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TARGET ANNUAL REPORT 2006

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TARGET ANNUAL REPORT

2006

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INTRODUCTION

TARGET, the **T**rans-European **A**utomated **R**eal-time **G**ross settlement **E**xpress **T**ransfer system, is the RTGS (real-time gross settlement) system for the euro and, since it started live operations back in 1999, has been the market's preferred system for large-value payments in euro, making it one of the world's largest large-value payment systems.

About 9,300 banks including branches and subsidiaries use TARGET to initiate payments on their own or on their customers' behalf. Over 52,000 banks worldwide (and thus all the customers of these banks) can be addressed via TARGET. Consequently, TARGET is instrumental in promoting the integrated euro area money market, which is a prerequisite for the effective conduct of the single monetary policy, and furthermore contributes to the integration of the euro financial markets.

Participants use TARGET to make large-value and time-critical payments, such as payments to facilitate settlements in other interbank funds transfer systems (e.g. Continuous Linked Settlement (CLS) or EURO1), and to settle money market, foreign exchange and securities transactions. It is also used for smaller-value customer payments.

In 2006 TARGET traffic increased in comparison with the previous year. TARGET processed more than 83 million transactions with a value of almost €534 trillion. This corresponds to a daily average of 326,196 payments with a total daily value of €2.1 trillion. TARGET therefore accounted for 89% in terms of the value and 60% in terms of the volume of traffic that flowed through all the large-value payment systems operating in euro.

Owing to TARGET's pivotal role in maintaining financial stability in the European Union (EU), the Eurosystem pays very close attention to the reliability and safety of TARGET. In 2006 the availability rate improved further, reaching 99.87%. To manage events that could potentially reduce the TARGET service level as efficiently as possible, the Eurosystem ensures that its business continuity and contingency measures are fully operable. The TARGET risk management framework ensures the secure processing of TARGET payments. Finally, the compliance of TARGET with the "Core Principles for Systemically Important Payment Systems"[1] is verified as part of the TARGET oversight.

On 24 October 2002 the Governing Council of the European Central Bank (ECB) decided on the long-term strategy for TARGET, known as TARGET2. TARGET2 is designed to enable the Eurosystem to meet new demands from its users, including those from new Member States that joined the EU in the last years. In December 2004 the Governing Council approved the building of the Single Shared Platform (SSP) for TARGET2 on the basis of the joint offer made by three national central banks (NCBs) of the Eurosystem, namely the Banque de France, the Banca d'Italia and the Deutsche Bundesbank. In the meantime, all euro area NCBs have confirmed their participation in TARGET2. The development of the SSP is almost finalised. Procedures for a sound migration to TARGET2 (including testing activities) have been elaborated. The go-live date for the first wave of countries migrating to the SSP is scheduled for 19 November 2007.

This report provides comprehensive information about TARGET's performance and outlines the main developments that took place in 2006. Chapter I provides information on the payment business in TARGET. Chapter II describes the various measures in place to ensure the robustness and resiliency of the system, and elaborates on the nature of TARGET oversight. New developments in TARGET are outlined in Chapter III. Finally, the annexes provide a selection of statistical data, a chronology of developments in TARGET, and an overview of its organisation and management structure.

1 Report on "Core Principles for Systemically Important Payment Systems", Committee on Payment and Settlement Systems (CPSS), Bank for International Settlements (BIS), January 2001.

CHAPTER 1

PAYMENT BUSINESS

In 2006 TARGET continued to be the backbone of the euro money market and, because the Eurosystem's credit operations are processed via this system, continued to play an important role in the smooth implementation of the single monetary policy. The TARGET system also attracts a variety of other payments on account of its real-time settlement service in central bank money and its broad market coverage.

In the year under review, TARGET had a share of 89% in terms of value and 60% in terms of volume in all large-value payment systems operating in euro. The system is used to settle large-value and time-critical payments, and additionally processes a considerable number of relatively low-value commercial payments.

In 2006 TARGET had 1,058 direct and 9,317 indirect participants.[2] The overall number of banks that can be addressed through TARGET (including branches and subsidiaries) decreased to 52,114 worldwide.

1 PAYMENTS IN TARGET[3]

DEVELOPMENT OF TARGET'S MARKET SHARE

As the following figures show, TARGET is the market's preferred system for the processing of large-value payments in euro. In 2006 TARGET's share of the traffic flowing through all large-value payment systems operating in euro remained at the same high level of 89% in value terms and rose to 60% in volume terms (compared with 59% in 2005).

Compared with the previous year, market traffic (i.e. all payments processed in large-value payment systems operating in euro) increased by 9% in terms of value and by 6% in terms of volume.

TARGET TRAFFIC IN 2006

In 2006 TARGET as a whole processed a total of 83,179,996 payments with a total value of almost €534 trillion. This corresponds to a daily average of 326,196 payments with a total value of €2.1 trillion.

Average daily TARGET turnover rose by 10% in 2006 (after 11% in 2005). Intra-Member State traffic showed an increase of 8% (after 10% in

2 These figures are based on a survey of direct and indirect participants in 2006, and represent the situation at end-2006.

3 This analysis is based on statistics reported by the NCBs. Unless otherwise specified, the source of the data is the Interlinking Statistics Database maintained at the ECB, and the analysis is restricted to payments sent. The times expressed in this chapter are Central European Time (CET). For more detailed information, please refer to the tables provided in Statistical Annex 1.

Table 1 TARGET payment flows

		2005	2006	Change	2005	2006	Change
		€ billions		%	Number of payments		%
TARGET overall	Total	488,900	533,541		76,150,602	83,179,996	
	Daily average	1,902	2,092	10	296,306	326,196	10
of which:							
Intra-Member State	Total	324,089	348,764		58,467,492	64,162,211	
	Daily average	1,261	1,368	8	227,500	251,617	11
Inter-Member State	Total	164,812	184,777		17,683,110	19,017,785	
	Daily average	641	725	13	68,806	74,580	8
of which:							
Interbank	Total	156,667	175,681		8,502,879	9,030,410	
	Daily average	610	689	13	33,085	35,413	7
Customer	Total	8,145	9,096		9,180,231	9,987,375	
	Daily average	32	36	13	35,721	39,166	10

Source: ECB.
Note: There were 257 operating days in 2005 compared with 255 in 2006.

Table 2 Change in TARGET payment flows

(% change)

	Value of payments			Number of payments		
	TARGET overall	Intra-Member State	Inter-Member State	TARGET overall	Intra-Member State	Inter-Member State
2005 compared with 2004	11	10	14	11	13	6
2006 compared with 2005	10	8	13	10	11	8

Source: ECB.

Table 3 Payment value bands for TARGET as a whole

(%)

	TARGET overall			
	≤ €50,000	> €50,000 ≤ €1 million	> €1 million ≤ €1 billion	> €1 billion
2005	65	24	11	< 0.1
2006	63	25	11	< 0.1

Source: ECB.

2005), while inter-Member State turnover grew by 13% (after 14% in 2005) (see Table 2). In volume terms, TARGET traffic grew by 10% (after 11% in 2005), with an 11% change at the intra-Member State level (after 13% in 2005) and an 8% rise at the inter-Member State level (compared with 6% in 2005).

TARGET was primarily designed to settle large-value payments. Nevertheless, in 2006, in practice 63% of TARGET payments were for values less than €50,000 and payments above €1 million only accounted for 11% of the traffic. On average there were 218 payments per day with a value above €1 billion.

In 2006 TARGET flows remained concentrated within a few RTGS systems. As observed in previous years, five RTGS systems processed more than 80% of the TARGET total value and volume (see Statistical Annex 1, Tables 1.1 and 1.2).

Box 1

TARGET VOLUME DEVELOPMENT SINCE 2004

How has TARGET traffic evolved over the last three years?

Over the last three years TARGET traffic has increased significantly, as illustrated in Chart A, which shows the average daily volume calculated on a monthly basis. It demonstrates that, beyond the seasonal effect traditionally observed within a given year, TARGET traffic has continuously grown and kept roughly the same pattern.

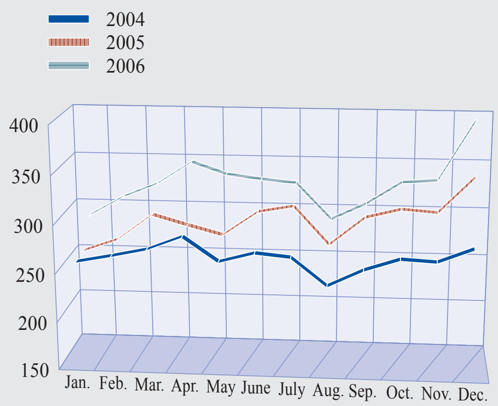
Is this increase linked to external events or is it part of a more general trend?

Chart B provides a partial answer. In order to simplify the analysis, only those RTGS components accounting for 2% or more of TARGET traffic were included (the eight selected countries still account for 94% of the overall volume). In order to eliminate the strong yearly pattern of TARGET traffic, only yearly moving averages were included (i.e. the average of the last twelve months). Lastly, to take into account the fact that countries still differ significantly in terms of size even within the top eight, the comparison of their traffic was done on the basis of an index, where the traffic in 2003 is taken as the reference.

The chart shows that, out of the eight main countries, two recorded a slight decrease in traffic over the period (Belgium and the Netherlands), one saw a considerable increase (Spain), whilst the remaining five (Austria, Germany, France, the United Kingdom and Italy) tended to follow a more regular trend.

Chart A Evolution of daily TARGET traffic over the last three years

(daily averages per month, thousands)



Source: ECB.

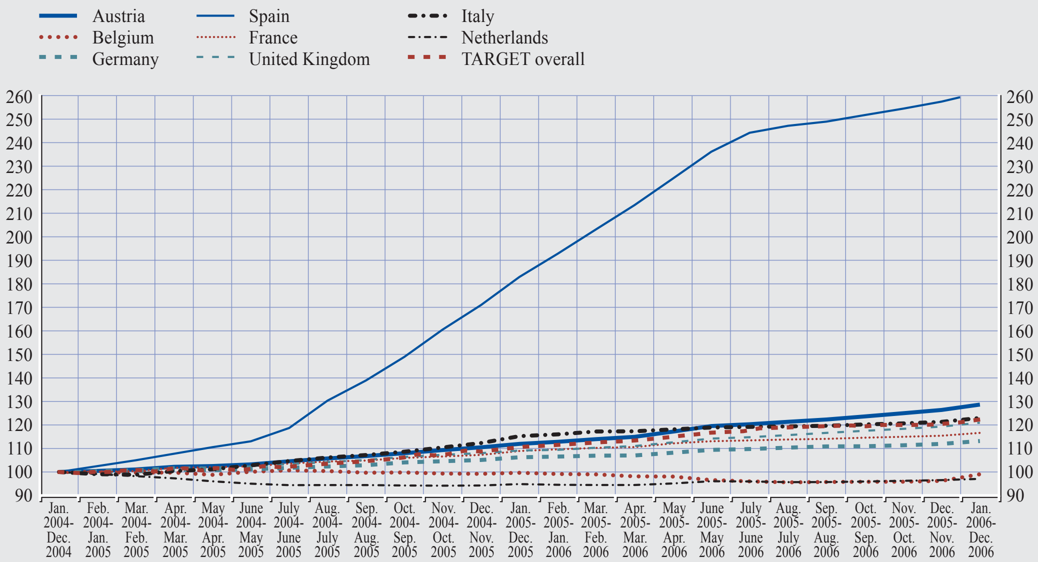
What are the elements explaining specific country situations?

Complementary information from NCBs helped to explain specific country situations:

– The steep increase for Spain has two main reasons. The first is the closure of the large-value payment system Servicio de Pagos Interbancarios (SPI) in December 2004. The second is the fact that, since June 2005, transfers and cheque transactions greater than €50,000 have

Chart B Volume developments in the top eight countries over the last three years

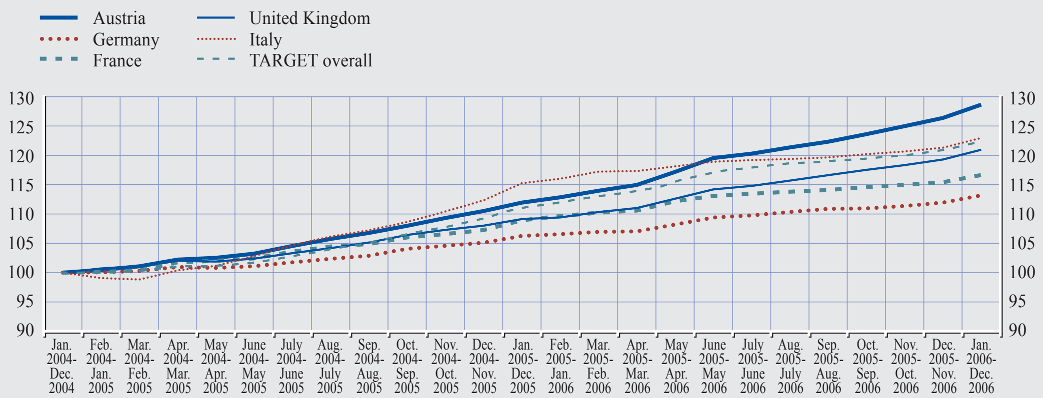
(indexed development)



Source: ECB.

Chart C Indexed traffic in selected countries compared with overall TARGET traffic

(indexed development)



Source: ECB.

been settled in the RTGS system one by one (i.e. gross settlement), instead of through a netting process.

– For the Netherlands, the decrease is actually more tangible for payments from/to non-residents, which banks are increasingly routing through other channels. Additionally, a decrease was observed in the number of cash legs deriving from the securities settlement system.

– In Belgium, the decrease is more significant for inter-Member State payments, for which some participants are making a wider use of alternative channels.

How much of the increase is attributable to a more general trend?

Beyond these specific country events, there is still a clear and almost continuous increase in the other five countries. Chart C shows their growth compared with the evolution of overall TARGET traffic.

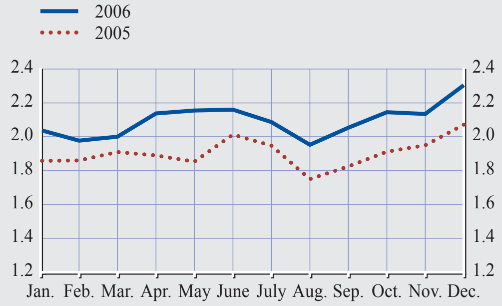
Chart C confirms that the increase in overall TARGET traffic is largely supported by the trend observed in the five countries, which altogether represent 77% of TARGET traffic. Overall TARGET traffic over the last three years has increased on a yearly basis by around 9%, while the trend growth for the five countries is just below 7%.

The increase in overall TARGET traffic observed since 2004 is attributable for around one-third to country events and for two-thirds to a real trend. From a quantitative viewpoint, the conjectural trend is around 7% yearly, which confirms the assumption used for TARGET2 traffic estimates.[1]

1 For defining the TARGET2 core pricing scheme, the Governing Council based its future volume estimates on a yearly growth rate of 6% (see the "Communication on TARGET2" published in July 2006).

Chart 1 TARGET as a whole – value of payments

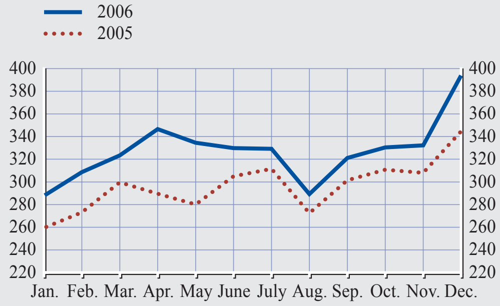
(daily averages per month, € trillions)



Source: ECB.

Chart 2 TARGET as a whole – volume of payments

(daily averages per month, thousands)



Source: ECB.

An intra-year comparison shows that the level of activity in TARGET largely followed the usual trend, with increasing traffic levels in the first quarter, stable second and third quarters, and more activity in the final quarter (see Charts 1 and 2). TARGET processed the highest values in June and December, whereas the highest volumes were processed in April and December.[4]

TARGET INTRA-MEMBER STATE PAYMENT FLOWS[5,6]

In 2006 TARGET processed more than 64 million intra-Member State payments with a total value of almost €349 trillion, which means an average of 251,617 payments with a total value of €1,368 billion on a daily basis. This corresponds to a year-on-year increase of 8% in terms of value and an 11% change in terms of volume (see Table 4).

The volume and value of intra-Member State payment flows increased significantly at the end of the year, which is in line with the phenomenon generally observed in previous years. Intra-Member State traffic represented 65% in terms of the value and 77% in terms of the volume of overall TARGET traffic.

For an indication of the different usage of TARGET across countries, see Tables 1.1 and 1.2 in Statistical Annex 1.

The following observations can be made with regard to the concentration of intra-Member State payments in the different national TARGET components:

4 The daily average number of payments processed in TARGET as a whole in December 2006 was 393,845 with a total value of €2,304.5 billion. In April 2006 it was 346,595 totalling €2,137.6 billion, while in June 2006 it was 329,840 totalling €2,160.3 billion.

5 At present, only inter-Member State payments can be analysed by payment type (i.e. interbank or customer payments).

6 The intra-Member State figures for Germany, Spain and France also include participants' liquidity transfers to and from their RTGS accounts.

Table 4 Change in TARGET intra-Member State payment flows

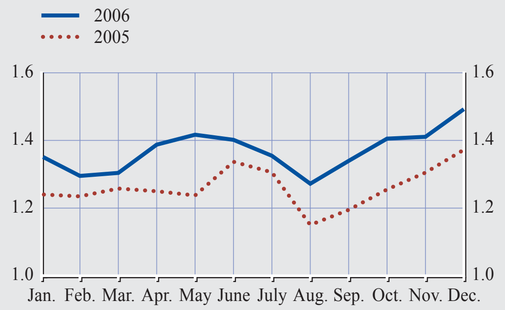
(% change)

	Value of payments	Number of payments
	Intra-Member State	
2005 compared with 2004	10	13
2006 compared with 2005	8	11

Source: ECB.

Chart 3 TARGET intra-Member State payments – value

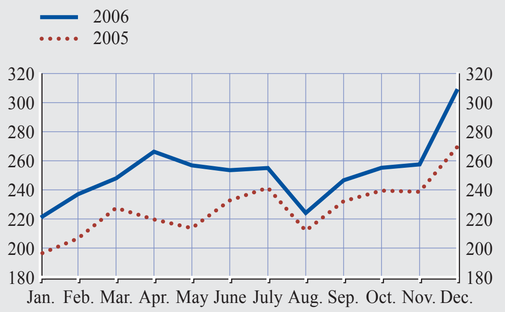
(daily averages per month, € trillions)



Source: ECB.

