

FROM TARGET TO TARGET2

INNOVATION AND TRANSFORMATION

THE PRESENT TARGET SYSTEM

With €1.9 trillion settled every day, TARGET,¹ the EU-wide real-time gross settlement (RTGS) system, is one of the three largest wholesale payment systems in the world, alongside Fedwire in the United States and Continuous Linked Settlement (CLS), the international system for settling foreign exchange transactions. The present TARGET system has a decentralised structure consisting of 16 national RTGS systems and the ECB's payment mechanism (EPM), which are interlinked to provide a uniform platform for the processing of inter-Member State euro payments. TARGET began operations on 4 January 1999 at the same time as the launch of the euro. Since then, TARGET has provided real-time payment processing and intraday finality to almost all credit institutions in the EU. Moreover, TARGET serves the monetary policy needs of the Eurosystem and promotes the integration of the euro money market. With its special focus on large-value

payments related to inter-bank operations, TARGET helps to reduce systemic risk.

TARGET has long operating hours, being open from 7 a.m. to 6 p.m. CET on each of its working days, with a cut-off time of 5 p.m. for customer payments. TARGET is a highly reliable system. In 2005 the overall availability of TARGET was 99.83%, compared with 99.81% in 2004 (TARGET availability is defined as the ratio of time during which TARGET components are fully operational to TARGET opening hours).

¹ Trans-European Automated Real-time Gross settlement Express Transfer system.

KEY FACTS ABOUT TARGET2

- > a single technical platform replaces the present decentralised platforms
- > flexible enough to accommodate future customer needs
- > highly efficient and competitive
- > a single interface leading to harmonised services
- > pan-European liquidity management
- > able to handle euro area enlargement

TARGET2 NEWS UPDATE

- > pricing
- > the various ways of participating in TARGET2
- > interaction with ancillary systems
- > operational day
- > testing and migration



Despite this performance, TARGET has a number of shortcomings that stem from its heterogeneous technical design. In view of this, and because of developments such as the future enlargement of the euro area, the Eurosystem is currently building the TARGET of tomorrow, TARGET2.

BUILDING THE TARGET OF TOMORROW: TARGET2

TARGET2, which will replace the current decentralised infrastructure, has a single technical platform and features new functionalities designed to meet the future needs of financial markets.

In building this new system, the Eurosystem is aiming to:

- provide a harmonised level of service on the basis of a common technical platform;
- achieve a high level of cost recovery and have a single price structure applicable to both intra-national and cross-border payments; and
- meet the new demands of users, as well as those resulting from the future connection to TARGET of the countries that joined the European Union on 1 May 2004.

NEW FEATURES

The Eurosystem has developed the features and services of TARGET2 in close cooperation with TARGET users. In November 2005 the Eurosystem published the User Detailed Functional Specifications (UDFS, version 2.0), which give TARGET users the information they need to start the technical development and implementation work related to TARGET2. The principal innovations of TARGET2 are as follows:

1. A SINGLE TECHNICAL PLATFORM

The most important innovation is the consolidation of the technical infrastructure. TARGET2 will replace the decentralised technical structure of the current TARGET system with a single technical platform, known as the Single Shared Platform (SSP). Three Eurosystem central banks – the Banca d'Italia, the Banque de France and the Deutsche Bundesbank – will jointly provide the SSP and will operate the platform on behalf of the Eurosystem.

2. TARGET-WIDE FLEXIBLE LIQUIDITY MANAGEMENT SERVICES

There is increasing demand among payment system users for enhanced liquidity management services and liquidity-efficient RTGS systems. In response, TARGET2 will offer state-of-the-art liquidity management tools, such as prioritisation of payments, liquidity reservation (also for the settlement of payments in ancillary systems), definition and implementation of sender limits and active queue management.

3. SUPPORT FOR PAYMENTS WITH A DEBIT TIME INDICATOR

TARGET2 will take into account the increased time-criticality of payments, particularly in the context of CLS, by making it possible to submit transactions with a debit time indicator.

