

# ASSESSMENT OF THE DESIGN OF TARGET2 AGAINST THE CORE PRINCIPLES

## **EXECUTIVE SUMMARY**

The phased migration from the TARGET system to the integrated platform of TARGET2 between November 2007 and May 2008 represented a fundamental change in the set-up of a key payment infrastructure, which plays a predominant role in the processing of largevalue and urgent payment transactions in euro. In the light of the systemic relevance of this change, the TARGET2 oversight function assessed the design of TARGET2 against the Core Principles for Systemically Important Payment Systems<sup>1</sup> including the Eurosystem's Business Continuity Oversight Expectations for Systemically Important Payment Systems  $(BCOE)^2$ , hereby using the respective oversight Eurosystem's assessment methodology<sup>3</sup>. The previous TARGET system, together with other euro large-value payment systems, was subject to an oversight assessment in 2004<sup>4</sup>.

The TARGET2 oversight function primarily focused on the core of the TARGET2 system and assessed the design of the Single Shared Platform (SSP). In addition, the proprietary home accounts (PHAs) of six central banks (AT, BE, DE, LT, PL and PT) were assessed as these PHAs provide certain real-time gross settlement (RTGS) services for a limited period of time.

The overall assessment was led and coordinated by the ECB. While the assessment of the SSP was conducted jointly by the ECB and a number of volunteering euro area national central banks (DE, ES, FR, IT and NL), the PHAs were assessed by the respective national central banks (NCBs) with a second NCB performing a peer review. The assessment exercise started in 2006 and, following the presentation of the interim results to the Governing Council of the ECB in April 2008, the current report sets out the final result of the oversight assessment of the TARGET2 design.

the different phases During of the assessment process, oversight concerns and recommendations have been brought to the attention of the TARGET2 system operator. Most of these comments were properly addressed by the time this report was finalised. Although some oversight findings require some further action on the side of the TARGET2 system operator (technical options for real-time synchronisation between the two processing regions and provision of additional collateral in contingency processing, operational overhead costs, change and release management, involvement of the users in the future development of TARGET2 as well as level of cost recovery of the liquidity pooling functionality), these issues do not have an adverse impact on the design of TARGET2, which seems overall to be well-established, and its full compliance with the Core Principles. Neither does the operation of the six PHAs adversely affect the smooth operation of TARGET2 and its compliance with the Core Principles. Finally, the experience gained with the live operation of the system is in line with the expectations. It is noted that TARGET2 is subject to ongoing oversight which ensures that, besides conducting fully-fledged oversight assessments, compliance with the applicable oversight standards is continuously monitored.

- 2 "Business Continuity Oversight Expectations for Systemically Important Payment Systems", ECB, June 2006.
- 3 "Terms of Reference for the oversight assessment of euro systemically and prominently important payment systems against the Core Principles" and "Guide for the assessment against the business continuity oversight expectations for systemically important payment systems", ECB, November 2007.
- 4 "Assessment of euro large-value payment systems against the Core Principles", ECB, May 2004.

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Report by the Committee on Payment and Settlement Systems on "Core Principles for Systemically Important Payment Systems", BIS, January 2001.

On the basis of the work conducted by the TARGET2 oversight function, the Governing Council of the ECB concludes that the design of TARGET2 observes all relevant Core Principles.

# **INTRODUCTION**

The phased migration from the TARGET system to the integrated platform of TARGET2 between November 2007 and May 2008 represented a fundamental change in the set-up of a key payment infrastructure, which plays a predominant role in the processing of largevalue and urgent payment transactions in euro. In line with international oversight standards and its own oversight policy in accordance with which oversight assessments are not limited to privately operated payment systems, but are conducted also for central bank-owned and operated systems, the Eurosystem assessed the design of TARGET2 against the Core Principles for Systemically Important Payment Systems (SIPS), including the Eurosystem's Business Continuity Oversight Expectations for SIPS.<sup>5</sup> The assessment exercise was performed on the basis of the Eurosystem common oversight assessment methodology. The former TARGET system was subject to an oversight assessment in 2004 as part of a common Eurosystem exercise including all large-value payment systems operating in the euro area.