Chart 4 TARGET intra-Member State payments – volume

(daily averages per month, thousands)



Source: ECB.

– In terms of volume, the German component processed more than half of intra-Member State payments.

– In Germany and Italy, TARGET is extensively used to process low-value customer payments, resulting in a much lower average value of intra-Member State payments than the TARGET average (€3.2 and €2.9 million respectively, compared with €5.4 million at TARGET level).

– In France, by contrast, such payments would typically be processed outside TARGET, and the average value of intra-Member State payments settled in TARGET is €51 million and thus significantly higher.

The grouping of traffic figures for 2006 into value bands shows that TARGET is extensively used to process low-value payments. In the distribution of payments according to value bands, compared with 2005 one can observe a slight shift of 2% from the lower-sized to the medium-sized payments (see Table 5), but in general the distribution across value bands is similar to previous years.

TARGET INTER-MEMBER STATE TRAFFIC[7]

In 2006 TARGET processed a total of 19,017,785 inter-Member State payments with a total value of almost €185 trillion, i.e. a daily average of 74,580 payments totalling €725 billion. This represents a year-on-year rise of 8% in terms of volume and 13% in terms of value (see Table 6).

Both customer and interbank payments increased in value terms by 13%. In 2006 the share of inter-Member State traffic in TARGET as a whole increased by 1% to 35% in terms of value and remained unchanged in terms of volume compared with 2005 at 23%.

7 Inter-NCB payments are included in the interbank figures in this report and not removed because they represent only 0.1% of the total turnover of inter-Member State payments.

Table 5 TARGET intra-Member State payment value bands

(%)

	TARGET intra-Member State payments			
	≤ €50,000	> €50,000 ≤ €1 million	> €1 million ≤ €1 billion	> €1 billion
2005	65	25	10	< 0.1
2006	63	27	10	< 0.1

Source: ECB.

Table 6 Change in TARGET inter-Member State payment flows

(% change)

	Value of payments			Number of payments		
	Inter-Member State					
	Overall	Interbank payments	Customer payments	Overall	Interbank payments	Customer payments
2005 compared with 2004	14	14	15	6	5	7
2006 compared with 2005	13	13	13	8	7	10

Source: ECB.

The *intra-year* development of TARGET inter-Member State traffic shows that throughout 2006 higher volumes were processed than in 2005, especially towards the end of the second quarter and at the end of the year (see Charts 5 and 6) when the increase was more pronounced. The usual August dip in value and volume is attributable to the summer holiday period.

In 2006 *interbank payments* represented 95% of the total value of inter-Member State payments and 47% of the total volume, the remainder being *customer payments*. In 2005 these figures were 95% and 48% respectively, showing that the share of customer payments in inter-Member State traffic continued to grow. 2006 is the third consecutive year that *customer payments* have made up the majority of inter-Member State payments processed in TARGET.

The grouping of TARGET inter-Member State payment traffic into value bands shows that TARGET was extensively used to settle low-value payments. Compared with 2005, the distribution was almost unchanged.

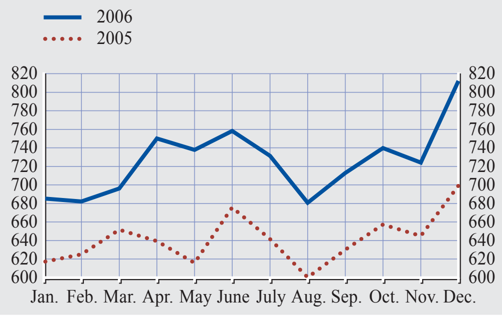
TREND IN THE AVERAGE VALUE OF TARGET PAYMENTS

The average value of individual transactions processed in TARGET as a whole dropped by €0.1 million to €6.4 million (see Table 9). The average value of intra-Member State TARGET payments also dropped by €0.1 million to €5.5 million, while the average value of inter-Member State payments increased by €0.3 million to €9.7 million.

The use of TARGET for *intra-Member State payments* varies considerably among the different national TARGET components. In some countries, TARGET is extensively used for low-value payments. RTGS systems that process high numbers of lower-value intra-Member State payments reduce the average

Chart 5 TARGET inter-Member State payments – value

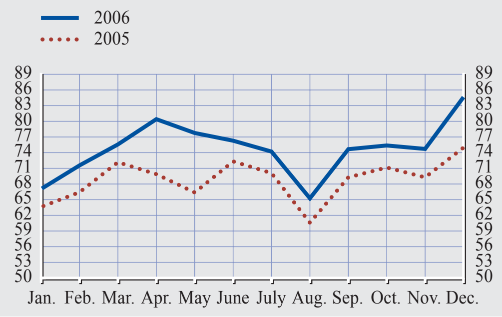
(daily averages per month, € billions)



Source: ECB.

Chart 6 TARGET inter-Member State payments – volume

(daily averages per month, thousands)



Source: ECB.

Table 7 TARGET inter-Member State customer payment value bands

(%)

	TARGET inter-Member State payments			
	≤ €50,000	> €50,000 ≤€1 million	> €1 million ≤€1 billion	> €1 billion
2005	85	12	3	< 0.1
2006	84	12	3	< 0.1

Source: ECB.

Table 8 TARGET inter-Member State interbank payment value bands

(%)

	TARGET inter-Member State payments			
	≤ €50,000	> €50,000 ≤€1 million	> €1 million ≤€1 billion	> €1 billion
2005	40	33	27	< 0.1
2006	42	31	26	< 0.1

Source: ECB.

value of intra-Member State payments for TARGET as a whole.

At the *inter-Member State level*, TARGET is typically used to process interbank payments related to money market transactions, securities settlement transactions, foreign exchange transactions and liquidity transfers resulting from the centralisation of liquidity management by multi-country banks. This explains the higher average value of interbank payments at the inter-Member State level.

Banks make full use of the last hour of operations to balance liquidity surpluses or deficits in the money market. This is reflected by the high average value of interbank payments settled in the last hour (between 5 and 6 p.m.) (see Statistical Annex 2, Chart 2.2).

PATTERN OF INTER-MEMBER STATE INTRADAY FLOWS

In 2006 TARGET processed a daily average *volume* of more than 18,000 inter-Member State payments in the first hour of operations (between 7 and 8 a.m.). Compared with 2005, this represents an increase of 9% (10% more customer payments and 7% more interbank payments), which is comparable to the overall increase in TARGET volume. Almost half the volume was processed in the first three hours of operations (between 7 and 10 a.m.). By 2 p.m.

Table 9 Average size of TARGET payments

(€ millions)

	2005					2006				
	Q1	Q2	Q3	Q4	Average	Q1	Q2	Q3	Q4	Average
TARGET overall	6.8	6.6	6.2	6.2	6.5	6.5	6.4	6.5	6.3	6.4
of which:										
Intra-Member State	5.9	5.7	5.3	5.3	5.6	5.6	5.4	5.5	5.3	5.5
Inter-Member State	9.4	9.3	9.4	9.3	9.4	9.6	9.6	9.9	9.7	9.7
of which:										
Interbank	18.0	18.3	18.3	18.7	18.4	19.2	19.1	20.0	20.0	19.6
Customer	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9

Source: ECB.

three out of four payments had already been processed. By the customer payment cut-off time (5 p.m.), 99.4% of the total volume had been processed. In terms of *value*, 21% of the inter-Member State turnover had been processed by 10 a.m. and 48% had been processed by 1 p.m. At 5 p.m. the ratio of processed payments was 93% of the total value (see Charts 7 and 8).

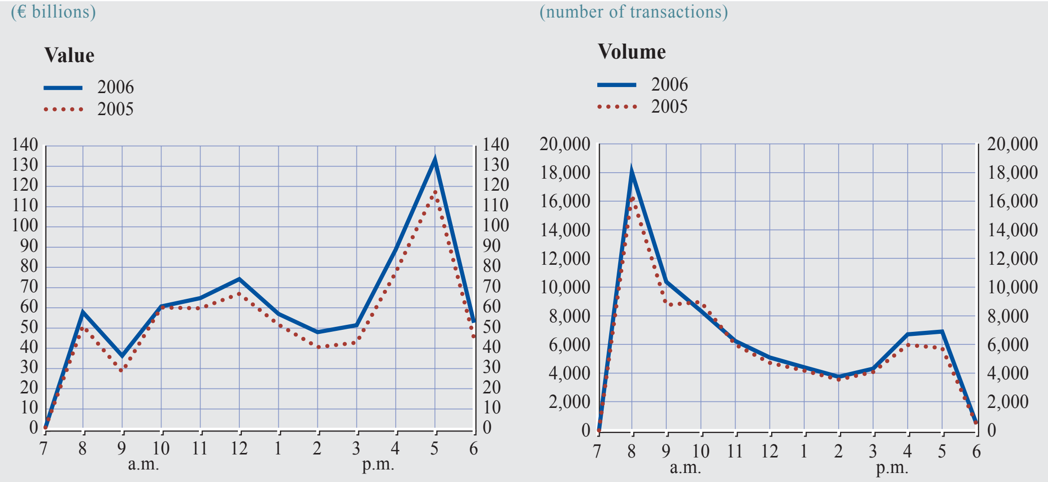
On an average day, the peak volume was processed between 7 and 10 a.m., and the peak value was processed between 4 and 5 p.m. In 2006 the peaks were comparable to 2005. This can be attributed to the fact that a high number of relatively low-value, "warehoused" payments from previous days are released in the morning. Towards the end of the day, by contrast, higher-value liquidity management transfers predominate.

The hourly average value of an inter-Member State interbank payment steadily increased throughout the day, from €7.0 million in the first hour of operations to €128.3 million in the last hour (see Statistical Annex 2, Chart 2.2). The high average value in the last hour of operations is a direct result of the liquidity shifts between banks that take place at that time. The average value of an inter-Member State customer payment rose from €0.2 million in the first two hours of operations, to €1.2 million in the last two hours before the customer payment cut-off time at 5 p.m. (see Statistical Annex 2, Chart 2.3). This suggests that the late high-value customer payments were mainly related to the cash management activities of corporate treasuries.

As in 2005, the analysis of intraday flows shows that credit institutions made TARGET payments early in order to provide the interbank market with sufficient liquidity and to ensure the coverage and sending of subsequent payments. Owing to TARGET's immediate and final settlement of individual payments, the liquidity of incoming payments can be reused to make outgoing payments, which considerably reduces overall liquidity needs. This is in line with the liquidity management guidelines issued by the European Banking Federation (EBF),[8] which have contributed greatly to the achievement of this pattern.

8 See the EBF's website (www.fbe.be).

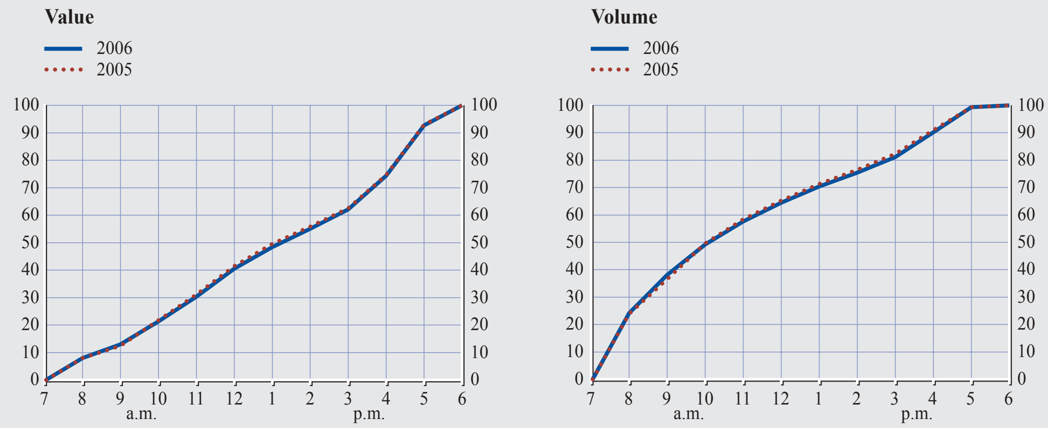
Chart 7 TARGET inter-Member State intraday payment pattern – value and volume



Source: ECB.

Chart 8 TARGET inter-Member State intraday payment pattern – cumulative value and volume

(%)



Source: ECB.

2 FLUCTUATIONS IN TARGET PAYMENT FLOWS[9]

Fluctuations in TARGET flows are triggered mainly by: (i) the settlement of periodical transactions (e.g. term deposits) at the end of each quarter, half year or year; (ii) public holidays in the United States; (iii) TARGET holidays; and (iv) major public holidays (not TARGET holidays) that are celebrated simultaneously in several euro area countries.

IMPACT OF PERIODICAL TRANSACTIONS

In 2006 fluctuations of TARGET flows stemming from periodical transactions were, like in previous years, observed on the last day of each quarter. On average on those days, TARGET grew by 28% in terms of value and 39% in terms of volume. This phenomenon is comparable to what was recorded in 2005.

The largest fluctuation resulting from periodical transactions at the TARGET *intra-Member State* level was recorded on 30 June (the last day of the half year), with a traffic increase of 31% in value and 40% in volume.

At the *inter-Member State level*, the greatest fluctuation attributable to periodical transactions was recorded on the last day of the third quarter, with a rise of 37% in value and 42% in volume.

9 Comparisons in this section are made with the daily average for 2005.

Table 10 Impact of periodical transactions on TARGET traffic

(% change on the last day of a quarter relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
Q1 2006	20	18	23	25	24	29
Q2 2006	32	31	35	40	40	41
Q3 2006	32	30	37	37	35	42
Q4 2006	26	27	24	53	57	39
Average	28	27	30	39	39	38

Source: ECB.

Table 11 TARGET traffic on US holidays

(% change on a US holiday relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
Birthday of Martin Luther King, Jr.	-3	2	-13	-6	-3	-19
Washington's Birthday	-18	-14	-27	-13	-10	-23
Memorial Day	-24	-14	-42	3	13	-29
Independence Day	-11	-8	-16	-8	-7	-14
Labor Day	-19	-13	-29	-16	-14	-23
Columbus Day	-11	-5	-21	-10	-7	-20
Thanksgiving Day	-13	-8	-22	-13	-11	-23
Average	-14	-9	-24	-9	-6	-22

Source: ECB.

IMPACT OF PUBLIC HOLIDAYS IN THE UNITED STATES

In 2006 US public holidays had a similar effect on TARGET, which as a whole experienced an average decrease in traffic of 14% in value terms and 9% in volume terms, compared with 12% and 9% respectively in 2005 (see Table 11). This, however, was to some extent compensated for by an average increase of 5% and 4% respectively on business days following these holidays (see Table 12).

On US public holidays, no EUR/USD foreign exchange transactions or USD securities transactions are settled. In addition, CLS-related payments are lower as CLS does not settle USD on these days. The reduction in TARGET traffic on US public holidays indicates the strong interrelationship between TARGET and the US financial market, especially for inter-Member State traffic, which seems very dependent on foreign exchange and securities settlement transactions. Nevertheless, the effect of US holidays has over the years diminished. This is particularly visible for inter-Member State volume which in 2003 decreased on average by 31% on a US holiday, while in 2006 the average decrease was only 22%.

Public holidays in other countries outside the euro area continued to have little impact on TARGET activity. For example, public holidays in the United Kingdom and Japan did not have a significant effect on TARGET payment flows.

IMPACT OF TARGET HOLIDAYS

TARGET holidays are non-settlement days for the euro money and financial markets, as well

Table 12 TARGET traffic on the business day after US holidays

(% change after a US holiday relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
Birthday of Martin Luther King, Jr.	10	11	8	-2	-6	11
Washington's Birthday	-7	-7	-6	-3	-6	4
Memorial Day	7	6	8	13	11	18
Independence Day	16	16	16	5	3	13
Labor Day	-4	-5	0	-3	-6	7
Columbus Day	10	9	13	7	5	13
Thanksgiving Day	4	3	4	11	9	17
Average	5	5	6	4	2	12

Source: ECB.

Table 13 TARGET traffic on the business day after TARGET holidays

(% change after a TARGET holiday relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
New Year's Day	-21	-9	-43	-24	-17	-49
Easter Monday	12	12	12	43	40	54
Labour Day	8	5	15	23	23	21
Christmas Day	0	8	-16	42	47	26
Average	0	4	-8	21	23	13

Source: ECB.

as for foreign exchange transactions involving the euro (see Box 1).

On the *business day following a TARGET holiday*, TARGET as a whole processed on average 21% more transactions without an increase in value. These deviations are different from those observed last year, which saw a 5% increase in traffic and a 5% decrease in value.

The most considerable deviation was, as in previous years, observed after the Easter weekend, when Good Friday and Easter Monday create a four-day holiday period. Likewise, in 2006 the Christmas holidays created a four-day holiday period. This also resulted in an increase in volume. Labour Day followed a weekend thus creating a three-day holiday period which also resulted in an increase in volume (see Table 13).

IMPACT OF REGIONAL PUBLIC HOLIDAYS ON TARGET

Public holidays which are observed in several euro area countries (e.g. Whit Monday, Ascension Day, Assumption Day) also had a significant impact on TARGET payment flows. *Before such days*, the impact on TARGET was very limited, but *on such days* the average decrease in payment flows was 22% in terms of value and 37% in terms of volume.

On average, such decreases were not compensated for by significant increases on the day after the regional public holiday (see Table 15). This can be attributed to a general reduction in economic and financial activity on these days, meaning that there was no need for TARGET to catch up on the following business day.

Public holidays in individual euro area countries hardly had any impact on TARGET flows in 2006.

Table 14 TARGET traffic on regional public holidays

(% change on a regional public holiday relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
Epiphany	-22	-28	-12	-41	-46	-24
Ascension Day	-25	-26	-22	-35	-37	-25
Whit Monday	-11	-12	-10	-35	-39	-24
Assumption Day	-30	-35	-22	-38	-39	-33
All Saints Day	-21	-27	-10	-37	-42	-23
Average	-22	-26	-15	-37	-41	-26

Source: ECB.

Table 15 TARGET traffic on the business day after regional public holidays

(% change after regional public holiday relative to 2006 daily average)

	Value			Volume		
	TARGET as a whole	Intra-Member State	Inter-Member State	TARGET as a whole	Intra-Member State	Inter-Member State
Epiphany	-3	-3	-2	-14	-15	-14
Ascension Day	-4	-3	-5	7	8	4
Whit Monday	-1	-1	-2	-2	-2	-4
Assumption Day	-9	-10	-9	-19	-18	-23
All Saints Day	7	7	8	6	8	0
Average	-2	-2	-2	-5	-4	-7

Source: ECB.

