of the system and the payment instrument.

The objectives of safety and efficiency are best served with the adoption of internationally accepted standards. Furthermore, EU membership has triggered the application in Cyprus of the provisions of Regulation 2560/2001 of the European Parliament and of the Council, relating to cross-border payments in euro. With the target of applying the provisions of the Regulation and in preparation for the Single Euro Payments Area (SEPA), the Bank has, in cooperation with the banking industry, prepared a manual for the implementation of the IBAN standard (International Bank Account Number). The Cyprus IBAN, which has been registered with the ECBS (European Committee for Banking Standards), has been adopted by all domestic banking institutions as from 1 April 2004. Following the recommendation of both the ECB and the European Payments Council, the IBAN has been adopted for all bank accounts and not only those that are used for payments in euro. For the time being the IBAN is not used for local transfers of funds but the decision has been taken for its gradual application to such transactions.

The Bank is most influential with the payment systems it is actively involved in either as a participant and/or as operator. This is most evident regarding cheques, as indicated above, and also due to the fact that the Bank chairs the Committee of the Cyprus Clearing House. It also, proposes through the Ministry of Finance any legislative changes it deems necessary. However, the Bank would not hesitate to intervene where risks or inefficiencies are recognised in respect of other payment instruments, as ownership of or participation in a system is not a prerequisite for the application of the oversight function. It is the policy of the Bank to promote wider use of safe and efficient cashless payment instruments in a free market environment, i.e. irrespective of whether the Bank participates, owns or operates such payment systems. In this respect, the Bank is keen to encourage the wider adoption of the credit transfer as a means of settlement of transactions and expects the use of direct debits and standing orders to continue to increase.

Currently, the Eurosystem is developing, in two separate projects, the framework for the oversight of payment cards and of e-money schemes. The latter will incorporate the assessment of these schemes against the “Electronic Money System Security Objectives” (ECB, May 2003). The Bank, as a member of the ESCB, will contribute to these efforts, and will subsequently adopt these frameworks as part of its oversight policy.

### **3. Application of the oversight function**

#### **3.1 Risks in payment and settlement systems**

The importance of payment and settlement systems has increased with the considerable increase in the volumes and values of the transactions involved. At the same time, so has the importance of the risks involved. The risks that are associated with payment and settlement systems are the following:

- **Credit risk:** The risk that a counterparty (or participant in a settlement system) will not settle an obligation in full, either when due or at any time thereafter.
- **Liquidity risk:** The risk that a counterparty (or participant in a settlement system) will not settle an obligation for full value when due, but at some unspecified time thereafter.
- **Legal risk:** The risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.
- **Operational risk:** The risk of human error or a breakdown of some component of the hardware, software or communications systems, which is crucial to settlement.
- **Systemic risk:** The risk that the failure of one participant in a transfer system to meet its required obligations will cause other participants to be unable to meet their obligations (including settlement obligations in a transfer system) when due.

The objective of financial stability requires that the Bank ensures that the above risks are recognised, evaluated and contained or mitigated. The first four types of risk are addressed in the first instance by the participants and are assessed by the relevant competent authority (the supervisory body). These however can lead to systemic risk, which should be addressed by the operator of the system, as it is system-wide. This is also the primary concern of the payment systems oversight, as the repercussions may extend beyond the system to financial markets and the economy at large. Furthermore,

the oversight function deals with risks not usually addressed by supervisors, such as intraday credit and liquidity risk, operational reliability and legal soundness of the system itself. Thus the oversight function must ensure that all the above risks are understood, quantified and mitigated by both participants to and operators of payment and settlement systems. Where this is not sufficiently achieved by the operators and/or the participants, the Bank is obliged to use all means at its disposal to ensure proper compliance, as described in the following section.

### **3.2 Tools of the oversight function**

Once the oversight policy is determined (scope and objectives) and the applicable standards are established, the oversight function is exercised through two channels: (i) the application of the oversight policy to promote safety and efficiency in payment and settlement systems, and (ii) the monitoring of the compliance of payment and settlement systems with the oversight standards.

The Bank may use a strong or a soft approach to applying its payment and settlement systems policy, as it deems appropriate. As already described in section 2.2, the legal framework provides the Bank with the necessary authority to use regulatory measures, such as the establishment of standards or the issuance of directives governing the functions and the operating procedures of payment systems under its oversight. These may be of a general nature, encompassing all systems, or of a specific nature, addressing a particular system or group of systems. The Bank may impose sanctions for non-compliance, such as administrative penalties on any member or operator of a system, or suspend the operation of a system, or terminate the participation of any member in any system under its oversight. An example of sanctions that may be imposed may involve restrictions on the maintenance of settlement accounts with the Bank. However, the Bank has an excellent relationship with the financial institutions operating in Cyprus and expects application of the oversight policy primarily through non-regulatory measures, such as publications and speeches, and close cooperation with participants and systems, i.e. with the exercise of moral suasion. Therefore the policy will be enforced through a combination of regulation and informal tools.