TARGET2 is an integrated market infrastructure provided by the Eurosystem for the processing of primarily high value payments in euro. TARGET2 is run by the Eurosystem and is the responsibility of the Governing Council of the ECB. Three Eurosystem central banks - the Banca d'Italia, the Banque de France and the Deutsche Bundesbank (3CBs) - jointly provide the technical infrastructure, the Single Shared Platform (SSP) of TARGET2, and operate it on behalf of the Eurosystem. Nevertheless, from a legal point of view, each participating and connected central bank is responsible for the operation of its system component and 5 See Footnotes 1 and 2.

maintains the business relationships with their local participants.

The primary focus of the assessment was on the design of the SSP as the core of the TARGET2 system. In addition, the proprietary home accounts (PHAs) of six central banks (AT, BE, DE, LT, PL and PT) were subject to oversight assessments as these applications are used to provide limited real-time gross settlement (RTGS) services for a limited time before finally migrating to the SSP.

This report presents the results of the assessment exercise and highlights the main oversight findings related to the compliance of the TARGET2 design with the applicable Core Principles.

The structure of the report is as follows. Section 1 describes both the assessment process and the methodology used. Section 2 presents the overall assessment results as well as the oversight findings with regard to the individual Core Principles in more details.

Assessment of TARGET2 against the core principles May 2009

#### I ASSESSMENT PROCESS AND METHODOLOGY

The oversight assessment of the TARGET2 design was carried out by the TARGET2 oversight function, which comprises the oversight function of the ECB, that leads and coordinates all TARGET2 oversight activities and the oversight functions of the NCBs participating in TARGET2. A major part of the work was carried out by the ECB and a panel of volunteering "core contributing NCBs" of a handful of euro area countries (DE, ES, FR, IT and NL). The oversight findings were discussed in the respective Eurosystem Committee and Working Group structures. Also, during the whole process there was close interaction with the TARGET2 system operator, so that a large number of oversight findings could already be implemented before the go-live of TARGET2 in November 2007.

Some central banks decided to process certain types of payments in their local home account systems (PHAs) during a transition period of maximum four years. Therefore, in addition to the assessment of the SSP, the respective central banks prepared oversight assessment reports of their PHAs, each of which was subject to peer review by another NCB.

The methodological basis of the assessment exercise was the Eurosystem's common methodology, i.e. the "Terms of Reference for the oversight assessment of euro systemically and prominently important payment systems against the Core Principles" complemented with the "Guide for the assessment against the business continuity oversight expectations for SIPS".<sup>6</sup>

The formal oversight assessment of the TARGET2 design started in 2006 by reviewing relevant system documentation available at that time. In the first phase of the assessment process, the TARGET2 oversight function concentrated on identifying potential imperfections of the system design. The preliminary oversight findings and recommendations were discussed and agreed with the TARGET2 system operator.

In the next phase, the interim results of the assessment of the TARGET2 design were presented in a comprehensive report to the Governing Council in April 2008. The report stated that the system was likely to observe all relevant Core Principles. It highlighted, however, certain oversight findings and recommendations that should be addressed by the system operator by November 2008 on the basis of an agreed follow-up action plan. The Governing Council took note of the report and decided that the assessment should be updated and finalised in the light of the follow-up action taken by the TARGET2 operation function.

Against this background and in line with international oversight practices and the Eurosystem's general transparency principles, the current report sets out the final results of the oversight assessment of the TARGET2 design.

#### 2 OVERALL ASSESSMENT

#### 2.1 OVERVIEW

The overall outcome of the assessment of the compliance of the design of TARGET2 with the Core Principles is positive. The system operates in a stable manner and the set-up of the system (including the technical infrastructure and the business rules, arrangements and procedures) is considered, in general, to meet the relevant oversight standards at a high level.

Although some findings related to some Core Principles require further action by the TARGET2 operation function, these issues do not have an adverse impact on compliance with the Core Principles of the TARGET2 design as a whole.

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<sup>6</sup> With regard to the treatment of "good practices" in the BCOE, the TARGET2 oversight and operation functions have reached the common understanding that TARGET2 has been designed to address "good practices" and that, therefore, by default it is expected that TARGET2 would comply with the "good practices".

