TARGET and payments in euro

With the introduction of the euro in 11 countries of the European Union (EU), it was necessary to design new payment arrangements in order to allow financial markets within the euro area as a whole to function as smoothly and efficiently as within national currency areas. Area-wide settlement in central bank money has been made possible by the creation of TARGET, the real-time gross settlement (RTGS) system for the euro. Several other settlement systems provide alternative channels for the processing of large-value payments in euro.

Experience has shown that the financial community appreciates the safety features of TARGET, as well as the flexibility which it offers in terms of liquidity management. The very wide range of participants in TARGET has also helped this system to become, in terms of both volume and value, the most extensively used system for large-value payments in euro. TARGET is mainly used for interbank payments, while the majority of commercial payments are processed via alternative channels.

In the future, TARGET will be confronted with several challenges. In the short run, it will have to strengthen its infrastructure in order to reduce the number of technical incidents; in the longer run, it should be able to reduce its costs and extend the range of services which it offers to its users. The future integration of other European countries within the euro area will also have implications for TARGET for which preparations will have to be made in advance.

1 The evolution of payment systems in the European Union in the 1990s

European payment systems have undergone substantial change in recent years owing, in particular, to the preparation for the introduction of the euro on 1 January 1999. An early recognition, in both central banks and private institutions, of the need for new payment arrangements for the euro has ensured a timely and successful implementation of the new systems. For central banks, the driving force for change has been, and still is, the willingness to increase the soundness and efficiency of payment systems and to ensure the smooth implementation of monetary policy operations. In the European banking and financial community, change is driven by market integration and increased competition.

National payment infrastructures, now integrated into an environment which covers the euro area as a whole, have different historical, institutional, technical and legal backgrounds. They were designed to support national financial markets of varying sizes and levels of sophistication within the context of national monetary policies.

Although payment systems have maintained national characteristics, they have developed, as a result of European integration and co-operation, in accordance with certain commonly agreed principles.

Prior to the commencement of preparatory work for Economic and Monetary Union (EMU), two reports had a major impact on payment systems within the European Union (EU) and promoted the development of a common payment systems policy. First, as part of their risk management policies, in 1990 the G10 central banks published a document entitled “Report on Interbank Netting Schemes”. This document, which is generally referred to as the “Lamfalussy report”, sets out minimum standards which aim at ensuring that netting systems can complete the settlement phase even in the event of a failure on the part of the participant with the highest debit position. Second, in order to limit systemic risks, avoid regulatory arbitrage and ensure a level playing-field for credit institutions within the Community, in 1993 the EU central banks published a report on “Minimum Common Features for Domestic Payment Systems”. One of the main recommendations of the report was that as many of the large-value payments as possible should be channelled into real-time gross-settlement (RTGS) systems. This constituted a major milestone in the promotion of RTGS processing within the EU.

The most dramatic changes in EU payment systems have been linked to the introduction of the euro. Following the adoption of the Treaty on European Union, EU central banks initiated the preparatory work for Economic and Monetary Union (EMU) and, in particular, for its third and final stage, in which the single currency would be adopted. At that point in time payment relations between EU countries relied almost exclusively on correspondent banking – arrangements which were considered unsatisfactory for fulfilling the needs of the new monetary area. Thus, it was concluded that a unified single currency area-wide payment arrangement would be needed to ensure a secure implementation of the single monetary policy, efficient arbitrage in the money markets and, more generally, the efficient and safe settlement of large-value payment flows between participating countries. Building on the principles of the 1993 report on domestic payment systems, the decision was taken by the Council of the European Monetary Institute (EMI) in March 1995 to set up a Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system establishing links between national RTGS systems.

2 TARGET, the core payment system for the euro

TARGET was implemented in order to serve two main objectives: first, to facilitate the integration of the money market in euro in order to allow for the smooth implementation of the single monetary policy and, second, to improve the soundness and efficiency of cross-border payments in the euro area. To achieve this, TARGET offers the possibility of transferring central bank money on a cross-border basis as smoothly as domestically. TARGET can be used for all credit transfers in euro between EU countries. It processes both interbank and customer payments and there is no upper or lower value limit for payments.

