

# Understanding TARGET2: The Eurosystem's Euro Payment System from an Economic and Balance Sheet Perspective

*TARGET2 – the Trans-European Automated Real-time Gross settlement Express Transfer System 2 operated by the Eurosystem – provides for the efficient settlement of cross-border payments in euro and is thus a key infrastructure component of European monetary union. TARGET2 claims and liabilities in the accounts of the euro area central banks have recently become a subject of public debate. However, TARGET2 balances by definition constitute intra-Eurosystem balances and are as such an integral part of the decentralized implementation of the single monetary policy. Considerable claims and liabilities can arise for various reasons, many of which are related to the normal functioning of the euro area and do not require an economic policy response. Changes in TARGET2 balances also do not imply any direct changes in the risk exposure levels of national central banks. At the same time, there is no denying that the Eurosystem is facing major challenges in its monetary and liquidity policy. TARGET2 balances are indeed currently high owing to the financial crisis, given the need to provide liquidity aid to the European banking system. Yet as soon as such liquidity aid is no longer necessary, following appropriate economic policy measures such as recapitalizing banks or measures to restore confidence in government solvency, TARGET2 balances will also decline.*

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TARGET2 is a cross-border settlement system jointly operated by the Eurosystem that has been designed to handle large value transactions denominated in euro in an efficient and reliable manner. As such, it is a key infrastructure component of European monetary union (EMU) that operates smoothly in the background and has thus gone largely unnoticed by the general public until recently. Amid the financial and economic crisis that emerged in late 2007, the TARGET2 claims and liabilities

of the national central banks (NCBs) of the euro area countries have risen sharply. These claims and liabilities were, and are still, widely debated, yet the discussion has often been misleading and has often led to incorrect conclusions being drawn.<sup>2</sup> This study describes the key functions of TARGET2 and uses illustrative examples to make the technical details accessible and broaden the current discourse.<sup>3</sup>

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<sup>2</sup> The debate, which was largely conducted in the daily press, on electronic forums and via brief bank and research institute bulletins, also prompted questions in the Nationalrat, the lower house of the Austrian parliament. An up-to-date and comprehensive presentation of the argument that TARGET2 balances served to finance the current account deficits of Greece, Ireland, Portugal and Spain and that central bank lending operations in Germany were in turn cut back is found in Sinn and Wollmershäuser (2011) and summarized in the introduction to ifo Schnelldienst (2011).

<sup>3</sup> Most of the studies aimed at clarifying misunderstandings in the public debate closely follow the structure of Sinn's arguments in an attempt to try to refute them, and thus do not explain the basics of how TARGET2 works and what role it plays. A brief description of TARGET2, which does not cover economic policy implications, is found in Deutsche Bundesbank (2011b). Aspects of economic policy are examined in the study by Ulbrich and Lipponer (2011). Bindseil and König (2011) systematically describe TARGET2 in connection with monetary policymaking in the euro area. Jobst (2011) shows that in a monetary union net balances can arise for very different reasons, irrespective of the current crisis.

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## 1 Why Do Central Banks Operate Payment Systems?

In modern economies, a vast amount of goods, services and financial products are transacted day in, day out. A basic requirement for the functioning of the economy is that these transactions are settled smoothly and securely. Settlement systems also play a key role in the implementation of monetary policy. To achieve their monetary policy objectives, central banks modify the terms under which they provide central bank liquidity to, or withdraw central bank liquidity from the banking system (ECB, 2011a). As a result, short-term and longer-term interest rates as well as other financial market prices fluctuate, influencing consumption, investment and, ultimately, inflation. The first stage in this monetary transmission mechanism is the interbank market. Like central banks' monetary policy operations, transactions in the interbank market are settled via large-value payment systems. To ensure the efficient implementation of monetary policy decisions, it is therefore paramount that payment and settlement systems function smoothly. Consequently, most central banks not only play an active role in ensuring the quality, availability and counterfeit security of banknotes in circulation but also participate in, operate and/or supervise systems for settling cashless payments.

