Box 4

TARGET2 BALANCES OF NATIONAL CENTRAL BANKS IN THE EURO AREA

Large cross-border payment flows between banks in the euro area are a normal feature of Monetary Union, and a system such as TARGET2[1] is essential for the smooth processing of those payments. The settlement of cross-border payment flows in central bank money creates balances for each NCB that is connected to TARGET2.[2] The cross-border payment flows reflect transactions which are initiated by private entities (i.e. credit institutions, corporates or individuals) in most cases. The TARGET2 balances of euro area NCBs vis-à-vis the ECB that emerge from such cross-border interbank payment flows also reflect the decentralised distribution of central bank liquidity within the Eurosystem.[3] Indeed, banking communities in some countries that face net payment outflows need more central bank liquidity than those in other countries where commercial bank money is flowing in. The uneven distribution of central bank liquidity

1 TARGET2 (like its predecessor TARGET prior to November 2007, which was phased out by May 2008) is the Eurosystem's real-time gross settlement system. It stands for "Trans-European Automated Real-time Gross settlement Express Transfer system". Via TARGET2, NCBs provide payment and settlement services for participants in the European Economic Area (typically credit institutions and other market infrastructures). This box focuses on the euro area.

2 All NCBs in the euro area are connected to TARGET2. There are no constraints on the size of their TARGET2 balances vis-à-vis the ECB, and those balances can be either positive or negative. The NCBs of non-euro area EU countries can also elect to connect to TARGET2. Given that they are not part of the currency area, these NCBs have to maintain a positive balance vis-à-vis the ECB. The sum of all balances (i.e. those of the euro area NCBs, the non-euro area NCBs and the ECB) is zero. See the quarterly annex to the Monthly Bulletin (last published in September 2011) and the ECB's Annual Reports for more information on TARGET2.

3 See also the press release on "Bundesbank TARGET2 balances" issued by the Deutsche Bundesbank on 22 February 2011; the box entitled "The dynamics of the Bundesbank's TARGET2 balance", *Monthly Report*, Deutsche Bundesbank, March 2011; Bindseil, U. and König, P.J. "The economics of TARGET2 balances", *SFB 649 Discussion Papers*, No 2011-35, Humboldt University Berlin, 2011; and Bindseil, U., Cour-Thimann, P. and König, P.J., "Target2 and cross-border interbank payments during the financial crisis", *CESifo Forum,* special issue, Ifo Institute for Economic Research, Munich, forthcoming.

within the Eurosystem provides stability, as it allows financially sound banks – even those in countries under financial stress – to cover their liquidity needs, thereby contributing to the effective transmission of the ECB's interest rate decisions to the wider euro area economy, with a view to maintaining price stability in the euro area over the medium term.[4]

This box briefly presents the TARGET2 balances of NCBs in the euro area, explains why some balances increased during the financial crisis and looks at how this relates to the pattern of central bank liquidity provision across the countries of the euro area.

TARGET2 balances increased during the financial crisis

The settlement of cross-border payment flows between banks in the euro area results in intra-Eurosystem obligations, which are aggregated and netted out at the end of each business day. This results in each NCB having either a claim (i.e. a positive TARGET2 balance) or a liability (i.e. a negative TARGET2 balance) vis-à-vis the ECB, which is the central counterparty (see Chart A).

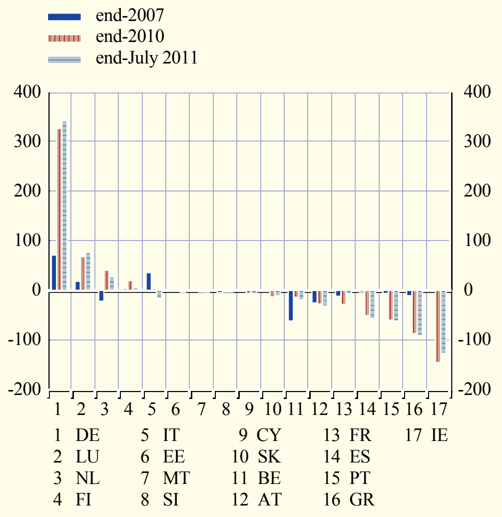
NCBs have usually displayed non-zero TARGET2 balances vis-à-vis the ECB. This can be seen from the NCBs' balance sheets, which are published regularly. The sum of all the positive balances of euro area NCBs (or, alternatively, the sum of all the negative balances) stood at around €100 billion prior to mid-2007.[5] TARGET2 balances have generally increased during the financial crisis (see Chart A).

