



## NOTES ON THE TARGET2 DISPUTE

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*Abstract: For several months now, a dispute has been raging in the literature and the media on the so-called Target2 balances. Ostensibly, the debate concerns the eurozone settlement system. According to Hans-Werner Sinn, who initiated the debate, the balances that have accumulated in this system resemble billion-euro rescue packages which no parliament drew up or ratified.*

Triggered by Garber's (1999 and 2010) and Sinn's (2011) contributions, a debate has arisen over the eurozone settlement system, called Target2, during the last few months. Important parts of this discussion can be found in a recent paper by Sinn and Wollmershäuser (2011), which this paper refers to. The present article elaborates some central points of disagreement and assesses them. The focus of the analysis will be on the settlement system's economic effects. In order to illustrate them as clearly as possible, technical details will be neglected, as will political or normative questions.

### What is Target2?

The acronym Target stands for 'Trans-European Automated Real-time Gross Settlement Express Transfer'. Target2 represents the second generation of this eurozone settlement system, controlled by the ECB, in which central banks as well as private institutions participate. Because Target2 was designed as a pure settlement system, the balances of all participants equal zero at any point in time. No ceilings for credits or overdrafts were fixed with respect to the individual Target2 balances, as it was assumed that only insignificant settlement differences would remain in the accounts. This assumption has proven

to be false: as from 2007 on, national central banks' balances, which do not show up in the consolidated balance sheet of the Eurosystem but are to be derived from the national central banks' balance sheets, have in some cases climbed to astronomical amounts. At the end of 2010, the Target2 account of the Deutsche Bundesbank as the major creditor amounted to 326 billion euros, whereas the accounts of the major debtors, i.e. the central banks of Greece, Ireland, Portugal and Spain, showed a total debit of 340 billion euros (Deutsche Bundesbank 2011). The balances of the central banks of the remaining euro countries were smaller, with Luxembourg, at 68 billion euros, being the next biggest creditor and France, at 29 billion euros, the next biggest debtor. The per capita credit of Germany amounts to 4,000 euros and that of Luxembourg to more than 125,000 euros.<sup>1</sup>

### What is the economic meaning of Target2 balances?

Due to the complexity of monetary policy instruments, which easily hide economic relationships, we would like to start the analysis of Target2 balances with a very simplified model that comprises two economic agents A and B and a bank. In the base case, A supplied B with merchandise worth 10,000 euros on account. There are no other transactions, and there are no other agents besides A and B and the bank. Disturbing details like transaction costs or an equity base of the bank are ignored.

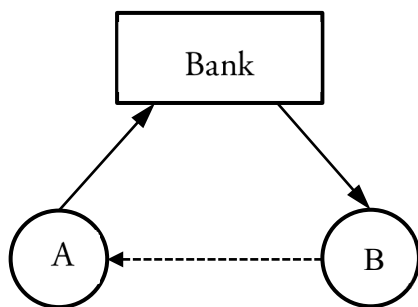
Balances of payments are usually only drawn up for countries but the concept can just as well refer to individuals: by supplying merchandise, agent A achieves a balance of payments surplus of 10,000 euros as he has exported this amount without importing anything. As a mirror image, A's net claims increase by 10,000 euros, which is counted as capital export. Conversely, B's current account shows a deficit of 10,000 euros, combined with a capital import of the same size.

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<sup>1</sup> The Target2 balance may be accessed online at [www.bundesbank.de/statistik](http://www.bundesbank.de/statistik) as time series EU8148, the entire external position of the Deutsche Bundesbank in the eurozone as time series EU8141. As of 30 June 2011, the German Target2 credit balance has grown to 337 billion euros.

Figure 1

Processing a simple transfer



Source: Author's conception.

After B, in a second step, has transferred the amount of the invoice – the broken line in Figure 1 – he owes the bank this very amount, while A's bank account shows a corresponding credit. These legal debt relationships are represented by solid arrows pointing in the direction of the debtor. The money transfer does not change the net claim positions of A or B, and the bank still has a net claim position of zero.

Two things ought to be noted here. First, A has supplied the merchandise and saved the amount earned because at a later date – perhaps in old age – he hopes to get a corresponding return shipment or a service. If B dies or withdraws for other reasons, A's calculation does not work out, as the bank has no assets left and cannot repay the credit. For A, it is of the utmost importance that the bank only grants B the loan against sufficient collateral.