## 2 What Is TARGET2?

At the inception of monetary union, the Eurosystem faced the challenge of having to quickly merge the legacy currencies' money markets into a single in-

tegrated money market. Integration required a uniform infrastructure for settling large value transactions between Member State banks and financial institutions. The Eurosystem assumed responsibility for developing and operating the necessary infrastructure.

As a European settlement system, TARGET2 – like its predecessor TARGET<sup>4</sup> – has been complementing the Eurosystem's operational framework for the implementation of monetary policy since end-2007 and, like monetary policymaking, falls within the responsibility of the Governing Council of the ECB.<sup>5</sup> The system handles euro transactions made primarily between approximately 4,500 credit institutions and other financial institutions which are eligible to participate directly or indirectly through other participants, as well as payments resulting from Eurosystem transactions. Euro payments transferred to a participating commercial bank are credited to the current account that it holds with its home NCB. The use of TARGET2 is mandatory for all transactions with the Eurosystem; moreover, TARGET2 is also used for settlement purposes in many other payment systems (Kokkola, 2010). For the Eurosystem, centralized settlement furthermore provides insights into demand-related interbank liquidity flows in money and capital markets as well as nonbank (customer) transfers within the euro area.

TARGET2 offers commercial banks specific advantages. Payments are made to NCB accounts, which means they are particularly secure. The amounts transferred are not subject to any upper

<sup>4</sup> The euro payment system TARGET was first launched as a fully decentralized framework in 1999 and subsequently replaced in 2008 by TARGET2, which is based on a single shared platform (SSP) operated by a small number of NCBs. For details on structure, participants, terms and conditions, and costs etc., see Kokkola (2010).

<sup>5</sup> An overview of TARGET2's legal basis established by the Governing Council of the ECB can be found at [www.ecb.int/ecb/legal/1003/1349/html/index.en.html](http://www.ecb.int/ecb/legal/1003/1349/html/index.en.html) (as retrieved on March 7, 2012).

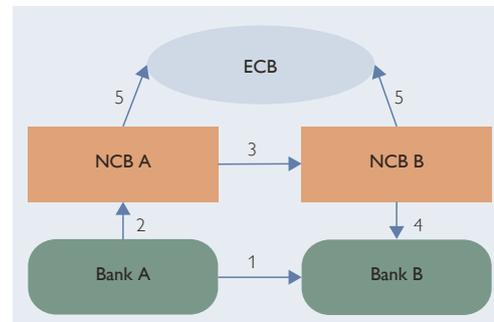
limits, neither for domestic nor for cross-border payments. Another advantage is that the payments are carried out immediately and irrevocably<sup>6</sup> without netting subsequent offsetting transactions. Finally, the uniform cost structure for identical services ensures a level playing field in all participating countries.

### 3 How Does the Settlement of TARGET2 Transactions Work?

Every TARGET2 transaction involves two banks and/or two central banks. Every commercial bank is assigned to one of the central banks of the Eurosystem (18 altogether, including the ECB), which jointly use TARGET2. Every transfer of funds gives rise to TARGET2 claims of the receiving bank and TARGET2 liabilities of the sending bank. Since the transfer takes place between two central banks accounts, the sending bank must have sufficient balances in its current account with its home central bank or take out intraday credit, in the form of an adequately collateralized overdraft, in line with the applicable guideline (ECB, 2011a). These balances may have arisen from monetary policy refinancing operations, from payments received or from deliveries of banknotes.

How do cross-border transactions and settlements operate in detail (chart 1)? Bank A (with home NCB A) transfers funds to bank B (with home NCB B) via TARGET2 by means of a S.W.I.F.T.<sup>7</sup> payment message (1). Based on this transaction and following the receipt of the S.W.I.F.T. message, the central banks process the transaction as follows:

Chart 1  
**Transaction Process via TARGET2**



Source: OeNB.