The monitoring aspect of the oversight function will be applied in various forms:

- Collection and analysis of information
- On-site examination

- Meetings and discussions
- Evaluation and assessment against the standards
- Follow-up work to the assessment

### **Collection and analysis of information**

The Bank collects information on a regular and on an ad-hoc basis. The ad-hoc information collected involves the rules and regulations, operational and technical manuals, instructions and procedures, of individual systems. Supplementary information is submitted whenever changes occur. It may also involve the work of third-party experts, such as independent security evaluators or auditors. This information is required in order to make an initial assessment of the safety and efficiency of a system, and whether any barriers to access exist. Emphasis is placed on a sound operational framework, risk management procedures, robustness of the technological infrastructure and contingency arrangements. The periodic collection of statistical data, and efficiency and incident reports, enables the Bank to assess the importance of each system and to quantify the oversight effort required. It also enables the Bank to fulfil its reporting requirements regarding the ECB Blue Book. The analysis of the information is also used to identify SIPS for the purposes of the Settlement Finality Directive.

The collection and analysis of information will make evident trends and inherent risks and, thereby, give rise to appropriate action. This will either be in the form of system-specific recommendations, regulations, or confirmation of the adequacy of payment systems (reliability and availability) and the application of the policy (safety and efficiency). Thus, the oversight function can be deemed as an iterative process, whereby the results lead to a refinement of the policy and its application. Recommendations are given specific timeframes and followed up to ensure implementation.

Part of the ad-hoc reporting is the identification and immediate notification of any critical situation which will require action on the part of the Bank and/or a system as part of crisis management.

### **On-site examination**

The effectiveness of the collection of information may be enhanced by on-site examination and confirmation of the information provided. This will also determine whether rules, regulations and procedures are properly followed and that risks are prudently managed. At the same time, other information, which is not normally

submitted, will be examined, such as minutes, log-books, internal memos and reports. One such example is the review of the outcome of the work of internal and external auditors, which may indicate potential weaknesses or breakdowns in procedures.

### **Meetings and discussions**

Regular contact with the operators and participants of payment systems will be maintained in order to enhance cooperation and communication. On the one hand the payment systems policy will be discussed prior to formulation and, following its finalisation, it will be explained and analysed to all parties involved in payment systems. This is how moral suasion is exerted on participants and systems' operators. On the other hand, the oversight function will become aware of changes, concerns and requirements, which are not usually communicated through standardised forms and returns. The frequency of these periodic reviews will be determined by the significance of each system.

### **Evaluation and assessment against the standards**

As previously mentioned in section 2.5, the systems are formally assessed against the standards adopted by the ECB and the Eurosystem or, in their absence, by those formulated by the Bank. The information collected is evaluated through a structured and methodical process, which in itself can be subject to secondary review. In this process the Bank may involve experts in certain fields, such as law, security and information technology, in order to evaluate the compliance with certain standards. The evaluation process is not only necessary for the payment and settlement systems oversight function per se, but also for the establishment of compliance with certain provisions of the Settlement Finality law prior to systems being designated as SIPS and communicated to the European Commission.

### **Follow-up work to the assessment**

The outcome of the assessment process will be in the form of a report, which will include a description of the evaluation and the conclusions of the work performed. These should preferably be in the form of specific recommendations which, when adopted, will ensure that the relevant assessment criteria and standards are satisfied. A specific timeframe for implementation of the recommendations must be agreed with the assessed system. Implementation of the changes will be monitored and evaluated. On the other hand, possible non-compliance will also be evaluated and appropriate measures or sanctions imposed. Ultimately, the Bank may even choose, if it is

considered to be in the best interests of the public, to become operator of a substitute system.

One last function of the Payment Systems Oversight Unit is the continuous monitoring of new developments in payment systems in Cyprus. Wherever possible, the Bank should be notified of new initiatives, so as to be involved from the outset. It may provide guidance or recommendations from the design and development stage of new initiatives, and thus subsequent problems or complications may be avoided.

### **3.3 Cooperation with other authorities**

The supervision of the banking sector, similarly to the oversight of payment and settlement systems, is one of the main tasks of the Bank, and is carried out by the Banking Supervision and Regulation Division. The two supervisory functions of the Bank address issues at the micro and the macro level respectively, and have a different focus to their activities, which however, complement each other. The emphasis of the banking supervision activities is the detailed examination of the individual credit institution within an extensive legal and regulatory framework. The oversight function is focused beyond the credit institution on the system as a whole, and is concerned with the smooth functioning of the system. Therefore, it entails a detailed examination of the design, operations, and risk management of a system, and is not confined to credit institutions but all participants, operators, and service providers. Cooperation of the two functions is beneficial to both as they share the same goal of financial stability. It is evident that an exposed participant is a risk to the system and the other participants, and conversely, an unreliable system is a risk to its participants. In the context of cooperation between the banking supervisors and the overseers of payment and settlement systems, the two Divisions of the Bank closely cooperate in exercising their responsibilities.