It was agreed from the outset that TARGET would be a decentralised system, in which credit institutions would keep their settlement accounts with their home central bank. Therefore, domestic TARGET payments continue to be processed in the national RTGS systems. Cross-border TARGET payments are processed through the national RTGS systems and exchanged on a bilateral basis directly between national central banks (NCBs). Since all credit institutions participating in national RTGS systems automatically have access to the cross-border TARGET service, a very broad participation in the system is ensured.

It was necessary to set up the TARGET system within a period of time which can be considered as very short for such a large-scale project. In order to minimise the time required and the costs to the central banks and credit institutions of establishing the system, it was agreed to harmonise national RTGS systems only to the extent necessary to ensure the uniformity of the monetary policy of the European Central Bank (ECB) and a level playing-field for credit institutions. Areas subject to harmonisation were operating time, pricing and the provision of intraday credit. In addition, common minimum performance features and security provisions were defined for RTGS systems linked to TARGET. Although several technical and organisational features continue to differ across NCBs, TARGET has been set up in such a way that the use of the system in the domestic and cross-border mode is very similar for participants.

Only payments related to operations with the Eurosystem and to the settlement of other large-value payment systems operating in euro are required to be processed through TARGET. For any other payments, market participants can use alternative large-value payment systems operating in parallel with TARGET or correspondent banking arrangements. However, to accommodate the wish to ensure maximum safety in the processing of the very high-value payments, the Eurosystem clearly signalled to the market that it expected payments of very high value (stemming in particular from the money market) to be processed through TARGET.

In normal circumstances payments reach their destination a few minutes after being debited from the account of the sending participants. All payments are treated equally, irrespective of their value. Payments are irrevocable as soon as they are debited from the account which the sending institution holds with its NCB and are immediately final when credited to the central bank account of the receiving participant. All participants are identified by Bank Identifier Codes (BICs) and are listed in the TARGET Directory, which is available world-wide from S.W.I.F.T.

To meet the needs of the financial market in general and its customers in particular, TARGET provides long daily operating hours for its RTGS services, opening at 7 a.m. and closing at 6 p.m. ECB time (central European time). To allow participants to better manage their end-of-day liquidity, customer payments are subject to a cut-off time set at 5 p.m. Furthermore, common closing days apply to TARGET. In 1999 TARGET closed on New Year's Day and will also close on Christmas Day. Exceptionally, in order to smooth the transition to the new century, the system will also be closed on 31 December 1999. As payment traffic has been rather low on days which are traditionally public (or bank) holidays in most of the euro area,[1] TARGET will – following a request from the European banking industry – have six closing days in 2000, namely New Year's Day, Good Friday, Easter Monday, 1 May (Labour Day), Christmas Day and 26 December. TARGET closing days are, de facto, non-settlement days for the money market and the financial markets in euro, as well as for foreign exchange transactions involving the euro.

The use of TARGET is supported by a transparent pricing structure. The fee charged for cross-border payments is based on the number of transactions made by the participant within a single RTGS system and is subject to a degressive scale. For each of the first 100 transactions per month the fee is EUR 1.75, for each of the next 900 transactions per month EUR 1.00, and for each subsequent transaction per month EUR 0.80. Consequently, for larger banks, the average fee per payment is in the region of EUR 0.85. The cross-border fee does not depend on the destination or value of the payment. No additional entry or periodical fees are charged to users of the TARGET cross-border service. Domestic transaction fees, still determined by NCBs, are typically lower.