- NCB A debits the current account of bank A (2) and
- reports a liability towards the receiving NCB B.
- NCB B reports the claim on NCB A (3) and credits the amount to the current account of bank B (4).

At the end of the day, the transfers give rise to a net asset or liability position of each NCB against the other NCBs, depending on how large the bilateral transactions have been. To facilitate accounting, each NCB offsets all its bilateral claims and liabilities into a single net asset or a liability position vis-à-vis the ECB, which assumes the role of a central clearing house (5). Technically, the resulting net balance vis-à-vis the ECB is being carried forward on a daily basis rather than being settled through an actual transfer of assets. The sum total of all the balances (net assets or liabilities) of the 18 Eurosystem central banks is zero, as these balances simply reflect the cross-border flows of available euro liquidity within a closed system. The existence of net balances between the NCBs and the ECB is a consequence of the specific decentral-

<sup>6</sup> Settlement Finality Directive (98/26/EC).

<sup>7</sup> The Society for Worldwide Interbank Financial Telecommunication is a global provider of secure financial messaging services ([www.swift.com](http://www.swift.com)).

ized organization of payments in the euro area. If the euro area had only a single central bank, all transaction participants would hold their accounts at this central bank where all transactions would sum to zero (in such case chart 1 would be a lot simpler, showing neither the intermediate level nor steps 3 and 5).

As already mentioned, it is bank A or B that initiates a transaction and decides to route it through TARGET2, for any number of reasons, such as in order to transfer money, bundle liquidity within a company, pay invoices on behalf of customers or settle proprietary open financial transactions, pay interest, repay loans or engage in inter-bank lending (e.g. for closing liquidity gaps owing to different bidding behaviors in monetary policy operations).

#### 4 What Constitutes Intra-Eurosystem Balances and How Do They Relate to TARGET2?

Net TARGET2 balances between the NCBs and the ECB constitute intra-Eurosystem balances, as they represent claims and liabilities within the Eurosystem. Eurosystem payment transactions and monetary policy operations are organized under the principle of decentralization, i. e. although their standard terms and conditions are set by the Governing Council of the ECB, the actual operations are carried out by NCBs. This is also a reason why claims and liabilities arise between the NCBs and the ECB.

This fact is best illustrated by comparing the balance sheet of a single central bank with the balance sheets of a decentralized system of central banks. A central bank provides liquidity by issuing banknotes and by crediting cur-

rent accounts held by commercial banks with their central bank. To put money into circulation, the central bank purchases assets such as gold and foreign exchange, or issues collateralized loans to banks. In the central bank's balance sheet, these assets (gold, securities, loans) are offset by corresponding liabilities (from a central bank perspective, money issued by the central bank represents a liability).<sup>8</sup>

In the euro area, however, things get a little bit more complicated. If a commercial bank borrows money from the Eurosystem, it does not do so from the ECB but from one of the NCBs. Claims on the bank for the lifetime of the transaction will therefore show up on the balance sheet of this NCB. The same applies to banks' current account balances with the Eurosystem. By contrast, banknotes issued by an NCB are not stated on that NCB's balance sheet at their issuance value; much rather, the sum total of banknotes in circulation is allocated to all the NCBs and the ECB according to a specific key (Handig and Holzfeind, 2007; Krsnakova and Oberleithner in this issue). The result is that claims (net assets and net lending) and liabilities (banknotes and current account balances held by commercial banks at NCBs) now no longer tally for individual Eurosystem NCBs. In the balance sheets, the difference between assets and liabilities will show up as claims or liabilities within the Eurosystem (intra-Eurosystem balances). In addition to the net TARGET2 position, the latter comprise in particular the adjustment of banknotes in circulation, which represents the difference between the banknotes physically issued by (minus those redelivered to) a given NCB and the share of all circulating

<sup>8</sup> For a detailed description of a central bank balance sheet, see e. g. Jobst (2009). A description of TARGET2 balances within central bank balance sheets can be found in Bindseil and König (2011), as well as in Jobst (2011).

euro banknotes that has been assigned to that NCB (Krsnakova and Oberleithner in this issue). After taking all corresponding intra-Eurosystem balances into account, the assets and liabilities of each Eurosystem NCB will again offset each other exactly.