Moreover, there is the issue of overseeing non-financial entities, such as service providers where again cooperation with third parties may be necessary.

In terms of cooperation regarding securities settlement systems, the Central Bank of Cyprus, the Securities and Exchange Commission, the Office of the Superintendent of Insurance and the Co-operative Societies' Supervision and Development Authority signed in January 2003 a Memorandum of Understanding, which aims to facilitate closer cooperation between them. Although the Bank is represented on the committee by the Banking Supervision and Regulation Division, it is envisaged that cooperation shall

extend to matters relating to the payment and settlement systems oversight function and especially regarding the CSE, the importance of which was elaborated in section 2.6.

The Bank is committed to fulfilling responsibility D of the Core Principles regarding cooperation with other relevant authorities and this obligation extends beyond national frontiers. The unit responsible for the oversight function will cooperate and exchange information with other overseers of payment systems abroad. The provisions of the Law on Settlement Finality in Payment and Securities Settlement Systems allow the Bank to disclose relevant information to other authorities. As already mentioned in Section 2.5, the Bank, along with the central banks of the other new member-states, have adopted the arrangement with the ECB and the central banks of the Member States of the EU on cooperation regarding payment systems oversight and banking supervision, in the pursuit of stability in financial markets.

#### **4. Accountability of the oversight function**

##### **4.1 Reporting**

The Payment systems Oversight Unit reports to the Domestic Banking Operations and Accounting Services Division of the Bank through the Head of the Payment Systems and Accounting Services Department. The management of the Division, with the support of the Payment Systems Oversight Unit, will report regularly to the Governor and, subsequently, the Monetary Policy Committee of the Bank the outcome of the oversight activities and developments in payment and securities settlement systems, both on the domestic and international front. It will advise the Governor on policy formulation, harmonisation with and adoption of the standards and policies adopted by the ECB and the Eurosystem.

##### **4.2 Information to the public**

The Payment Systems Oversight Unit, in order to promote accountability and transparency in carrying out its function, will publicly disclose the payment and settlement systems oversight policy of the Bank by making this document available in hard copy from the Bank and on the Bank's website ([www.centralbank.gov.cy](http://www.centralbank.gov.cy)). The outcome of the oversight function activities as well as developments in payment and settlement systems in Cyprus are disclosed through the Bank's Annual Report and the website. The ECB Blue Book ("Payment and securities settlement systems in accession countries") is also displayed on the Bank's website. This contains an extended description of payment and securities settlement systems in Cyprus and will be updated annually regarding the statistical data. It is the Bank's view that transparency will promote efficiency in payment and settlement systems, contribute to consumer protection, and enhance confidence in the use of payment and settlement systems. This will inevitably lead to confidence in the payment instruments and the currency.

## **5. Conclusion**

In summary, the payment and settlement systems oversight function is carried out in the following manner:

- Definition of the oversight policy.
- Determination of the scope of the policy and addressees. Monitoring and gathering of information.
- Adoption of international standards and best practices. Establishment of standards and regulations to complement those adopted, if necessary.
- Assessment of systems against the applicable standards. Reporting of the outcome of the assessment process.
- Follow-up action

The implementation of the oversight function is a dynamic process that evolves according to the changes in both the systems and the policy. Furthermore, the oversight effort undertaken is commensurate to the relative importance of each system. The importance of payment and settlement systems to the financial markets and the real economy is such that, as one of the main tasks of the Bank, it must be carried out to the highest standards, with adequate resources and suitably qualified personnel.

**Classification of Payment and Securities Settlement Systems operating in Cyprus**

	<b>Classification of payment systems</b>		
<b>Standards</b>	<b>SIPS</b>	<b>PIRPS</b>	<b>Other</b>
<b>Payment Systems</b>	(Core Principles)	(Retail Standards)	(Retail Standards)
Large-value Credit Transfer System	√		
Cyprus Clearing House for cheques		√	
Payment cards system		√	
JCCTransfer – the retail credit transfer system			√

The above classification has been based on the following reasoning:

- The LCTS, being the only large-value system in Cyprus, is de facto a SIPS.
- The significant volumes and values processed through the cheque clearing system, which represent most non-cash payments by the government<sup>7</sup>, businesses and persons, combined with the fact that there is no readily available substitute system, render this system a PIRPS.
- Although all the well-known international payment card schemes operate in Cyprus, the authorisation, clearing and settlement of such transactions is carried out through a single system. Therefore, lack of an alternative infrastructure capable of clearing this magnitude of transactions renders it a PIRPS.