One of the crucial issues with regard to the operation of RTGS systems relates to the availability and cost of liquidity. In TARGET, liquidity can be managed very flexibly and is available at low cost, since minimum reserves – which credit institutions are required to hold with their central bank – are available for settlement purposes during the day. Moreover, the averaging provisions applied to minimum reserves allow for flexibility in the banks' end-of-day liquidity management. The overnight lending and deposit facilities also allow for "last minute" reactions to unexpected liquidity situations. In addition, unlimited intraday credit is provided free of charge by the Eurosystem. Central bank credit is to be fully collateralised, but the range of eligible collateral is very wide. Assets eligible for monetary policy purposes are also eligible for intraday credit.

In order to facilitate the cross-border use of collateral, the Eurosystem has implemented

1 *On Good Friday and Easter Monday 1999 the number of payments processed in TARGET and in the main payment systems operating in euro was less than half the daily average.*

the correspondent central banking model (CCBM), which allows participants to obtain credit from their home central bank against collateral held with another central bank. In addition, a large number of links established between securities settlement systems have also been approved to facilitate the cross-border use of collateral. The stock of eligible assets is worth more than EUR 5.5 trillion. As at end-September 1999 collateral worth around EUR 620 billion was held with the Eurosystem, of which EUR 85 billion was held on a cross-border basis.

A unique feature of TARGET is that its euro payment services are available throughout the whole of the EU, i.e. across a wider area than that in which the single currency has been adopted. The specific situation with regard to the four EU countries which have not yet adopted the euro (Denmark, Greece, Sweden and the United Kingdom) is linked to a historical problem: because it is necessary for all countries adopting the euro to participate in TARGET, and because of the limited time available for setting up the system, all EU NCBs had to start investing money in TARGET before knowing whether they would be part of the euro area. Thus the EMI Council agreed in 1995 that all current EU NCBs would prepare themselves for connection to TARGET in 1999. It was indicated, however, that for those countries which would not adopt the euro from the outset, the connection would be subject to conditions to be decided by the Governing Council of the ECB.

These conditions were set out by the Governing Council of the ECB in July 1998. The decision was to allow the non-euro area NCBs to offer limited amounts of intraday liquidity in euro to their credit institutions on the basis of a deposit in euro held with the Eurosystem. Safeguards have been established in order to ensure that non-euro area credit institutions will always be in a position to reimburse intraday credit in due time, thus avoiding any need for overnight central bank credit in euro. This arrangement is a very special one, as it is the first time a central bank has allowed central banks belonging to other currency areas to provide settlement facilities in its own currency. A "policy statement" issued by the ECB in November 1998 made it clear that central bank money in euro can only be provided by the central banks belonging to the Eurosystem and indicated that the possibility offered to non-euro area central banks was a specific exception.

Box

TARGET year 2000 compliance

TARGET has successfully completed its test cycles, which started with an examination of the basic components and proceeded systematically through all layers of the system. In addition to the question of the transition from 1999 to 2000, the issue of the leap year in 2000 was also covered. From 1 October 1999 to 1 March 2000 TARGET is subject to a moratorium during which, in general, no change to the systems should be made.

On 25 September 1999 TARGET demonstrated its year 2000 compliance in general testing of a full business day in a simulated year 2000 environment. Systems opened with the business date 3 January 2000 and, without detecting any year 2000 problems, processed cross-border customer and interbank payments, which were sent and received by several hundred participating credit institutions. Other payment and settlement systems which settle through TARGET opened specifically for this TARGET demonstration and were all able to complete their end-of-day operations successfully.

3 The co-existence of parallel systems

The large-value payment systems infrastructure in the euro area is characterised by the co-existence of several systems. In 1998 the Eurosystem made an assessment of those payment systems which, in parallel with TARGET, would process large-value payments in euro. As an outcome of this evaluation, five systems were deemed to be eligible. Two of these, in Finland and Spain, are small local systems; the three others are Euro 1, Euro Access Frankfurt (EAF) and the Système Net Protégé (SNP).

These systems have to settle in central bank money through TARGET. To allow participants enough time for settlement and subsequent liquidity management, these systems are all subject to an early cut-off time of 4 p.m. Although it is not a requirement that participants should be located in the euro area, they are nevertheless requested to demonstrate that they have easy access to central bank money in euro in order to facilitate the timely settlement of their end-of-day positions.

