THE €UROSYSTEM

THE CENTRAL BANKING SYSTEM OF THE EURO AREA

T2S TARGET2-SECURITIES

SEPA

CCBM2

TARGET2

A SINGLE CURRENCY – AN INTEGRATED MARKET INFRASTRUCTURE

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A SINGLE CURRENCY – AN INTEGRATED MARKET INFRASTRUCTURE

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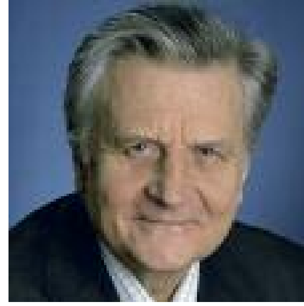


Jean-Claude Trichet

FOREWORD

It is widely known that the Eurosystem is responsible for the conduct of the single monetary policy and for maintaining price stability in the euro area. In addition, the Eurosystem has a number of other tasks that are not so apparent to the public, but are by no means less relevant. The purpose of these tasks is to foster the efficiency and security of all kinds of transfers of funds and securities in Europe.

The importance of payment and securities settlement systems in modern economies has grown considerably over the last two decades owing to the very rapid growth in the volume and the value of payments on money, foreign exchange and financial markets. Payment systems have also become more vulnerable because of their ever-increasing reliance on fast evolving electronic data-processing and telecommunications technology, as well as their complex interlinked structures.

In addition to payment instruments, systems and infrastructures, which are generally considered an integral part of the Eurosystem's responsibilities, the European Central Bank (ECB) and the national central banks (NCBs) of the euro area also have an interest in the field of securities clearing and settlement systems. This additional responsibility became even more apparent with the introduction of the euro as the single currency and the subsequent scale and speed of European financial integration. With T2S, the future single platform for the settlement of securities in central bank money in Europe, the Eurosystem is leading a major initiative for the integration of European financial markets. The robustness and smooth operation of clearing and settlement infrastructures are indispensable for the stability of the currency, the financial system and the economy in general.

Looking ahead, further integration of European financial markets, as well as an increase in their competitiveness, cannot adequately progress without the integration of their clearing and settlement infrastructures. The Eurosystem is very much committed to fostering this process by playing its operational (T2S, CCBM2 and TARGET2) and catalyst role (SEPA).

With this brochure, the Eurosystem wishes to promote a better understanding of these roles among all relevant stakeholders and the public at large.