<sup>7</sup> The volume of government-issued cheques is expected to decrease radically following the recent introduction of an automated transfer system for government payments. However, the overall volume and value of cheques used in the economy will continue to justify the above classification.

- The magnitude of transactions effected through JCCTransfer does not justify classifying the system as either a SIRPS or a PIRPS. In fact, its volumes are so low that, in case of failure of the system, substituting these payments with cheques would hardly make a difference to the cheque clearing system.

Payment systems are evaluated against the relevant standards, and the oversight effort undertaken is commensurate to the relative importance of each system. However, it should be noted that the primary responsibility to satisfy or comply with the standards lies with the system itself.

### **Securities Settlement Systems**

The CDCR of the Cyprus Stock Exchange is the only CSD operating in Cyprus. In the absence of other supplementary features of the market, such as custodians, as well as the possible transfer of the registry of the government securities to the CDCR, render it as systemically important. Therefore it has been designated under the provisions of the Settlement Finality law. The designation has been notified to the European Commission. In terms of the oversight policy, it will be evaluated against the ESCB-CESR standards.

**Summary of the Core Principles and central bank responsibilities<sup>8</sup>**

**Public policy objectives: safety and efficiency  
in systemically important payment systems**

**Core Principles for systemically important payment systems**

- I. The system should have a wellfounded legal basis under all relevant jurisdictions.
- II. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
- III. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
- IV. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.\*
- V. A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.\*
- VI. Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
- VII. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.
- VIII. The system should provide a means of making payments which is practical for its users and efficient for the economy.
- IX. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
- X. The system's governance arrangements should be effective, accountable and transparent.

\* Systems should seek to exceed the minima included in these two Core Principles.

---

<sup>8</sup> Extract from the CPSS report "Core Principles for Systemically Important Payment Systems", BIS, January 2001.

**Responsibilities of the central bank in applying the Core Principles**

- A. The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.
- B. The central bank should ensure that the systems it operates comply with the Core Principles.
- C. The central bank should oversee compliance with the Core Principles by systems it does not operate and it should have the ability to carry out this oversight.
- D. The central bank, in promoting payment system safety and efficiency through the Core Principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.

## **Summary of the General Principles for Oversight and the Principles for International Cooperative Oversight<sup>9</sup>**

### **A. General principles for oversight**

#### **General oversight principle A: Transparency**

Central banks should set out publicly their oversight policies, including the policy requirements or standards for systems and the criteria for determining which systems these apply to.

#### **General oversight principle B: International standards**

Central banks should adopt, where relevant, internationally recognised standards for payment and settlement systems.

#### **General oversight principle C: Effective powers and capacity**

Central banks should have the powers and capacity to carry out their oversight responsibilities effectively.

#### **General oversight principle D: Consistency**

Oversight standards should be applied consistently to comparable payment and settlement systems, including systems operated by the central bank.

#### **General oversight principle E: Cooperation with other authorities**

Central banks, in promoting the safety and efficiency of payment and settlement systems, should cooperate with other relevant central banks and authorities.

### **B. Principles for international cooperative oversight**

#### **Cooperative oversight principle 1: Notification**

Each central bank that has identified the actual or proposed operation of a cross-border or multicurrency payment or settlement system should inform other central banks that may have an interest in the prudent design and management of the system.

#### **Cooperative oversight principle 2: Primary responsibility**

Cross-border and multicurrency payment and settlement systems should be subject to oversight by a central bank which accepts primary responsibility for such oversight, and there should be a presumption that the central bank where the system is located will have this primary responsibility.

---

<sup>9</sup> Extract from the CPSS report “Central bank oversight of payment and settlement systems”, BIS, May 2005.

**Cooperative oversight principle 3: Assessment of the system as a whole**

In its oversight of a system, the authority with primary responsibility should periodically assess the design and operation of the system as a whole. In doing so it should consult with other relevant authorities.

**Cooperative oversight principle 4: Settlement arrangements**

The determination of the adequacy of a system's settlement and failure-to-settle procedures in a currency should be the joint responsibility of the central bank of issue and the authority with primary responsibility for oversight of the system.

**Cooperative oversight principle 5: Unsound systems**

In the absence of confidence in the soundness of the design or management of any cross-border or multicurrency payment or settlement system, a central bank should, if necessary, discourage use of the system or the provision of services to the system, for example by identifying these activities as unsafe and unsound practices.

## Summary of the Standards for Securities Clearing and Settlement<sup>10</sup>

### **Standard 1: Legal framework**

Securities clearing and settlement systems and links between them should have a well-founded, clear and transparent legal basis in the relevant jurisdictions.

### **Standard 2: Trade confirmation and settlement matching**

Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.