Euro 1 is a co-operative undertaking between EU-based commercial banks and EU branches of non-EU banks. The system is run by the EBA Clearing Company, which was set up by the Euro Banking Association (EBA) for the purpose of operating and managing the system as from 1 January 1999. It is the successor to the ECU Clearing and Settlement System. Although, from an operational viewpoint, Euro 1 is a net settlement system, it is legally based on the "single obligation structure", whereby, at any given time, each participant has only one single payment obligation or claim with respect to the community of other participants. The single obligation or claim amounts to the net balance of all payments sent and received. As soon as payments have been processed, the single obligation of each participant is updated. Euro 1 settles at the end of the operating day in central bank money over a settlement account maintained at the ECB. Euro 1 members are subject to a loss-sharing agreement and, for the purpose of ensuring a timely settlement in the event of the failure of a participant, they have all contributed in equal shares to a liquidity pool maintained by the EBA with the ECB. There is strong international participation in Euro 1: as of September 1999 it included 72 clearing banks from all of the EU Member States and five non-EU countries (Australia, Japan, Norway, Switzerland and the United States), all of which are incorporated in the EU or which have branches located in the EU.

EAF (Euro Access Frankfurt) is a large-value payment system developed and run by the Deutsche Bundesbank. As a "hybrid" system, it combines elements of both gross and net settlement systems. In EAF payments are placed in payment queues and are settled at very frequent intervals; these payments must be covered either by incoming funds or by balances on internal EAF accounts. The accounts are pre-funded in central bank money and cannot be overdrawn. To optimise the amount of funds available in the system, participants can move liquidity between their accounts in the national RTGS system and EAF. As in an RTGS system, early finality is provided by the intraday use of central bank money for settlement. No credit risk is created for receiving participants because no implicit intraday credit is granted within the system, as is the case in net settlement systems. Therefore, no loss-sharing arrangement is needed. As at September 1999 the EAF had 68 direct participants from 13 countries.

In France, the net settlement system, Système Net Protégé (SNP), which was launched in February 1997, was replaced on 19 April 1999 by the hybrid system, PNS (Paris Net Settlement). To a large extent, PNS follows the same operating principles as EAF. A liquidity bridge with the French RTGS system, TBF, allows participants to manage their positions centrally in central bank money. As at September 1999, 24 clearing banks were participating in PNS.

There are also two smaller local systems in operation. The Servicio Español de Pagos Interbancarios (SEPI), run by the Madrid Clearing House, was set up in October 1997. In September 1999 SEPI had 40 direct participants. In the Finnish POPS system, which has been in operation since 1996, payment messages are handled in the national currency denomination, although settlement takes place in euro. POPS had 9 participants in September 1999.

Finally, traditional correspondent banking continues to provide an alternative to organised payment systems. However, as a consequence of the introduction of the euro, correspondent banking has been subject to considerable change. A strong consolidation process has been evident – with the number of correspondent relations being reduced substantially – as has a trend towards concentration of business among a few major European credit institutions acting as service providers. Although correspondent banking within the euro area may no longer be necessary, it seems that banks nevertheless wish, at least until the end of the changeover period in 2002, to maintain one or two correspondent accounts for each euro area country for the processing of payments denominated in the national currency.