Core Principle	Observed	Broadly observed	Partly observed	Not observed	Not applicable
I (Legal basis)	Х	-	-	-	-
II (Understanding financial risks)	Х	-	-	-	-
III (Management of financial risks)	Х	-	-	-	-
IV (Prompt final settlement)	Х	-	-	-	-
V (Multilateral netting)	-	-	-	-	Х
VI (Settlement assets)	Х	-	-	-	-
VII (Security and operational					
reliability)	Х	-	-	-	-
VIII (Efficiency)	Х	-	-	-	-
IX (Access criteria)	Х	-	-	-	-
X (Governance)	Х	-	-	-	-

To this end, on the basis of the work of the TARGET2 oversight function, the Governing Council of the ECB concluded that the design of TARGET2 observes all nine relevant Core Principles, taking into account that Core Principle V (on multilateral netting) is not applicable given the RTGS nature of the system (see the following table).

While acknowledging that a number of the oversight concerns identified in the previous stages of the assessment have been adequately addressed by the operator, the TARGET2 oversight function recommends further investigating some of the open issues relating to some of the Core Principles, as follows:

Core Principle III:

 exploration of the possible technical options for real-time synchronisation between the two processing regions and intensification of investigations to find a solution for the issue on the provision of additional collateral for contingency processing;

Core Principle VIII:

- review of the operational overhead costs in the course of 2009;
- finalisation of the change and release management procedures and of the organisational framework for the involvement of the users in the future development of TARGET2 (the latter is relevant for CP X as well);

 review of the cost recovery for the liquidity pooling functionality in the framework of a future overall revision of the TARGET2 pricing policy.

The TARGET2 oversight function will continue monitoring the implementation of these recommendations in the framework of its regular TARGET2 oversight activities. These regular oversight activities aim to ensure the continued compliance of TARGET2 with the applicable oversight standards.

In addition to the SSP, the TARGET2 oversight function has assessed the design of the PHAs of six NCBs (AT, BE, DE, LT, PL and PT) and concluded that the operation of these PHAs does not have any adverse implication on the smooth operation of TARGET2 as a whole.

# 2.2 DETAILED ASSESSMENT AND MAIN FINDINGS (BY CORE PRINCIPLE)

The following sections present the oversight findings with regard to the individual Core Principles in more detail.

## 2.2.1 CORE PRINCIPLE I

The system should have a well-founded legal basis under all relevant jurisdictions.

Under this Core Principle, the main focus of the assessment was on the soundness of the legal infrastructure, the verification of the implementation of the legal documentation by the ECB and the participating central banks in their national legal environment, the proper



implementation of the EU Settlement Finality Directive (SFD) in the jurisdictions governing the system, the clear definition of irrevocability and finality and, more generally, the validity and enforceability of the legal framework under the applicable laws.

The legal framework of TARGET2 is clearly defined in a set of legal instruments and arrangements. The most important measure from an oversight point of view is the Guideline of the European Central Bank on TARGET2 (TARGET2 Guideline), which was adopted by the Governing Council on 26 April 2007. From a legal perspective, TARGET2 is a multiplicity of payment systems, whereby the ECB and each of the participating central banks operate their respective component, based on a Single Shared Platform operated by the three providing Central Banks (Deutsche Bundesbank, Banque de France and Banca d'Italia). The ECB and the participating central banks maintain the contractual relationship with their respective participants. The detailed verification of the national implementation of the legal documentation in the national rules of TARGET2 component systems did not reveal any substantial concerns with an impact on the compliance with Core Principle I. In view of the innovative and complex nature of the liquidity pooling arrangement in TARGET2, special attention was given to ensuring validity and enforceability under all relevant laws. The liquidity pooling arrangement was found legally sound in all jurisdictions operating TARGET2 components.

The SFD is the only Community legal act with a general scope to be applied to TARGET2. The SFD has been fully implemented in each jurisdiction of the central banks participating in or connected to the system.

The concepts of irrevocability and point in time of entry of payment orders into the system are clearly defined in the legal documentation. Moreover, arrangements for enforceability of collateral are ensured by means of the national laws implementing the Collateral Directive. Finally, capacity opinions and country opinions are required from applicants, where relevant, unless such information has been obtained in another context.

The design of TARGET2 observes Core Principle I.