Jean-Claude Trichet
President of the European Central Bank

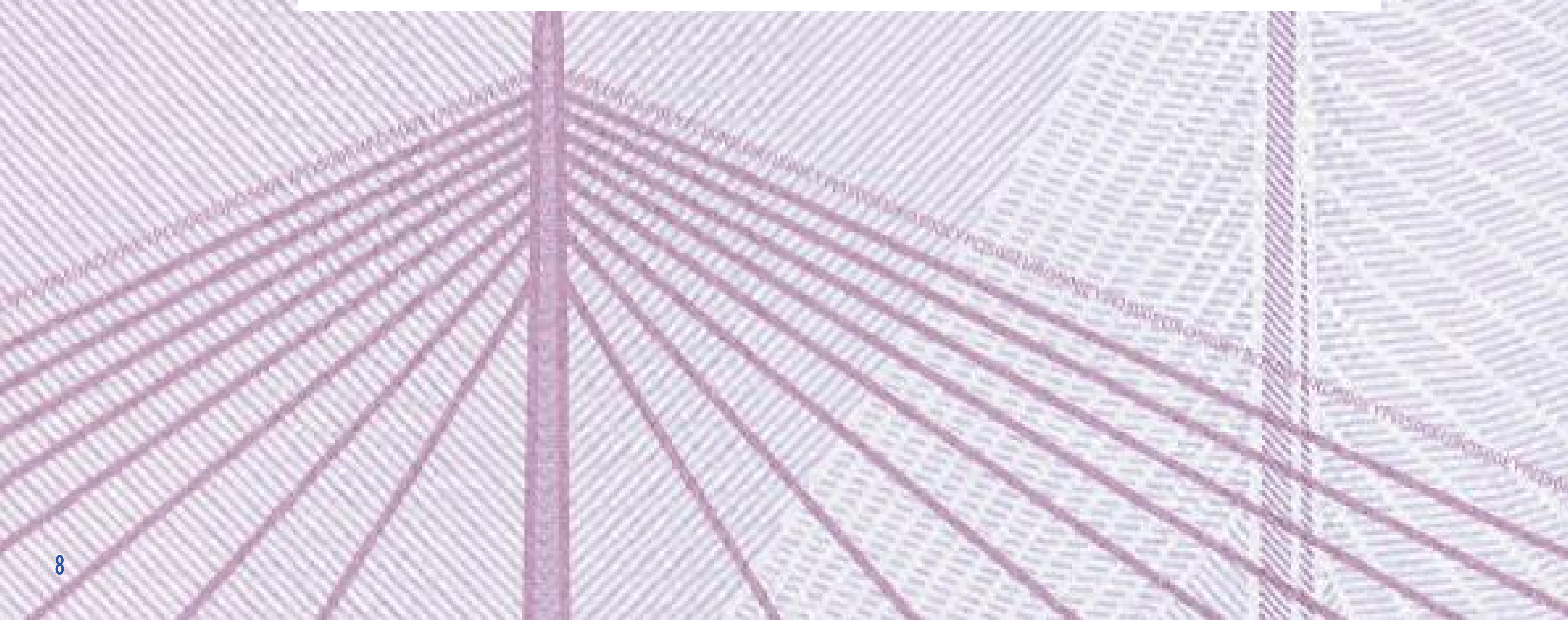
INTRODUCTION

The rapid integration of the euro area money markets has been closely linked to the development of the TARGET[1] system, the real-time gross settlement (RTGS) system for the euro, which has been operational since the launch of the single currency. Following its inception in 1999, TARGET became a benchmark for the processing of euro payments in terms of speed, reliability, opening times and service level. It also contributed to the integration of financial markets in Europe by providing its users with a common payment and settlement infrastructure.

During the preparations for Economic and Monetary Union, the Eurosystem was concerned by the lack of a market solution for moving eligible collateral for central bank operations from one country to another and so set up a mechanism called the Correspondent Central Banking Model (CCBM). This mechanism was introduced as a medium-term solution until an alternative was created by the market.

With regard to payments, the new generation of the TARGET system, TARGET2, went live on 19 November 2007 and completely replaced the, until then, decentralised technical infrastructure on 19 May 2008. Since then the TARGET2 system has become the flagship RTGS system at the global level. With regard to collateral, the CCBM2 project, which will provide a common platform for the Eurosystem's collateral management of all eligible collateral used both at the domestic level

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



and the cross-border level, was first considered in March 2007 and finally launched in July 2008.

The integration and harmonisation of clearing and settlement is also crucial if Europe is to achieve the benefits of a single market and single currency. Therefore, in July 2008, the Governing Council of the ECB decided to develop a single settlement engine – known as TARGET2-Securities (T2S) – which will have the capacity to cover all European markets, in order to make cross-border securities transactions as fast, cost-efficient and safe as domestic transactions. Once it begins operations in September 2014, T2S is widely expected to have a significant impact on the post-trading landscape, fostering harmonisation, competition and innovation. It will play a significant role in moving towards a truly integrated European capital market.

With the euro in place as well as the infrastructure to transfer funds and collateral at the interbank level, the Single Euro Payments Area (SEPA) constitutes another major step towards closer European integration. The introduction of a euro area retail payments market means that all euro payments will become domestic payments and that citizens will be able to make non-cash euro payments to any recipient in the euro area using a single account and a single set of payment instruments. This challenging project was taken on by the banking industry, with the Eurosystem acting as the catalyst to ensure the development of the best possible SEPA.

TARGET2-SECURITIES(T2S): SETTLING WITHOUT BORDERS

Fragmented securities settlement infrastructure in Europe

Although the euro was introduced more than ten years ago, securities settlement in Europe remains highly fragmented. Although some progress towards integration and harmonisation has been made by EU authorities and the market, the persisting fragmentation of securities settlement means that it is still very cumbersome and costly for investors to buy equities and bonds from other countries. This inhibits progress towards a fully integrated capital market, in which issuers would be able to reach investors across the whole of Europe, and investors would be able to have access to a geographically diversified pool of securities. It also means that the cost of capital for issuers is higher than would otherwise be the case, and investors suffer from lower returns and reduced opportunities for risk diversification.

T2S: a single platform for the whole of Europe

In July 2008, following positive feedback from the EU authorities, CSDs and the market in general, the Governing Council of the ECB decided to launch the T2S project. T2S will be a single settlement engine, with the capability to cover all European markets, settling securities transactions in euro and other currencies. T2S will enable market participants to benefit, for the first time, from harmonised and commoditised delivery-versus-payment settlement in central bank money for virtually all securities in Europe. With T2S, today´s cross-border settlement will be domestic settlement in the future borderless market.

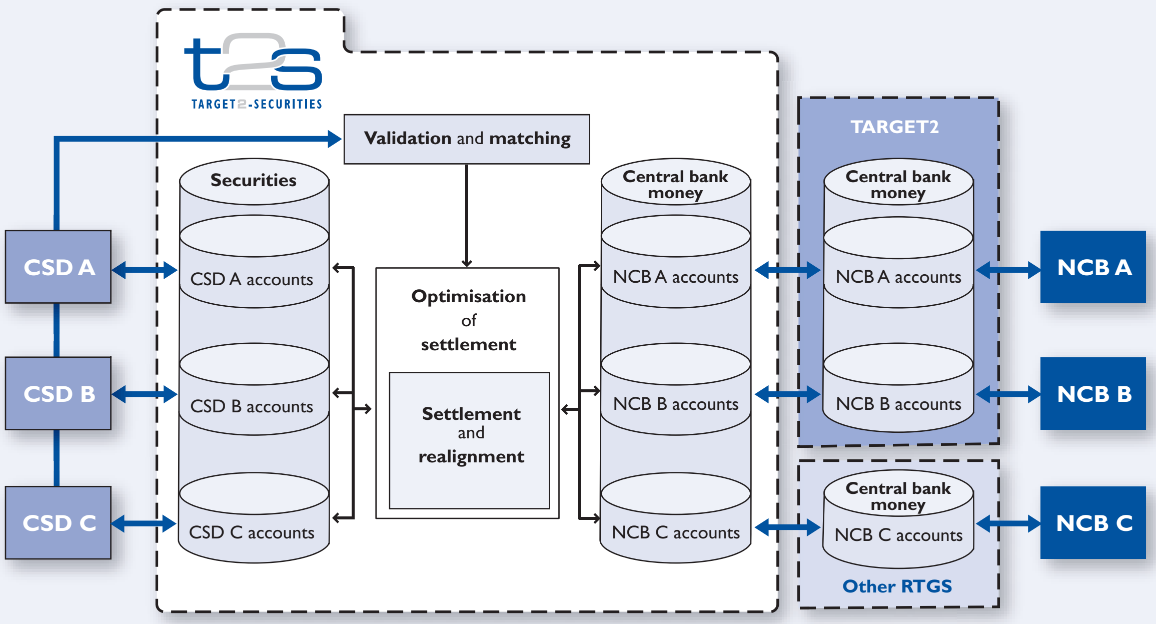
T2S will thus be a major step forward in the delivery of a single integrated securities market.