4 Experience gained in euro payments processing[2]

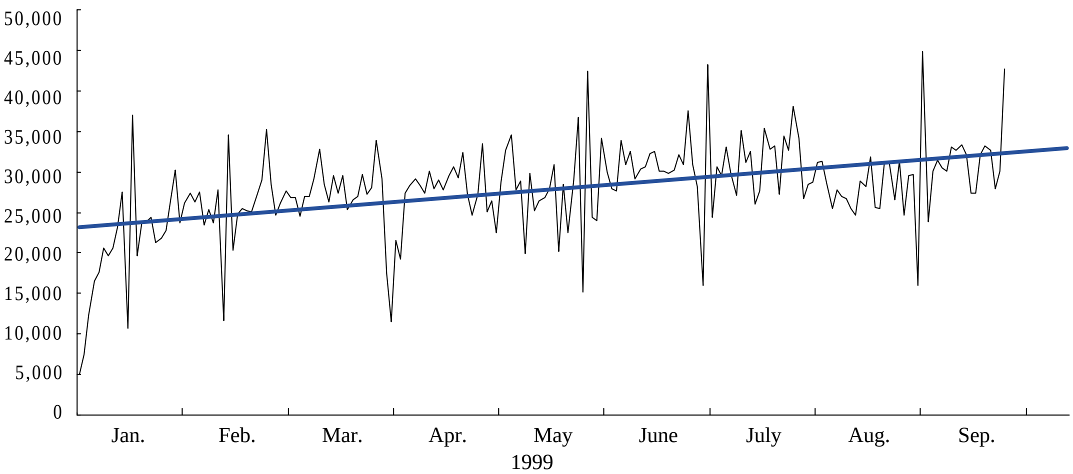
After the changeover to the euro on 1 January 1999, the date on which all funds held by credit institutions with the Eurosystem were converted – using the irrevocably fixed exchange rates – from the national currency to the euro, TARGET successfully commenced live operation on Monday, 4 January 1999, with some 5,000 participants throughout the EU.

2 *Further information on TARGET, including statistics on payment systems operating in euro, is available on the ECB's Web site: http//www.ecb.int.*

Chart 1

Volume of TARGET cross-border payments

(daily figures)



On the very first day of its existence TARGET processed 156,000 payments with a total value of EUR 1.18 trillion, of which some 5,000 were cross-border payments with a total value of around EUR 245 billion. A gradual increase in cross-border activity was generally expected but, in fact, the volume of cross-border payments processed via TARGET increased rapidly to a level of between 20,000 and 30,000 transactions per day – representing a value of EUR 300 to 400 billion – after only one week of operation. The number of payments processed in TARGET as a whole, i.e. cross-border and domestic payments taken together, amounts to a daily average of more than 163,000 (of which 133,000 are domestic), representing a value of some EUR 880 billion (EUR 530 billion domestic).[3]

The rapid reduction of interest rate spreads in the overnight market in January 1999 – and the high share of the large-value payments being processed in real time through it (see Table 1 below) – show that TARGET has clearly fulfilled its main objectives: to facilitate the integration of the money market in euro and to improve the soundness and efficiency of payment systems.

The other main large-value payment systems in euro also began operation smoothly and, taken together, settle a daily average of some EUR 400 billion. During the course of 1999 the Euro 1 system has become the most extensively used alternative to TARGET, both in terms of volume (71,600 payments per day) and value (nearly EUR 170 billion). The hybrid German EAF system was previously the system through which most of the foreign exchange transactions in Deutsche Mark were settled. With the introduction of the euro, it lost around 50% of its pre-EMU business. However, it nonetheless processes some 46,000 payments daily, valued at a total of more than EUR 140 billion. The French PNS has maintained a stable pattern, processing

3 Where no reference period is indicated, figures relate to the third quarter of 1999.

Table 1

Payment instructions processed by TARGET and other selected interbank funds transfer systems

(daily average volume (number of payments) and value (in EUR billions) of transactions)