Second, for each economic agent it is true that the current account (*CA*) and the capital account (*KA*) equal zero:

$$CA + KA = 0.$$

A current account surplus is always and inevitably accompanied by a capital account deficit, i.e. a net capital export. This fact is not amenable to an empirical test or economic reasoning but is a conceptual identity. For each economic agent, current account and capital account balances always add up to zero. The same is true for any group of economic agents, like the inhabitants of a country. Hence we can add as many agents as we want to the above model without changing this central aspect.

In the next step we assume – all other model assumption remaining valid – that A and B live in different eurozone countries. In addition, the model is extend-

ed to include another commercial bank, two national central banks and the ECB.<sup>2</sup> The dashed line in Figure 2 again shows the money flow, while the solid arrows represent the resulting claims and liabilities and point in the direction of the debtor.

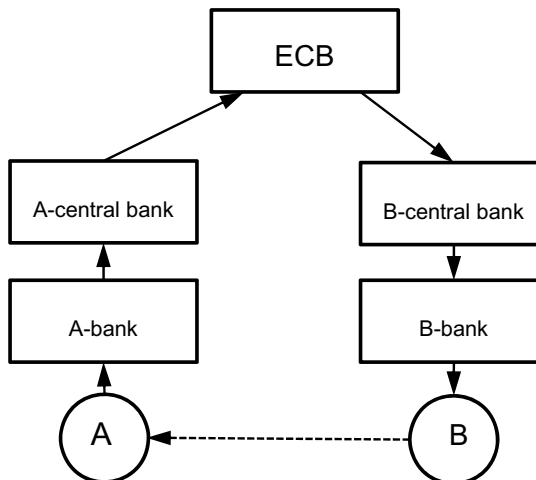
Subsequent to the required rebooking, A and B are in the same positions as in the base case, and all participating commercial and central banks have net assets of zero. In the Target2 system, the account of the A-central bank has a credit of 10,000 euros and the account of the B-central bank a corresponding debit. For lack of other agents, the balance of payments statistics show a surplus for country A and a corresponding deficit for country B. In another important respect, too, nothing changes compared to the base case: if B drops out as debtor, the money assets of A and his hopes for a later return transfer vanish in thin air.

The Target2 balances disappear when B sells A merchandise worth 10,000 euros. In this way the current account and capital account balances are adjusted; both individuals have exported and imported for 10,000 euros. In a parallel fashion, Target2 balances disappear when B issues a bond worth 10,000 euros that A buys: consequently, country B's current account deficit remains in existence but is financed by a private, market-based capital import. In Figure 2, the purchase of the bond by A would trigger a money flow in the opposite direction that cancels all the claims between banks, central banks and the ECB.

<sup>2</sup> The intermediary position of the two central banks is superfluous if the commercial banks participate directly in Target2.

Figure 2

Processing a transfer in the Target2 system



Source: Author's conception.

To sum up, country B's current account deficit can either be financed by private capital imports or *via* Target2. In the first case, private agents hold a claim against country B; in the second the claim against country B is held by the ECB. In order to distinguish sharply between central bank and private claims, respectively, it seems useful to define the Target2 balance as follows:

$$KA = KA^* + T.$$

For every eurozone country, the capital account in the wider sense ( $KA$ ) consists of the capital account in the narrower sense ( $KA^*$ ), which is implicitly defined by this equation, and changes in the country's Target2 balance.  $T > 0$  represents a payment inflow into the country, which is accompanied by an overdraft of the Target2 account. The capital account in the narrower sense may comprise also public capital movements other than those of the Target2 system; but these will be ignored in the following. The definition above is reminiscent of the differentiation – often used with the gold standard and the Bretton Woods System – between a capital account in the narrower sense and a foreign exchange account. Indeed, there is an analogy between Target2 balances and foreign exchange movements in a fixed exchange rates regime, the important difference being that foreign exchange reserves are finite whereas Target2 accounts may be overdrawn infinitely. Substituting the above definition into the equation of the balance of payments results in:

$$CA + KA^* + T = 0.$$

This equation leads to the economic core of the problem, namely, a statement that is true for purely logical reasons: without Target2, i.e. when  $T$  vanishes, current account deficits ( $CA < 0$ ) must be financed by private capital imports ( $KA^* > 0$ ). If the market refuses to grant a country further credit, the country concerned cannot maintain a current account deficit but is only able to import as much as it exports. In contrast to this, Target2 enables a country to finance current account deficits even after complete credit rationing ( $KA^* = 0$ ) by overdrawing its central bank account,  $T > 0$ . Sinn has shown empirically that this scenario fits the cases of Greece and Portugal. After the outbreak of the crisis, both countries were no longer able to finance their current account deficits *via* private capital imports as creditors had become cautious. Instead, the import sur-

pluses were (and still are) financed *via* Target2. How long this process can go on is unclear, but neither price signals nor foreign exchange reserve scarcities will stop it.<sup>3</sup>