T2S has the following key features.

- All securities and cash accounts will be held on the same platform.
  Instead of securities and cash accounts being spread out across a range of different CSDs and central banks, they will be held in one single place – on the T2S settlement platform. This will create an "integrated model" for securities settlement par excellence. T2S will enable a huge leap forward in terms of the efficiency, speed and safety of processing securities settlement transactions.

- Delivery versus payment in central bank money.
  T2S will use the the safest form of settlement in central bank money, known as CPSS Model 1 DvP.

What is T2S? – A cooperative project between CSDs and NCBs



As the diagram indicates, CSDs will keep all of their clients' securities positions in T2S, which will be mapped by each CSD to its own account structure (including direct holdings). CSDs will continue to maintain their clients' accounts, including ancillary account information. Each securities account held in T2S will be attributable to only one CSD. CSDs will maintain legal relations with their customers, including custody and notary functions; T2S has legal relations with CSDs, and not with banks, which access T2S via their chosen CSD. Similarly, T2S will maintain dedicated central bank money accounts representing a CSD client's claims in central bank money on that client's chosen NCB. Each account may be used to settle transactions relating to the client's security accounts in one or more CSDs. This cash account structure will foster efficiency improvements for clients that use more than one CSD.

TARGET2-SECURITIES(T2S): SETTLING WITHOUT BORDERS

- State of the art settlement functionalities. T2S will provide the most up-to-date and sophisticated settlement facilities to all markets. These services will include auto-collateralisation, night-time settlement, and continuous optimisation and recycling mechanisms. T2S settlement will thus be extremely efficient.

- Harmonisation of market practices. T2S directly and indirectly fosters the harmonisation of market practices. Further harmonisation of post-trading in Europe is crucial if market participants are going to be able to reap the full benefits of T2S. T2S directly fosters harmonisation by using standardised communication protocols, a single settlement schedule and calendar, and a single set of matching standards, and by developing standards for processing corporate actions, etc. T2S indirectly contributes to harmonisation by exposing the various types of inefficencies that are still blocking progress towards a fully competitive market in post-trading.

Major T2S benefits

T2S will bring about a number of important benefits, including the following.

- A significant reduction in the cost of settlement by processing all transactions on a single platform rather than their being fragmented across different platforms.

- Standardised access to settlement facilities and further harmonisation of the post-trading environment, which will have "dynamic" effects on trading activity and liquidity, leading to even lower prices in T2S in the long run, to the benefit of the whole market.

- A large increase in the efficiency of market participants' collateral management activities, freeing up cash liquidity and providing position takers with the opportunity to optimise their financing across all securities settled on the single platform.

- Increased market liquidity and access to a wider investor base, which will lead to a lower cost of capital for issuers. At the same time, T2S will lower the cost of portfolio diversification and lead to a better return for investors.

- A reduction of intermediaries' back-office costs thanks to greater harmonisation, the ability to access all securities and cash accounts from a single location and increased settlement efficiency owing to simplified processing.

The neutrality of the Eurosystem, with its clear commitment to financial integration and financial market stability, will ensure that a truly Europe-wide settlement infrastructure can be built on a not-for-profit basis for the benefit of the users.

T2S will take advantage of the synergies with other market infrastructures provided by the Eurosystem – i.e. TARGET2 and CCBM2 – to offer an extremely attractive solution for CSDs and their users. The "golden triangle" of T2S, T2 and CCBM2 working seamlessly together will provide state-of-the-art liquidity management mechanisms.

Close cooperation with the market

T2S is being built in close cooperation with the market, in a fully transparent manner. Ever since the concept of T2S was first floated in July 2006, the market has been very closely involved in a number of ways. These include:

- official market consultations;
- meetings with all stakeholders, including banks and CSDs at all levels;
- the close involvement of CSDs and banks in the governance of the project, in particular in the T2S Advisory Group, its sub-structures and numerous workshops, and in the CSD Contact Group;
- a dedicated T2S team comprising experts from central bank, CSD and market participant backgrounds.