	1999								
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
TARGET									
All TARGET payments									
Volume	150,777	154,071	159,126	151,937	155,239	167,575	169,952	154,442	164,674
Value	1,042	943	913	923	869	923	924	844	885
Cross-border TARGET payments									
Volume	20,113	26,010	27,816	26,745	26,938	31,061	30,865	28,471	30,676
Value	355	350	342	350	334	370	368	342	352
Domestic TARGET payments									
Volume	130,663	128,061	131,310	125,191	128,301	136,514	139,088	125,971	133,997
Value	687	593	571	573	536	554	556	502	532
Other systems									
Euro 1 (EBA)									
Volume	42,752	53,113	60,408	59,872	63,609	72,605	72,327	66,247	76,278
Value	172	173	178	172	156	169	163	164	175
Euro Access Frankfurt (EAF)									
Volume	47,941	46,726	47,965	43,895	43,671	48,453	47,552	44,252	46,263
Value	200	159	158	148	140	154	146	135	143
Paris Net Settlement (PNS)									
Volume	21,974	21,749	21,578	20,351	19,239	21,201	20,670	17,223	18,866
Value	107	87	82	96	87	100	94	84	89
Servicio Español de Pagos Interbancarios (SEPI)									
Volume	5,035	4,610	4,651	4,346	4,473	4,529	4,374	3,574	3,885
Value	8	4	4	3	4	4	3	3	3
Pankkien väliset On-line Pikasiirrot ja Sekit (POPS)									
Volume	2,192	2,993	3,174	3,453	3,465	6,854	3,492	3,431	3,113
Value	1	1	1	2	1	1	1	1	1

19,000 payments each day, with a daily average value of some EUR 90 billion. The figures for SEPI – with 3,900 payments (at a value of EUR 3 billion) – and for POPS – with 3,300 payments a day (at a value of EUR 1 billion) – are far below those of the above-mentioned systems.

As a result of the co-existence of alternative payment channels, some initial problems at the beginning of the year could not be avoided. Although the banking community developed recommendations on best business practices in 1998, payment operators and liquidity managers faced the challenge of dealing with uncertainties in payments routing. Payments were received through unexpected channels and this made it difficult to manage liquidity efficiently. However, the European Banking Federation and other organisations have set some valuable guidelines to help the banks to run their business more efficiently.

For risk management reasons, net settlement systems such as Euro 1 have to apply binding limits to the net debit positions which can arise between participants in the system. If inflows and outflows do not match during the course of the day, such limits may restrict the ability of the participants to exchange payments. To overcome the problem, participants in Euro 1 have made use of "inter-system swaps". In an inter-system swap, for example, a participant in Euro 1 which has excess funds available sends a payment to another participant in Euro 1 which is experiencing a shortage of funds; at the same time, the latter sends a payment of the same amount to the former in TARGET. As there is at present no mechanism for linking the two legs of the swap transaction, such operations trigger some credit risk for the parties involved.

Statistical data as well as information received from the different EU banking associations, national TARGET User Groups and individual participants, indicate that TARGET is recognised as the standard for large-value cross-border payments in euro. The system has proved capable of processing a significant number of large-value payments within short transmission times. In addition, the full collateralisation of intraday credit has proved to be far less problematic than many banks expected before the start of TARGET operations. The price difference between TARGET and alternative systems does not seem to have deterred banks from using TARGET extensively. Even the bigger banks, which have cheaper alternatives for processing their payments, use TARGET extensively for their very high-value payments, in respect of which TARGET offers advantages in terms of liquidity management. Moreover, many small and medium-sized banks which lack access to other systems take a positive view of the TARGET prices because they are lower than the correspondent banking fees which they would otherwise have to pay.

Nevertheless, the heterogeneous nature of TARGET still involves problems relating to both efficiency and cost. Efficiency problems are caused by the fact that any system with a large number of interfaces is likely to encounter more frequent difficulties than would a centralised system or a decentralised system with identical local components. Cost-related problems are primarily caused by the fact that every time a modification has to be made to the TARGET software, this has to be done 15 times. In this context, the present TARGET infrastructure offers room for improvement. Measures have already been taken to increase the availability of those national RTGS systems which have to date experienced technical problems too frequently. Moreover, in the longer run, the TARGET infrastructure should be able both to accommodate the strong demand on the part of TARGET users for greater harmonisation of the different RTGS systems participating in TARGET and, possibly, to offer them additional services, such as intraday cash management facilities.