The reasons why intra-Eurosystem balances increase or decline or why other balance sheet components such as outstanding loans fluctuate can be extremely diverse. The balance sheets of two NCBs may in fact be very similar for fundamentally different reasons. For illustrative purposes, here are three examples taken from the recent past, representing three instances in which considerable liabilities were built up within the Eurosystem.

The first example concerns the Bank of Greece (BoG). The BoG has recorded a steady outflow of funds via TARGET2 since 2008. This means that more central bank funds were transferred via Greek banks to the rest of the euro area than in the opposite direction. As Box 1 shows, the reason for this phenomenon was probably capital flight from Greece: Greek investors

transferred some of their assets to the rest of the euro area, and foreign investors withdrew funds from Greece. In this process, the relevant balance sheet positions of the BoG changed as follows: owing to the transfers, the BoG built up a negative TARGET2 balance vis-à-vis the ECB. Greek banks, which held fewer deposits at the BoG owing to their cross-border transfers, had to replenish these deposits, raising loans through the Eurosystem's monetary policy operations for this purpose. These loans are shown in the BoG's balance sheet, where they represent the counterpart of the negative TARGET2 balance.

The second example concerns the Deutsche Bundesbank. Before 2007, German banks, rather than Greek banks, were major recipients of Eurosystem loans.<sup>9</sup> Unlike the Greek banks they did not transfer significant amounts to other euro area countries but their banknote demand significantly exceeded domestic requirements. German banks appear to play an important role in distributing euro banknotes both within and outside the

Box 1

### TARGET2 and the Balance of Payments in the Case of Greece

*The public debate on TARGET2 associated the negative TARGET2 balances of some countries with their current account deficits. For instance, Greece imported EUR 84 billion more goods and services than it exported in the period from 2008 to 2010, while almost the same net amount flowed out of Greece via TARGET2 during the same period. Does this mean the Greek current account deficit was financed via TARGET2?*

*The current account is part of the balance of payments, which reflects all economic transactions that occur between residents and nonresidents in a given period. Per definition, the balance of payments is always balanced, as the value amount of, say, a delivered car and the payment for this car must tally. In this sense, each payment received from abroad (in this case, through TARGET2) “finances” an outgoing payment (in this case, for goods and services). However, the more interesting question is, whether there is indeed a causal relationship between changes in the current account and the TARGET2 balance. This can only be answered empirically.*

<sup>9</sup> Although the Deutsche Bundesbank holds only 27.1% of the ECB's capital, the percentage share of German banks in the Eurosystem's refinancing operations consistently exceeded 55% until 2007 and was therefore twice as high (Jobst, 2011).

Buiter et al. (2011) show that, unlike for Greece, current account deficits and TARGET2 balances do not tally for Ireland and Portugal. Bindseil and König (2011) examine both the monthly current account and the monthly changes in TARGET2 balances and show that neither series tallies with the other. Both examples would imply that the Greek current account deficit matches the deterioration of its TARGET2 balance by pure coincidence.