T2S has received strong support from virtually all major T2S stakeholders: the political stakeholders (ECOFIN, European Commission and European Parliament), the banking industry and European CSDs. On 16 July 2009 a major step forward in the project was achieved when the central banks of the Eurosystem and the CSDs signed a Memorandum of Understanding on T2S. The Memorandum of Understanding has crystallised the commitment of CSDs to the T2S project and sets out the mutual obligations and responsibilities of all parties in preparation for the next important stage

TARGET2-SECURITIES(T2S): SETTLING WITHOUT BORDERS

of the project, which will involve a contractual agreement on the building of T2S. In total, 30 CSDs have so far signed the Memorandum of Understanding. This encompasses all CSDs in the euro area plus 12 CSDs from outside the euro area, i.e. Denmark, Estonia, Iceland, Hungary, Latvia, Lithuania, Norway, Poland, Romania, Sweden, Switzerland and the United Kingdom. In addition, Danmarks Nationalbank, Norges Bank and Sveriges Riksbank have indicated that they intend to include their national currency in T2S.

The way forward

The specification phase was completed at the end of 2009, and work has now begun on developing the platform. The User Requirements Document, which has been drafted in very close cooperation with the market so that it is fully in line with CSDs' and market participants' needs, has been approved by the Governing Council of the ECB and is now "frozen". The General Functional Specifications, which form the basis for the subsequent development work, have also been finalised. The User Detailed Functional Specifications are now well advanced and parts are already being discussed with CSDs; it will be published in the first half of 2011.

In 2010 the Eurosystem has also been making substantial progress on the legal architecture for T2S. There are three key elements to this.

- The T2S Guideline sets out the legal basis for T2S and the rights and obligations of the Eurosystem with regard to the project. It this was published in April 2010 and can be found on the T2S website.

- The T2S Framework Agreement with CSDs governs the relationship between the Eurosystem and CSDs. This is currently being negotiated and is planned to be finalised during the first half of 2011.

- The Currency Participation Agreement with the non-euro area central banks is currently being discussed and is also scheduled for finalisation in the first half of 2011.

In 2010 there has also been significant progress on the selection of network providers for T2S. It has already been agreed that there should be multiple network providers in order to ensure competition both during the selection procedure as well as over time once T2S is in operation. In order to select the network providers, a number of business and technical criteria are being developed and these have already been discussed several times with the market. It has been agreed that a maximum of three network providers will be selected. If it is found that more than three network providers fulfil all of the business and technical criteria, the final selection will be made on the basis of which companies provide the required services at the lowest cost. The selection process will, of course, be entirely open, objective and transparent. It is currently planned that the process will be formally initiated before the end of 2010 with the publication of the official tender notice, together with all relevant documentation.

The development work (undertaken jointly by four Eurosystem central banks – the Deutsche Bundesbank, the Banco de España, the Banque de France and the Banca d'Italia) has also now begun and is scheduled to be completed by the first quarter of 2013. Internal testing will then take place, and T2S will then be open for testing by CSDs and market participants in January 2014. The platform will begin operations in September 2014.

SINGLE EURO PAYMENTS AREA (SEPA): TOWARDS AN INTEGRATED EUROPEAN RETAIL PAYMENTS MARKET

The euro area will have one retail payments market and all euro payments will become domestic payments. With a single set of payment instruments, citizens will be able to make euro payments throughout SEPA as quickly, easily and securely as they make national payments today.

In contrast to T2, T2S and CCBM2, the Eurosystem is not the main driver of SEPA. However, the Eurosystem considers SEPA to be an extremely important project for Europe and guides the market with a strong voice to ensure that the new retail payments market will be in the best interests of all European citizens and firms. SEPA represents another key factor for ongoing European integration and is, therefore, not a "one-shot operation". SEPA must continue to evolve and move with cutting-edge technology to fulfil the needs of end users.

The project is being run by the European Payments Council (EPC), which was established by the European banks in 2002. The EPC has finalised the major building blocks for SEPA. The European clearing and settlement industry provides the infrastructures needed for processing payment transactions.

Why SEPA?

Since the introduction of euro banknotes and coins in 2002, consumers have been able to make cash payments throughout the euro area using a single currency. The aim now is to enable customers to make cashless payments throughout the euro area from a single account under the same basic conditions, rights and obligations, regardless of their location.

To facilitate this, all euro area retail payments markets will join to form one market – the Single Euro Payments Area (SEPA). In SEPA, all euro payments will be treated as domestic payments and the current differentiation between national and cross-border payments will disappear. This will involve not only the alignment of national practices for the banking and payments industry, but also changes for customers. SEPA consists of:

- the single currency, i.e. the euro;
- a single set of payment instruments – credit transfers, direct debits and payment cards;
- a harmonised legal framework – based on the Payment Services Directive (see below);
- greater competition among service providers and more choice for end users.

SEPA building blocks

Credit transfers, direct debits and payment cards are well-known payment instruments that, for decades, have proved their efficiency and popularity throughout the euro area.

A detailed common scheme for SEPA credit transfers was developed and the first payment transactions based on this new scheme took place on 28 January 2008. Since 2 November 2009 banks can also offer payment services based on the new schemes for SEPA direct debits (core scheme and B2B scheme). For cards, the situation is different, as only high-level principles have been developed. The Eurosystem strongly recommends that a European card scheme be set up. This could either be a completely new scheme, an alliance between existing schemes or an expansion of an existing scheme.