In terms of value, more than half of the large-value payments in euro are processed in two countries, namely Germany and France. In

Table 2

Distribution of payment flows in TARGET

(daily average volume (number of payments) and value (in EUR billions) of domestic and cross-border payments sent by each RTGS system participating in or connected to TARGET, third quarter 1999)

	Domestic		Cross-border	
	Volume	Value	Volume	Value
ELLIPS (BE)	3,448	12.57	2,219	29.58
ELS (DE)	62,395	78.18	10,522	90.94
SLBE (ES)	7,801	99.68	697	13.24
TBF (FR)	5,738	187.82	3,737	56.60
IRIS (IE)	1,050	9.47	579	3.95
BI-REL (IT)	34,691	63.58	3,317	27.20
LIPS-Gross (LU)	227	2.71	647	7.95
TOP (NL)	10,482	39.04	1,457	28.01
ARTIS (AT)	2,304	7.48	1,618	7.59
SPGT (PT)	1,237	5.57	714	3.19
BOF-RTGS (FI)	801	4.41	313	5.37
EPM (ECB)	0	0.00	55	8.67
DEBES (DK)	21	0.07	243	4.65
HERMES euro (GR)	34	0.01	63	1.27
Euro RIX (SE)	10	0.27	156	4.95
CHAPS Euro (UK)	2,778	19.15	3,668	60.87

addition to the payments processed in EAF and PNS and the share of their banks in the traffic of the Euro 1 system, the two countries also account for a large proportion of the TARGET payments, although they have a very different activity profile within TARGET.

German participants account for the largest share of TARGET cross-border payments (more than a third of the number of payments sent, and more than a quarter in terms of value). On the domestic side, ELS, the German component of TARGET, processes almost half of the total number of TARGET payments, but only 15% of them in terms of value. TBF, the French component processes only 4% of the total number of domestic TARGET payments by volume, but handles more than one-third of the total value of domestic payments in TARGET. It appears that, in France, TARGET is used almost exclusively for payments stemming from the financial markets, while in Germany a large number of commercial payments, or even retail payments, are processed through the system. The main reason for the high value of domestic payments in TBF is the very high level of activity of the money market in Paris.

The United Kingdom component of TARGET, CHAPS Euro, processes a relatively high proportion of cross-border payments in TARGET (although a large share of these payments represents liquidity shifts between the head office of British banks in London and their branches in the euro area). Domestic payments in CHAPS Euro are relatively modest. Contrary to earlier expectations, domestic large-value payments in euro are almost negligible in the three other countries which have not yet adopted the euro.

National holidays in the United States have a significant effect on EU payment systems because no EUR/USD foreign exchange transactions are settled on these days. There is a reduction of some 50% (40% in terms of value) in the number of cross-border transactions processed through TARGET and some national components, such as the French and the British, recorded even more substantial decreases in their turnover on these days. Conversely, US holidays have had little effect on domestic TARGET activities in other countries. The impact of US holidays on Euro 1 and EAF was also rather marked, especially in terms of value (around 70% and

Table 3

Average value of payments

(EUR millions)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
TARGET (total)	6.9	6.1	5.7	6.1	5.6	5.5	5.4	5.5	5.4
Cross-border	17.7	13.5	12.3	13.1	12.4	11.9	11.9	12.0	11.5
Domestic	5.3	4.6	4.4	4.6	4.2	4.1	4.0	4.0	4.0
Euro 1	4.0	3.3	3.0	2.9	2.4	2.3	2.3	2.5	2.3
EAF	4.2	3.4	3.3	3.4	3.2	3.2	3.1	3.1	3.1
PNS	4.8	4.0	3.8	4.7	4.5	4.7	4.5	4.9	4.7
SEPI	1.7	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
POPS	0.7	0.5	0.5	0.5	0.4	0.2	0.4	0.4	0.3

55% respectively). The activity of PNS was influenced to only a very minor degree. This shows that the systems which are mainly used in the settlement of EUR/USD foreign exchange transactions are Euro 1, EAF and, within TARGET, TBF and CHAPS Euro.