Additional information on the actual factors driving TARGET2 balances can be drawn from subcomponents of the balance of payments. Since 2001, Greece has imported more goods and services each year than it has exported (current account balance –). Until 2007, most of these additional imports were covered by securities purchases by nonresidents (portfolio investment balance +). The plus or minus sign following “Deposits of nonresidents in Greece” (+) and “Deposits of residents abroad” (–) means that Greeks built up deposits at foreign banks while nonresidents increased their deposits at Greek banks. Offsetting flows such as these would appear to be a byproduct of monetary union. Closer analysis of the more recent developments shows considerable fluctuations in the period from 2009 to 2010. While nonresidents continued to purchase considerable volumes of Greek securities in 2009, the portfolio investment balance moved into negative territory in 2010, i. e. Greeks had to redeem more securities than they could sell new ones abroad. At the same time, Greeks began to transfer more deposits abroad (deposits of residents abroad –) while nonresidents failed to increase their deposits at Greek banks further in 2009 and went as far as to withdraw almost EUR 50 billion in 2010 (deposits of nonresidents in Greece switched from + to –). These significant outflows were financed via the build-up of BoG liabilities toward the Eurosystem in the period from 2008 to 2010 (BoG deposits +). Specifically, the BoG built up TARGET2 liabilities as well as liabilities arising from the adjustment of banknotes in circulation in this period. In 2010 the cross-border liabilities of Greece increased further when it received the first tranche of the EU/IMF bailout package (other investment +).

The detailed analysis reveals that the steep increase in Greek liabilities toward the Eurosystem is not attributable to the Greek current account, but primarily to capital flight behavior of both Greeks and nonresidents. As Ireland exemplifies, a current account surplus would probably not have made any difference to these outflows (although current account deficits undoubtedly increase external financing requirements). Being aware of the underlying reasons for these anomalies is an important prerequisite for informed decisions on what kind of economic policy measures to take.

### Greek Balance of Payments

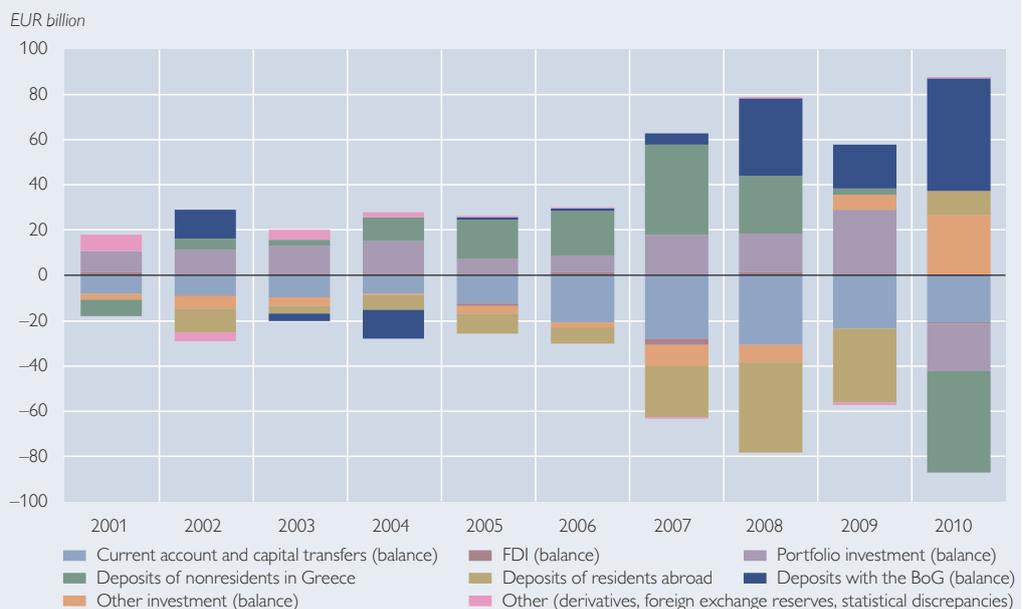
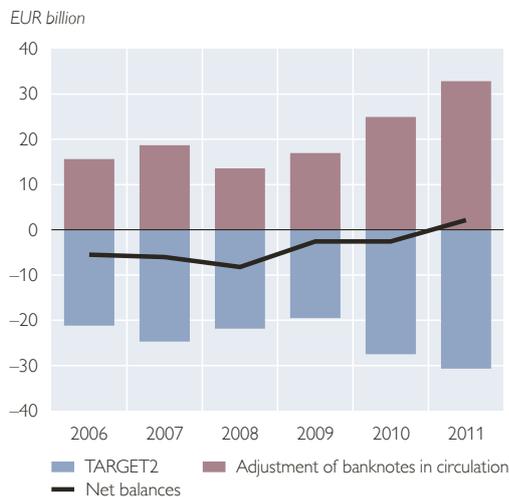


Chart 2

### Intra-Eurosystem Balances of the OeNB



Source: OeNB.