The goal is that, in time, national legacy instruments are gradually phased out and replaced by their SEPA equivalents. It has been recognised that handling dual processes for an extended period would be expensive for both the payments industry and its customers. Since actual migration has been much slower than expected, the Eurosystem welcomes and supports the European Commission's suggestion to impose end-dates for migration to SEPA credit transfers and SEPA direct debits by means of an EU regulation. The suggestion of legally binding end-dates is also supported by other major stakeholders, for instance by the members of the SEPA Council[2)].

The effects of SEPA have been very visible at the infrastructure level, i.e. among entities that offer an interbank funds transfer system. Most retail payment infrastructures that were processing credit transfers in euro have been processing SEPA credit transfers since their launch in January 2008. Several infrastructures have taken the step from being pure domestic operators to become pan-European service providers. However, market consolidation has not yet materialised to the extent expected.

Next steps – innovation and eSEPA

The basic elements of SEPA (payment instruments, standards and legal basis) are the building blocks on which further innovative services can evolve. Some users, for instance those who make a significant number of payment transactions each day, are used to making payments in a highly developed electronic environment. SEPA products must advance to mirror their needs.

At the same time, innovation should not lead to new fragmentation: new solutions should be offered not only in the national context but throughout Europe, with equal user experience and high service levels. The long-

2) The SEPA Council (www.sepacouncil.eu) brings together top-level representatives of the major stakeholders in the European payments market. Its objective is to promote the realisation of an integrated euro retail payments market.

term goal of SEPA is to create a dynamic retail payments market that makes the best use of available technologies, so that best practice and high user acceptance can evolve for all economic situations in which payments are made – for instance, for online and mobile commerce. This is referred to as eSEPA.

SEPA building blocks

The EPC has developed two schemes:

SEPA credit transfer scheme – roll-out started in January 2008.

SEPA direct debit scheme (core scheme and B2B scheme) – roll-out started in November 2009.

The schemes allow customers to send and receive euro transfers to/from any beneficiary in the euro area.
Both schemes use the following well-known international standards:

- IBAN (international bank account number);
- BIC (bank identifier code);
- UNIFI (ISO 20022) XML message standards.

The EPC has also developed two frameworks:

SEPA card payments – roll-out started in January 2008.
Cardholders will be able to pay with one card throughout the euro area. Point-of-sale terminals will be standardised and merchants will be able to accept a wide range of cards with a single terminal.

SEPA PE-ACH/CSM framework for infrastructures – roll-out started in January 2008.
The main infrastructures should be able to reach all euro area banks and process euro payments made with the three SEPA payment instruments. Reachability can be guaranteed either directly or indirectly through intermediary banks or through links between infrastructures.

The European Commission has developed:

The Payment Services Directive (PSD), Directive 2007/64 – transposed into national law by 1 November 2009. The PSD was approved by the European Parliament and the ECOFIN Council in early 2007. It provides the legal foundation for SEPA, and it protects and reinforces the rights of all payment service users in the EU.

Regulation 924/2009 on cross-border payments – entered into force on 1 November 2009.
Among other issues, Regulation 924/2009 on cross-border payments stipulates that all banks in the EU must be reachable for SEPA direct debits as from 1 November 2010 at the latest.

The Eurosystem encourages work in this field. It supports the EPC's initiative to work on common rules and standards for online payments and to develop a framework for mobile payments. The Eurosystem also welcomes the efforts made by the European Commission's e-invoicing expert group to align existing e-invoicing solutions and set up pan-European e-invoicing. It sees such initiatives as very important, as they will help SEPA to become a success for all stakeholders as well as for the European economy.

More detailed information on SEPA can be found on the ECB's website at http://www.sepa.eu. There is also a website on eSEPA, accessible at http://www.esepa.eu.

What are eSEPA services?

eSEPA goes beyond the scope of payments. eSEPA services are offered to customers before and after the payment itself (not only by payment service providers). The aim of eSEPA is to make the handling of electronic payments easy and fast, for example by embedding electronic payment into commercial product and service offerings. Such innovative services are already offered in many countries, but they do not necessarily facilitate cross-border use. Within SEPA, national fragmentation should, of course, also disappear in this context.

Examples of eSEPA services – before payment

E-invoicing: the sending and receiving of electronic invoices. These can be sent either directly to the payer's IT system (e.g. to a bookkeeping system) or to an electronic banking application for further electronic handling and automated processing.

Mobile payment initiation: mobile phones can be used to initiate SEPA credit transfers and card payments across SEPA, for remote as well as for proximity payments at the point of sale.

Online e-payment initiation: at the checkout, an online shopper can choose online banking based e-payments as the payment method. By doing so, a secure connection to his/her bank is established and a SEPA credit transfer is usually initiated by confirming a pre-filled online form in the known online banking environment.

Examples of eSEPA services – after payment

E-reconciliation: the electronic matching of a payment against the underlying invoice. When a payment is settled, the receiver is informed in such a way that his bookkeeping system can match the payment information with the outstanding invoice, and that the respective records are updated automatically.