4. POOLING OF INTRADAY LIQUIDITY

Liquidity pooling will be achieved by grouping a number of accounts. TARGET2 will offer two variants for liquidity pooling: i) the virtual account; and ii) consolidated information. In the virtual account option, a payment order submitted by a participant belonging to a group of accounts will be settled if the payment amount is smaller than or equal to the sum of

>>> Since its inception TARGET has formed a benchmark for processing euro payments in terms of speed, reliability, opening times and service level, and has contributed to the harmonisation of business practices in the European Union.

the liquidity available on all accounts (including any credit lines) in the group. Otherwise the payment order will be queued. The consolidated information option is an information tool: it will give comprehensive information to the participant subscribing to the service about the liquidity position of all of the entities of the group at any given moment. Such information will also be provided in the virtual account option. However, payment amounts will be checked only against the liquidity available on the individual RTGS account of the sending participant. The liquidity available on other accounts in the group will not be used to settle the payment. In the event of insufficient liquidity on the sending bank's account, money will need to be transferred to that account.

Only credit institutions established in the European Economic Area (EEA) and directly participating in the system will be able to use the consolidated information option. Furthermore, owing to business and legal constraints, the virtual account option will only be available for accounts of euro area banks held with euro area central banks. It will only be possible to establish a group of accounts (for the consolidated information or virtual account options) for credit institutions that belong to the same group.

5. INTERACTION WITH ANCILLARY SYSTEMS

TARGET2 will provide cash settlement services in central bank money for all kinds of ancillary systems (ASs), including retail payment systems, large-value payment systems, foreign exchange settlement systems, money market systems, clearing houses and securities settlement systems (SSSs). The main advantage of TARGET2 for ASs is that they will be able to access any account on the SSP via a standardised interface.

TARGET2 will offer six generic procedures for the settlement of ASs (two real-time procedures and four batch procedures),

which represents a substantial harmonisation of current practices.

6. STRENGTHENED BUSINESS CONTINUITY MEASURES

TARGET2 will offer the highest possible level of reliability and resilience, as well as sophisticated business contingency arrangements commensurate with the systemic importance of the TARGET2 infrastructure.

The business continuity concept of TARGET2 consists of a multi-region/multi-site architecture. There will be two regions. In each region, there will be two sites some distance from each other. This will be combined with the principle of region rotation in order to ensure the presence of experienced staff in both regions.

7. INFORMATION AND CONTROL MODULE

TARGET2 users will have access, via the information and control module (ICM), to comprehensive online information and easy-to-use liquidity control measures appropriate to their business needs. Users of the ICM will be able to choose what information they receive and when. Urgent messages (e.g. system broadcasts from central banks and warnings concerning payments with a debit time indicator) will be displayed automatically on the screen.

Through the ICM, TARGET2 users will have access to the payments module (PM) and the static data (management) module. Depending on the decision of the relevant central bank with regard to the use of the optional modules offered by the SSP, participants may also have access to the home accounting facility of the central banks and the applications for reserve management and standing facilities.

>>> TARGET2 is on track: it will go live on 19 November 2007.

8. TARGET2 DIRECTORY

The TARGET2 directory will contain information on each institution that can be addressed in the TARGET2 system, and will be updated on a weekly basis to support system participants in their routing of payment instructions. The directory will use TARGET2-specific information provided by TARGET users during the SSP registration process in combination with SWIFT-related information. The TARGET2 directory will be an electronic product/service provided to the direct participants by the Eurosystem.

9. OPERATIONAL DAY

In order to better meet users' business needs, the operational day in TARGET2 will be longer than that of the current TARGET system. TARGET2 will start the new business day on the evening of the previous day. The night-time window² will be available from 7.30 p.m. to 6.45 a.m. the next day, with a technical maintenance period of three hours between 10 p.m. and 1 a.m. The night-time window will facilitate the night-time settlement of the different ancillary systems in central bank money with finality, and will also support cross-system settlement during the night. Settlement of ASs will take place in dedicated accounts. During the night-time window, liquidity transfers via the ICM between RTGS accounts and the dedicated sub-accounts will be possible. Ancillary systems and their participants will be able to choose whether or not to enable this liquidity transfer functionality, or to limit the functionality. Banks may alternatively decide not to participate in night-time settlement. The Eurosystem believes that the night-time window will generally increase the efficiency of night-time settlement and will favour initiatives such as cross-system delivery versus payment.