Note: The TARGET2 balance is adjusted for monetary policy operations in USD providing liquidity to commercial banks, which were settled as swaps between the ECB and NCBs via TARGET2.

euro area, e.g. with deliveries to Central and Southeastern Europe where euro banknotes and coins are in high demand (Deutsche Bundesbank, 2011a; Ritzberger-Grünwald and Scheiber in this issue). Like the BoG's balance sheet, that of the Deutsche Bundesbank showed an increase in loans to commercial banks and at the same time a negative intra-Eurosystem balance, yet not in the form of a negative TARGET2 balance as in Greece but in the form of a liability arising from the adjustment of banknotes in circulation. In other words, the balance sheets of the Deutsche Bundesbank then and the BoG today look similar, but for very different reasons.

The third example concerns the Oesterreichische Nationalbank (OeNB). The Austrian example is instructive, as it illustrates the relationship between

the physical shipment of cash and the cashless transfer of central bank funds via TARGET2, which is also a result of Austria's appeal as a tourist destination.

For instance, cash withdrawn by a German holidaymaker from his local bank before traveling to Austria counts toward Eurosystem banknotes put into circulation by the Deutsche Bundesbank and at the same time reduces the balances on the respective bank's current account with the Deutsche Bundesbank. Technically, this transaction does not constitute the creation of money but the conversion of money from a cashless form (deposits held by the commercial bank at the Deutsche Bundesbank) to a cash form (liability of the Deutsche Bundesbank from putting banknotes into circulation).<sup>10</sup>

If this holidaymaker pays his expenses in Austria with cash withdrawn in Germany, the cash will end up at an Austrian commercial bank via the Austrian provider of goods or services. The Austrian bank, in turn, will pass on this money to the OeNB for processing.<sup>11</sup> The banknotes originally issued in Germany are thus returned to the Eurosystem via the OeNB. Since returned banknotes by definition do not constitute banknotes in circulation, the amount of Eurosystem banknotes in circulation has been reduced by Austria. By crediting the corresponding amount to the Austrian commercial bank's current account with the OeNB, the OeNB converts the money back from its cash form to a cashless form.

The commercial bank now holds larger deposits at the OeNB than is required for compliance with its minimum reserves requirements. It could reduce these deposits by repaying its

<sup>10</sup> The money was in fact originally created when the Deutsche Bundesbank granted the commercial bank a loan within the framework of its refinancing operations or via the purchase of assets against central bank money issued by the Deutsche Bundesbank.

<sup>11</sup> For details on cash logistics, see Koch and Schneeberger in this issue.

outstanding loans to the OeNB at the next opportunity. In this case, the amount of outstanding loans would fall on the OeNB's balance sheet, which would instead now show a claim on the ECB arising from the adjustment of banknotes in circulation. The banknotes in circulation and commercial banks' deposits on the liability side of the OeNB balance sheet would remain unchanged.

In fact however, the bulk of adjustment tends to take place via interbank transactions. Austrian banks use their deposits to purchase assets in Germany (either by lending or buying assets outright), thereby closing liquidity gaps that have arisen in Germany. These transactions are made via TARGET2. On the OeNB's balance sheet, this means loans to commercial banks remain the same while claims arising from the adjustment of banknotes in circulation cause the OeNB's TARGET2 liabilities to rise. As chart 2 shows for Austria, ultimately considerable balances may therefore arise in the adjustment of banknotes in circulation and in TARGET2. Interestingly enough, the two balance sheet items develop symmetrically.