# 2.2.2 CORE PRINCIPLE 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.

In the context of this Core Principle, the oversight analysis focused, in particular, on the clarity of the system's rules and provisions pertaining to the management and containment of financial risks and the transparency of these rules for participants (including other involved parties, such as service providers) and for the public in general, thereby taking due account of possible confidentiality constraints.

The TARGET2 Guideline, including the Harmonised Conditions for participation in TARGET2 (HC), sets out provisions pertaining to the management of financial risks. The HC had to be implemented consistently within the national arrangements (see Core Principle I).

In addition to the legal documents, the User Detailed Functional Specification (UDFS), the Information and Control Module (ICM) User Handbook, the Manual of Procedures (MOP) and the Information Guide for TARGET2 users (Information Guide) provide participants with comprehensive information for identifying the financial risks they may incur.

The TARGET2 system operator organised several training workshops for the participants in order to provide guidance in understanding the rules relating to the management of financial risks. The participating central banks play a special role in this context, since they monitor the activity of their participants.



The HC for participation in TARGET2 have been published as part of the TARGET2 Guideline. Following the implementation of the HC in the national legal frameworks of the participating central banks, the arrangements reflecting the adoption of the HC were also published as laid down in the TARGET2 Guideline.

*The design of TARGET2 observes Core Principle II.* 

## 2.2.3 CORE PRINCIPLE 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.

The assessment focused on the quality of the rules and procedures for the management and containment of financial risks as well as on the tools and incentives provided to the participants to monitor and manage these risks (e.g. queue management, liquidity pooling, prioritisation of payments, etc.).

Owing to the RTGS nature of TARGET2 where participants' accounts are debited and credited simultaneously - no credit exposures among participants arise other than the risk entailed in the original exposures between the parties. The respective NCBs monitor the activity of the direct participants in the system. Adequate eligible collateral eliminates any credit risk for the central banks in relation to the provision of intraday credit to the participants. Moreover, the access criteria for TARGET2 ensure that direct participation is limited to credit institutions and other entities falling under a strict supervisory and/ or oversight regime. Direct participants need to be established in or acting via a branch operating in the EEA or in a country with which the European Community has a monetary agreement.

TARGET2 participants have at their disposal a number of tools for managing and economising their liquidity needs and ensuring the smooth functioning of the settlement process, including the definition of the priority of payments, liquidity reservation facilities, the possibility of deciding on the timing of payments, a queue management mechanism, a liquidity pooling facility, etc.

The Information and Control Module (ICM), whose adoption is mandatory for direct participants, is designed to provide a wide set of information which, inter alia, includes (at the users' request) the number and amounts of incoming and outgoing payments, account balances and the intraday credit available, as well as the number and amounts of rejected payments. Through the ICM, TARGET2 participants have at their disposal a flexible and customised tool that enables them to monitor their credit and debit positions on a continuous basis and to take the necessary action to prevent potential liquidity problems. While the participants are primarily responsible for their own liquidity management and for monitoring the settlement process, central banks possess adequate information and control measures as well as specific tools for liquidity monitoring to allow for a timely intervention in the event of problems. In addition, central banks have the power to include, suspend and exclude participants from the system.

With regard to the smooth provision of liquidity in contingency mode, the TARGET2 oversight function recommended actively exploring the possible technical options for real-time synchronisation between the two processing regions and intensifying its effort to find a solution for the issue on the provision of additional collateral for contingency processing. While these concerns have no negative implications for the compliance with this Core Principle, further efforts to address this issue will be monitored by the TARGET2 oversight function.

The design of TARGET2 observes Core Principle III.

#### 2.2.4 CORE PRINCIPLE IV

The system should provide prompt final settlement on the day of value, preferably



*during the day and at a minimum by the end of the day.* 

Compliance with this Core Principle was ascertained by means of a detailed assessment of rules relating to the various stages of the life cycle of a payment (i.e. submission, validation, acceptance, irrevocability, rejection and finality). In addition, this assessment also covered the system's capabilities for providing the participants with information on the status of their payments.

TARGET2 provides RTGS for euro payments in central bank money. Unless instructing participants have indicated the settlement time, accepted payment orders shall be settled immediately or at the latest by the end of the business day on which they were accepted, provided that sufficient funds are available on the payer's RTGS account and taking into account: (i) any bilateral or multilateral liquidity limits that a participant has set for the use of available liquidity for payment orders in relation to other TARGET2 participants; and (ii) liquidity reservations for highly urgent or urgent payment orders.