PEAK DAYS IN TARGET

In 2006 the *highest volume* on a single day in *TARGET as a whole* was recorded on 27 December, with 553,962 processed payments, i.e. an increase of 30% relative to the peak day in 2005. The *highest value* on a single day in *TARGET as a whole* was recorded on 30 June, at a total of €2,772 billion.

Intra-Member State flows also peaked in terms of *volume* at 453,945 payments on 27 December 2006, an increase of 37% versus the peak day in 2005. In terms of *value*, they reached a peak on 30 June at a total of €1,794 billion.

Inter-Member State flows reached an all-time high in terms of *volume* at 115,002 payments, an increase of 16% versus the peak day in 2005, on 18 April 2006, the day after the Easter holidays. In terms of *value*, inter-Member State flows peaked on 29 September at a total of €993 billion.

The number of peak days in 2006 in terms of volume was exceptional: the volume record for 2005 for TARGET as a whole was broken ten times in the course of the year.

The *lowest volume* on a single day for *TARGET as a whole* was recorded on 5 January, when a

Box 2

TARGET LONG-TERM CALENDAR APPLIED IN 2006

The definition of TARGET closing days determines the value dates of the euro in the financial markets. TARGET closing days are non-settlement days for the euro money market and for foreign exchange transactions involving the euro. On these days, no standing facilities are available at the NCBs, the euro overnight index average (EONIA) is not published, and the correspondent central banking model (CCBM) for the cross-border use of collateral does not operate.

To avoid frequent changes to TARGET closing days and thus to avoid introducing uncertainties into the financial markets, a long-term calendar for TARGET closing days was established and has been applied since 2002. TARGET as a whole (i.e. including all national components) is closed, in addition to Saturdays and Sundays, on New Year's Day, Good Friday, Easter Monday, 1 May (Labour Day), Christmas Day and 26 December.

Table 16 Peak days in TARGET

	2005		2006	
€ billions				
TARGET as a whole	2,743	30 June	2,772	30 June
Intra-Member State	1,874	30 Nov.	1,794	30 June
Inter-Member State	900	30 June	993	29 Sep.
Number of payments				
TARGET as a whole	424,805	30 Sep.	553,962	27 Dec.
Intra-Member State	330,335	30 Sep.	453,945	27 Dec.
Inter-Member State	98,822	29 Mar.	115,002	18 Apr.

Source: ECB.

total of 193,725 payments were processed (41% below the daily average). The *lowest value* on a single day for *TARGET as a whole* was recorded on 15 August (Assumption Day), with a total turnover of €1,461 billion (€631 billion below the daily average).

3 INTERBANK STRAIGHT-THROUGH PROCESSING

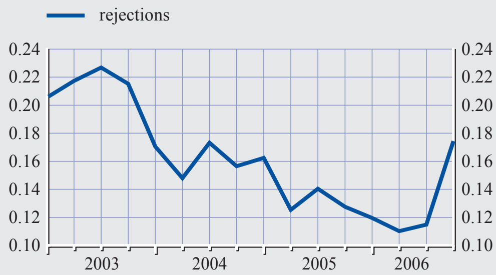
TARGET enables fully automated straight-through processing (STP) of inter-Member State interbank payments in the EU (i.e. from the debiting of the ordering bank's account through to the crediting of the receiving bank's account). STP rules in TARGET are viewed as a way of facilitating further automation of payment message processing, thus reducing the associated costs and risks.

TARGET uses the relevant SWIFT message types (MT103, MT103+ and MT202), which have been tailored to STP practices. The very low rate of payments rejected at the inter-Member State level proves the readiness and capability of TARGET users to support STP. In 2006 the rejection rate was further reduced to around 0.13% (down from 0.14% in 2005) of the total number of TARGET inter-Member State payments sent. This means that, on average, only 97 out of 74,580 inter-Member State payments per day had to be returned to the sending bank (see Chart 9). The increase in the final quarter, especially in December, can be attributed to a high number (72 a day) of rejections in Sweden where participants closed their TARGET connection in anticipation of Sveriges Riksbank's withdrawal from TARGET on 29 December 2006. Without this distortion the percentage would have probably remained around 0.1%.

Another indicator of the increased willingness of banks to support EU-wide STP is the use of the customer payment message type MT103+ in TARGET. MT103+ was introduced by SWIFT in November 2000 and was immediately available in TARGET. It is the STP version of the MT103 message, enhanced to comply with recent STP practices and to offer the recipient a higher level of assurance that the message can be processed without costly manual intervention. In particular, MT103+ requires the International Bank Account Number (IBAN) of the beneficiary and the Bank Identifier Code (BIC)

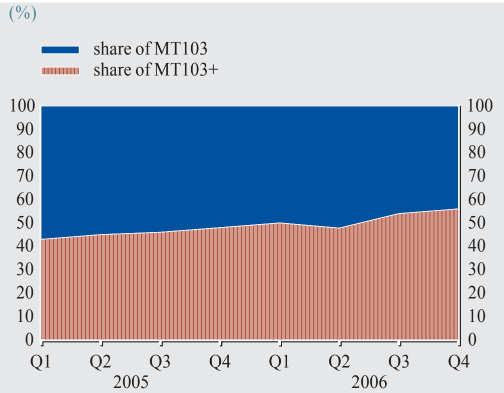
Chart 9 Rejections in TARGET

(as a percentage of total inter-Member State volume between 2003 and 2006)



Source: ECB.

Chart 10 TARGET inter-Member State payment volume per customer message type



Source: ECB.

of the beneficiary's institution. European banks, which were at the time under pressure from both public authorities and the competitive environment to reduce the price of cross-border retail transactions in euro, found the MT103+ message a useful tool in their efforts to achieve STP. In 2006 the share of MT103+ in TARGET inter-Member State customer payments increased from 50% in the first quarter to 56% in the fourth quarter[10] (see Chart 10). The ECB will monitor future developments in the share of MT103+ in TARGET in order to obtain an idea of the progress being made towards pan-European STP.

10 The IBAN was created to identify uniquely the account of a customer at a financial institution.

CHAPTER II

ROBUSTNESS, RESILIENCY AND OVERSIGHT

TARGET is the RTGS system for the settlement of large-value payments in euro. Given that service interruptions, poor performance or a low security level in payment processing could have an immediate negative impact on the system's stability, on the euro area money market and ultimately on the single monetary policy, the Eurosystem strives to ensure:

(i) a very high operating level in terms of TARGET availability and short processing times (as measured by the business performance indicator, for example);

(ii) the secure processing of payments in TARGET (including protection against any type of threat); and

(iii) compliance with the internationally agreed Core Principles for Systemically Important Payment Systems.

1 TARGET SERVICE LEVEL AND AVAILABILITY

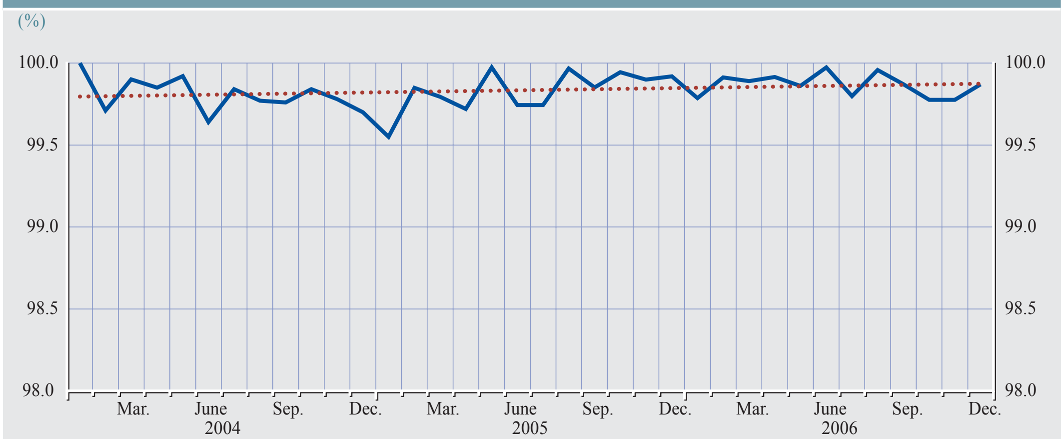
The overall availability of TARGET was 99.87% in 2006 compared with 99.83% in 2005 (see Chart 11). In addition to the overall figure for TARGET, this report provides the availability figures for each national TARGET component (see Statistical Annex 4). This means that, since its start-up in 1999, TARGET has from year to year improved its availability rate.

To give an idea of the real-time processing capability of TARGET, it is helpful to examine the time needed to process a payment. In the year under review, 96.75% of TARGET inter-Member State payments were processed in less than five minutes (compared with 95.60% in 2005), 2.67% were processed in 5 to 15 minutes (3.58% in 2005), and 0.46% were processed in 15 to 30 minutes (0.40% in 2005). The processing time only exceeded 30 minutes in the case of 0.11% of the payments or only 82 payments per day, which should be seen in the context of the 74,580 inter-Member State payments processed on average every day (see Chart 12).

A total of 62 incidents were recorded within the national TARGET components in 2006, an overall decrease of 37% in comparison with the 99 incidents recorded in 2005. The main cause of incidents can be linked to software component failures, as before. One of these incidents had a severe impact on the payment processing capabilities of national TARGET components:

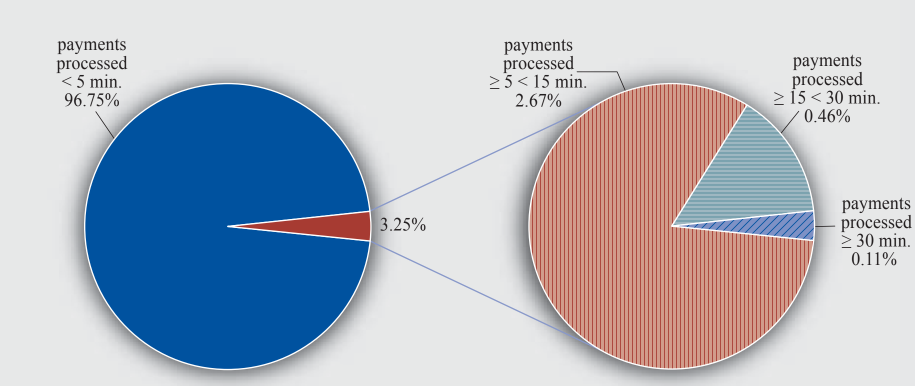
– On 16 October between 3.39 p.m. and 5.50 p.m. the Austrian TARGET component

Chart 11 TARGET availability



Source: ECB.

Chart 12 TARGET inter-Member State payment processing times



Source: ECB.

experienced a software problem at network level. As a consequence the closing of TARGET was delayed by half an hour.

During this and all other incidents, appropriate contingency measures and well-trained staff ensured that all (very) critical payments were processed successfully. In addition, the

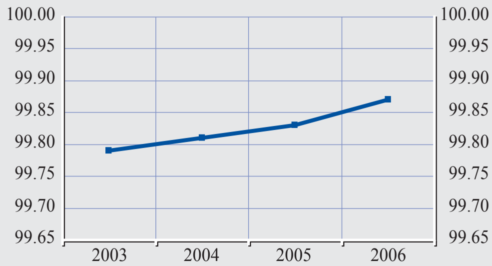
Box 3

EVOLUTION OF TARGET'S RELIABILITY SINCE 2003

To ensure the highest possible reliability, business continuity and contingency measures are in place in all national TARGET components. The risk management framework developed for TARGET in 2003 requires each of them to be able to switch to a secondary site and to continue operations normally from there within the shortest time possible. This framework as well as the regular trialling of the contingency arrangements contributed to a significant improvement of TARGET availability as shown in Chart A.

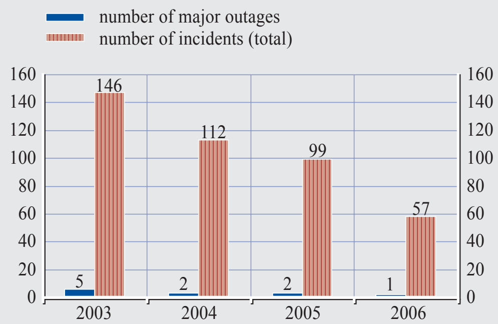
Chart A TARGET availability

(%)



Source: ECB.

Chart B TARGET incidents and major outages



Source: ECB.

Chart B is another illustration of TARGET's improving reliability. It shows the total number of TARGET incidents having an effect on TARGET availability within a year, as well as the number of major outages which had a severe impact on payment processing and led to a delay of TARGET closing.

Eurosystem's standing facilities were available to TARGET participants to support their liquidity management if necessary. Following these incidents, appropriate corrective measures were implemented with the aim of preventing these kinds of interruptions from happening in the future.

To help users cope with TARGET incidents, the ECB publishes up-to-date information about the availability of all national TARGET components by means of the TARGET Information System (TIS) (see Box 4).

2 TARGET BUSINESS CONTINUITY AND CONTINGENCY MEASURES

Business continuity and contingency measures are in place both in TARGET and in all its local components. TARGET business continuity requires each local component to be able to switch to a secondary site and to continue operations normally from there within the shortest time possible should a failure occur at the primary site. Contingency processing tools have been established to cope with temporary problems where a switchover to a secondary site would take too long or where both sites would be temporarily affected. These were implemented when TARGET started operating and have been further enhanced since then. The aim of these contingency measures is to ensure that all payments needed to avoid systemic risk can be processed in all circumstances. Box 5 looks at those TARGET payments considered to be systemically important.

As in previous years, regular trials were carried out in 2006 in order to verify that TARGET business continuity and contingency measures are fully operational, and that staff are familiar with them. Credit institutions often participate in these trials.

In the reporting period, the Eurosystem, in cooperation with the banks, improved the management of incidents that might occur during the last two hours of TARGET business. This period is critical for the banks because of the settlement of the EURO1 system, the cut-off for customer payments (5 p.m.) and the balancing of liquidity positions. Any operational disturbances could have a negative impact on liquidity distribution and thus the money market rates. In addition, poorly managed

Box 4

THE TARGET INFORMATION SYSTEM

The TARGET Information System (TIS) provides standardised information on the operational status of the TARGET system via two data vendors (Reuters and Bloomberg)[1]. The TIS information is input by the ECB and simultaneously communicated by both data vendors.

The TIS supplements the communication channels that already exist at the domestic level. The information is accessible to TARGET participants with access to these information services.

1 Reuters, p. ECB46; and Bloomberg p. ECB17.

Box 5

THE CONCEPT OF (VERY) CRITICAL PAYMENTS

From the wide range of payments processed in TARGET, the Eurosystem – with the support of the European banking industry – first identified the types of payments it considered to be systemically important, i.e. payments that could trigger systemic risk if unprocessed or processed behind schedule. Depending on whether this risk could be caused on a global or a euro area scale, the Eurosystem, again with the support of the European banking industry, then further classified such payments as either "very critical" or "critical". The identified payment types were categorised as follows:

Very critical payments:	CLS-related payments;
Critical payments:	Payments related to monetary policy and intraday credit transactions; payments needed for settling in systemically important payment systems (such as EURO1, PNS, SPI and POPS); as well as payments needed for settling in securities clearing and settlement systems. In addition, start/end-of-day liquidity transfers to/from EU countries which have not yet adopted the euro are considered to be critical, as well as intra-bank liquidity transfers equal to or above €100 million.

As a minimum, the TARGET contingency measures have to be able to cope with all these types of payments. Such contingency payments are processed either partially or totally outside the normal TARGET infrastructure, using effective technical means and procedures.

incidents at this critical time could affect the reliability of the system. In collaboration with the banks, the Eurosystem therefore drew up an incident management framework which addresses the needs of both the NCBs and the commercial banks. The core element of the new framework is that the possible actions of the Eurosystem are much more transparent for the banks. Should an incident occur, its possible impacts are more predictable for TARGET users, which reduces the risk of an erratic market reaction.

COOPERATION WITH TARGET USERS AND OTHER RTGS SYSTEM OPERATORS

TARGET business continuity and contingency measures form an important interface between TARGET and its users, and their effective functioning requires close cooperation and a sound understanding on the part of the latter. In 2006 the Eurosystem continued its dialogue with TARGET users at both the national and the European level. As the above example of cooperation on incident management shows, this initiative was very fruitful and helped to strengthen further TARGET operations.

TARGET business continuity and contingency issues are not just internal to the euro area, as settlement problems in currencies other than the euro might also have negative knock-on effects on the euro area. In particular, the global reach of CLS has created a direct link between different currencies that, if not appropriately addressed, could potentially lead to contagion. In 2006 the operators of the RTGS systems of currencies eligible for CLS tested the communication channel that allows RTGS system operators to communicate irrespective of time and language differences. Furthermore, to take into account the new currencies that became CLS-eligible in 2006, the communication tool was extended to the respective RTGS systems.

CONTINUOUS LINKED SETTLEMENT

Continuous Linked Settlement (CLS) is a system designed for the settlement of foreign exchange (FX) transactions.[11] CLS largely eliminates FX settlement risk by settling FX transactions in its books on a payment versus payment (PvP) basis. The remaining balances of the CLS settlement members in the books of CLS Bank (CLSB) are squared by pay-ins and pay-outs in central bank money for each of the eligible currencies.

The processing of CLS payments introduced a new criticality into TARGET, as delays in their processing could cause systemic risk on a global scale. Although the TARGET contingency measures proved to be operationally capable of processing CLS payments in unusual circumstances, a framework of supporting business practices was required. In order to develop such a framework and to raise credit institutions' awareness of the issue, in February 2001 the ECB issued recommendations for CLS payments in euro with the objective of ensuring the processing of CLS euro payments, even in contingency situations. As late CLS payments could trigger systemic risk and knock-on effects in other currency areas, their timely processing is of the utmost importance. The recommendations and the explanatory memorandum are available on the ECB's website (www.ecb.int).

In 2006 euro area credit institutions closely followed the recommendations. This, together with the established and trialled contingency measures, enabled the smooth processing of CLS-related payments, even in the event of an incident in the early hours of TARGET operations, and prevented any incident in the euro area from spilling over to other currencies.

3 TARGET RISK MANAGEMENT

Security and operational reliability are key assets of the TARGET system that need to be suitably protected. In order to meet this objective, a comprehensive risk management framework has been put in place for the TARGET system. This framework comprises, inter alia, a fact-finding analytical part as well as dynamic elements to ensure that the security of the system is continuously monitored and maintained.

The first part was accomplished by conducting an assessment of the risk profile of the 16 TARGET components towards the end of 2003. Work on security issues performed since then has centred on implementing additional safeguard measures, monitoring the effectiveness of existing controls, learning from incidents that affected system availability, and identifying new threats to the system.