The increase seen in the TARGET2 liabilities of some countries' NCBs vis-à-vis the ECB during the financial crisis is a consequence of funding tensions in those countries' banking communities and the ECB's accommodation of the ensuing liquidity needs.

Before the financial crisis, banks in these countries had relatively easy access to private funds. Notably, they received funds from abroad (e.g. in the form of cross-border interbank loans, direct investment or deposits) that broadly compensated for the payment outflows associated with net imports of goods and services or the acquisition of assets abroad. The fact that such countries had broadly

Chart A TARGET2 balances of NCBs

(EUR billions)



Source: NCBs.

4 See also the box entitled "The Eurosystem's balance sheet in times of financial market tension", *Monthly Bulletin*, ECB, September 2011.

5 See the NCBs' Annual Reports and balance sheet statistics. For instance, the TARGET2 balance of the Deutsche Bundesbank is published in the monthly series "EU8148". There is no single database grouping together the TARGET2 balances of all NCBs, but an imperfect proxy can be calculated on the basis of the IMF's International Financial Statistics as the sum of the monthly series "net claims on the Eurosystem" minus the difference between "currency issued" (which represents an NCB's share in banknote issuance based on its share in the ECB's capital) and "currency put in circulation" (which is the actual amount of banknotes issued by an NCB). For instance, this difference is structurally negative for Germany and positive for France.

balanced cross-border payment flows settled in central bank money meant that their respective NCBs maintained non-zero but, all in all, neutral TARGET2 balances.

As a result of the financial crisis, private money is no longer flowing into the banking communities of those countries in quantities sufficient to compensate for their payment outflows. Access to the interbank money market is impaired and cross-border loans to these countries have dried up, while previously received loans need to be repaid. In addition, banks' funding tensions are being exacerbated by capital withdrawals of the private sector. The ensuing net payment flows out of those banking communities settled in central bank money result in their respective NCBs displaying, in cumulative terms, liabilities in TARGET2. At the same time, the NCBs of countries which are net recipients of those payment flows display claims in TARGET2.

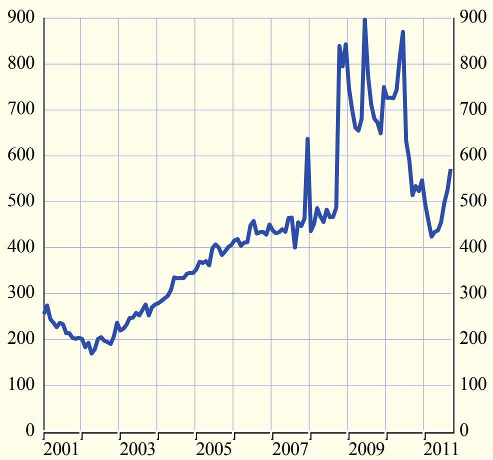
Link between TARGET2 balances and the provision of central bank liquidity

The financial crisis has led to shifts both in the pattern of private payment flows across the euro area,[6] and, simultaneously, in the pattern of liquidity provision by NCBs.

Banking communities that face net payment outflows settled in central bank money need more central bank liquidity than usual. Their NCBs provide liquidity (either in the form of lending operations or in the form of asset purchases) in amounts larger than those normally needed to cover the banks' liquidity needs. Those NCBs' balance sheets display increased liquidity provision through Eurosystem lending operations on the asset side and liabilities vis-à-vis the ECB in TARGET2 (see Chart C, left-hand panel). The overall size of the Eurosystem lending operations has increased during the financial crisis (see Chart B), and banks with larger liquidity needs have increased their participation in such operations. The distribution of liquidity within the Eurosystem provides stability, as it allows financially sound banks – even those in countries under financial stress – to cover their liquidity needs, thereby contributing to the effective transmission of the ECB's interest rate decisions to the wider euro area economy, with a view to maintaining price stability in the euro area over the medium term.