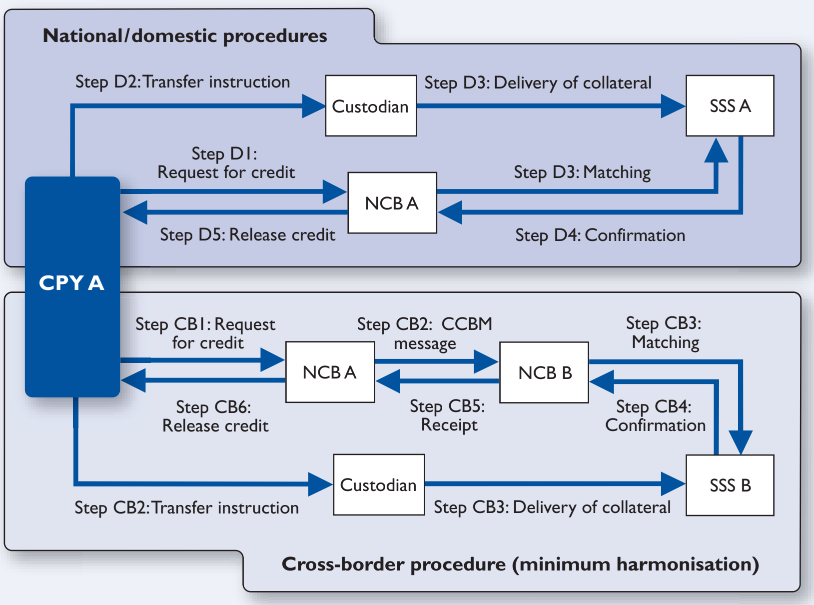
Credit advice: whenever a payment has been made, the recipient gets a notification via a text message to his mobile phone or via an e-mail message to his mailbox.

CCBM2: TOWARDS A CONSOLIDATED MANAGEMENT OF COLLATERAL

From CCBM to CCBM2

With the introduction of the euro, there emerged a need for a mechanism enabling the cross-border use of collateral for the Eurosystem's monetary policy operations and TARGET intraday credit operations. In the absence of market alternatives that would enable the cross-border use of collateral between all euro area countries, the Eurosystem implemented the Correspondent Central Banking Model (CCBM) as a medium-term solution. Eurosystem counterparties can only obtain credit from the central bank in the country in which they are located by collateralising eligible assets. With the CCBM, counterparties can obtain credit from the central bank in their country (the home central bank – HCB) on the basis of collateral issued in other countries and transferred to another Eurosystem central bank (the correspondent central bank –

The current framework for the delivery of collateral



CCB). The CCB holds the collateral on behalf of the HCB granting the credit to the counterparty.[3]

Although a number of eligible links exist between CSDs, the CCBM remains the major channel for transferring cross-border collateral for Eurosystem credit operations, accounting for 25% of the total collateral provided to the Eurosystem at the end of 2009.

3) For more details, see http://www.ecb.int/pub/pdf/other/ccbm2006en.pdf

Despite the success of the CCBM, market participants identified some drawbacks to this procedure, namely the varying degree of automation between central banks, the difference between domestic and cross-border procedures and the resulting lack of standardisation (e.g. the use of various communication protocols). Furthermore, the increasing trend in the use of cross-border collateral over recent years has emphasised the need to review the existing arrangement.

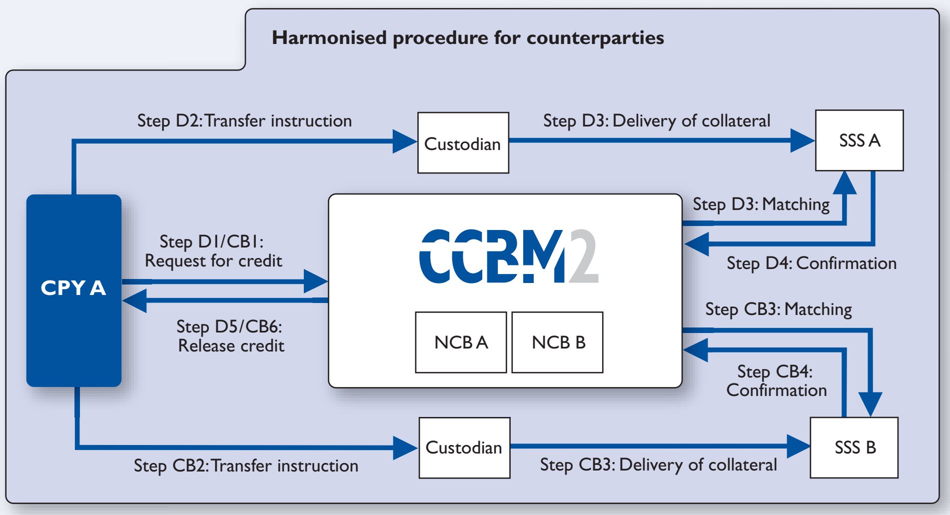
CCBM2: TOWARDS A CONSOLIDATED MANAGEMENT OF COLLATERAL

CCBM2: a shared solution for collateral management within the Eurosystem

Collateral Central Bank Management (CCBM2) will be a common shared platform for Eurosystem collateral management, providing increased efficiency and a harmonised level of collateral management services across the euro area. First and foremost, it will be a collateral management facility for the Eurosystem, but it will also provide opportunities for Eurosystem counterparties to further reduce back-office complexity, optimise the time and cost-effectiveness of mobilising collateral, and optimise liquidity management.