The consistent use of the dynamic modules and processes of the TARGET risk management framework assure users that the overall security situation in TARGET will be kept at a satisfactory level.

4 TARGET OVERSIGHT

The Eurosystem, in its capacity as overseer of euro payment systems, has a well-established TARGET oversight function. Since the Eurosystem both operates and oversees TARGET, rigorous organisational and procedural measures ensuring the strict separation of the two functions and avoiding any conflicts of interest are in place and monitored regularly. Furthermore, with a view to ensuring a level playing-field between payments infrastructures run by the Eurosystem itself and those operated by the private sector, the Eurosystem applies the same oversight standards and assessment methodology for similar types of systems.

11 The eligible currencies that are currently settled are AUD, CAD, CHF, DKK, EUR, GBP, HKD, JPY, KOW, NOK, NZD, SEK, SGD, USD and ZAR.

The conduct of TARGET oversight is based on a sophisticated oversight framework, including a detailed assessment methodology and formalised procedures agreed at the Eurosystem level. In this way, there is a stable basis for the consistent performance of the TARGET oversight function across the Eurosystem and the various national TARGET components.

The scope of oversight activities covering the current TARGET system comprises the entire network of national TARGET components and the ECB Payment Mechanism (EPM). In line with the decentralised structure of TARGET, the participating NCBs are responsible for the oversight of their respective national RTGS system, whereas the ECB oversees the EPM. These activities are coordinated at the ESCB level. In order to take into account the technically consolidated nature of TARGET2, the ECB has been assigned by the decision-making bodies of the ECB to lead and coordinate all TARGET2 oversight activities.

TARGET OVERSIGHT ACTIVITIES

REGULAR MONITORING

The oversight activities related to the current TARGET system focused on the regular monitoring of the sound functioning of the system. In the light of this, the overseers analysed significant incidents and their possible impact on the security and operational reliability of the system as a whole. The oversight function concluded that all incidents have been properly followed up by the TARGET operation function and that there has been no adverse impact on the TARGET system's observance of the Core Principles.

EESTI PANK'S EURO RTGS

Following Eesti Pank's application for an early connection of its euro RTGS system (EP RTGS) to the existing TARGET system via the Banca d'Italia and its BIREL system, the assessment of EP RTGS against the Core Principles as well as the assessment of BIREL's continued compliance with the Core Principles was performed. Apart from some minor deficiencies identified in relation to the legal soundness, the business continuity arrangements and the cost methodology of the system, EP RTGS was assessed as having achieved a high level of observance of all relevant Core Principles. BIREL's level of observance of the relevant Core Principles has not been adversely affected by the connection of EP RTGS. The connection of EP RTGS to TARGET started smoothly on 20 November 2006.

TARGET2 OVERSIGHT ACTIVITIES

Besides monitoring the development of the TARGET2 system, the TARGET oversight function followed with continuous attention the progress made in the implementation of the TARGET2 project.

Following the implementation of the general organisational framework for the TARGET2 oversight activities, the ECB has been leading and coordinating all TARGET2 oversight activities. The oversight assessment of TARGET2 is based on a two-step approach. As a first step, the TARGET2 oversight function prepared a preliminary oversight opinion on the TARGET2 design (PREOPI). The main objective of the PREOPI was to identify already at an early stage those aspects of the TARGET2 design that may result in a reduced level of observance of one or more of the Core Principles. The preliminary oversight opinion relied on an extensive analysis of the available TARGET2 documentation, including the User Detailed Functional Specifications (UDFS), the draft security requirements and controls (T2SRC) and the relevant decisions of the Governing Council. It covered all applicable Core Principles (in the case of TARGET2, all Core Principles but Core Principle V are applicable). The preliminary oversight opinion was discussed with the TARGET2 operation function in order to enable them to address properly the oversight findings prior to the going-live of the system.

As a second step, a fully fledged oversight assessment will be performed before TARGET2 goes live. In the meantime, the TARGET oversight function will continuously monitor in close contact with the TARGET operators the implementation of solutions addressing the findings of the PREOPI.

CHAPTER III

TARGET DEVELOPMENTS

In 2006 preparations continued for TARGET2, the new generation of TARGET, which is scheduled to go live in November 2007. NCBs and credit institutions will have to prepare thoroughly for this migration. In the meantime, the performance of the current system has to be maintained at a high level.

1 ENLARGEMENT OF THE EUROPEAN UNION

On 24 October 2002 the Governing Council of the ECB decided that, after joining the EU, the NCBs of the new Member States would be given the same rights and obligations with regard to TARGET connection as the current non-euro area NCBs. Different technical options for such connections, including variants avoiding the need for individual euro RTGS platforms, have been elaborated and presented to the NCBs of the new Member States on a "no compulsion, no prohibition" basis. Only when new Member States join the euro area will connection to TARGET become mandatory.

Following Narodowy Bank Polski's connection to TARGET via the Banca d'Italia's RTGS system in 2005, on 20 November 2006 Eesti Pank's euro RTGS system was also connected to TARGET via the Banca d'Italia's system. In view of Slovenia's entry into the euro area in January 2007, Banka Slovenije decided, for efficiency reasons, not to develop its own euro RTGS system, but to use the RTGS system of the Deutsche Bundesbank to connect to TARGET. Banka Slovenije commenced operations as a member of the Eurosystem on 2 January 2007.[12]

Other new Member States will be able to use the Single Shared Platform (SSP) of TARGET2, which is due to begin operations in November 2007, without prior connection to the present TARGET system. However, the Eurosystem and the NCBs of the new Member States are preparing fallback solutions to bridge the possible period between new Member States joining the euro area and the availability date of TARGET2.

Following its decision not to join TARGET2, in 2006 Sveriges Riksbank prepared for the disconnection of its TARGET component, E-RIX, effective as of 2 January 2007. Swedish participants largely anticipated the disconnection before the end of the year and prepared alternative ways to remain connected to TARGET (e.g. either as a direct participant via another central bank, as an indirect participant or through correspondent banking).

2 TARGET2

OBJECTIVES

Since its inception TARGET has formed a benchmark for processing euro large-value payments in terms of speed, reliability, opening times and service level, and has contributed to the integration of financial markets in Europe by providing its users with a common payment and settlement infrastructure. However, the environment in which TARGET operates has changed and continues to do so. Technological developments as well as the fast-moving process of European integration have triggered requests from users for an enhanced and harmonised level of services.

Consequently, in October 2002 the Governing Council of the ECB decided to develop the next generation of TARGET (TARGET2) in order to better meet user needs by:

- providing homogeneous services across countries with a single price structure;
- ensuring cost-efficiency; and
- preparing for future developments, including the enlargement of the euro area.

The Eurosystem has been developing the features and services of TARGET2, which have been defined in close cooperation with TARGET users. In 2006 the Governing Council announced

12 Slovenian banks have been able to use TARGET since July 2005 by means of remote access to the German TARGET component.

that preparatory work was proceeding as envisaged and confirmed 19 November 2007 as the starting date for TARGET2. It also gave the dates for the two subsequent migration waves (18 February and 19 May 2008), after which all central banks and TARGET users will have migrated to TARGET2.

MAIN FEATURES

In TARGET2, the decentralised structure of the current TARGET system will be replaced by a single technical platform, the so-called Single Shared Platform (SSP). The launch of TARGET2 will introduce an even more uniform wholesale payment infrastructure and is expected to facilitate the accomplishment of the three objectives mentioned above. A partnership between the Deutsche Bundesbank, the Banque de France and the Banca d'Italia (also known as the "3CB") is responsible for building the single technical platform for TARGET2 on behalf of the Eurosystem and will be in charge of its daily running. Regardless of the single technical platform, it is from a legal point of view a matter of different systems, i.e. each NCB will continue to manage the business relationships with its local clients, including monetary policy and lender of last resort relationships.

A harmonised service level will be offered to TARGET2 participants ensuring a level playing-field for banks across Europe. A single price structure will apply to both domestic and cross-border transactions. Moreover, TARGET2 will provide a harmonised set of cash settlement services in central bank money for all kinds of ancillary systems (ASs), such as retail payment systems, money market systems, clearing houses and securities settlement systems. The main advantage for ASs is that they will be able to access any account in TARGET2 via a standardised interface. While there are currently more than 70 ASs, each settling in its own way, TARGET2 will offer six generic procedures for the settlement of ASs (two real-time and four batch procedures), thus providing for a substantial harmonisation of current practices.

The new functionalities of TARGET2 will enable the banks, in particular the multi-country ones, to consolidate their internal processes such as treasury and back office functions, and to better integrate their euro liquidity management. For example, participants will be able to group some of their accounts and pool the available intraday liquidity for the benefit of all the members of the group. Within a group of accounts, group pricing will apply, which means a degressive transaction fee will be applied to all payments of the group as if they were sent from one account.

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

TARGET2 will use the SWIFT services (FIN, InterAct, FileAct and Browse) to enable standardised processing of payments and communication between the system and its participants. Each direct participant will be able to submit and receive payments on its own behalf or on behalf of other institutions via the payments interface.

The availability of sufficient liquidity is of high importance for the execution of payments. The following sources of liquidity can be used in TARGET2: balances on RTGS accounts, provision of intraday credit and offsetting payment flows (i.e. use of algorithms to settle a number of queued payments). As in the current TARGET system, intraday credit will be granted to participants against eligible collateral by the respective national central bank.

In order to make optimal use of the available liquidity, there will be three different payment priorities (normal, urgent and highly urgent) and it will be possible for participants to reserve liquidity for urgent and highly urgent payments as well as to dedicate liquidity to the settlement of ancillary systems. Participants will also be able to define bilateral and multilateral sender limits and to actively manage their payment queues (e.g. by changing the priority or the order of queued transactions). Furthermore, the increased time criticality of payments will be taken into account by enabling the submission of timed transactions, such as those needed in the context of CLS.

Via the Information and Control Module (ICM), direct TARGET2 participants will have access to comprehensive online information and easy-to-use control measures to suit their individual business needs. In particular, the ICM will provide participants with a "single window access" to the Payments Module (PM) and, depending on whether the central bank in question decides to use the optional services available in TARGET2, participants will also have access via the ICM to the Home Accounting, Reserve Management and Standing Facilities Modules.

The resiliency and business continuity concept of TARGET2 is based on a multi-region/multi-site architecture. For the payment processing and accounting services there will be two regions. In each region, there will be two distant sites. This will be combined with the principle of region rotation in order to ensure the presence of skilled staff in both regions. TARGET2 will be based on a state-of-the-art business continuity concept in order to be able to cope with failures that require immediate on-site recovery, as well as with failures that require a switch to a different region. During the time needed for the activation of the alternate site/region, the Contingency Module (CM) can be used to settle (very) critical payments. The CM will be used by each central bank for its own credit institutions and ancillary systems.

FUNCTIONAL SPECIFICATIONS

An interim version of the User Detailed Functional Specifications (UDFS) was published on the TARGET2 website at the end of August 2006. After settling all remaining issues, Version 2.2 of the UDFS was made available to users on 31 January 2007.

TARGET2 CORE PRICING SCHEME

The Governing Council agreed in October 2005 on the envisaged pricing scheme for the TARGET2 core service, on which the banking community was consulted. In general, the Eurosystem received a positive response to its proposals. Nevertheless, larger banks expressed the view that prices were too high and there was a general feeling that this applied in particular to liquidity pooling services. Some banks operating in more than one country requested the option of group pricing (i.e. the volumes of the head office would be merged with the volumes of the branches and subsidiaries to lower the average price per transaction).

Considering these comments and the expected higher cost coverage implied by updated volume estimates, the Governing Council decided in July 2006 to add another value band to the degressive pricing scheme of €0.125 for all transactions settled by a participant above a volume of 100,000 transactions per month. The amendment lowers the average price for very large participants which contribute most to the volume of TARGET2. It will therefore create an additional incentive for them to channel traffic through TARGET2.

The flat fee option for smaller banks is kept unchanged. However, should TARGET2 revenues be higher than expected, smaller banks would be offered a slightly lower fee in the following years.

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

Table 17 Pricing scheme for the TARGET2 core service

Option A			
Monthly fee			€100
Flat transaction fee			€0.80
Option B			
Monthly fee			€1,250
	Volume		
Band	from	to	Price
1	1	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

Source: ECB.

It should be noted that central banks will charge their indirect participants at least the price that they would be charged if they were direct participants, in order to avoid the development of local RTGS systems at national level. In line with the policy on home accounts (see the Second Progress Report on TARGET2), payments settled on home accounts will be charged above the TARGET2 fee (i.e. above €100 + €0.80 per transaction).

MIGRATION

The migration to the new system will be split into three waves, each consisting of a group of national banking communities, with an additional wave being reserved for contingency purposes only (see Table 18). The planned dates of each migration wave are as follows: 19 November 2007, 18 February 2008, 19 May 2008 and – in the event that the contingency window has to be activated – 15 September 2008.

In December 2006 the Eurosystem published enhanced national migration profiles (NMPs), which describe the set-up from the central bank side as from the date they connect to TARGET2 (including the optional modules they use). The NMPs also provide a list of expected changes during the four-year transition period.[13]

Table 18 Composition of migration groups and changeover dates

Group 1 19 Nov. 2007	Group 2 18 Feb. 2008	Group 3 19 May 2008	Group 4 15 Sep. 2008
Austria	Belgium	Denmark	
Cyprus	Finland	Estonia	
Germany	France	ECB	*Reserved*
Latvia	Ireland	Greece	*as a*
Lithuania	Netherlands	Italy	*contingency*
Luxembourg	Portugal	Poland	
Malta	Spain		
Slovenia			

Source: ECB.

An ad hoc joint group composed of central bank and bank representatives was set up in the course of the summer to discuss testing and migration-related issues. In particular, this group is giving due consideration to the specific situations faced by multi-country players in the context of the migration by country wave.

TESTING

On 5 November 2006 test requirements and associated procedures for users' technical certification were published on the TARGET2/NCBs' websites. It covered the first two phases of user certification, namely connectivity and interoperability tests. Testing activities are planned to start upon central banks' internal acceptance in February 2007. Testing will then be carried out with TARGET2 users according to the migration waves from 2 May 2007 onwards. While users belonging to the first migration group will be working to a tight time frame, those in subsequent migration groups will have several months more to complete their tests.

13 Transactions between market participants and transactions stemming from the settlement of ancillary systems, as well as payments related to open market operations, should ultimately be settled in the Payments Module (PM) of the SSP. However, for those types of transactions the domestic set-up in some countries may not allow these operations to be immediately shifted to the SSP at the start of its operations. As a result, the Eurosystem has agreed on a maximum transition period of four years (from the moment the relevant NCB joins the SSP) for settling these payments in the PM of the SSP.

OPERATIONAL DAY

The operational day of TARGET2 will be longer than that of the current TARGET system. TARGET2 will start the new business day on the evening of the previous business day. The night-time window[14] will be available from 7.30 p.m. to 6.45 a.m. the next business day, with a technical maintenance period of three hours between 10 p.m. and 1 a.m. The night-time window is expected to 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.

The Governing Council of the ECB 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. It should be noted that the Eurosystem might implement restrictions on night-time settlement through operational procedures at a later stage.

OTHER ISSUES

The work already started by the Eurosystem on contractual and other legal issues related to TARGET2 and the business framework (e.g. the risk management framework, contingency arrangements and interaction with ancillary systems) should be completed in the course of 2007.

The Eurosystem will continue its fruitful dialogue and close cooperation with the TARGET community for the remainder of the project, and will report regularly on the progress made.

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

Table 19 Operational day of TARGET2

Time	Description
6.45 a.m. - 7 a.m.	Business window to prepare day-time operations.
7 a.m. - 6 p.m.	Day trade phase.
5 p.m.	Cut-off for customer payments.
6 p.m.	Cut-off for bank-to-bank payments.
6 p.m. + 15 min.	General cut-off for the use of standing facilities.
6 p.m. + 30 min.	Cut-off for the use of standing facilities on the last day of a minimum reserve period.
(shortly after) 6.30 p.m. 1)	Data to update the accounting system available for central banks.
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.
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 three hours. The system is shut down.
1 a.m. - 6.45 a.m.	Night-time processing (ancillary system settlement procedure 6).

1) 15 minutes later on the last day of the minimum reserve period.

ANNEXES

1 TARGET STATISTICS

It should be noted that the statistics on domestic payments collected by the NCBs reflect the different practices followed with regard to the use of RTGS systems: some NCBs included transactions related to intraday credit, liquidity transfers, central bank operations and the settlement of ancillary systems, whereas others did not. Therefore, caution is recommended when comparing the number and value of domestic payments processed by the different national TARGET components. With the introduction of TARGET2, the successor system of TARGET, these restrictions will disappear.