Chart B Liquidity provision in the Eurosystem monetary policy operations to euro area counterparties

(EUR billions; end-of-month data)



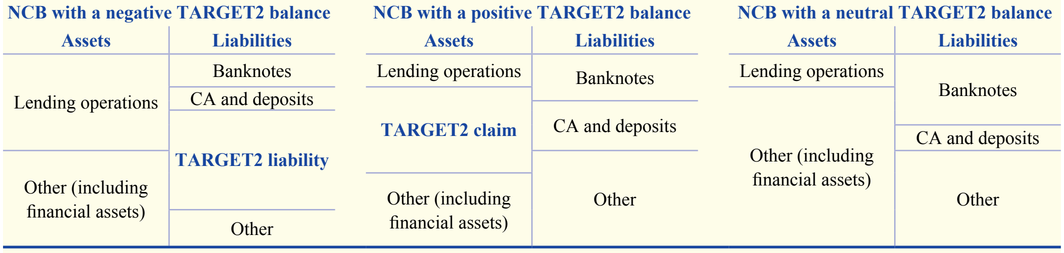
Source: ECB.
Note: Last observation: end-September 2011.

A positive TARGET2 balance does not imply constraints in the supply of credit to the respective economy, but is a sign of the availability of ample bank liquidity

Although there is a link between TARGET2 balances and the distribution of central bank liquidity across euro area NCBs, this has no adverse implications for the provision of credit to households and firms in specific countries.

6 This shift has essentially occurred within the euro area; the euro area's current account and financial account balances have remained broadly unchanged. See also Box 6, entitled "Developments in the euro area balance of payments to March 2011", *Monthly Bulletin*, ECB, June 2011, and Chapter 7 of the "Euro area statistics" section in the Monthly Bulletin.

Chart C Stylised balance sheets of NCBs with negative, positive and neutral TARGET2 balances



Source: ECB.
Notes: These are stylised representations of the balance sheets of NCBs and do not reflect actual data.
On the asset side, the "Other" category includes, in particular, financial assets, gold reserves and potential intra-Eurosystem claims that relate to proportionately lower issuance of banknotes relative to the NCBs' shares in the ECB's capital.
On the liability side, "Banknotes" include banknotes in circulation (proportionate to the NCBs' shares in the ECB's capital). The category "CA and deposits" corresponds to the banks' liquidity holdings at their respective NCB to essentially comply with the minimum reserve requirements, as well as the banks' deposits at the deposit facility and liquidity held in the form of fixed-term deposits. The "Other" category includes: capital and reserves; provisions and revaluation accounts; other liabilities (including those to euro area residents such as government deposits, and intra-Eurosystem liabilities that are related to proportionately larger issuance of banknotes relative to the NCBs' share in the ECB's capital, which is sizeable only in the middle panel).

It would be wrong to believe that TARGET2 liabilities that result from the provision of relatively large amounts of liquidity to banks in some countries have a negative impact on bank lending in other countries. Rather, banks in countries where the NCB displays a positive TARGET2 balance (see Chart C, middle panel) tend to be recipients of cross-border payment flows from other countries. Banks in such countries need less central bank liquidity than would otherwise be the case in order to continue lending to households and firms in their economies.[7] Further evidence that the reduction in some NCBs' provision of central bank liquidity does not, in itself, constrain bank lending stems from the fact that banks throughout the euro area currently have unlimited access to central bank liquidity, against adequate collateral, under favourable conditions. And indeed, banks have surplus liquidity, as can be seen from their recourse to the ECB's deposit facility.

The link between TARGET2 balances and banks' funding needs in individual countries is imperfect

As with the distribution of central bank liquidity and the issuance of banknotes across euro area NCBs, the TARGET2 balances of NCBs do not necessarily reflect the economic reality of banks' funding needs in individual countries. The distribution of central bank liquidity by NCBs in the individual euro area countries is related to the domestic liquidity needs of their banking communities, but in a loose way. This is a result of financial innovation and EMU, which both mean that the distinction between national and cross-border transactions is disappearing. Similarly, there are three main reasons why the TARGET2 balances of NCBs do not necessarily reflect the national economic reality associated with net cross-border payments in the euro area.