CCBM2 will offer central banks a centralised IT solution while preserving the decentralised relations with their respective monetary policy counterparties. The scope of CCBM2 will go beyond that of the current CCBM, which is restricted to cross-border use only, in that it will provide for a single set of procedures for all eligible collateral (marketable and non-marketable assets) used both on a domestic and cross-border basis. Efficiency gains are

CCBM2 – Single procedure for domestic and cross-border use of collateral (harmonised procedure)



expected from operating in real time and on a straight-through processing basis.

Furthermore, CCBM2 will be fully compatible with T2 and T2S, in particular with the communication interfaces of both of these platforms and the T2S settlement procedures for the delivery of securities.

CCBM2 will consist of four modules: (i) the message router (handling all communication, particularly with external parties); (ii) the credit and collateral module (managing counterparties' collateral positions); (iii) the securities module (mobilising marketable assets); and (iv) the credit claims module (recording and mobilising credit claims). For central banks that wish to join CCBM2, only participation in the message router module will be compulsory.

Finally, it is worth noting that eligible links between CSDs will continue to remain an alternative for the cross-border use of collateral.

CCBM2: development

In order to maximise the synergies with the T2S project, the Eurosystem decided to launch both projects in parallel. On the one hand, CCBM2 could benefit from the envisaged T2S platform in terms of the settlement services and, on the other, T2S could make use of some of the CCBM2 services in terms of auto-collateralisation.

The Eurosystem is developing CCBM2 with a focus on integrating the needs of the counterparties. The project work has already benefited from two market consultations: one regarding the objectives of CCBM2[4] and one regarding the CCBM2 User Requirements[5]. The feedback received was generally very positive and supportive of the project. Based on the CCBM2 User Requirements approved in July 2008, the Nationale Bank van België/Banque Nationale de Belgique and De Nederlandsche Bank (referred to as the 2CB) were assigned the tasks of developing and operating CCBM2. In March 2010 the CCBM2 project entered a detail and specification phase, which is being carried out by the 2CB in close cooperation with the euro area central banks and the ECB.

More detailed information on CCBM2 can be found on the ECB's website at http://www.ecb.europa.eu/paym/coll/coll/ccbm2/html/index.en.html

4) See http://www.ecb.europa.eu/ecb/cons/html/ccbm2.en.html
5) See http://www.ecb.europa.eu/paym/cons/html/ccbm2-2.en.html

TARGET2: THE RTGS SYSTEM FOR THE EURO

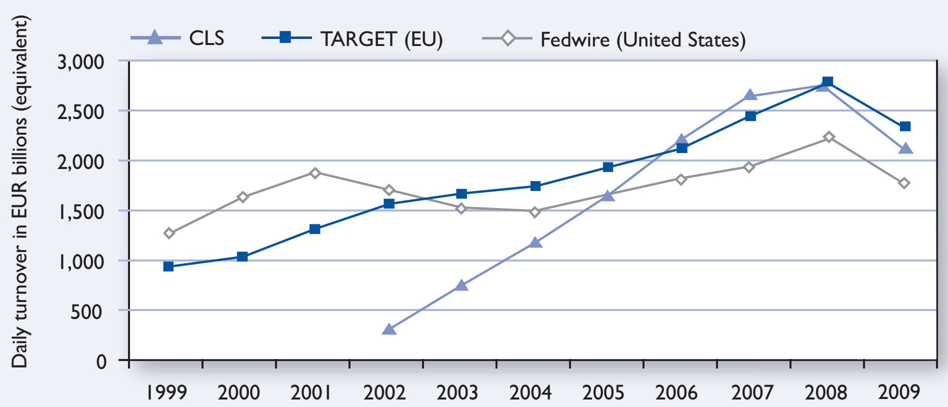
A real-time gross settlement (RTGS) system is a payment system in which processing and settlement take place in real time (i.e. continuously) rather than in batch processing mode. It enables transactions to be settled with immediate finality. Gross settlement means that each transfer is settled individually rather than on a net basis. TARGET2 is such a system.

From TARGET to TARGET2

The first generation of TARGET began operations on 4 January 1999 in parallel with the launch of the euro. It provided a real-time payment processing service with intraday finality to almost all credit institutions in the EU. Moreover, TARGET served the monetary policy needs of the Eurosystem and promoted the integration of the euro money market as well as the harmonisation of business practices in the EU. With its special focus on large-value payments related to interbank operations, TARGET helped to reduce systemic risk.

Despite its success, the first generation of TARGET had a number of shortcomings that stemmed from its heterogeneous technical design. In view of this and owing to developments such as the further enlargement of the euro area, the Eurosystem decided to build the second generation of TARGET, TARGET2, in order to better meet user needs by:

Major large-value payment systems in the world



- providing a harmonised service level with a harmonised pricing scheme;
- ensuring cost efficiency;
- preparing for future developments, including the enlargement of the EU and the euro area.

TARGET2 in operation

The smooth and very successful phased migration to the new TARGET2 system started on 19 November 2007 and ended on 19 May 2008.