CONTENTS OF THE STATISTICAL ANNEX

I DISTRIBUTION OF PAYMENT FLOWS IN TARGET

Table I.1 Distribution of payment flows in TARGET – 2005

	Total				Intra-Member State				Inter-Member State			
	Value [1]	%	Volume	%	Value [1]	%	Volume	%	Value [1]	%	Volume	%
ARTIS (AT)	6,974.3	1.4	2,931,421	3.8	3,529.5	1.1	2,387,796	4.1	3,444.8	2.1	543,625	3.1
ELLIPS (BE)	17,268.3	3.5	1,766,576	2.3	3,685.1	1.1	826,935	1.4	13,583.2	8.2	939,641	5.3
RTGS^{plus} (DE)	138,497.6	28.3	35,773,093	47.0	97,203.1	30.0	30,751,752	52.6	41,294.5	25.0	5,021,341	28.4
KRONOS (DK)	3,774.1	0.8	105,754	0.1	29.7	0.0	7,885	0.0	3,744.4	2.3	97,869	0.6
SLBE (ES)	74,856.9	15.3	6,760,959	8.9	69,015.7	21.3	5,898,755	10.1	5,841.2	3.5	862,204	4.9
EPM (ECB)	3,802.3	0.8	39,622	0.1					3,802.3	2.3	39,622	0.2
BOF-RTGS (FI)	3,235.9	0.7	291,948	0.4	1,479.3	0.5	144,163	0.2	1,756.6	1.1	147,785	0.8
TBF (FR)	121,913.6	24.9	4,323,477	5.7	97,757.7	30.2	2,172,901	3.7	24,155.9	14.6	2,150,576	12.2
CHAPS Euro (GB)	37,786.9	7.7	5,082,598	6.7	8,915.5	2.8	1,484,175	2.5	28,871.4	17.5	3,598,423	20.3
HERMES (GR)	5,615.9	1.1	1,394,138	1.8	3,158.0	1.0	1,078,621	1.8	2,457.9	1.5	315,517	1.8
IRIS (IE)	5,607.4	1.1	1,098,317	1.4	2,779.2	0.9	672,831	1.2	2,828.1	1.7	425,486	2.4
BI-REL (IT) [2]	32,822.9	6.7	10,384,356	13.6	22,472.6	6.9	8,411,253	14.4	10,350.3	6.3	1,973,103	11.2
LIPS-Gross (LU)	6,638.1	1.4	516,943	0.7	2,735.9	0.8	109,567	0.2	3,902.3	2.4	407,376	2.3
TOP (NL)	24,571.5	5.0	4,488,897	5.9	9,781.6	3.0	3,694,950	6.3	14,789.9	9.0	793,947	4.5
SORBNET EURO (PL) [3]	78.8	0.0	13,979	0.0	0.3	0.0	4,700	0.0	78.5	0.0	9,279	0.1
SPGT (PT)	3,449.0	0.7	1,085,727	1.4	1,490.8	0.5	809,477	1.4	1,958.2	1.2	276,250	1.6
Euro RIX (SE)	2,086.3	0.4	106,776	0.1	55.3	0.0	16,431	0.0	2,031.0	1.2	90,345	0.5
	488,900.9	100	76,150,602.0	100	324,088.9	100	58,467,492.0	100	164,812.0	100	17,683,110.0	100

Table I.2 Distribution of payment flows in TARGET – 2006

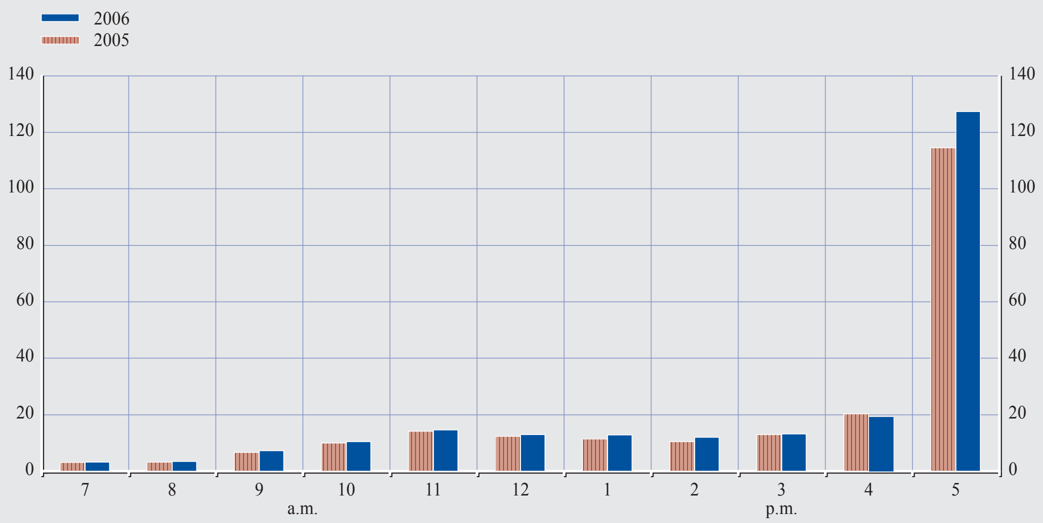
	Total				Intra-Member State				Inter-Member State			
	Value [1]	%	Volume	%	Value [1]	%	Volume	%	Value [1]	%	Volume	%
ARTIS (AT)	7,878.5	1.5	3,333,530.0	4.0	4,188.1	1.2	2,786,919	4.3	3,690.4	2.0	546,611	2.9
ELLIPS (BE)	19,429.5	3.6	1,734,504.0	2.1	3,490.7	1.0	816,681	1.3	15,938.8	8.6	917,823	4.8
RTGS^{plus} (DE) [4]	150,776.2	28.3	37,896,390.0	45.6	104,025.4	29.8	32,748,860	51.0	46,750.8	25.3	5,147,530	27.1
of which: Slovenia (SI)	16.4	0.0	44,419.0	0.1	9.6	0.0	18,919	0.0	6.8	0.0	25,500	0.1
KRONOS (DK)	3,157.0	0.6	116,207	0.1	57.1	0.0	8,189	0.0	3,099.9	1.7	108,018	0.6
EP RTGS (EE) [5]	0.1	0.0	1,960	0.0	0.0	0.0	2	0.0	0.1	0.0	1,958	0.0
SLBE (ES)	75,588.7	14.2	9,547,022	11.5	68,703.9	19.7	8,515,166	13.3	6,884.8	3.7	1,031,856	5.4
EPM (ECB)	5,069.3	1.0	39,715	0.0			0	0	5,069.3	2.7	39,715	0.2
BOF-RTGS (FI)	3,782.9	0.7	311,834	0.4	1,738.8	0.5	152,415	0.2	2,044.1	1.1	159,419	0.8
TBF (FR)	135,188.1	25.3	4,577,952	5.5	107,990.9	31.0	2,121,980	3.3	27,197.2	14.7	2,455,972	12.9
CHAPS Euro (GB)	43,035.3	8.1	5,577,159	6.7	10,806.0	3.1	1,460,528	2.3	32,229.3	17.4	4,116,631	21.6
HERMES (GR)	6,872.5	1.3	1,517,585	1.8	4,384.7	1.3	1,194,058	1.9	2,487.8	1.3	323,527	1.7
IRIS (IE)	6,656.4	1.2	1,217,628	1.5	3,539.6	1.0	731,824	1.1	3,116.8	1.7	485,804	2.6
BI-REL (IT) [6]	37,686.0	7.1	10,948,045	13.2	25,627.9	7.3	8,869,460	13.8	12,058.1	6.5	2,078,585	10.9
LIPS-Gross (LU)	7,878.3	1.5	670,946	0.8	3,386.9	1.0	197,744	0.3	4,491.4	2.4	473,202	2.5
TOP (NL)	25,297.0	4.7	4,551,544	5.5	9,228.2	2.6	3,696,707	5.8	16,068.8	8.7	854,837	4.5
SORBNET EURO (PL) [3]	101.6	0.0	28,624	0.0	4.3	0.0	7,569	0.0	97.3	0.1	21,055	0.1
SPGT (PT)	3,392.6	0.6	1,068,464	1.3	1,552.9	0.4	848,987	1.3	1,839.7	1.0	219,477	1.2
Euro RIX (SE)	1,852.7	0.3	71,471	0.1	42.9	0.0	12,693	0.0	1,809.8	1.0	58,778	0.3
	533,541.0	100	83,179,996.0	100	348,764.0	100	64,162,211.0	100	184,777.0	100	19,017,785.0	100

Source: ECB.
1) € billions.
2) The figures of BI-REL (IT) include the figures of SORBNET EURO (PL).
3) The figures of SORBNET EURO (PL) are included in the figures of BI-REL (IT).
4) The figures of RTGS^{plus} (DE) include the figures of Slovenia (SI).
5) The figures of EP RTGS (EE) are included in the figures of BI-REL (IT).
6) The figures of BI-REL (IT) include the figures of SORBNET EURO (PL) and EP RTGS (EE).

2 AVERAGE VALUE OF A TARGET INTER-MEMBER STATE PAYMENT – INTRADAY PATTERN

Chart 2.1 Average value of a TARGET inter-Member State payment – intraday pattern

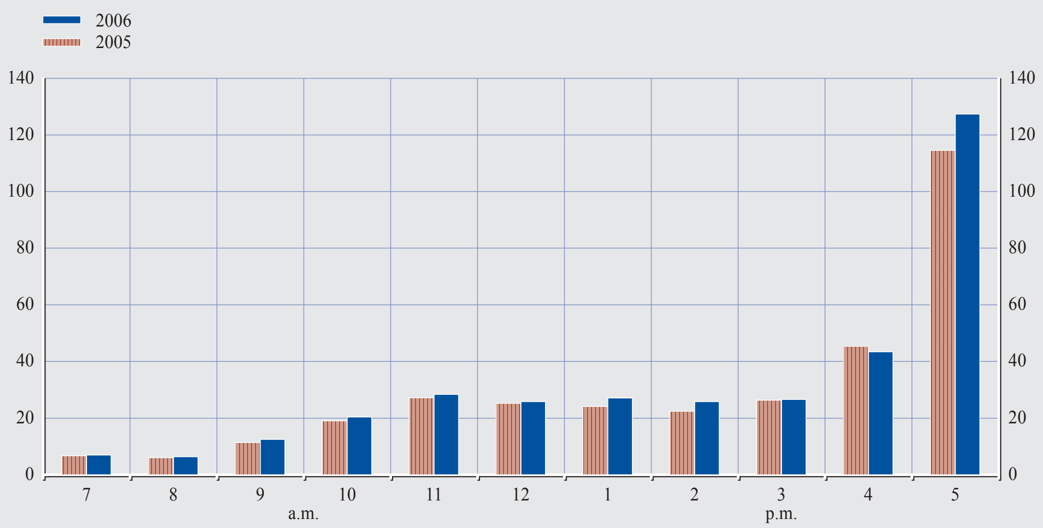
(€ millions)



Source: ECB.

Chart 2.2 Average value of a TARGET inter-Member State interbank payment – intraday pattern

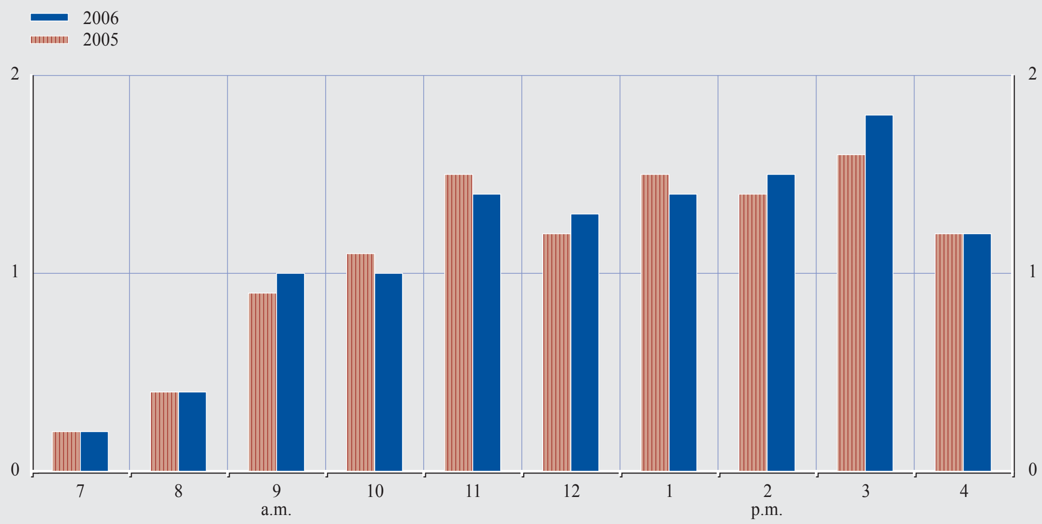
(€ millions)



Source: ECB.

Chart 2.3 Average value of a TARGET inter-Member State customer payment – intraday pattern

(€ millions)

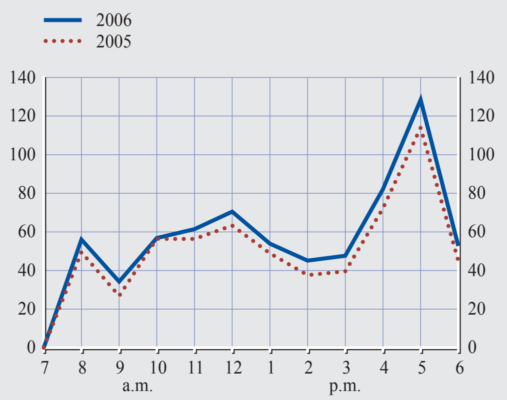


Source: ECB.

3 TARGET INTER-MEMBER STATE INTRADAY PATTERN

Chart 3.1 Intraday pattern of interbank payments – value

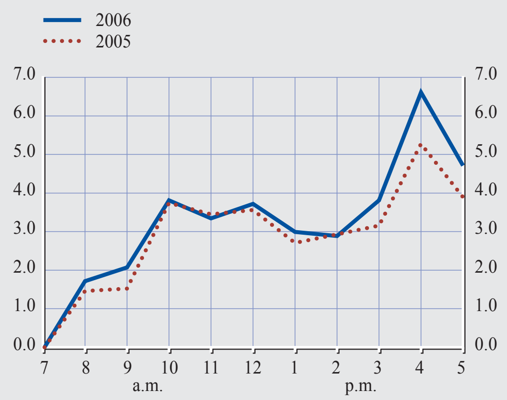
(€ billions)



Source: ECB.

Chart 3.2 Intraday pattern of customer payments – value

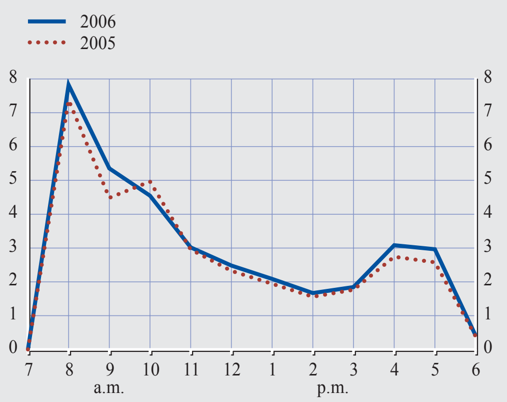
(€ billions)



Source: ECB.

Chart 3.3 Intraday pattern of interbank payments – volume

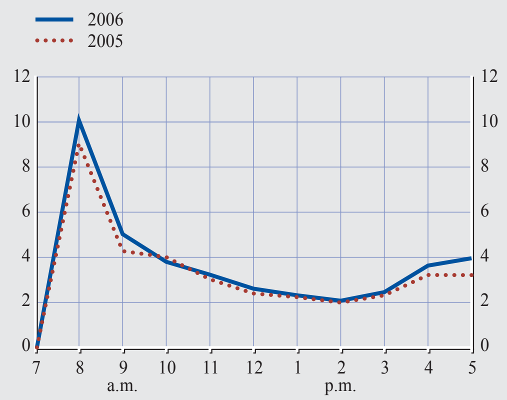
(thousands)



Source: ECB.

Chart 3.4 Intraday pattern of customer payments – volume

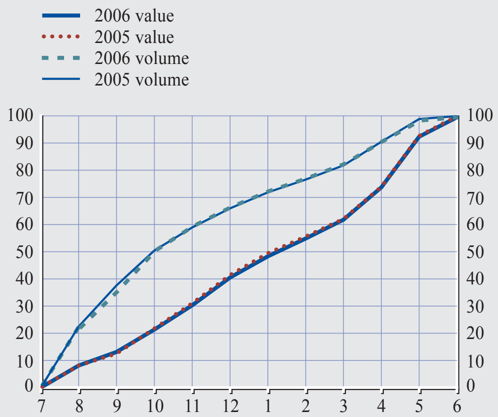
(thousands)



Source: ECB.

Chart 3.5 Intraday pattern of interbank payments – cumulative value and volume

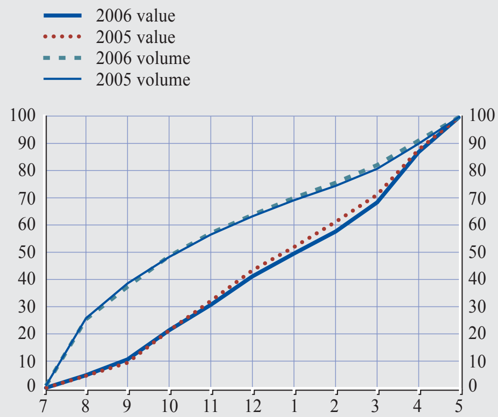
(%)



Source: ECB.

Chart 3.6 Intraday pattern of customer payments – cumulative value and volume

(%)



Source: ECB.

4 TARGET AVAILABILITY PER NCB AND FOR THE EPM

Table

(%)

	2006												
NCB	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Belgium	98.77	100.00	100.00	100.00	100.00	100.00	100.00	99.74	100.00	99.47	100.00	99.28	99.77
Denmark	100.00	100.00	99.82	99.80	100.00	100.00	99.93	100.00	99.90	100.00	97.36	98.37	99.60
Germany	100.00	100.00	99.82	99.10	100.00	100.00	99.86	100.00	100.00	100.00	100.00	100.00	99.90
Estonia											100.00	100.00	100.00
Ireland	100.00	100.00	99.53	100.00	97.84	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.78
Greece	100.00	100.00	99.72	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98
Spain	100.00	100.00	100.00	100.00	99.79	100.00	99.49	100.00	100.00	99.72	99.70	100.00	99.89
France	99.77	99.91	99.69	100.00	100.00	100.00	100.00	100.00	99.01	100.00	100.00	100.00	99.87
Italy	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.87	100.00	100.00	99.99
Luxembourg	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.70	98.20	99.66	100.00	99.80
Netherlands	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Austria	99.73	99.32	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	99.61	100.00	99.81
Poland	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Portugal	98.29	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.37	100.00	100.00	100.00	99.80
Finland	99.81	100.00	100.00	100.00	100.00	100.00	97.29	100.00	100.00	100.00	100.00	100.00	99.76
Sweden	100.00	100.00	100.00	100.00	100.00	99.71	100.00	100.00	100.00	100.00	99.62	100.00	99.94
United Kingdom	100.00	100.00	99.57	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96
ECB Payment Mechanism	100.00	99.28	100.00	99.65	100.00	99.85	100.00	99.53	99.81	99.82	100.00	100.00	99.83
Overall TARGET availability	99.79	99.91	99.89	99.91	99.86	99.97	99.80	99.96	99.87	99.78	99.78	99.87	99.87

Source: ECB.

2 STRUCTURAL ORGANISATION OF TARGET

TARGET ensures the smooth implementation of the single monetary policy, facilitates the efficient functioning of the money market, and improves the soundness and efficiency of large-value payments in euro. The system commenced live operations on 4 January 1999.

The fourth indent of Article 105(2) of the Treaty establishing the European Community and the third indent of the Statute of the ESCB and of the ECB explicitly empower the ECB and the NCBs to promote the smooth operation of payment systems, and Article 22 of the Statute of the ESCB and of the ECB entrusts the ECB and the NCBs with the provision of facilities to ensure efficient and sound clearing and payment systems within the Community and other countries.

ORGANISATION

The TARGET system is the real-time gross settlement system for the euro. It is a decentralised system composed of 16 national RTGS systems, the EPM and the interlinking mechanism. The interlinking mechanism designates the infrastructure and procedures which link domestic RTGS systems and the EPM in order to enable the processing of inter-Member State payments within TARGET.