First, the geographical location of a payer/payee bank sometimes has more to do with the bank's internal organisation than with economic realities. In particular, multi-country banking groups can raise funds in a decentralised manner, and have at the same time increasingly

7 In fact, banks in those countries needed relatively more central bank liquidity than implied by the respective NCB's share in the ECB's capital before the financial crisis, because these countries had an above-proportionate need for banknotes at that time, part of which subsequently flowed to other countries in the euro area, or abroad. This implied intra-Eurosystem liabilities (which were actually not compensated for by TARGET2 balances).

centralised their liquidity management. For instance, a banking group can refinance itself at an NCB in another euro area country through a subsidiary. This generates a TARGET2 claim for the NCB in the country in which the parent bank is resident and a TARGET2 liability for the NCB in the country in which the subsidiary is resident. At the same time, a payment from, say, a French bank (holding a TARGET2 account with the Banque de France) to its German subsidiary (holding a TARGET2 account with the Deutsche Bundesbank) that needs to execute a domestic transaction in Germany will be accounted for in the TARGET2 balances of the NCBs in the two countries as a payment flow from France to Germany. Second, some cross-border payment flows are not settled in central bank money, and are thus not accounted for in TARGET2 balances.[8] This is the case with: (i) flows related to correspondent banking (where the payment is booked in the account that a commercial bank holds with another commercial bank); or (ii) systems which may settle part of or all their transactions in commercial bank money, such as securities or retail settlement systems (e.g. for retail payments conducted with some credit card schemes). Third, euro transactions involving banks in non-euro area countries (e.g. the United Kingdom) whose NCBs are not connected to TARGET2 can still be settled in this payment system via accounts at banks holding TARGET2 accounts in different euro area NCBs (e.g. the Bundesbank and the Nederlandsche Bank), thus affecting the TARGET2 balances of the respective euro area NCBs.

This notwithstanding, there remains a general – albeit imperfect – link between the loss of market access, increases in the need for central bank financing and increased TARGET2 liabilities in countries under financial stress.

TARGET2 balances are a normal feature of EMU

The TARGET2 balances of euro area NCBs reflect the uneven distribution of central bank liquidity within the Eurosystem. As there can be no upper limit on the value of payment flows within a single currency area, there can be no upper limit on the TARGET2 balances of NCBs. Limiting the size of TARGET2 balances would be inconsistent with the concept of a currency union. Similarly, in the United States, there are no limits on payment flows within the currency area formed by the 12 Federal Reserve districts. Interdistrict balances emerge from such payment flows, which are not more constraining than the TARGET2 balances are in the Eurosystem. The mechanism used in the United States to readjust interdistrict balances once a year has no influence on cross-border payment flows and essentially leads to the adjustment of the key used for the allocation of profits and losses of the US Federal Reserve System to the 12 district Reserve Banks.[9]

In EMU, a claim in TARGET2 does not, in itself, reflect the relevant NCB's exposure to financial risk. The risk exposure of the central banks forming the Eurosystem (i.e. the NCBs and the ECB) relates to the monetary policy operations themselves, not to the associated TARGET2

8 The size of flows settled in commercial bank (rather than central bank) money can be expected to have diminished during the financial crisis, given the decline in confidence in financial agents. Settlement in commercial money relies on confidence that the financial agent will ultimately be able to repay its debt in central bank money.

9 As a result of payment flows between the Federal Reserve districts, surpluses or deficits naturally emerge in interdistrict balances. These balances enter the Interdistrict Settlement Accounts, which are settled once a year, in April (the data series are available at: http://alfred.stlouisfed.org). The annual settlement is based on each Reserve Bank's average interdistrict balance during the preceding 12 months (April to March), so that it does not generally bring the balances back to zero. The settlement mainly consists in adjusting the relative shares of the 12 Reserve Banks in the securities holdings in the System Open Market Account of the Federal Reserve System. See also Board of Governors of the Federal Reserve System, *Financial Accounting Manual for Federal Reserve Banks*, Section 40.40 SOMA Participation, Revision Set 50, December 2010.

balances. As always, a central bank faces counterparty risk when implementing monetary policy. The risk associated with the provision of central bank liquidity as part of the implementation of monetary policy is mitigated by a risk management framework.[10] The Eurosystem's collateral framework is based on a public list of securities fulfilling the relevant eligibility criteria, together with risk control measures. In particular, securities pledged as collateral are valued on a daily basis, at market prices (where available) or using conservative valuation methods, with haircuts also being applied. The residual risk associated with the provision of central bank liquidity that may emerge despite the risk mitigation measures, is, as a rule, shared among the NCBs of the Eurosystem in accordance with their respective shares in the ECB's capital and is not related to the TARGET2 positions of individual central banks.

10 See Chapter 6 of *The implementation of monetary policy in the euro area – general documentation on Eurosystem monetary policy instruments and procedures*, ECB, February 2011. Any amendments to this documentation are published on the ECB's website.