² Of the generic settlement procedures of the SSP's ancillary systems interface (ASI), only procedure 6 (settlement on dedicated liquidity accounts) will be offered during the night-time window.

Operational day for TARGET2

| | Time | Description |
|--------------------------|-----------------------|---|
| Daytime | 6.45 a.m.-7 a.m. | Preparations for daytime operations |
| | 7 a.m.-6 p.m. | Day trade phase |
| | 5 p.m. | Cut-off for customer payments |
| | 6 p.m. + 15 min. | General cut-off for the use of standing facilities |
| End of day | 6 p.m. + 30 min. | Cut-off for the use of standing facilities on the last day of a minimum reserve period |
| Start of day | 6.45 p.m.-7 p.m. (1) | Start-of-day processing |
| | 7 p.m.-7.30 p.m. (1) | Provisioning of liquidity (from standing facilities, intraday credit, home accounts) until start of procedure for ASs |
| Night-time window for AS | 7.30 p.m. (1)-10 p.m. | Automated start of procedure message to set aside liquidity until start of cycle message of ASs, and ancillary system night-time processing (ancillary system settlement procedure 6) |
| | 10 p.m.-1 a.m. | Technical maintenance period of 3 hours. The system is shut down |
| | 1 a.m.-6.45 a.m. | Night-time processing (ancillary system settlement procedure 6) |

HOW TO CONNECT TO TARGET2

A number of options will be provided for access to TARGET2. These include direct and indirect participation, "addressable BICs" and "multi-addressee access" to the system, also known as "technical BIC access".

1. DIRECT PARTICIPATION

The criteria for direct participation in TARGET2 will be the same as for the current TARGET system. Direct participants will hold an RTGS account in the PM of the SSP with access to real-time information and control features, and will therefore be able to: i) submit/receive payments directly to/from the system; and ii) settle directly with their national central bank. Direct participants will be responsible for all payments sent or received on their account by any TARGET2 entity (i.e. indirect participants, addressable BICs and multi-addressee access entities as described below) registered through them.

To connect to TARGET2, direct participants will require a direct connection to SWIFT's secure IP network via their own SWIFT interface or via a SWIFT Service Bureau. For the exchange of payments information, TARGET2 will use the SWIFTNet FIN service, while the SWIFTNet services "InterAct", "Browse" and "FileAct" will be used for information and control services.

2. INDIRECT PARTICIPATION

Indirect participation implies that payment orders are always sent to/received from the system via a direct participant. Payments are settled in the direct participant's account in the PM of the SSP. Indirect participants will be registered by and under the responsibility of the direct participants, acting on their behalf, and will be listed in the TARGET2 directory. Only supervised credit institutions established within the EEA can become indirect participants.

3. ADDRESSABLE BICS

Another category of access already available in the current TARGET system is that of TARGET2-addressable BICs. Any direct participant's correspondent or branch that holds a BIC

is eligible to be listed in the TARGET2 directory, irrespective of its place of establishment. Moreover, no financial or administrative criteria have been established by the Eurosystem for such addressable BICs, meaning that it will be up to the relevant direct participant to define a marketing strategy for offering such status. It will be the responsibility of the direct participant concerned to forward the relevant information to the appropriate national central bank for inclusion in the TARGET2 directory.³ Addressable BICs will always send and receive payment orders to/from the system via a direct participant, and their payments will be settled in the account of that direct participant in the PM of the SSP.

Although technically there is no difference between an indirect participant and an addressable BIC⁴ in legal terms, only indirect participants will be recognised by the TARGET2 system and as such benefit from the protection of the Settlement Finality Directive (in those countries where such protection has been granted).

4. MULTI-ADDRESSEE ACCESS

In TARGET2, direct participants will be able to authorise branches and other credit institutions belonging to their group, located in EEA countries, to channel payments through the direct participant's main account without its involvement, by submitting/receiving payments themselves directly to/from the system. This offers a direct participant's affiliate banks, or a group of banks, efficient features for liquidity management and payments business. The payments will be settled on the account of the direct participant.