The migration to TARGET2 was arranged in three "country groups", allowing TARGET users to migrate to TARGET2 in different waves and on different predefined dates. Each wave consisted of a group of NCBs and their respective TARGET user communities.

With €2.2 trillion settled every day, TARGET2 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

Harmonised service level

The Eurosystem developed the features and services of TARGET2 in close cooperation with TARGET users.

Three Eurosystem central banks – the Banca d'Italia, the Banque de France and the Deutsche Bundesbank – jointly provide the single technical infrastructure, the Single Shared Platform (SSP), for TARGET2 and operate it on behalf of the Eurosystem.

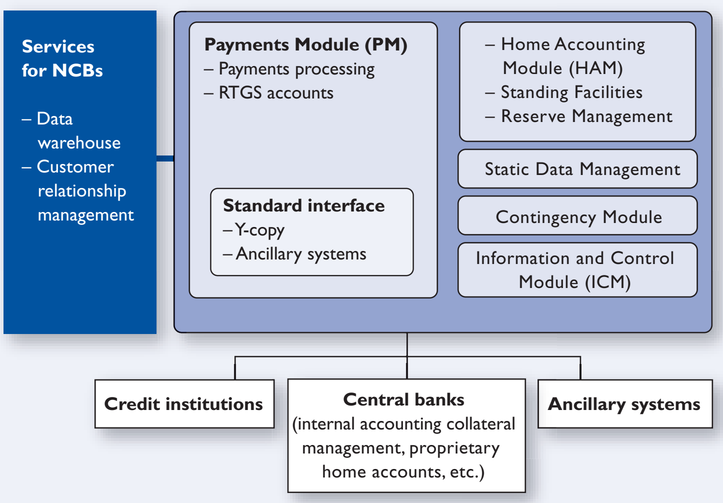
The SSP for TARGET2 provides a uniform wholesale payment infrastructure. In TARGET2, all banks in the EU – irrespective of where they are located – are offered the same high-quality services, functionality and interfaces, as well as a single price structure. This means that banks operate under similar conditions across Europe, thus promoting further efficiency and integration in the related financial markets.

TARGET2 also provides a harmonised set of settlement services in central bank money for all kinds of ancillary systems, such as retail payment systems, money market systems, clearing houses and securities settlement systems. The main advantage of TARGET2 for such ancillary systems is that they are able to access any account on the SSP via a standardised interface. In essence, the settlement of ancillary systems in TARGET2 provides participants with liquidity optimisation opportunities.

The new functionalities of TARGET2 enable multi-country banks to consolidate their internal processes, such as treasury and back-office functions, and to integrate their euro liquidity management more successfully. For example, participants are able to group some of their accounts and to pool the available intraday liquidity for the benefit of all members of the group if the legal requirements are fulfilled. In addition, TARGET2 users have uniform access to comprehensive online information and easy-to-use liquidity control measures.

As with TARGET, the business relationship with a participant continues to be exclusively dealt with by the central bank providing that participant's account.

Structure of the SSP



Although TARGET2 is legally set up as a multitude of systems under national law, the conditions applicable to TARGET2 users are (almost) completely harmonised.

System structure

A modular approach has been taken for setting up the SSP of TARGET2 (see the chart below). Every module in the SSP is closely related to a specific service (e.g. the Payments Module for the processing of payments). Some of the modules (Home Accounting, Standing Facilities and Reserve Management Modules) can be used by the individual central banks on an optional basis. Central banks that do not use these modules offer the respective services via proprietary applications in their domestic technical environments.

SWIFT standards and services are used (FIN, InterAct, FileAct and Browse) to enable standardised communication between the TARGET2 system and its participants.

From November 2010 onwards, TARGET2 will also provide efficient and safe internet-based access for low volume participants.

Participation

All countries in the euro area are covered by TARGET2. Other EU countries may join TARGET2 on a voluntary basis.

A number of options are available to participants in terms of access to TARGET2, including direct and indirect participation, addressable BICs[6], and multi-addressee access.

The criteria for direct participation in TARGET2 are broadly the same as for TARGET. Direct participants hold an RTGS account in the Payments Module of the SSP with access to real-time information and control features. Direct participants are 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) registered through them.

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 on the SSP. Indirect participants are listed in the TARGET2 directory. Only supervised credit institutions established within the European Economic Area can become indirect participants.

Another category of access is that of 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. As with indirect participants, addressable BICs send and receive payment orders to/from the system via a direct participant, and their payments are settled in the account of the direct participant on the SSP.

Finally, multi-addressee access to TARGET2 enables direct participants to authorise branches and other credit institutions belonging to their group to channel payments through the direct participant's main account without its involvement. This offers a direct participant's affiliate banks or a group of banks efficient features for their payments business. The payments are settled in the account of the direct participant.

Further detailed information on TARGET2 can be found in the "Information guide for credit institutions using TARGET2" and in the latest "TARGET Annual Report". All relevant documents can be downloaded from the ECB's website at http://www.ecb.europa.eu/paym/t2/html/index.en.html. Information on TARGET2 is also provided on the websites of the NCBs.

6) In order to ensure error-free identification of parties in automated systems, SWIFT developed the bank identifier code (BIC). The BIC is a unique address which, in telecommunication messages, identifies the financial institutions involved in financial transactions

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