Settlement instructions should be matched as soon as possible and, for settlement cycles that extend beyond T+0, this should occur no later than the day before the specified settlement date.

### **Standard 3: Settlement cycles and operating times**

Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of EU-wide settlement cycles shorter than T+3 should be evaluated.

CSDs and, where relevant, CCPs should harmonise their operating hours and days and be open at least during the TARGET operating times for transactions denominated in euro.

### **Standard 4: Central counterparties (CCPs)**

The benefits and costs of establishing a CCP should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

### **Standard 5: Securities lending**

Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for avoiding settlement failures and expediting the settlement of securities. Barriers that inhibit the practice of lending securities for this purpose should be removed. The arrangements for securities lending should be sound, safe and efficient.

---

<sup>10</sup> Extract from the ESCB-CESR report "Standards for Securities Clearing and Settlement in the European Union", ECB, September 2004.

### **Standard 6: Central securities depositories (CSDs)**

Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest possible extent. To safeguard the integrity of securities issues and the interests of investors, the CSD should ensure that the issue, holding and transfer of securities are conducted in an adequate and proper manner.

### **Standard 7: Delivery versus payment (DVP)**

Principal risk should be eliminated by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

### **Standard 8: Timing of settlement finality**

Intraday settlement finality should be provided through real-time and/or multiple-batch processing in order to reduce risks and allow effective settlement across systems.

### **Standard 9: Credit and liquidity risk controls**

For systemic stability reasons, it is important that CSDs operate without interruption. Therefore, when allowed by national legislation to grant credit, CSDs should limit their credit activities exclusively to what is necessary for the smooth functioning of securities settlement and asset servicing. CSDs that extend credit (including intraday and overnight credit) should fully collateralise their credit exposures whenever practicable. Uncollateralised credit should be restricted to a limited number of well-identified cases and subject to adequate risk control measures including limits on risk exposure, the quality of the counterparty and the duration of credit.

Most custodians are subject to EU banking regulations. For those that manage significant arrangements for settling securities transactions, and in order to contain the systemic risks that are linked to their securities settlement activity, national securities regulators, banking supervisors and overseers should examine the risk management policies applied by those custodians to assess whether they are in line with the risks created for the financial system. In particular, the possibility of increasing the level of collateralisation of credit exposures, including intraday credit, should be investigated. Operators of net settlement systems should institute risk controls that, as a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and lending limits.

### **Standard 10: Cash settlement assets**

Assets used to settle payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect the participants in the system from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.

### **Standard 11: Operational reliability**

Sources of operational risk arising in the clearing and settlement process should be identified, monitored and regularly assessed. This risk should be minimised through the

development of appropriate systems and effective controls and procedures. Systems and related functions should be (i) reliable and secure, (ii) based on sound technical solutions, (iii) developed and maintained in accordance with proven procedures, (iv) have adequate, scalable capacity, (v) have appropriate business continuity and disaster recovery arrangements, and (vi) frequent and independent audit of the procedures that allow for the timely recovery of operations and the completion of the settlement process.

### **Standard 12: Protection of customers' securities**

Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of the creditors of all entities involved in the custody chain.

### **Standard 13: Governance**

Governance arrangements for CSDs and CCPs should be designed to fulfil public interest requirements and to promote the objectives of owners and market participants.

### **Standard 14: Access**

CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access. Rules and requirements that restrict access should be aimed at controlling risk.

### **Standard 15: Efficiency**

While maintaining safe and secure operations, securities clearing and settlement systems should be efficient.

### **Standard 16: Communication procedures, messaging standards and straight-through processing (STP)**

Entities providing securities clearing and settlement services, and participants in their systems should use or accommodate the relevant international communication procedures and messaging and reference data standards in order to facilitate efficient clearing and settlement across systems. This will promote straight-through processing (STP) across the entire securities transaction flow.

Service providers should move towards straight-through processing (STP) in order to help achieve timely, safe and cost-effective securities processing, including confirmation, matching, netting, settlement and custody.

### **Standard 17: Transparency**

CSDs and CCPs should provide market participants with sufficient information for them to identify and accurately evaluate the risks and costs associated with securities clearing and settlement services.

Significant custodians should provide sufficient information that allows their customers to identify and accurately evaluate the risks associated with securities clearing and settlement services.

**Standard 18: Regulation, supervision and oversight**

Entities providing securities clearing and settlement services should be subject to, as a minimum, transparent, consistent and effective regulation and supervision. Securities clearing and settlement systems/arrangements should be subject to, as a minimum, transparent, consistent and effective central bank oversight. Central banks, securities regulators and banking supervisors should cooperate with each other, both nationally and across borders (in particular within the European Union), in an effective and transparent manner.