Several conclusions about how changes in the intra-Eurosystem balances may or may not be interpreted can now be drawn from these three examples. First, intra-Eurosystem balances arising from TARGET2 transactions of credit institutions and intra-Eurosystem balances arising from the adjustment of banknotes in circulation are each driven by market demand and cannot be managed by NCBs. They represent the cross-border flows of central bank euro liquidity as provided or absorbed by monetary policy operations. At any rate, they do not represent additional euro liquidity. Second, TARGET2 balances and balances from the

adjustment of banknotes in circulation within the Eurosystem should be considered together. This is essential particularly for the assessment of Austria's TARGET2 balance. Third, the fact that these balances may be significant is plain to see. At end-2010, liabilities arising from TARGET2 amounted to EUR 90 billion for the BoG and almost EUR 30 billion for the OeNB. At end-2010, the Deutsche Bundesbank owed the ECB almost EUR 160 billion from banknotes in circulation. However, the most important conclusion that can be drawn from these three examples is that considerable claims and liabilities can arise for very different reasons. The fact that intra-Eurosystem balances may come about through different reasons means above all that intra-Eurosystem balances as such are not meaningful indicators for undesirable developments. TARGET2 balances simply reflect various possible reasons rooted in the real economy and the financial sector. This is why economic policy measures, if needed, must address the underlying reasons.

## **5 What are the Implications of TARGET2 Balances for the Risk and Profit of NCBs?**

From a financial reporting perspective, intra-Eurosystem balances are used to map economically relevant euro liquidity flows as settled between two Eurosystem central banks. At the same time, however, they also form the basis for income pooling within the Eurosystem (Handig and Holzfeind, 2007; Krsnakova and Oberleithner in this issue).

A central bank's profit is derived from the income earned on its assets (lending and outright purchases) less the operating costs and any possible interest paid on its liabilities. As previously shown, banknote migration and transfers in TARGET2 result in assets

being shifted between NCBs. To ensure the fair allocation of monetary income (pursuant to Article 32 of the ESCB/ECB Statute) among the Eurosystem NCBs, the Governing Council of the ECB decided to remunerate the intra-Eurosystem balances at the prevailing rate for the Eurosystem's main refinancing operations. The monetary income generated jointly by the Eurosystem NCBs is allocated on the basis of their proportional shares in the ECB's fully paid-up capital (Krsnakova and Oberleithner in this issue).

Just as income from monetary policy operations is distributed, any losses incurred (if, say, a bank should not repay a refinancing transaction and if the collateral to be realized should not fully cover the outstanding amount) are also borne jointly, irrespective of whether the loss originally arose at one or other of the NCBs.<sup>12</sup> Intra-Eurosystem balances, by contrast, do not constitute monetary policy operations, which means NCBs do not incur any risks arising from these balances, which represent claims on and liabilities toward the ECB (clearing house) in the balance sheet sense of the term. To this extent, the shift of TARGET2 balances over time and between individual Eurosystem member states cannot represent an indicator for new risk positions of individual NCBs, as the latter always bear monetary policy-induced risks in a joint fashion.

This phenomenon is best illustrated by using two hypothetical examples. Let's assume an NCB has issued a large volume of loans to banks in its country in its monetary policy operations and built up a negative TARGET2 balance

at the same time. What will happen if one or more of the commercial banks cannot meet its obligations, and if the collateral realized should not fully cover the outstanding amount? Since the loss is incurred within the framework of monetary policy operations, it would be jointly borne by the Eurosystem.<sup>13</sup> Thus, the NCB that issued the loans in line with Eurosystem rules is allocated only the percentage of the loss that corresponds to its share in the capital key, while the rest is divided up between the other NCBs according to their shares in the capital key.<sup>14</sup> Since the loss was originally incurred at a specific NCB, the other NCBs in the Eurosystem credit this NCB with the share to be borne by them via TARGET2. The result is a decrease in both this NCB's claims arising from monetary policy operations on its country's commercial banks and its TARGET2 liabilities. However, the loss occurs only once – in monetary policy operations with the banking system and not in TARGET2.