³ For technical reasons, an indirect participant/addressable BIC can be linked to only one direct participant.

⁴ The TARGET2 directory will distinguish between indirect participants and addressable institutions.

>>> In TARGET2, all banks in the EU – irrespective of where they are located – will be offered the same high-quality services, functionality and interfaces, as well as a single price structure. This will level out the playing field for banks across Europe.

PRICING

The Eurosystem has set up a pricing structure for the TARGET2 core service which will eliminate the current differences in pricing between intra-national and cross-border transactions, as well as increase cost-effectiveness for its users. The price of a TARGET2 payment will range between €0.125 and €0.80.

1. TARGET2 CORE PRICING SCHEME

The pricing scheme for the TARGET2 core service is as follows:

| Option A | | | |
|----------------------|--------------------|---------|-----------------|
| Monthly fee | | | €100 |
| Flat transaction fee | | | €0.80 |
| Option B | | | |
| Monthly fee | | | €1,250 |
| Band | Transaction volume | | Transaction fee |
| | From | To | |
| 1 | I | 10,000 | €0.60 |
| 2 | 10,001 | 25,000 | €0.50 |
| 3 | 25,001 | 50,000 | €0.40 |
| 4 | 50,001 | 100,000 | €0.20 |
| 5 | above 100,000 | | €0.125 |

Payments settled on the accounts held in the national central banks' proprietary applications, also known as "proprietary home accounts", will be charged more than the TARGET2 fee (i.e. more than €100 + €0.80 per transaction). This will serve as an incentive to shorten the transition period and move to the PM of the SSP as quickly as possible.

2. PRICING OF ANCILLARY SYSTEM SERVICES

The Eurosystem has decided that ASs interacting with TARGET2 should be subject to a pricing scheme comprising

a transaction fee plus a separate fixed fee charged to each system, irrespective of where settlement takes place (e.g. in the PM or in proprietary home accounting (PHA) applications).

A fixed fee of €12,000 per year will be charged to each ancillary system that settles in central bank money, irrespective of whether it settles in an account held at the SSP or in an account held in the central banks' home accounting application. A second fixed fee in the range of €5,000 to €50,000 per year will be charged to each ancillary system depending on the size of the system. In addition, all transactions that are settled for ASs will be charged according to a degressive transaction fee scale still to be specified in detail by the Eurosystem.

3. LIQUIDITY POOLING

The liquidity pooling service (virtual account option and consolidated information option) is an optional and separately priced core service. The charge for liquidity pooling services will be €1,200 per account per annum for the consolidated information option and €2,400 per account per annum for the virtual account option (which includes the consolidated information option). Furthermore, within a group of accounts (with either the consolidated information option or the virtual account option) group pricing will apply, which means the degressive transaction fee will be applied to all payments by members of the group as if they were sent from one account.

4. OTHER PRICING ELEMENTS

The following pricing will apply to the various ways of participating in TARGET2, in addition to TARGET2 transaction fees.

In addition, direct participants will be charged a one-off registration fee of €20 for each registration of an indirect

| Type of participation | Monthly fee per account/BIC |
|--|--|
| Direct participation | €100 or €1,250 depending on the scheme chosen (see the TARGET2 core pricing scheme above) |
| Multi-addressee access | €80 per BIC address in addition to the BIC of the account of the direct participant |
| Unpublished account in the PM of the SSP | Direct participants who do not want their BIC to be published in the TARGET2 directory will pay €30 per account (BIC) per month in addition to the monthly fee above |

participant and €5 for each registration of an addressable BIC (including BICs of branches of direct and indirect participants) in the TARGET2 directory.

USER TESTING AND MIGRATION

I. TESTING

The objective of user testing is to ensure that users have made the necessary technical, procedural and operational adjustments to be ready for TARGET2. User testing will start in May 2007 after the acceptance tests performed by the national central banks and will closely reflect the organisation of the migration groups (details below). Both structured tests and free tests will be organised at institution, country and European level. In addition, the testing strategy will give due consideration to the specific situations faced by multi-country players.