**Standard 19: Risks in cross-system links<sup>11</sup>**

CSDs that establish links to settle cross-system trades should design and operate such links in order to effectively reduce the risks associated with cross-system settlements.

---

<sup>11</sup> This standard does not cover links established by CCPs. This issue will be covered by the future work of the ESCB-CESR on CCPs.

**Glossary of terms used in payment systems<sup>12</sup>**

<u>Term</u>	<u>Definition</u>
<b>Automated clearing house</b>	An electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunications networks, and handled by a data processing centre. See also clearing/clearance.
<b>Bilateral net settlement system</b>	A settlement system in which participants' bilateral net settlement positions are settled between every bilateral combination of participants. See also net credit (or debit) position.
<b>Bilateral netting</b>	An arrangement between two parties to net their bilateral obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. See also multilateral netting, netting, net settlement.
<b>Bill of exchange</b>	A written order from one party (the drawer) to another (the drawee) to pay a specified sum on demand or on a specified date to the drawer or to a third party specified by the drawer. Widely used to finance trade and, when discounted with a financial institution, to obtain credit.
<b>Central counterparty</b>	An entity that is the buyer to every seller and seller to every buyer of a specified set of contracts, e.g. those executed on a particular exchange or exchanges.
<b>Central securities depository</b>	A facility (or an institution) for holding securities, which enables securities transactions to be processed by book entry. Physical securities may be immobilised by the depository or securities may be dematerialised (i.e. so that they exist only as electronic records). In addition to safekeeping, a central securities depository may incorporate comparison, clearing

---

<sup>12</sup> Extract from the CPSS report "A glossary of terms used in payment and settlement systems", BIS, January 2001. Revised March 2003.

<u>Term</u>	<u>Definition</u>
	and settlement functions.
<b>Cheque</b>	A written order from one party (the drawer) to another (the drawee, normally a bank) requiring the drawee to pay a specified sum on demand to the drawer or to a third party specified by the drawer. Cheques may be used for settling debts and withdrawing money from banks. See also bill of exchange.
<b>Clearing and settling institution</b>	An institution which transmits information and funds through a payment system network. It may operate as an agent or a principal.
<b>Clearing/clearance</b>	The process of transmitting, reconciling and, in some cases, confirming payment orders or security transfer instructions prior to settlement, possibly including the netting of instructions and the establishment of final positions for settlement. Sometimes the term is used (imprecisely) to include settlement.
<b>Clearing house</b>	A central location or central processing mechanism through which financial institutions agree to exchange payment instructions or other financial obligations (e.g. securities). The institutions settle for items exchanged at a designated time based on the rules and procedures of the clearing house. In some cases, the clearing house may assume significant counterparty, financial or risk management responsibilities for the clearing system. See also clearing/clearance, clearing system.
<b>Clearing system</b>	A set of procedures whereby financial institutions present and exchange data and/or documents relating to funds or securities transfers to other financial institutions at a single location (clearing house). The procedures often also include a mechanism for the calculation of participants' bilateral and/or multilateral net positions with a view to facilitating the settlement of their obligations on a net or net net basis. See

<u>Term</u>	<u>Definition</u>
	also netting.
<b>Collateral</b>	An asset that is delivered by the collateral provider to secure an obligation to the collateral taker. Collateral arrangements may take different legal forms; collateral may be obtained using the method of title transfer or pledge.
<b>Collateral pool</b>	Assets owned by members of a payment system that are collectively available to the system as collateral to enable it to obtain funds in circumstances specified in its rules.
<b>Counterparty</b>	The opposite party to a financial transaction such as a securities trade or swap agreement.
<b>Credit card</b>	A card indicating that the holder has been granted a line of credit. It enables the holder to make purchases and/or withdraw cash up to a prearranged ceiling; the credit granted can be settled in full by the end of a specified period or can be settled in part, with the balance taken as extended credit. Interest is charged on the amount of any extended credit and the holder is sometimes charged an annual fee.
<b>Credit risk/exposure</b>	The risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. In exchange-for-value systems, the risk is generally defined to include replacement cost risk and principal risk.
<b>Credit transfer</b>	A payment order or possibly a sequence of payment orders made for the purpose of placing funds at the disposal of the beneficiary. Both the payment instructions and the funds described therein move from the bank of the payer/originator to the bank of the beneficiary, possibly via several other banks as intermediaries and/or more than one credit transfer system.
<b>Credit transfer system</b>	A funds transfer system through which payment orders move from (the bank of) the originator of the transfer message or payer to (the bank of) the receiver of the message or beneficiary.