Target2 not only permits a basically unlimited financing of current account deficits but also the financing of capital flight ( $KA^* < 0$ ) with a balanced current account ( $CA = 0$ ). This scenario fits Spain and even more so Ireland.<sup>4</sup> In both cases private creditors have vanished and the ECB took their place. Economically this represents a stealthy bailout of yet unknown volume. Since the addition of the three variables  $CA$ ,  $KA$  and  $T$  always equals zero, hypotheses about whether changes in  $T$  stem from changes in the current account or changes in the capital account, respectively, are not airtight. Yet the basic argument that Target2 debts are always caused by current account deficits *or* capital account deficits *or* a combination of the two remains unaffected. This point was illustrated above using two extreme cases.

In conclusion, Target2 balances reflect real economic claims or liabilities. A Target2 credit represents a net claim position of the respective country behind which are claims of private savers. Conversely, a Target2 liability presents corresponding debts of the respective country, be they public or household or corporate debts. In contrast to net claim positions due to private transactions, credits and debits in the Target2 system are not economically kosher, as they are not based on market signals and hard creditworthiness tests but on the Eurosystem's malpractice to accept all financial instruments whose rating is above D. It is quite simple indeed: if private investors react elastically to risks whereas the Eurosystem reacts inelastically, re-allocations will take place with all bad risks ending up in the books of the central banks. This is exactly what has happened during the last years.

#### *What is the risk for Germany?*

As described in the beginning, the Target2 credit of the Deutsche Bundesbank amounted to about 326 billion euros at the end of last year whereas Greece, Ireland, Portugal and Spain together had a

<sup>3</sup> If Target2 balances grow without limit, the Bundesbank could in the end become a debtor to the domestic commercial banks (Abad, Loeffler and Zemanek 2011). This is abnormal but not impossible.

<sup>4</sup> Buiter, Rahbari and Michel (2011) as well as Bindseil and König (2011) have reached similar conclusions. Their nitpicking criticism of Sinn is hardly comprehensible as Sinn emphasized the importance of capital flight in Ireland.

debit of 340 billion euros. What risk the balances imply for Germany depends on the scenario drawn. Let us first look at Greece's return to the *drachma*. If Greece is not able or willing to cancel the remaining euro balance on its Target2 account, the ECB will suffer a corresponding loss. This loss has to be borne by the national central banks of the remaining euro countries according to their capital share, with Germany accounting for 27 percent. Depending on the size of the amount, the Deutsche Bundesbank must be recapitalised by the taxpayer, thereby bringing the loss to light. The fact that Germany bears 'only' 27 percent of the losses is considered comforting by some. However, this ratio is endogenous and rises depending on how many euro countries leave the eurozone, up to 100 percent in the worst case scenario.

It would be different if Germany were to leave the eurozone, not the other countries. In this case the liabilities of the problem countries would not matter, but Germany's credit, as those left behind would hardly be willing to pay out the German Target2 credit in gold or similar assets and at the same time assume the full risk *vis-à-vis* the problem states. At the end of 2010, Germany's stake amounted to the full 326 billion euros.

#### *Secondary issues*

There will be few objections to the above remarks, as they reflect simple textbook knowledge. The current debate does not focus on the core aspects but on secondary issues. Let us select two of them to extend our argument. First, the above considerations imply in no way that German exports to Greece are financed by Target2. This may occur accidentally but it is neither necessary nor of importance, as it is not the bilateral balances of payments that count but the corresponding total balances of payments. The economic effect is independent of whether Germany exports to Greece or Germany to China, China to Singapore and Singapore to Greece.