For each migration group, TARGET2 user testing will be divided into two main activities, taking place in parallel:

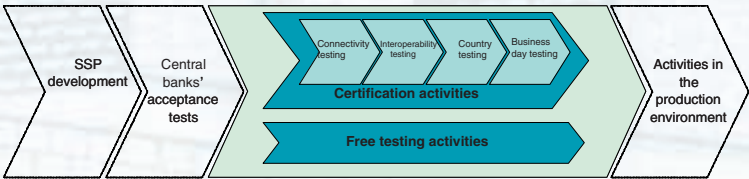
■ Certification activities

Certification tests comprise four distinct steps, which have to be completed in a specific sequence. Tests first of all involve

individual institutions (certification and interoperability tests), then national banking communities (country tests) and eventually the whole TARGET community (business day tests). Certification tests are compulsory for all TARGET2 users.

■ Free testing activities

When the system is available for free testing, TARGET2 users can perform any kind of testing activity. Free tests are optional, but TARGET2 users are encouraged to make use of this option in order to be fully prepared for certification tests.



TARGET2 user testing

The Eurosystem is defining TARGET2 test cases and scenarios. In parallel, a TARGET2 user test guide is being prepared to inform TARGET2 users about the testing procedures.

A TARGET2 test-related information system (T2TRIS) is being developed to facilitate coordination and communication between all stakeholders during the testing phase. This web-based application will provide TARGET2 users with all the information needed for the preparation, planning and performance of, and reporting on, TARGET2 user testing activities. The T2TRIS will be available to all TARGET2 users via the TARGET2 website as from the last quarter of 2006.

2. MIGRATION

The migration to TARGET2 will be carried out by “country groups”, allowing TARGET users to migrate to TARGET2 in different waves and on different pre-defined dates. Each wave

>>> TARGET2 will ultimately benefit from, and evolve with, its users’ expectations and requirements.



EUROPEAN CENTRAL BANK

will consist of a group of national central banks and their respective national banking communities. The number of migration groups will be limited to four. TARGET users will be allocated to the first three groups, while the fourth group will be held in reserve as a contingency measure. The total migration period will be limited to six months (or ten months if the fourth group is used).

Composition of the migration groups

| Group 1 <i>19 Nov. 2007</i> | Group 2 <i>18 Feb. 2008</i> | Group 3 <i>19 May 2008</i> | Group 4 <i>15 Sep. 2008</i> |
|--|---|--|---------------------------------------|
| Austria Cyprus Germany Latvia Lithuania Luxembourg Malta Slovenia | Belgium Finland France Ireland Netherlands Portugal Spain | Denmark ECB Estonia Greece Italy Poland | Reserved for contingency |

Different tools are being designed to facilitate the migration to TARGET2, e.g. the national migration profiles and ancillary system profiles, operational workshops, registration and changeover procedures.

TARGET2: A CATALYST FOR CHANGE

Since its launch, TARGET has made a significant contribution to the integration of financial markets in Europe by providing its users with a uniform payment and settlement infrastructure. Given the wide range of services that TARGET2 will offer, the Eurosystem expects to see even greater progress once the transition to the new system is complete.

TARGET2 will contribute to the harmonisation of the business practices of its users and can therefore be seen as a stimulus for further consolidation. Moreover, TARGET2 is expected to

help consolidate internal processes (such as treasury and back office functions) and promote the harmonisation of ancillary systems interfaces throughout Europe.

FURTHER INFORMATION ON TARGET AND TARGET2

More detailed information on TARGET can be found in the "Information Guide for credit institutions using TARGET" and in the "TARGET Annual Report 2005". More detailed information on TARGET2 can be found in the "Second progress report on TARGET2" of October 2005 and the "Communication on TARGET2" of July 2006. All relevant documents and reports can be downloaded from the ECB's website at www.ecb.int

Information on TARGET and TARGET2 is also provided on the websites of the national central banks. Alternatively, hard copies can be ordered from any of the national central banks, or from the ECB at the following address:

European Central Bank
Press and Information Division
Kaiserstrasse 29
60311 Frankfurt am Main
Germany
Fax: +49 69 1344 7404

For further information, please contact your national central bank or send an e-mail to: target.hotline@ecb.int