<u>Term</u>	<u>Definition</u>
<b>Daylight credit</b>	Credit extended for a period of less than one business day; in a credit transfer system with end-of-day final settlement, daylight credit is tacitly extended by a receiving institution if it accepts and acts on a payment order even though it will not receive final funds until the end of the business day. Also called daylight overdraft, daylight exposure and intraday credit.
<b>Debit card</b>	Card enabling the holder to have his purchases directly charged to funds on his account at a deposit-taking institution (may sometimes be combined with another function, e.g. that of a cash card or cheque guarantee card).
<b>Deferred net settlement system</b>	A system that effects the settlement of obligations or transfers between or among counterparties on a net basis at some later time.
<b>Delivery versus payment</b>	A link between a securities transfer system and a funds transfer system that ensures that delivery occurs if, and only if, payment occurs.
<b>Direct participant/member</b>	The term generally denotes participants in a funds or securities transfer system that directly exchange transfer orders with other participants in the system. In some systems, direct participants also exchange orders on behalf of indirect participants. Depending on the system, direct participants may or may not also be settling participants. In the EC context, this term has a specific meaning: it refers to participants in a transfer system which are responsible to the settlement institution (or to all other participants) for the settlement of their own payments, those of their customers and those of indirect participants on whose behalf they are settling. See also participant/member.
<b>Electronic money</b>	Value stored electronically in a device such as a chip card or a hard drive in a personal computer.

## CENTRAL BANK OF CYPRUS

---

<b><u>Term</u></b>	<b><u>Definition</u></b>
<b>Electronic purse</b>	A reloadable multipurpose prepaid card which may be used for small retail or other payments instead of coins.
<b>Final (finality)</b>	Irrevocable and unconditional.
<b>Final settlement</b>	Settlement which is irrevocable and unconditional.
<b>Financial risk</b>	Term covering a range of risks incurred in financial transactions – both liquidity and credit risks. See also credit risk/exposure, liquidity risk.
<b>Funds transfer system</b>	A formal arrangement, based on private contract or statute law, with multiple memberships, common rules and standardised arrangements, for the transmission and settlement of money obligations arising between the members. See also interbank funds transfer system.
<b>Gridlock</b>	A situation that can arise in a funds or securities transfer system in which the failure of some transfer instructions to be executed (because the necessary funds or securities balances are unavailable) prevents a substantial number of other instructions from other participants from being executed. See also queuing, systemic risk.
<b>Gross settlement system</b>	A transfer system in which the settlement of funds or securities transfer instructions occurs individually (on an instruction by instruction basis).
<b>Interbank funds transfer system</b>	A funds transfer system in which most (or all) direct participants are financial institutions, particularly banks and other credit institutions.
<b>Intraday liquidity</b>	Funds which can be accessed during the business day, usually to enable financial institutions to make payments in real time. See also daylight credit.
<b>Legal risk</b>	The risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.
<b>Liquidity risk</b>	The risk that a counterparty (or participant in a settlement

<u>Term</u>	<u>Definition</u>
<b>Minimum standards of the Lamfalussy report (Lamfalussy standards)</b>	<p>system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counterparty or participant is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter.</p> <p>The six minimum standards for the design and operation of cross-border and multicurrency netting schemes or systems.</p> <p>(i) Netting systems should have a well founded legal basis under all relevant jurisdictions. (ii) Netting scheme participants should have a clear understanding of the impact of the particular scheme on each of the financial risks affected by the netting process. (iii) Multilateral netting systems should have clearly defined procedures for the management of credit risks and liquidity risks which specify the respective responsibilities of the netting provider and the participants. These procedures should also ensure that all parties have both the incentives and the capabilities to manage and contain each of the risks they bear and that limits are placed on the maximum level of credit exposure that can be produced by each participant. (iv) Multilateral netting systems should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single net debit position. (v) Multilateral netting systems should have objective and publicly disclosed criteria for admission which permit fair and open access. (vi) All netting schemes should ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.</p>
<b>Multilateral net settlement position</b>	<p>The sum of the value of all the transfers a participant in a net settlement system has received during a certain period of time less the value of the transfers made by the participant to all other participants. If the sum is positive, the participant is in a multilateral net credit position; if the sum is negative, the</p>

<u>Term</u>	<u>Definition</u>
	participant is in a multilateral net debit position.
<b>Multilateral net settlement system</b>	A settlement system in which each settling participant settles (typically by means of a single payment or receipt) the multilateral net settlement position which results from the transfers made and received by it, for its own account and on behalf of its customers or non –settling participants for which it is acting. See also direct participant, multilateral net settlement position, multilateral netting.
<b>Multilateral netting</b>	An arrangement among three or more parties to net their obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. The multilateral netting of payment obligations normally takes place in the context of a multilateral net settlement system. See also bilateral netting, multilateral net settlement position, multilateral net settlement system.
<b>Net credit (or debit) position</b>	A participant's net credit or net debit position in a netting system is the sum of the value of all the transfers it has received up to a particular point in time less the value of all transfers it has sent. If the difference is positive, the participant is in a net credit position; if the difference is negative, the participant is in a net debit position. The net credit or net debit position at settlement time is called the net settlement position. These net positions may be calculated on a bilateral or multilateral basis.
<b>Net settlement</b>	The settlement of a number of obligations or transfers between or among counterparties on a net basis. See also netting.
<b>Net settlement system</b>	A funds transfer system whose settlement operations are completed on a bilateral or multilateral net basis.
<b>Netting</b>	An agreed offsetting of positions or obligations by trading partners or participants. The netting reduces a large number of individual positions or obligations to a smaller number of