LEGAL FRAMEWORK

The rules governing TARGET and its functions are laid down in the Guideline of the European Central Bank on a Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET Guideline) and the sets of rules and procedures in national regulations and/or contractual provisions (national RTGS rules) applicable to each of the national RTGS systems and the EPM. The TARGET Guideline came into effect on 1 January 1999, the starting date of Stage Three of Economic and Monetary Union (EMU). The ultimate decision-making body for TARGET matters is the Governing Council of the ECB, consisting of the governors of the euro area NCBs and the members of the Executive Board of the ECB.

The TARGET Guideline applies to the ECB and the NCBs of the participating Member States. It includes provisions on, inter alia, a number of minimum common features with which each national RTGS system participating in or connected to TARGET must comply (e.g. access criteria, the currency unit, pricing rules, the time of operation, payment rules and intraday credit), arrangements for inter-Member State payments through the interlinking system, and the management of TARGET. For the NCBs of the non-euro area EU Member States, the TARGET Agreement provides a mechanism whereby non-euro area NCBs can connect to TARGET, as long as they adhere to the rules and procedures referred to above and implement the modifications and specifications appropriate for the non-euro area NCBs.

On 26 April 2001, in accordance with its policy of transparency through the publication of its legal instruments, the ECB published the TARGET Guideline on its website. The document has also been published in the Official Journal of the European Communities, L 140, 24.05.2001 (pp. 72-86).

Since the inception of the TARGET system, in order to reflect the business and legal developments in the EU, the TARGET Guideline has been amended a number of times. The latest developments were consolidated in Guideline ECB/2005/16 of 30 December 2005 (OJ L 18, 23.1.2006, p. 1).

This Guideline was amended in 2006 by Guideline ECB/2006/11 of 3 August 2006 (OJ L 221, 12.8.2006, p. 17). The amendments were conditioned by the entry of Slovenia into the euro area and the necessity to accommodate the way Banka Slovenija has chosen to connect to TARGET. These amendments are applied as of 1 January 2007.

PARTICIPATION IN THE SYSTEM

Only supervised credit institutions as defined in the first indent of Article 1 of the First Banking Co-ordination Directive[1] and which are established in the European Economic Area (EEA) can be admitted as direct participants in a national RTGS system. In addition, by way of exception, the following entities may also be admitted as participants in a national RTGS system, subject to the approval of the relevant NCB:

– treasury departments of central or regional governments of Member States active in money markets;

– public sector bodies of Member States authorised to hold accounts for customers;

– investment firms established in the EEA which are authorised and supervised by a recognised competent authority; and

– organisations providing clearing or settlement services subject to oversight by a competent authority.

The criteria for participation in a national RTGS system are set out in the RTGS rules and are available to all interested parties. All credit institutions participating in national RTGS systems automatically have access to the inter-Member State TARGET service.

It is also possible for credit institutions to access TARGET remotely.[2] However, remote participants can only participate in TARGET on the basis of available funds and cannot have recourse to intraday or overnight credit facilities.

TYPES OF TRANSACTIONS HANDLED

TARGET is available for all credit transfers in euro between and within the current EU Member States. TARGET processes both interbank and customer payments, and there is no upper or lower limit placed on the value of payments. All payments are treated equally.

The types of transactions handled by TARGET are as follows: (i) payments directly connected with central bank operations in which the Eurosystem is involved either on the recipient or the sender side; (ii) the settlement operations of large-value netting systems operating in euro; (iii) CLS payments in euro; and (iv) interbank and commercial payments in euro. It is mandatory for the first three types of transactions to be settled through TARGET.

TECHNICAL INFRASTRUCTURE

TARGET is a decentralised system consisting of one RTGS system in each of the participating EU Member States and the EPM. Only certain functions are performed centrally by the ECB. To enable the processing of cross-border payments within TARGET, i.e. processing payments from one system to another, these individual components are interconnected via the interlinking system.

TARGET allows credit institutions to use the same connection for both intra-Member State and inter-Member State payments, i.e. no separate communication channel is required. The TARGET directory lists all credit institutions which are addressable through TARGET; approximately 52,000 addressable banks and branches are currently provided.

In order to initiate an inter-Member State payment, the ordering TARGET participant simply sends the payment order to the national RTGS system in which it participates. Since

1 Incorporated into Directive 2000/12/EC of the European Parliament and the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions.

2 Remote access to settlement facilities in TARGET is defined as the possibility for an institution established in one country within the EEA to become a direct participant in the RTGS system of another country and, for this purpose, to have a settlement account in euro in its own name with the central bank of the second country without necessarily having established a branch or subsidiary in that country.

domestic formats can vary from country to country, the national RTGS systems may offer conversion features to convert intra-Member State payments into the interlinking format and vice versa. This means that the sending and receiving participants each use their own intra-Member State format.[3]

At the present time, the SWIFT FIN (financial application) service is used as a communication network for the interlinking system. However, to allow for the possibility of changes in the network services, application-oriented functions (e.g. payment system functions) are clearly separated from network functions (e.g. data transmission, message authentication code (MAC) calculation and MAC checking at the communication level).

The design of the messages exchanged via the TARGET system is based on the widely used SWIFT message standards MT103 (STP and non-STP) for customer payments, and MT202 for interbank payments. In order to avoid merging the payment data (e.g. amount, beneficiary, etc.) with the protocol information of the communication, all messages are presented within an "envelope", namely the SWIFT proprietary message MT198. This means that communication data are presented only in the header and the trailer of the SWIFT MT198, while the payment information itself is incorporated into the body of the message.

In accordance with the logic of RTGS system processing, payment messages are processed individually, i.e. item by item on a continuous basis. The interlinking system uses processing cycles which are directly linked to each individual payment message. An open cycle can only be closed if the message initiating the settlement request of the sending NCB is answered with a positive notification by the receiving NCB. A cycle is usually completed within a couple of minutes, and sometimes only takes a few seconds.

While the above-mentioned sub-sets of SWIFT message types are used for payment system purposes, a specific interlinking mechanism has been created for interlinking messages.[4]

SETTLEMENT PROCEDURES

TARGET is an RTGS system, which means that payments are settled individually on a continuous basis in central bank money with intraday finality. TARGET thus provides immediate and final settlement of all payments, assuming that there are sufficient funds or overdraft facilities available in the sending institution's account with its NCB/the ECB.

To initiate an inter-Member State payment, the ordering credit institution sends a payment order to the local NCB/the ECB through the local RTGS system/the EPM. The sending NCB/the ECB validates the payment and checks that the receiving RTGS/the EPM is operational. The sending NCB/the ECB is entrusted with the tasks of: (i) converting, if necessary, the payment order into the message standards which are used by the interlinking system; (ii) applying the additional security features used during communications between NCBs/the ECB; and (iii) sending the message through the interlinking mechanism to the receiving NCB/the ECB. Once the sending NCB/the ECB has debited the RTGS account of the sending credit institution and credited the payment to the interlinking

3 Information about the mapping of intra-Member State payment messages to and from interlinking formats can be obtained from the "Information guide for credit institutions using TARGET" as well as from the "TARGET Interlinking Specifications" and the "TARGET Interlinking User Requirements".

4 TARGET messages exchanged via the interlinking system are classified either as requests, notifications, free format or statistical information messages; request messages are used when a specific action on the part of the receiving NCB/the ECB is required. Typical messages of this type include payment messages. Only payments denominated in euro can be processed via TARGET. Notification messages are replies to requests and can be either positive or negative. A notification message completes the communication cycle initiated by a request. Interlinking free format messages (IFFMs) are plain-text messages containing information that might be useful either to all central banks (broadcast messages) or to one particular NCB/the ECB. Unlike request messages, an IFFM does not require a response in the form of a notification message. Interlinking statistical information messages (ISIMs) contain statistical information on the interlinking traffic between NCBs/the ECB.

account of the receiving NCB/the ECB, the payment becomes irrevocable.[5]

As soon as the receiving NCB/the ECB receives the payment message, it checks the security features and verifies that the receiving bank, as specified in the payment order, is a participant in the domestic RTGS system/the EPM. If so, the receiving NCB/the ECB converts the message from the interlinking standards into domestic standards if necessary, debits the interlinking account of the sending NCB/the ECB, credits the receiving bank's RTGS account, and sends a positive notification to the sending NCB/the ECB. Finally, the receiving NCB/the ECB sends the payment information through the local RTGS system to the receiving bank. If the receiving bank is not a member of the RTGS system/the EPM, the receiving NCB/the ECB rejects the payment and asks the sending NCB/the ECB to re-credit the amount to the sending bank's account.

Under normal circumstances, inter-Member State TARGET payments reach their destination a few minutes after being debited from the account of the sending participant.

LIQUIDITY

As TARGET settles payments in central bank money with immediate finality, settlement risk and credit risk are eliminated. In TARGET, the account of the receiving institution is never credited before the account of the sending institution has been debited. As a result, the receiving institution can always be certain that funds received through TARGET are unconditional and irrevocable. Thus, the receiving institution is not exposed to any credit or liquidity risk originating from such payments received.

The availability and cost of liquidity are two crucial issues with regard to the smooth processing of payments in RTGS systems. 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 Eurosystem provides intraday credit free of charge. The overnight lending and deposit facilities allow for last-minute reactions to unexpected liquidity situations. However, all central bank credit must be fully collateralised, although the range of eligible collateral is very wide. Assets eligible for monetary policy purposes are also eligible for intraday credit.

With regard to the availability of intraday liquidity to non-euro area NCBs and their RTGS participants, the non-euro area NCBs have to maintain at all times an overall credit position vis-à-vis the other NCBs participating in or connected to TARGET taken as a whole. To ensure the availability of intraday liquidity in their euro RTGS systems, non-euro area NCBs have to make intraday deposits with the ESCB. The provision of collateralised intraday credit in euro to participants in national euro RTGS systems is subject to the following conditions: (i) the maximum amount of intraday credit granted by the non-euro area NCB is €3 billion for the Bank of England, €0.650 billion for Danmarks Nationalbank, €0.5 billion for Sveriges Riksbank, and €0.350 billion for Narodowy Bank Polski; (ii) after the liquidity deadline, which is set at 5 p.m. CET, non-euro area participants are only allowed to make outgoing payments out of positive balances (participants facing a debit position at the liquidity deadline must therefore square their positions so that they do not incur an overnight overdraft in euro); (iii) should a participant, for any reason, be unable to square its position by the close of TARGET, it will be subject to penalties; (iv) the rate at which non-euro area NCBs may remunerate the end-of-day euro balances held by participants with them will be the rate of the ESCB's deposit facility; and

5 For national RTGS systems which apply a blocking-of-funds procedure, payment becomes irrevocable at the moment blocking takes place.

(v) the assets which can be used by non-euro area credit institutions to collateralise intraday credit must meet the same quality standards and be subject to the same valuation and risk control rules as prescribed for collateral which is eligible for ESCB credit operations.

Box 6

CONNECTION OF EURO RTGS SYSTEMS OF NON-EURO AREA CENTRAL BANKS TO TARGET

A unique feature of TARGET is that its euro payment services are available throughout 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 three EU Member States which did not adopt the euro from the outset (Denmark, Sweden and the UK) arose because all EU NCBs had to start making preparations for TARGET before knowing whether they would be part of the euro area, and because of the limited time available for setting up the system. Thus the European Monetary Institute (EMI) Council agreed in 1995 that all EU NCBs should prepare themselves for connection to TARGET. It was indicated, however, that for those countries which did not adopt the euro from the outset, the connection would be subject to certain limitations and conditions that would be decided by the Governing Council.

The TARGET Agreement (and its transposition into national RTGS rules) provides a mechanism whereby non-euro area NCBs can connect to TARGET, but must adhere to the rules and procedures stipulated in the TARGET legal documentation, and must implement the modifications and specifications appropriate for the non-euro area NCBs. Via the TARGET Agreement, any changes made to the TARGET Guideline are also directly applicable to the non-euro area NCBs (see the section entitled "Legal framework" in Annex 2).

Turning to the provision of intraday liquidity, the non-euro area NCBs are allowed to offer only 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 are always in a position to reimburse intraday credit in good time, thus avoiding any need for overnight central bank credit in euro. This arrangement is a unique 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 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 central banks belonging to the Eurosystem, and indicated that the facility offered to non-euro area central banks was an exception.

In October 2002 the Governing Council decided that, following EU enlargement, new EU Member State NCBs would be allowed – but not obliged – to connect to the current TARGET system upon joining the EU. Given the limited remaining lifetime of the current TARGET system and in order to save costs, the Eurosystem has developed alternatives to full integration which allow the new Member States' NCBs to be connected to the current TARGET system.

Poland was the first new Member State to join TARGET. On 7 March 2005 Narodowy Bank Polski's euro RTGS system (SORBNET-EURO) was connected to TARGET via the Banca d'Italia's RTGS system (BIREL). On 20 November Estonia was the second new Member State to join TARGET. Eesti Pank's euro RTGS system was also connected to TARGET via the Banca d'Italia. In view of Slovenia's entry into the euro area in January 2007, Banka Slovenije decided, for efficiency reasons, not to develop its own euro RTGS system, but to use the RTGS system of the Deutsche Bundesbank to connect to TARGET. Banka Slovenije commenced operations as a member of the Eurosystem on 2 January 2007.

PRICING

The price charged (excluding VAT) for inter-Member State payments through TARGET between direct participants is based on the number of transactions sent by a participant within a single RTGS system according to the following degressive scale:

- €1.75 for each of the first 100 transactions per month;
- €1.00 for each of the next 900 transactions per month; and
- €0.80 for each subsequent transaction in excess of 1,000 per month.

Fees are only charged by the sending NCB/the ECB to the sending participant in the national RTGS system/the EPM. No fees are charged by the receiving NCB/the ECB to the receiving participant.

The inter-Member State TARGET fee structure does not cover the costs of the telecommunications link between the sender and the national RTGS system in which the sender is a participant. The fee for this telecommunications link is paid according to the domestic rules.

The price of intra-Member State RTGS transfers in euro is determined at the national level by the NCBs. When determining the price structure, the NCBs take into account the principles of cost recovery, transparency and an open market economy with free competition and non-discrimination. They must also take into account the fact that the fees for intra-Member State and inter-Member State transfers should be in the same range so as not to distort the singleness of the money market.

RTGS systems may charge extra fees for any additional services they provide (e.g. the entering of paper-based payment instructions).

MANAGEMENT STRUCTURE

The management structure of TARGET can be divided into two main parts: day-to-day management, and activities aimed at assessing, reviewing and optimising the system.

The day-to-day management of TARGET is the responsibility of the settlement managers of the NCBs (and of the ECB in the case of the EPM). This is coordinated by the TARGET coordinator nominated by the ECB. The settlement managers and the TARGET coordinator communicate via a teleconference or other means of communication several times a day.

Problems that cannot be addressed at the settlement manager level are passed on to the TARGET crisis managers. This group is coordinated by the ECB's Director General Payment Systems, who will refer problems to the Executive Board of the ECB for presentation to the Governing Council as appropriate.

The ultimate decision-making body for all TARGET intra-Member State and inter-Member State activities is the Governing Council. The Governing Council is assisted by the ESCB's Payment and Settlement Systems Committee (PSSC) and its sub-group, the TARGET Management Working Group (TMWG). At this level, the performance of TARGET, as well as possible enhancements with regard to technical characteristics and organisational features, are assessed, reviewed and proposed. In this context, an active exchange of views and cooperation with TARGET users plays an important role. In 2005 the ECB and the NCBs maintained a fruitful dialogue with TARGET users in regular meetings of the national TARGET user groups. In addition, meetings were organised at the European level with the principal aim of ensuring the reciprocal understanding of the TARGET system and market requirements.

TARGET OVERSIGHT

The Governing Council is the supreme decision-making body of the Eurosystem and, as such, also the ultimate overseer of the TARGET system. In this task, the Governing Council is assisted and advised by the PSSC. The PSSC has mandated the Payment Systems Policy Working Group (PSPWG) to assist in the oversight of the existing TARGET system as a whole. The PSPWG is the coordination body for all oversight activities related to the current TARGET system which are to be performed collectively at the ESCB level. It provides a forum for the exchange of all information related to the existing TARGET system which is or could be relevant from an oversight perspective. Based on its mandate, the PSPWG is responsible for the preparation of policy proposals related to TARGET oversight which are to be submitted to the PSSC and, ultimately, to the Governing Council.

With a view to adjusting the current oversight framework of TARGET to the more centralised nature of the TARGET2 system, the Governing Council approved the general organisational modalities for the oversight of TARGET2 and, in particular, that the PSSC, as advisor to the ECB's decision-making bodies, would assess both the conduct and the outcome of all TARGET2 oversight activities, which would be led and coordinated by the ECB. NCBs shall contribute to the conduct of TARGET2 oversight activities, in particular as the overseer with primary responsibility for the conduct of the oversight of the local features of TARGET2.

3 CHRONOLOGY OF DEVELOPMENTS IN TARGET

NOVEMBER 1994

In this month the EMI published a report entitled "The EMI's intentions with regard to cross-border payments in Stage Three", which laid down the basic principles and objectives as well as the approach to be adopted by EU NCBs and the EMI in creating a new cross-border payment arrangement for Stage Three of EMU. A system for Stage Three would be set up by linking the domestic RTGS facilities. Only the NCBs would hold settlement accounts for banks, although the ECB would also be connected to the NCBs through the interlinking system for the purpose of making payments for its own account or for the account of its customers. To ensure a level playing-field for the banks and to facilitate the creation of a single money market, some harmonisation of the operating features of the domestic RTGS systems was deemed necessary.

MAY 1995

Based on the decision of the EMI Council to establish the TARGET system, the report entitled "The TARGET system – Trans-European Automated Real-time Gross settlement Express Transfer system, a payment system arrangement for Stage Three of EMU" was published. In this report the EMI Council defined certain basic principles of the system and confirmed that linkages would be established between national RTGS systems. These linkages (the interlinking system), together with the national RTGS systems, would form the TARGET system. In addition, the RTGS systems of non-participating countries (which were not identified at that stage) could be connected to TARGET, but only to process euro. Any participant in any RTGS system connected to TARGET would be entitled to send payments via TARGET and would be obliged to accept any such payment processed through TARGET. Domestic RTGS systems would retain their specific features insofar as this was compatible with the single monetary policy of the Eurosystem and a level playing-field for credit institutions. A certain level of harmonisation was considered necessary, especially in the following three areas: (i) the provision of intraday liquidity; (ii) operating time; and (iii) pricing policies.

With regard to intraday liquidity, in order to provide equal access to central bank credit throughout the euro area it was necessary to harmonise the definition of assets which can be accepted by the NCBs as collateral and the conditions under which their value is taken into account. With regard to operating hours, it was recognised that the interlinking system and the national RTGS systems would need to be open for a large part of the day. Finally, the pricing policies should satisfy three requirements: (i) avoiding unfair competition with the private sector; (ii) avoiding the subsidisation of payments or certain kinds of payments; and (iii) avoiding undue competition within TARGET.