Second, the Target2 system does not in any way limit the German potential to supply credit to its economy – even if we were to assume a constant central bank money supply in the eurozone. To show this and delve into the mechanics of the balances in greater depth, let us look at a Greek asset owner who has a deposit of 1 million euros with his Greek bank. The bank is assumed to have used this deposit to acquire Greek government bonds. If the asset owner closes

his savings account and transfers his money to a newly opened account in Germany, then central bank money flows out of Greece and into Germany. These outflows and inflows are then neutralised *via* Target2, with the Greek bank refinancing itself by pledging its government bonds at the Greek central bank, whereas the German bank reduces its refinancing at the Deutsche Bundesbank. Subsequent to the neutralisation, the money supply of the national central bank is as large as before the capital flight took place. There is no change in the potential credit supply of German banks. The German banks refinance simply by relying more on deposits and less on central bank credit. To be sure, the risk moves from the Greek asset owner to the German taxpayer. And what is more, the continuing flow of funds to the periphery countries made possible by Target2 only diminish Germany's potential to use these funds domestically.

#### *Target2, Eurobonds and the ESM*

Last year, the eurozone member states discussed extensively the introduction of so-called Eurobonds, i.e. about securities for which they are liable in proportion to their ECB shares (in another proposal, the states would even bear joint liability). Because of the opposition primarily in Germany to such a liability union, the plan was discarded. It is interesting, however, that Target2 balances are economically equivalent to Eurobonds, as all member states are liable for the debts in the Target2 system according to their ECB shares. This aspect is extraordinarily important and at the same time disquieting because the elected representatives rejected exactly those Eurobonds that in fact already existed behind the scenes.

The same can be said for the ESM. This mechanism which is permanently coping with the crisis is also equivalent to Eurobonds. As a special purpose vehicle, the ESM grants loans to problem countries, for which all members of the eurozone are liable in proportion to their ECB shares. The formal establishment of the ESM is to be voted on soon; *de facto* it has already existed for years.

Only the recognition of the equivalence of Target2, Eurobonds and ESM allows us to interpret the conflict between the governments of the eurozone on the one hand and the ECB on the other: the ECB supports establishing a special purpose vehicle because it secretly hopes to shift its Target2 problem to the

ESM; it does not want to be saddled with these debts. Its hopes will not be fulfilled, however, as the governments for their part are not interested in taking Target2 debts into their remit and make them apparent to taxpayers. European governments prefer to create, with the ESM, a liability union in addition to Target2 in order to promote what they consider their most important right, i.e. the right to accumulate public debts without restraint.

#### *Possible solutions?*

The aberrations outlined above could have been avoided if it had been stipulated that Target2 balances be adjusted periodically or at least fully collateralised. This was omitted, however, consciously or unconsciously. After the fact there is not much that can be done. Adjustments in the balances of payments would require the problem countries to build up current account surpluses or capital imports in a three-digit billion euro range, which is unrealistic. It is equally unrealistic to demand from the ECB to return to sound collateral practices. For, what collateral could Greek or Irish banks and central banks offer? Only those that they themselves have accepted, i.e. securities with ratings close to D. The fact that the Eurosystem is accepting junk bonds as collateral is not only an eminent fault of monetary policy which has deeply corrupted the ECB's reputation but is also at the heart of the Target2 problem: balances of this magnitude would not have accumulated if the ECB had only accepted traditional collateral.

In the same way that our agent A has no recourse to his claim if B drops out as debtor, many German savers and pensioners will learn that parts of their assets are imaginary. In this respect, the build-up of fictitious deposits in the Target2 system is reminiscent of Germany's stealthy military financing in the 1930s and during World War II, the famous *geräuschlose Kriegsfinanzierung*.

#### *Conclusion*

Hans-Werner Sinn's allusion to the dangers that are brewing in the Target2 system is fully warranted. Economically, Target2 balances are equivalent to Eurobonds and are also equivalent to the ESM. By accepting junk bonds as collateral, the Eurosystem anticipated the establishment of the ESM, created a gigantic liability union, and violated the principle of good central bank policy, according to which mone-

tary policy should not have redistributive effects and is to be sharply separated from fiscal policy. The fact that the ECB's Chief Economist thinks, with a view to Sinn's theses, that several academics are risking their reputation,<sup>5</sup> is not only absurd in content but is once again reminiscent of war, in which truth is the first to die.

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<sup>5</sup> See [www.handelsblatt.com/politik/deutschland/ezb-chefvolkswirt-stark-teilt-ordentlich-aus/4275716.html](http://www.handelsblatt.com/politik/deutschland/ezb-chefvolkswirt-stark-teilt-ordentlich-aus/4275716.html).