<u>Term</u>	<u>Definition</u>
	obligations or positions. Netting may take several forms which have varying degrees of legal enforceability in the event of default of one of the parties. See also bilateral netting, multilateral netting.
<b>Operational risk</b>	The risk of human error or a breakdown of some component of the hardware, software or communications systems that is crucial to settlement.
<b>Oversight of payment systems</b>	A central bank task, principally intended to promote the smooth functioning of payment systems, and to protect the financial system from possible “domino effects” which may occur when one or more participants in the payment system incur credit or liquidity problems. Payment systems oversight aims at a given system (e.g. a funds transfer system) rather than individual participants.
<b>Participant/member</b>	A party who participates in a transfer system. This generic term refers to an institution which is identified by a transfer system (e.g. by a bank identification number) and is allowed to send payment orders directly to the system or which is directly bound by the rules governing the transfer system. See also direct participant/member.
<b>Payment</b>	The payer’s transfer of a monetary claim on a party acceptable to the payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.
<b>Payment instrument</b>	Any instrument enabling the holder/user to transfer funds.
<b>Payment message/instruction</b>	An order or message to transfer funds (in the form of a monetary claim on a party) to the order of the beneficiary. The order may relate either to a credit transfer or to a debit transfer. See also credit transfer, payment.
<b>Payment system</b>	A payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems

## CENTRAL BANK OF CYPRUS

---

<u>Term</u>	<u>Definition</u>
	that ensure the circulation of money.
<b>Queuing</b>	A risk management arrangement whereby transfer orders are held pending by the originator/deliverer or by the system until sufficient cover is available in the originator's/deliverer's clearing account or under the limits set against the payer; in some cases, cover may include unused credit lines or available collateral.
<b>Real-time gross settlement</b>	The continuous (real-time) settlement of funds or securities transfers individually on an order by order basis (without netting).
<b>Retail funds transfer system</b>	A funds transfer system which handles a large volume of payments of relatively low value in such forms as cheques, credit transfers, direct debits, ATM and EFTPOS transactions.
<b>Securities settlement system</b>	A system which permits the transfer of securities: either free of payment (free delivery) for example in the case of pledge; or against payment. Settlement of securities occurs on securities deposit accounts held with the CSD (both private CSDs or a national central bank acting as a CSD) or with the central bank (safe custody operational accounts). In the latter case, the central bank acts as the intermediate custodian of the securities. The final custodian is normally a CSD. Settlement of cash occurs in an interbank funds transfer system (IFTS), through a settlement agent.
<b>Settlement</b>	An act that discharges obligations in respect of funds or securities transfers between two or more parties. See also final settlement, gross settlement system, net settlement, net settlement system.
<b>Settlement agent</b>	An institution that manages the settlement process (e.g. the determination of settlement positions, monitoring of the exchange of payments, etc) for transfer systems or other arrangements that require settlement. See also final settlement, multilateral net settlement system, settlement.

## CENTRAL BANK OF CYPRUS

---

<u>Term</u>	<u>Definition</u>
<b>Settlement asset</b>	An asset used for the discharge of settlement obligations as specified by the rules, regulations or customary practice for a payment system.
<b>Settlement risk</b>	General term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risk.
<b>Settlement system</b>	A system used to facilitate the settlement of transfers of funds or financial instruments.
<b>Systemically important payment system</b>	A payment system is systemically important where, if the system were insufficiently protected against risk, disruption within it could trigger or transmit further disruptions amongst participants or systemic disruptions in the financial area more widely.
<b>Systemic risk</b>	The risk that the failure of one participant in a transfer system, or in financial markets generally, to meet its required obligations will cause other participants or financial institutions to be unable to meet their obligations (including settlement obligations in a transfer system) when due. Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets.
<b>TARGET</b>	Trans-European Automated Real-time Gross settlement Express Transfer: the TARGET system is defined as a payment system composed of one RTGS system in each of the countries which participate in stage three of EMU and the European Central Bank (ECB) payment mechanism. RTGS systems of non-participating countries may also be connected, provided that they are able to process the euro alongside their national currency. The domestic RTGS systems and the ECB payment mechanism are interconnected according to common procedures (“interlinking”) to allow cross-border transfers throughout the European Union to move from one system to another system.