What would happen in the theoretical case of a country withdrawing from EMU? Exiting EMU is not provided for in the EU treaties and so is not governed by them (Athanasios, 2009). Accordingly, this attempt of an answer is very speculative, but the scenario should not differ fundamentally from the previously described case. If a country were to exit EMU, its commercial banks may no longer be able to meet their euro liabilities: while they may be able to obtain funding in the new national currency from their central bank, they may not be able to obtain euro liquidity from their central bank

<sup>12</sup> All Eurosystem loans to commercial banks must be collateralized (ECB, 2011a).

<sup>13</sup> Under the rules stipulated by the Governing Council of the ECB, autonomous liquidity assistance independently provided by NCBs to temporarily illiquid, albeit solvent, financial institutions is not included.

<sup>14</sup> The share of loss borne by the OeNB and Deutsche Bundesbank are 2.8% and 27.1%, respectively. The fact that the OeNB's TARGET2 balance is negative and that of the Deutsche Bundesbank is positive is irrelevant.

and they may have difficulties to fund themselves in euro on the private capital markets. Thus they may not be able to repay the maturing monetary policy operations in euro. Since these operations were transacted under the common rules of the Eurosystem, the losses would be allocated on a pro rata basis. Claims arising from monetary policy operations and claims toward the central bank of the withdrawing country in TARGET2 would fall accordingly. As in the aforementioned example, the loss would be incurred in the monetary policy operations with the banking system and not in TARGET2.

## 6 Conclusions

With TARGET2, the Eurosystem has got an efficient cross-border settlement system for large value transactions in euro in place. Thus, TARGET2 is a key infrastructure component of European monetary union. Intra-Eurosystem balances, which have recently become a subject of debate, are an integral part of the implementation of the single monetary policy under the principle of decentralization. The resulting claims and liabilities may be significant, and the reasons for their build-up can be many and varied. TARGET2 balances cannot be restricted when monetary policy operations are implemented under the principle of decentralization.

Contrary to some opinions raised, TARGET2 balances do not increase the exposure of central banks. The only meaningful source of information on the risks that the Eurosystem incurs in implementing the single monetary policy is the Eurosystem's consolidated weekly financial statement. Those risks are allocated among the participating NCBs according to their relative shares in the ECB's paid-up capital. If the single monetary policy were centrally implemented and the Eurosystem had

only a single balance sheet (e.g. that of the ECB), intra-Eurosystem balances would not exist. However, the risks of monetary policy operations would be the same as under the principle of decentralization. Since the balance sheet items of individual Eurosystem NCBs can fluctuate for very different reasons, the individual balance sheets do not provide any meaningful information on the monetary policy of the euro area as a whole. This is why the Eurosystem publishes only one consolidated weekly financial statement.

In monetary policy terms, no separate importance should be attached to the amount of TARGET2 balances. At the same time, there is no denying that the Eurosystem is facing major challenges in its monetary and liquidity policy. The generous provision of liquidity through the Eurosystem's refinancing operations, to which recourse has been particularly large in some euro area countries as is evident from the balance sheets of their NCBs as well as from their TARGET2 balances, does represent risks to the Eurosystem – but it does so in the same way as all monetary policy operations do. However, providing ample liquidity is one of the core responsibilities a central bank has got in times of financial crisis (Jobst, 2009; ECB, 2011b). The Governing Council of the ECB has taken these risks in the expectation of averting greater damage to the financial system as well as to growth and price stability in the future. At the same time, it is clear that the Eurosystem's liquidity aid can only be a temporary measure, until confidence in the banking system and the full functionality of the interbank market have been restored through appropriate political and banking measures. Once this point has been reached, TARGET2 balances can be expected to decline as well.

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