AUGUST 1996

The EMI further defined the features of TARGET, especially in the following areas: (i) the provision of intraday liquidity; (ii) pricing policies; (iii) operating time; and (iv) relations with other transfer systems, as described in the "First Progress Report on the TARGET Project" and in the "Technical Annexes to the First Progress Report on the TARGET Project".

Intraday liquidity would be provided by NCBs, making use of two facilities: fully collateralised intraday overdrafts, and intraday repurchase agreements. If reserve requirements were to be imposed for monetary policy reasons, reserve balances would be available intraday for payment system purposes. Intraday liquidity would be free of interest and potentially unlimited, provided that it was fully collateralised. The EMI Council also agreed that collateral would, in principle, be the same for intraday credit as for monetary policy operations.

With regard to the provision of intraday credit in euro to non-euro area NCBs and to participants in RTGS systems of non-euro area countries, the EMI Council decided in December 1996 to prepare three mechanisms[1] aimed at preventing intraday credit, if granted to non-euro area NCBs, from spilling over into overnight credit. The final decision on which mechanism to implement was left to the Governing Council.[2]

The EMI Council agreed that the TARGET pricing policy should have one major objective, namely cost recovery, and that it should take three main constraints into account: (i) it should not affect monetary policy; (ii) it should maintain a level playing-field between participants; and (iii) it should contribute to risk-reduction policies in payment systems.

With regard to operating times, it was decided that, in order to meet market and risk management needs, TARGET should have long operating hours and that, in order to facilitate the implementation of the single monetary policy and a level playing-field for credit institutions, all TARGET components should have a common closing time. It was therefore decided, as a general rule, that TARGET would open at 7 a.m. and close at 6 p.m. CET.[3]

As regards relations with other funds transfer systems, it was decided that all large-value net settlement systems (NSSs) would be required to settle in central bank money (i.e. through TARGET).

SEPTEMBER 1997

A number of TARGET features were defined in more detail, in particular in the following areas: (i) operating days; (ii) pricing policies; (iii) the provision of intraday liquidity to non-euro area countries; (iv) the role of the ECB; and (v) the provision of settlement services to cross-border large-value NSSs. These issues were elaborated upon in an EMI report entitled "Second Progress Report on the TARGET Project" and in the "Technical Annexes to the Second Progress Report on the TARGET Project".

With regard to operating days, it was decided that, in addition to Saturdays and Sundays, there would be two common holidays for TARGET: Christmas Day and New Year's Day. On other days, the TARGET system would be open, although NCBs would be allowed to close their domestic systems during national holidays if so required by law or by the banking communities. The interlinking system between open RTGS systems would remain open.

In the area of pricing policies, it was decided that a common transaction fee for cross-border TARGET transfers would be charged, based on the principle of full cost recovery and in line with EU competition policy. The pricing of domestic RTGS transfers in euro would continue to be determined at the national level, taking into account that the price of domestic and cross-border transfers in euro should be broadly similar. With regard to the cross-border leg, it was agreed that a single transaction fee would be set within the range of €1.50 to €3.00. In addition, a price differentiation based on volume was anticipated.[4]

Concerning one of the possible mechanisms for the provision of intraday liquidity to non-euro

1 Namely (i) non-euro area NCBs would receive, and would provide to participants in their respective RTGS systems, only limited intraday credit, and the size of the limit may be zero. Should a non-euro area NCB incur an overnight overdraft on one of its accounts with a euro area NCB, overnight credit would be granted at a penalty rate; (ii) non-euro area NCBs would be allowed to incur unlimited intraday overdrafts in euro and could, in turn, grant unlimited collateralised intraday credit to participants in their respective RTGS systems. The risk of spillover of intraday credit into overnight credit would be contained through a system of penalties and sanctions applied in the event of overnight overdrafts; (iii) participants in RTGS systems in non-euro area countries would be required to complete their operations some time before the closing time of TARGET in order to allow any shortage of funds to become apparent early enough for non-euro area NCBs to be able to offset their RTGS participants' spillovers by borrowing euro in the money market while it was still open. (For details, see the report entitled "The single monetary policy in Stage Three – Specification of the operational framework", EMI, January 1997.)

2 EMI Annual Report 1996, April 1997.

3 Ibid.

4 See also the EMI Annual Report 1997, May 1998.

area NCBs, namely an earlier closing time for non-euro area NCBs connected to TARGET, the EMI Council agreed that the earlier cut-off time should not apply to the processing of payments by the non-euro area NCBs, but rather to the use of intraday credit in euro by them. The time of this liquidity deadline would be determined by the Governing Council, if it chose to implement this option.

Furthermore, it was agreed that the ECB would perform the following functions in TARGET: (i) provide end-of-day and possibly other control procedures for the TARGET system; (ii) provide settlement services to cross-border large-value NSSs; (iii) process payments for its own account; and (iv) maintain accounts on behalf of its institutional customers (excluding credit institutions).

For the provision of settlement services to cross-border large-value NSSs, the EMI Council agreed on a method for the settlement of the future European Banking Association (EBA) clearing system within the euro area. This envisaged that the EBA would open a central settlement account at the ECB and would be able to also open settlement accounts with NCBs agreeing to do so.

JUNE 1998

All the EMI Council decisions referred to above were adopted by the Governing Council. Furthermore, a price structure for cross-border TARGET payments was agreed upon, ranging from €0.80 to €1.75 between direct participants, depending on the number of transactions.[5] The way in which banks' customers would be charged for TARGET payments was left to the discretion of the commercial banks.

JULY 1998

The Governing Council decided to grant access to TARGET to NCBs and participants in euro RTGS systems located in EU Member States outside the euro area. With regard to the availability of intraday liquidity to non-euro area NCBs and their RTGS participants, the ECB decided that at all times non-euro area NCBs would have to maintain an overall credit position vis-à-vis the other NCBs participating in or connected to TARGET taken as a whole. In order to ensure the availability of intraday liquidity in its euro RTGS system, each non-euro area NCB would have to make an intraday deposit with the Eurosystem.[6]

NOVEMBER 1998

A number of TARGET features were defined in more detail, in particular in the following areas: (i) access to euro RTGS systems linked to TARGET; (ii) provision of intraday credit; (iii) central bank correspondent banking relations; and (iv) the legal framework for TARGET. These issues were addressed in the "Third Progress Report on the TARGET Project".

Only supervised credit institutions located in the EEA could be admitted as direct participants in a national RTGS system. However, certain other entities could also be admitted as participants in a national RTGS system subject to the approval of the relevant NCB.[7]

Unlimited, but fully collateralised, intraday credit would be provided to RTGS participants fulfilling the general counterparty eligibility criteria of the ESCB.[8] Unlimited intraday credit could also be granted to treasury departments of central or regional governments active in the money

5 See also the annex entitled "Organisation of TARGET and its management structure" of the TARGET Annual Report 1998 and the ECB's press release of 10 June 1998.
6 See also the annex entitled "Organisation of TARGET and its management structure" of the TARGET Annual Report 1998 and the ECB's press release of 8 July 1998.
7 See also the annex entitled "Organisation of TARGET and its management structure" of the TARGET Annual Report 1998.
8 See "The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures", ECB, September 1998, and its latest version "The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures", ECB, September 2006.

markets, as well as to public sector bodies authorised to hold accounts for customers, provided that no spillover into overnight credit was possible. At their own discretion, NCBs could decide to grant intraday credit to investment firms, on condition that these investment firms be subject to a formal spillover prevention arrangement. Any arrangement under which an NCB granted in specific circumstances intraday credit to organisations providing clearing or settlement services would have to be approved in advance by the Governing Council.

4 JANUARY 1999

On this day TARGET successfully went live,[9] linking 15 national RTGS systems and the EPM.

However, since the banks needed some time to adapt to the new payment system environment and to new treasury management practices, the ESCB provided an "extended service window" between 11 and 29 January 1999 by delaying the closing time of TARGET by one hour from 6 to 7 p.m. CET. To avoid any abuse of this arrangement, a special fee of €15 was levied for each payment made during the extra hour. Since the banks gradually adjusted to a more efficient way of managing their liquidity, it did not prove necessary to continue to make use of these extended opening hours.[10]

MARCH 1999

With regard to TARGET operating days, in 1999 the system was supposed to remain closed only on New Year's Day and Christmas Day. However, in order to safeguard the transition to 2000, the Governing Council decided that, as an exception, TARGET would also remain closed on 31 December.[11]

JULY 1999

Due to rather low payment traffic on traditional public (or bank) holidays, and at the request of the European banking industry, the Governing Council decided to have six closing days in 2000 in addition to Saturdays and Sundays. These were New Year's Day, Good Friday, Easter Monday, 1 May (Labour Day), Christmas Day and 26 December. These days were 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. However, in euro area countries in which one or other of these days was not a public holiday, the national RTGS system remained open for limited domestic payment activity.[12]

MAY 2000

The Governing Council decided on the TARGET operating days for 2001. These were the same as for 2000, with the exception of one additional closing day on 31 December, which was introduced in order to safeguard the smooth transition of retail payment systems and internal bank systems to the euro banknotes and coins.[13]

OCTOBER 2000

The TARGET Information System (TIS) was introduced, providing users of TARGET with information on the status of the system.[14]

NOVEMBER 2000

The TARGET 2000 upgrade went live successfully. This was the first common TARGET software release since the system commenced live operations in January 1999. The upgraded software included the new

9 For an overview of TARGET developments in 1999, see the ECB's Annual Report 1999, April 2000.
10 See also the ECB's press release of 11 January 1999 and the March 1999 issue of the ECB's Monthly Bulletin.
11 See also the ECB's press releases of 3 September 1998 and 31 March 1999.
12 See also the ECB's press release of 15 July 1999.
13 See also the ECB's press release of 25 May 2000.
14 See also Box 4.

common message format for customer payments, MT103, and the STP version, MT103+.

DECEMBER 2000

A long-term calendar for TARGET operating days, applicable as from 2002 until further notice, was established. Accordingly, in addition to Saturdays and Sundays, TARGET would be closed on New Year's Day, Good Friday (Catholic/Protestant), Easter Monday (Catholic/Protestant), 1 May (Labour Day), Christmas Day and 26 December. On these closing days, TARGET as a whole, including all the national RTGS systems, would be closed. A long-term calendar was deemed necessary to eliminate uncertainty for financial markets and to avoid problems arising from different national TARGET operating days. On TARGET closing days, no standing facilities would be available at the NCBs. These days would not be settlement days for the euro money market or for foreign exchange transactions involving the euro. The EONIA would also not be published. Furthermore, the CCBM for the cross-border use of collateral would also be closed on TARGET closing days.[15]

JANUARY 2001

On 1 January 2001 Greece became the twelfth EU Member State to adopt the single currency. As a result, the Bank of Greece was now a member of the Eurosystem and participated in TARGET, bound by the same rules as the NCBs of the other participating Member States and the ECB.[16]

APRIL 2001

In accordance with its policy of transparency through the publication of its legal instruments, the ECB published the Guideline of the ECB on TARGET (TARGET Guideline) in the Official Journal of the European Communities, L 140, 24.05.2001 (pp. 72-86). The document is also available on the ECB's website (www.ecb.int). The TARGET Guideline, which came into force on 1 January 1999, sets out the legal framework for TARGET, and lays down the rules governing TARGET and its functions as they apply to the Eurosystem.

NOVEMBER 2001

As a further step towards the consolidation of large-value payment systems in the euro area, the Deutsche Bundesbank shut down the German hybrid system Euro Access Frankfurt (EAF) on 5 November 2001. On the same day, the Bundesbank launched RTGS^{plus} as the new German TARGET component, replacing the former Euro Link System (ELS).

The global TARGET 2001 maintenance release successfully went live on 19 November 2001. The release consisted mainly of the introduction of the new SWIFT standards, the validation of negative payment settlement message notifications (PSMNs),[17] and the introduction of a time indication (field 13C, debit stamp) to be transported through the interlinking mechanism and to be made available to the credit institutions.

OCTOBER 2002

The Governing Council of the ECB took a strategic decision on the direction of the next generation of the TARGET system (TARGET2) in order to ensure that TARGET would continue to meet customers' future requirements and accommodate the EU enlargement process.

On 24 October the Governing Council decided that acceding country central banks would have the possibility but not the obligation to connect to TARGET as from the date of their joining the

15 See the ECB's press release of 14 December 2000.
16 See the ECB's press release of 28 February 2002.
17 A negative PSMN provides the rejection code (reason for the rejection).

EU. Participation in TARGET would be compulsory only when they joined EMU.

NOVEMBER 2002

The 2002 TARGET maintenance release went live successfully on 18 November 2002. The release consisted mainly of the introduction of the mandatory validation that MT103+ customer transfers contain a correct IBAN.

The Governing Council decided on the policy framework for the TARGET compensation scheme applicable in the event of a TARGET malfunctioning.

DECEMBER 2002

The Eurosystem launched a public consultation on 16 December 2002 to collect the views of the entire community of TARGET users on the approach to be chosen for TARGET2, as well as on its service level.[18]

JANUARY 2003

On 9 January 2003 the Governing Council of the ECB decided to establish an oversight framework for TARGET. In this respect, two operational objectives for TARGET oversight were identified. First, TARGET oversight would have to verify that the system's existing and envisaged set-up and procedures are compatible with the Core Principles for Systemically Important Payment Systems. Second, any case of non-compliance with the Core Principles would have to be brought to the attention of the decision-making bodies of the ECB so that, when needed, measures could be considered and implemented to ensure full compliance with the Core Principles.

JULY 2003

A summary of all the replies during the public consultation ("TARGET2: Principles and structure"), together with the individual contributions, was published on the ECB's website on 14 July 2003.[19] All respondents welcomed the Eurosystem's initiative to improve the functionality and performance of TARGET. The banking industry stressed the importance of users being involved in the TARGET2 project. In addition, the contributions received in the public consultation process have served as a basis for determining the core features and functions of TARGET2.

The TARGET compensation scheme, which replaced the former reimbursement scheme, came into force on 1 July 2003. It was introduced for the benefit of TARGET participants in the event of a malfunctioning in TARGET. In designing the scheme, existing market practices were taken into account. The conditions for compensation offers and payments are set out in the TARGET Guideline. The scheme applies to all national RTGS systems participating in or connected to TARGET, and covers both intra and inter-Member State TARGET payments. A malfunctioning of the EPM affecting TARGET participants would also be covered by the compensation scheme. The scheme does not, however, apply to customers in the EPM. Its procedures are largely standardised in order to keep the administrative burden low.

NOVEMBER 2003

The 2003 TARGET release went successfully live on 17 November 2003. The main feature of the release was the removal of the customer transfer message type MT100 from the TARGET system. SWIFT stopped supporting this message type and, as TARGET is based on SWIFT messaging standards, TARGET had to follow suit.

18 "TARGET2: Principles and structure".
19 "Summary of comments received on TARGET2: Principles and structure".

JUNE 2004

The 2004 TARGET release successfully went live on 14 June 2004. This release took into account a change in the SWIFT validation rule for the IBAN, which came into force on the same day. The change consisted in adding a further six countries.

DECEMBER 2004

On 16 December 2004 the Governing Council of the ECB accepted the offer made by three NCBs (the Deutsche Bundesbank, the Banque de France and the Banca d'Italia) and approved the building of a single shared platform for TARGET2 operations. Further details on the characteristics of TARGET2 were made available in February 2005.

MARCH 2005

Poland was the first new Member State to join TARGET. On 7 March 2005 Narodowy Bank Polski's euro RTGS system (SORBNET-EURO) was connected to TARGET via the Banca d'Italia's RTGS system (BIREL).

NOVEMBER 2006

On 20 November 2006 Estonia was the second new Member State to join TARGET. Eesti Pank's euro RTGS system was also connected to TARGET via the Banca d'Italia.

DECEMBER 2006

Following its decision not to join TARGET2, in 2006 Sveriges Riksbank prepared for the disconnection of its TARGET component, E-RIX, effective as of 2 January 2007. Swedish participants largely anticipated the disconnection before the end of the year and prepared alternative ways to remain connected to TARGET (e.g. either as a direct participant via another central bank, as an indirect participant or through correspondent banking).

JANUARY 2007

Slovenia prepared for its entry into the euro area in January 2007. For efficiency reasons, Banka Slovenije decided not to develop its own euro RTGS system, but to use the RTGS system of the Deutsche Bundesbank to connect to TARGET. Banka Slovenije commenced operations as a member of the Eurosystem on 2 January 2007.

4 GENERAL TERMS AND ACRONYMS

Countries

BE	Belgium
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
GR	Greece
ES	Spain
FI	Finland
FR	France
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
SI	Slovenia
SE	Sweden
UK	United Kingdom

Others

ASI	ancillary systems interface
BIC	Bank Identifier Code
BIS	Bank for International Settlements
CCBM	correspondent central banking model
CET	Central European Time
CLS	Continuous Linked Settlement
CM	Contingency Module
CPSS	Committee on Payment and Settlement Systems
EAF	Euro Access Frankfurt
EBA	European Banking Association
EC	European Community
ECB	European Central Bank
ECBS	European Committee for Banking Standards
EEA	European Economic Area
ELS	Euro Link System
EMI	European Monetary Institute
EMU	Economic and Monetary Union
EONIA	euro overnight index average
EPM	ECB Payment Mechanism
ERM II	exchange rate mechanism
ESCB	European System of Central Banks
EU	European Union
EUR/€	euro
EURO1	EU-wide payment system of the EBA
FIN	financial application; store and forward messaging service on the SWIFT network
FIN Copy	function of the SWIFT network whereby instructions may be copied and optionally authorised by a third party before being released to the beneficiary
forex (FX)	foreign exchange
GFS	general functional specifications
HAM	Home Accounting Module
IBAN	International Bank Account Number
ICM	Information and Control Module
IFFM	interlinking free format message
ISIM	interlinking statistical information message
ISO	International Organization for Standardisation
ITES	Interlinking Test Environment System
MAC	message authentication code
MT103	message types
MT103+	
MT202	
NCB	national central bank
NMP	national migration profile
NSS	net settlement system
PM	Payment Module
PSMN	payment settlement message notification
PSMR	payment settlement message request
PSPWG	Payment Systems Policy Working Group
PSSC	Payment and Settlement Systems Committee
PvP	Payment versus payment
repo	repurchase operation
RTGS	real-time gross settlement
SSP	Single Shared Platform
SSS	securities settlement system
STP	straight-through processing

SWIFT	Society for Worldwide Interbank Financial Telecommunication
SWIFTNet FIN	store and forward messaging service for financial institutions on the SWIFTNet platform
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system
TCP/IP	Transmission Control Protocol/ Internet Protocol
TIS	TARGET Information System
TMWG	TARGET Management Working Group
UDFS	User Detailed Functional Specifications

5 GLOSSARY

ASI: The ancillary system interface is a standardised interface to the TARGET2 Payment Module which can be used by ancillary systems to perform the cash clearing of their business.