The operating schedule of the system is outlined in the TARGET2 Guideline. Payment orders which can not be settled by the cut-off times are returned as unsettled. The system rules properly describe the procedures concerning the adoption of business continuity and contingency measures including, inter alia, extending daytime processing and delaying the closing time. Payment orders that do not comply with the requirements outlined in the rules (e.g. SWIFT message format, TARGET2 formatting rules, etc.) will be immediately rejected, and the participant will be immediately informed. Payment orders are deemed to be entered into TARGET2 at the moment that the relevant participant's Payment Module (PM) account is debited. From that moment (the moment of entry), the payment orders are final and irrevocable. Sufficient information about the status of their payments is provided to participants via the Information and Control Module (ICM) on a real-time basis.

The design of TARGET2 observes Core Principle IV.

## 2.2.5 CORE PRINCIPLE V

A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of settlement in the event of an inability to settle by the participant with the largest single settlement obligation.

This Core Principle does not apply to TARGET2 as the system provides RTGS services.

#### 2.2.6 CORE PRINCIPLE 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.

The aim of this Core Principle is to eliminate or minimise liquidity and credit risk arising from the use of a particular asset to settle payments through the respective system. Thus the nature of the settlement asset provider is of crucial importance.

Payments processed in TARGET2 are settled in central bank money in the accounts of the direct TARGET2 participants. These accounts can be kept in the Payment Module of the SSP (RTGS account) or in the Home Accounting Module of the SSP, or, during the four-year transition period, in a Proprietary Home Accounting system outside of the SSP. In each case, the account is managed by a central bank participating in the system, thus the settlement asset is always central bank money.

In the case of ancillary systems that apply a specific settlement procedure, namely settlement on dedicated liquidity accounts, the integrated model allows for the settlement to take place on a so- called "mirror account" operated by the respective ancillary system. Since these accounts are always held with a central bank, they are, in fact, specific RTGS accounts. Thus the settlement asset remains to be central bank money in this case as well.

The design of TARGET2 observes Core Principle VI.

#### 2.2.7 CORE PRINCIPLE VII

The system should ensure a high degree of security and operational reliability and should have contingency arrangements for the timely completion of daily processing.

The oversight investigations under this Core Principle include: the establishment of a security policy, the adequacy of the framework applied for managing operational risk and the arrangements related to business continuity with a special focus on the capabilities of the system to cope with contingency situations.

The objectives of the information security policy for TARGET2 as well as a range of tools and procedures for achieving these objectives are defined in the TARGET2 Risk Management Framework (T2RMF). The T2RMF is based on the internationally recognised standard ISO/ IEC 17799-2005.

The high-level security policy principles and requirements are described in the information which security policy for TARGET2, comprises the first level of the T2RMF. The information security policy clearly defines the responsibilities of information security in line with the three-level governance structure of the system (for further details, see Core Principle X). According to the information security policy for TARGET2, the main objective of information security is to protect TARGET2 business processes and any related information from a wide range of threats, whether internal or external, deliberate or accidental, and to minimise the impact on the business continuity of TARGET2 of any threats that, despite all measures taken, do materialise. The second level of the T2RMF specifies concrete security requirements and controls, whereas the third level describes in detail the risk management process including the conduct of regular risk assessments and the reporting structure. The outcome of the detailed security compliance checks performed by the operator are discussed and evaluated on a

regular basis. All outputs from the comprehensive TARGET2 security assessment are collected in status reports submitted to the Payment and Settlement Systems Committee (PSSC). As an integral part of the risk management process, the T2RMF is subject to regular reviews to ensure that the security levels of TARGET2 are kept up-to-date.

The TARGET2 risk management function (TRIM) – which is separate from the operation function – is responsible for reviewing the security of the SSP, to determine that the appropriate levels of security controls are in place, and for the development and maintenance of the T2RMF. The central banks operating local PHAs (used for payment processing purposes) are directly responsible for ensuring that the requirements specified in the information security policy for TARGET2 are fully implemented.