For public holidays in the United Kingdom which do not coincide with those of the rest of the EU, only the cross-border component of TARGET showed a small decrease in activity, especially in terms of value. The influence of Japanese public holidays has also been negligible. This indicates that the foreign exchange activity between the euro and these two currencies is far less extensive than in the EUR/USD market.

The average value of cross-border payments in TARGET (EUR 11.5 million in September 1999) is significantly higher than that of domestic TARGET payments (EUR 4.0 million). The high cross-border values can be explained by a large number of "liquidity transfers" made across the system. Banks which have centralised their liquidity management distribute liquidity to their foreign branches and subsidiaries in the morning and receive excess funds back in the evening.

The average value of transactions processed by large-value euro payment systems is decreasing. The main reason is the progressive shift of commercial payments from correspondent banking into organised payment systems. In September 1999, 25% of cross-border payments processed through TARGET were customer payments, while in January they accounted for only 15%. The increase in customer payments has also been very pronounced for Euro 1. In January 1999, customer payments represented some 39% of the total number of payments, while in September they already accounted for 52%.

Using TARGET and other large-value systems for customer payments instead of correspondent banking allows corporate customers to improve their cash management. However, retail customers have not yet benefited from these improvements because the organisation of such systems at interbank and intrabank level is not yet adequate to support efficient processing of retail cross-border credit transfers. This explains why the ECB published, in September 1999, a report on cross-border retail payment systems. In this field, the Eurosystem has come to the conclusion that, for the time being at least, it should work as a catalyst for change rather than increase its

Table 4

Share of customer payments in total cross-border TARGET payments traffic

(as a percentage)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
Volume	14.5	16.2	18.0	20.5	21.8	21.4	23.4	23.3	24.9
Value	1.5	1.9	2.1	2.1	2.2	2.5	2.5	2.1	2.7

operational involvement. The report includes a series of objectives which the banking community is invited to meet by January 2002, at which point all day-to-day transactions effected by citizens of the euro area will be denominated in euro.

5 Concluding remarks and future prospects

At the very beginning of 1999, the activities of financial markets were still largely reliant on infrastructures and procedures which had been developed from national perspectives. It is therefore unsurprising that market forces have been reshaping these structures and related business practices in order to better serve the needs of the new monetary area.

In 2000 the commencement of operation of the Continuous Linked Settlement (CLS) system for foreign exchange transactions is expected to trigger a further reshuffling of payment systems flows in the euro area because the number of large-value payments is expected to decrease substantially. This is a trend which may, however, be partially offset by other evolutions such as the further shrinking of correspondent banking in the euro area and the increased use of delivery versus payment (DVP) arrangements in securities markets.

In the longer term, the integration of possible new EU Member States into euro area payment systems will constitute a new challenge, in particular for TARGET. At present, 12 central and eastern European countries are official candidates for membership of the EU and should provide a TARGET connection to the banks in their countries as soon as they join the euro area. Close co-operation will be required between the Eurosystem and central banks of countries joining the euro area in order to ensure a smooth connection to TARGET of the RTGS function of the countries concerned.

Experience gained during the first three quarters of 1999 show that TARGET has clearly met its objectives. However, TARGET is not a static system. To continue to remain attractive in the long term, the TARGET service will be enhanced in order to meet future technical, business and efficiency requirements. The Eurosystem will pay special attention to service orientation – easy usage, DVP support, liquidity saving features, timely and transparent processing, etc. – and to availability and cost efficiency. In order to ensure that TARGET meets future market needs, the Eurosystem will continue to seek input and feedback from national TARGET user groups and, more generally, from the banking and financial community. The Eurosystem is firmly committed to contributing to the development of such efficient infrastructures as are required to ensure the euro's position as a unit of account, a store of value and a means of payment which is highly respected world-wide.