Availability: Criterion for evaluating a system on the basis of its back-up facilities and the possibility of switching over to them. See **TARGET availability**.

Bank Identifier Code (BIC): A universal means of identifying financial institutions in order to facilitate the automated processing of telecommunication messages in financial environments.

Business continuity: A payment system or securities settlement system arrangement which aims to ensure that it meets agreed service levels even if one or more components of the system fail or if it is affected by another abnormal event. This includes both preventive measures and arrangements to deal with these events. See **TARGET contingency measures**.

Central bank credit (liquidity) facility: A standing credit facility which can be drawn upon by certain designated account holders (e.g. banks) at a central bank. The facility can be used automatically at the initiative of the account holder. The loans typically take the form of either advances or overdrafts on an account holder's current account which may be secured by a pledge of securities or by **repurchase agreements**. See **marginal lending facility**.

Clearing/clearance: The process of transmitting, reconciling and, in some cases, confirming payment orders or security transfer instructions prior to settlement, possibly including the netting of instructions and the establishment of final positions for settlement. Sometimes the terms are used (imprecisely) to include settlement.

CLS Bank: Continuous Linked Settlement (CLS) Bank. CLS Bank provides global multi-currency settlement services for FX transactions, using a **PvP** mechanism, meaning that a foreign exchange operation is settled only if both counterparties simultaneously have a sufficient position in the currency they sell.

Collateral: Assets pledged (e.g. by credit institutions with central banks) as a guarantee for the repayment of loans, as well as assets sold (e.g. to central banks by **credit institutions**) as part of **repurchase agreements**.

Correspondent banking: An arrangement whereby one **credit institution** provides payment and other services to another credit institution. Payments through correspondents are often executed through reciprocal accounts (nostro and loro accounts), to which standing credit lines may be attached. Correspondent banking services are primarily provided across national borders, but are also provided in some domestic contexts, where they are known as agency relationships. A loro account is the term used by a correspondent to describe an account held on behalf of a foreign credit institution; the foreign credit institution would in turn regard this account as its nostro account.

Correspondent central banking model (CCBM): A mechanism established by the ESCB with the aim of enabling **counterparties** to obtain credit from the central bank of the country in which they are based using **collateral** held in another country. In the CCBM, an NCB acts as custodian for the other NCBs with regard to the securities held in its domestic SSS.

Counterparty: The opposite party in a financial transaction (e.g. any party transacting with a central bank).

Credit institution: (i) An undertaking whose business is to receive deposits or other repayable funds from the public and to grant credit for its own account; or (ii) an undertaking or any other legal person, other than those under (i), which issues means of payment in the form of electronic money.

Credit risk/exposure: The risk that a **counterparty** will not settle an obligation in full, either when due or at any time thereafter. Credit risk includes the replacement cost risk and the **principal risk**. It also includes the risk of settlement bank failure.

Credit transfer: A **payment order** or sometimes a sequence of payment orders made for the purpose of placing funds at the disposal of the beneficiary. Both the payment instructions and the funds described therein move from the bank of the payer/originator to the bank of the beneficiary, possibly via several other banks as intermediaries and/or more than one **credit transfer system**.

Credit transfer system: A funds transfer system through which payment orders move from (the bank of) the originator of the transfer message or payer to (the bank of) the receiver of the message or beneficiary.

Customer payment: A payment where the originator or the final beneficiary, or both, are not financial institutions.

Daily processing: The complete cycle of processing tasks which needs to be completed in a typical business day, from start-of-day procedures to end-of-day procedures, including the backing-up of data.

Daily settlement: The completion of **settlement** on the day of value of all payments accepted for settlement.

Deposit facility: A **standing facility** of the Eurosystem which counterparties may use to make overnight deposits at an NCB, and which are remunerated at a pre-specified interest rate.

Economic and Monetary Union (EMU): The Treaty describes the process of achieving EMU in the EU in three stages. Stage One of EMU started in July 1990 and ended on 31 December 1993; it was mainly characterised by the dismantling of all internal barriers to the free movement of capital within the EU. Stage Two began on 1 January 1994, and provided for, inter alia, the establishment of the EMI, the prohibition of financing of the public sector by the NCBs, the prohibition of privileged access to financial institutions by the public sector and the avoidance of excessive government deficits. Stage Three started on 1 January 1999 with the transfer of monetary competence to the ECB and the introduction of the euro. The cash changeover on 1 January 2002 completed the set-up of EMU.

EEA (European Economic Area) countries: The EU Member States plus Iceland, Liechtenstein and Norway.

EONIA (euro overnight index average): A measure of the effective interest rate prevailing in the euro interbank overnight market. It is calculated as a weighted average of the interest rates on unsecured overnight lending transactions denominated in euro, as reported by a panel of contributing banks.

ERM II (exchange rate mechanism): The exchange rate arrangement that provides the framework for exchange rate policy cooperation between the euro area countries and the EU Member States that are not participating in Stage Three of **EMU**.

Exchange-for-value settlement system: A system which involves the exchange of assets, such as money, foreign exchange, securities or other financial instruments, in order to discharge settlement obligations. These systems may use one or more funds transfer systems in order to satisfy the payment **obligations** which are generated. The links between the exchange of assets and the **payment system**(s) may be manual or electronic.

Final (finality): Irrevocable and unconditional.

Final settlement: Settlement which is irrevocable and unconditional.

Final transfer: An **irrevocable and unconditional transfer** which effects a discharge of the **obligation** to make the **transfer**. The terms "delivery" and "**payment**" are both defined as a final transfer.

Financial application (FIN): A **SWIFT**-offered application enabling financial institutions to exchange structured message-based financial data worldwide in a secure and reliable manner.

Financial risk: A term covering a range of risks incurred in financial transactions – both liquidity and credit risks. See also **liquidity risk**, **credit risk/exposure**.

Foreign exchange settlement risk: The risk that one party to a foreign exchange transaction will pay in the currency it sold, but not receive the currency it bought. This is also called cross-currency settlement risk or **principal risk**. (Sometimes it is additionally referred to as Herstatt risk, although this is an inappropriate term given the differing circumstances in which this risk materialised.)

Gridlock: A situation which can arise in a fund or securities transfer system in which the failure of some transfer instructions to be executed (because the necessary funds or securities balances are unavailable) prevents a substantial number of other instructions from other participants from being executed. See also **queuing, systemic risk**.

Gross settlement system: A **transfer system** in which the **settlement** of funds or securities occurs individually (on an instruction-by-instruction basis).

Herstatt risk: See **foreign exchange settlement risk**.

Hybrid system: A **payment system** which combines characteristics of **RTGS systems** and netting systems.

Incident: A situation which prevents the system from functioning normally or causes substantial delays.

Information and Control Module: A mandatory and unique functional interface between the **TARGET2** direct participants and the **Single Shared Platform**.

Interbank payment: A payment where both the originator and the final beneficiary are financial institutions.

Interlinking mechanism: One of the components of the TARGET system. The term is used to designate the infrastructures and procedures which link domestic RTGS systems in order to enable the processing of inter-Member State payments within TARGET.

Inter-Member State payment: A payment between **counterparties** maintaining an account with different central banks.

International Bank Account Number (IBAN): The IBAN concept was developed by the European Committee for Banking Standards (ECBS) and by the International Organization for Standardisation (ISO), and is an internationally agreed standard. It was created as an international bank identifier, used uniquely to identify the account of a customer at a financial institution, to assist error-free inter-Member State customer payments, and to improve the potential for STP, with a minimum amount of change within domestic schemes.

Intraday credit: Credit extended for a period of less than one business day. It may be extended by central banks to even out mismatches in payment settlements.

Intraday liquidity: Funds which can be accessed during the business day, usually to enable financial institutions to make payments in **real time**. See also **intraday credit**.

Intra-Member State payment: A payment between **counterparties** maintaining an account with the same central bank.

Irrevocable and unconditional transfer: A transfer which cannot be revoked by the transferor and is unconditional (and therefore final).

Large-value funds transfer system: A funds transfer system through which large-value and high-priority funds transfers are made between participants in the system for their own account or on behalf of their customers. Although as a rule no minimum value is set for the payments they carry, the average size of payments passed through such systems is usually relatively large. Large-value funds transfer systems are also known as wholesale funds transfer systems.

Large-value payments: Payments, generally of very large amounts, which are mainly exchanged between banks or between participants in the financial markets and usually require urgent and timely settlement.

Legal risk: The risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.

Liquidity risk: The risk that a **counterparty** will not settle an **obligation** at its full value when due, but instead on some unspecified date thereafter.

MAC (message authentication code): A hash algorithm parameterised with a key to generate a number which is attached to the message and used to authenticate it and guarantee the integrity of the data transmitted.

Marginal lending facility: A **standing facility** of the Eurosystem which **counterparties** may use to receive overnight credit from an NCB at a pre-specified interest rate against eligible assets. See also **central bank credit (liquidity) facility**.

Net settlement system (NSS): A funds transfer system, the settlement operations of which are completed on a bilateral or multilateral net basis.

Obligation: A duty imposed by contract or by law.

Operational risk: The risk of human error or a breakdown of some component of the hardware, software or communications system which is crucial to **settlement**.

Oversight of payment systems: A central bank task, principally intended to promote the smooth functioning of **payment systems**. The objectives of oversight are to protect the financial system from the possible domino effects which may occur when one or more participants in the payment system incur credit or liquidity problems, and to foster the efficiency and soundness of payment systems. Payment systems oversight is aimed at a given system (e.g. a funds transfer system) rather than at individual participants. It also covers payment instruments.

Payment: The payer's transfer of a monetary claim to a party acceptable to the payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.

Payment message/instruction/order: An order or message to transfer funds (in the form of a monetary claim on a party) to the account of the beneficiary. The order may relate either to a **credit transfer** or to a debit transfer. See also **credit transfer, payment**.

Payment system: A payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems which facilitate the circulation of money.

Payment settlement message notification (PSMN): A PSMN is the response to a PSMR (see below), which can be either positive or negative. It is normally positive (indicating that the beneficiary's settlement account in the receiving NCB/the ECB's books has been successfully credited), but may also be negative, in which case it is returned to the sending central bank with an error code.

Payment settlement message request (PSMR): The **settlement** of TARGET inter-Member State **payments** involves the exchange of PSMRs from the sending NCB/the ECB and PSMNs (see above) from the receiving NCB/the ECB. The sender of the PSMR requests the receiver to process a payment; this message requires a positive or negative PSMN from the receiver.

Payment versus payment (PvP): A mechanism in a foreign exchange settlement system which ensures that a final transfer of one currency occurs if, and only if, a final transfer of the other currency or currencies takes place.

Principal risk: The risk that a party will lose the full value involved in a transaction (credit risk). In the settlement process, this term is typically associated with exchange-for-value transactions when there is a lag between the final **settlement** of the various legs of a transaction (i.e. the absence of delivery versus payment). The principal risk which arises from the settlement of foreign exchange transactions (**foreign exchange settlement risk**) is sometimes called cross-currency settlement risk or **Herstatt risk**. See **credit risk/exposure**.

Queuing: An arrangement whereby transfer orders are held pending by the originator/deliverer or by the system until sufficient cover is available in the originator's/deliverer's clearing account or under the limits set against the payer; in some cases, cover may include unused credit lines or available collateral.

Real time: The processing of instructions at the time they are received rather than at some later time.

Remote access to TARGET: The possibility for an institution established in one country in the **EEA** to become a direct participant in the **RTGS system** of another country and, for this purpose, to have a settlement account in euro in its own name with the NCB of the second country without necessarily having established a branch or subsidiary in that country.

Remote participant: A participant in a system which has neither its head office nor any of its branches located in the country where the system is based.

Repurchase agreement: An agreement to sell an asset and to repurchase it at a specified price on a predetermined future date or on demand. Such an agreement is similar to collateralised borrowing, although it differs in that the seller does not retain ownership of the assets.

Repurchase operation (repo): A liquidity-providing reverse transaction based on a **repurchase agreement**.

Reserve requirement: The minimum amount of reserves a credit institution is required to hold with the Eurosystem. Compliance is determined on the basis of the average of the daily balances over a maintenance period of around one month.

Retail payments: This term describes all payments which are not included in the definition of **large-value payments**. Retail payments are mainly consumer payments of relatively low value and urgency.

RTGS (real-time gross settlement): The continuous (**real-time**) **settlement** of funds or securities transfers individually on an order-by-order basis with intraday **finality** (without netting).

RTGS system: A settlement system in which processing and **settlement** take place on an order-by-order basis (without netting) in **real time** (continuously).

Settlement: An act which discharges **obligations** in respect of funds or securities transfers between two or more parties. Settlement may be final or provisional. See **gross settlement system**, **net settlement system**, **final settlement**.

Settlement risk: A general term used to designate the risk that **settlement** in a **transfer system** will not take place as expected. This risk may comprise both credit and **liquidity risk**.

Single Shared Platform: TARGET2 is based on a single technical platform, known as the Single Shared Platform, which includes payment and accounting processing services and customer-related services.

Standing facility: A central bank facility available to **counterparties** on their own initiative. The Eurosystem offers two overnight standing facilities: the **marginal lending facility** and the **deposit facility**.

Straight-through processing (STP): The automated end-to-end processing of trades/payment transfers including the automated completion of generation, confirmation, clearing and **settlement** of instructions.

Swap: An agreement on the exchange of payments between two **counterparties** at some point(s) in the future in accordance with a specified formula.

SWIFT (S.W.I.F.T. s.c.r.l.) (Society for Worldwide Interbank Financial Telecommunication): A cooperative organisation created and owned by banks which operates a network designed to facilitate the exchange of payment and other financial messages between financial institutions (including broker-dealers and securities companies) throughout the world. A SWIFT **payment message** is an instruction to transfer funds; the exchange of funds (**settlement**) subsequently takes place through a **payment system** or through **correspondent banking** relationships.

Systemic risk: The risk that the inability of one institution to meet its obligations when due will cause other institutions to be unable to meet their obligations when due. Such failure may cause significant liquidity or credit problems and, as a result, could threaten the stability of or confidence in markets.

Systemically important payment system: A **payment system** is deemed systemically important if, in the event of being insufficiently protected against risk, disruption within it could trigger or transmit disruption to participants or cause broader systemic disruption in the financial area.

TCP/IP (Transmission Control Protocol/ Internet Protocol): A set of commonly used communications and addressing protocols; TCP/IP is the de facto set of communication standards of the internet.

TARGET availability: The ratio of time when TARGET is fully operational to TARGET opening time.

TARGET business continuity: The ability of each national TARGET component to switch to a remote secondary site, in the event of a failure at the primary site, with the goal of enabling normal operations to resume within the shortest time possible.

TARGET contingency measures: Arrangements in TARGET which aim to ensure that it meets agreed service levels during abnormal events even when the use of an alternative site is not possible or would require too much time.

TARGET market share: The percentage processed by TARGET of the **large-value payments** in euro exchanged via all euro large-value payment systems. (The other systems are EURO1 (EBA), PNS (Paris Net Settlement), SPI (Servicio de Pagos Interbancarios), and Pankkien On-line Pikasiirrot ja Sekit-järjestelmä (POPS).)

TARGET2: The new generation of the TARGET system in which the decentralised technical structure of the current TARGET system has been replaced with an **SSP** offering a harmonised service with a uniform pricing scheme.

Transfer: Operationally, the sending (or movement) of funds or securities or of rights relating to funds or securities from one party to another party by (i) the conveyance of physical instruments/money; (ii) accounting entries on the books of a financial intermediary; or (iii) accounting entries processed through a funds and/or securities transfer system. The act of transfer affects the legal rights of the transferor, the transferee and possibly third parties with regard to the money, security or other financial instrument being transferred.

Transfer system: A generic term covering interbank funds transfer systems and exchange-for-value systems.

TARGET-RELATED DOCUMENTS PUBLISHED BY THE ECB

This section provides a list of selected documents published by the ECB in which TARGET-related information can be found. The publications are available free of charge from the ECB's Press and Information Division. Please submit orders in writing to the postal address given on the inside of the front cover.

For a complete list of documents published by the EMI, please visit the ECB's website (www.ecb.int).

THE ECB'S ANNUAL REPORT

"Annual Report 1998", April 1999.
"Annual Report 1999", April 2000.
"Annual Report 2000", May 2001.
"Annual Report 2001", April 2002.
"Annual Report 2002", April 2003.
"Annual Report 2003", April 2004.
"Annual Report 2004", April 2005.
"Annual Report 2005", April 2006.

THE ECB'S MONTHLY BULLETIN

TARGET payment flows and new developments are published in the Monthly Bulletin on a quarterly basis (in March, June, September and December).
Other TARGET-related articles published in the Monthly Bulletin:
"TARGET and payments in euro", November 1999.
"Recent developments in international co-operation. A new key component of international co-operation: Standards and codes", February 2002.
"The role of the Eurosystem in payment and clearing systems", April 2002.
"Electronification of payments in Europe", May 2003.
"Future developments in the TARGET system", April 2004.
"The evolution of large-value payment systems in the euro area", August 2006.

THE TARGET ANNUAL REPORT

"TARGET Annual Report 2000", May 2001 (covering the main issues and developments for the years 1999 and 2000).
"TARGET Annual Report 2001", May 2002.
"TARGET Annual Report 2002", April 2003.
"TARGET Annual Report 2003", April 2004.
"TARGET Annual Report 2004", May 2005.
"TARGET Annual Report 2005", May 2006.

OTHER PUBLICATIONS

"Third Progress Report on the TARGET project", November 1998.
"Payment systems in the European Union: Addendum incorporating 1997 figures", January 1999.
"Cross-border payments in TARGET: A users' survey", November 1999.
"Payment systems in the European Union: Addendum incorporating 1998 figures", February 2000.
"Interlinking Data Dictionary", version 2.02, March 2000.
"Information guide for credit institutions using TARGET", November 2000.
"Long-term calendar for TARGET closing days", December 2000.
"Recommendations for CLS payments in euro", February 2001.
"Explanatory memorandum on the recommendations concerning CLS payments in euro", February 2001.
"Guideline of the European Central Bank on a Trans-European Automated Real-time Gross settlement Express Transfer system (ECB/2001/3)", April 2001.
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