In the context of operational reliability, TARGET2 offers a high level of resilience based on a robust and resilient infrastructure. The operational and technical procedures are specified in detail and are well documented. Furthermore, arrangements are in place to monitor operational reliability in the event of outsourcing.

Detailed control tools and measurements are laid down for the authorisation, testing, quality assurance and documentation of system changes. Capacity requirements, detailed control steps of capacity management and requirements on the service level to be provided by the 3CBs in both normal and abnormal situations are also defined. The risk management process sets out the incident reporting mechanism to be implemented.

The TARGET2 oversight function considers the T2RMF as a good basis to ensure a high degree of security and operational reliability for the system.

When assessing the business continuity arrangements for the system, the overseers took

into account the business continuity oversight expectations for SIPS.

Owing to the "two regions/four sites" set-up of the infrastructure, in the case of an intra-regional failover, no reconciliation of the data is necessary, due to the fact that synchronous copying of the data takes place between the two sites. If both sites in one region become unavailable at the same time, it is classified as inter-regional failover. In that very unlikely event, reconciliation should be necessary, since the data between the regions are copied in asynchronous mode (Asynchronous Remote Copy - ARC). The asynchronous replication of the data raises concerns relating to the risk that after an interregional failover, some inconsistencies might remain between the two regions. This issue has been noted by the operator and investigations to explore possible technical solutions are under way (as reflected in Core Principle III, the TARGET2 oversight function will closely follow the enquiries being made in this respect). With regard to the provision of critical functions in contingency mode, the TARGET2 Contingency Module aims to process a limited number of payments, classified as (very) critical, to avoid creating systemic risk when the SSP is unavailable (inter-regional failover).

Owing to the fact that the two regions under the operation of TARGET2 are located in different geographical areas and are operated by different staff, requirements regarding the separation of the risk profiles of the processing sites as well as regarding the ability to replace key staff are deemed to have been met. Furthermore, business continuity aspects are integrated in the contractual arrangements with the serviceproviding central banks as well as with SWIFT as the network service provider.

The system operator defined clear and comprehensive criteria for the identification of critical participants. The concept on ensuring the security and operational reliability of TARGET2 participants sets out special requirements for critical participants. In this respect, TARGET2 critical participants are required to specify their provisions for business continuity with special attention to the respective requirements laid down in the "Business continuity oversight expectations for systemically important payment systems (SIPS)".

The design of TARGET2 observes Core Principle VII.

## 2.2.8 CORE PRINCIPLE VIII

The system should provide a means of making payments which is practical for its users and efficient for the economy.

The assessment of this Core Principle is mainly related to the procedures applied for the continuous harmonisation of the system services with the needs and requirements of the users, the adequacy of the pricing policy and the level of cost efficiency.

In the TARGET2 design phase, adequate procedures have been set up to inform users as well as to take stock of their needs (public consultations concerning the General Functional Specifications (GFS) and User Detailed Functional Specifications (UDFS)). Consequently, the system is considered to meet the business needs of its users. In order to ensure the proper preparation of future system changes and to keep the same level of user involvement, the operator will finalise the change and release management procedures and clarify the involvement of users in the future development of TARGET2.

TARGET2 is regarded as ensuring high levels of processing capacity, performance and resilience. Capacity planning has been carried out, including a global measurement to evaluate the future workload of the system. The SSP infrastructure can be expected to guarantee high performance and adequate throughput thanks to a fully scalable architecture.

With regard to cost efficiency aspects, the system design is considered to be commensurate with the crucial role TARGET2 plays for implementing the single monetary policy of the Eurosystem



and contributing to financial stability in the euro area and beyond. The system has been developed in-house by the three service providing central banks, following the so-called "building block" approach, notably to use adapted parts of their existing RTGS infrastructures.

The TARGET2 pricing policy is based on a sound cost methodology which was subject to an internal audit in 2004. As follow-up to the audit review, compliance of TARGET2 cost figures with the cost methodology will be reviewed once again in 2009, with special attention being paid to the operational overhead costs.

The pricing policy, which has been agreed by the Governing Council, aims at achieving two main objectives: first, ensuring wide participation in the system, through a pricing scheme which is attractive both for big players and smaller institutions; second, ensuring full cost recovery, taking into account a "public good factor". The overseers raised some concerns regarding the cost-efficiency of the pricing of the liquidity pooling functionality. However, given the very high level of cost recovery of TARGET2 as a whole, it is deemed sufficient to review this issue in the framework of a future overall revision of the TARGET2 pricing policy.

The design of TARGET2 observes Core Principle VIII.

#### 2.2.9 CORE PRINCIPLE IX

The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.

The main aspects assessed in the context of this Core Principle concerned the clarity and objectivity of the access/exit criteria and the related procedures, including the regular monitoring of the fulfilment of these criteria, as laid down in the relevant legal framework for TARGET2.

The access/exit criteria are clearly and explicitly stated and publicly disclosed in the TARGET2

Guideline. Direct participation is permitted to: (i) credit institutions established in the European Economic Area (EEA); (ii) credit institutions established outside of the EEA, provided that they act through a branch established in the EEA; and (iii) central banks of EU Member States and the ECB. In addition, it is left to the discretion of the ECB/central banks to allow direct access to their respective TARGET2 components for specific types of entities (including treasury departments of central or regional governments of Member States, public sector bodies, investment firms established in the EEA, organisations providing clearing and settlement services that are established in the EEA and subject to oversight by competent authorities, etc.).

Direct participants may designate credit institutions established in the EEA as indirect participants by entering into a contract with such entities. Moreover, direct participants may designate addressable Bank Identifier Code (BIC) holders regardless of their place of establishment. Finally, multi-addressee access through branches may be provided for by direct participants. Payment orders submitted by indirect participants or branches accessing via multi-addressee access are deemed to have been submitted by the direct participant itself. The reason behind this liability arrangement is that it is left to the Member States to decide whether they want to transpose the concept of "indirect participant", as laid down by the SFD into their national legislation and thereby offer the protection of the SFD to such entities. A similar arrangement is not necessary for designated addressable BIC holders, as these cannot initiate payments in TARGET2. Designated addressable BIC holders do not have the status of participant in TARGET2.

As regards the exit criteria, participants may, as a rule, voluntarily terminate their participation with 14 business days notice and central banks may, as a rule, terminate such participation with three months notice. Immediate termination or suspension of a participant's participation without prior notice takes place if insolvency proceedings are initiated or it no longer fulfils the access criteria.

The ECB and the central banks monitor the continued fulfilment of the access criteria by their respective TARGET2 participants on an ongoing basis.

The design of TARGET2 observes Core Principle IX.

# 2.2.10 CORE PRINCIPLE X

The system's governance arrangements should be effective, accountable and transparent.

The key issues that were examined under this Core Principle were the unambiguous and transparent specification of the governance structure, the accountability and effectiveness of the system management, the involvement of the stakeholders in the decisions and the definition of business objectives.

The ownership, the decision-making structure and the operational function are properly specified in the relevant system documentation, which was published well before TARGET2 commenced its live operation.

There are three separate levels of governance for both the establishment and the operational phases of TARGET2 (see also Annex I of the TARGET2 Guideline (ECB/2007/2)). Level 1 (Governing Council of the ECB) has final competence in relation to TARGET2 and safeguards its public function. Level 2 (Eurosystem CBs) has subsidiary competence for TARGET2 in relation to issues left to its discretion by Level 1, while Level 3 (SSPproviding CBs) builds and operates the SSP. The Governing Council is responsible for the direction, management and control of TARGET2 while the Eurosystem CBs are responsible for the tasks assigned to Level 2. This structure is considered to separate the different functions relating to the operation and the regulation of the system in an appropriate manner.

The accountability of the system operator is ensured by the independent audit and oversight functions. In addition, a specific risk management function (TRIM) has been set up to check the compliance of the system with the prescribed security requirements.

A number of consultations with a wide range of stakeholders has taken place in the project phase of TARGET2, including regular meetings at the national level and at the Eurosystem level. Eurosystem central banks played a pivotal role in this process, in particular in communication with the national user groups.

It is considered that the overall process of the design phase was transparent and it is believed that the wide range of communication channels used in the design phase of TARGET2 was appropriate. It is deemed desirable to maintain the same level of transparency and user involvement in future developments of TARGET2.

The design of TARGET2 observes Core Principle X.

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