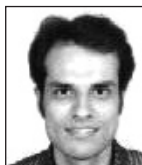


## The Eurozone and the Target 2



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The Eurozone crisis is probably one of the most talked about and one of the most researched topic in the world of economics today. One of the lesser-known aspects about the Eurozone is their system of cross border payment, the Trans-European Real-time Gross settlement Express Transfer or what is known as the Target 2. This so called “back end” of the Eurozone may suddenly come to forth with the threat of peripheral economies exiting the monetary union. This articles attempts to explain the basic ideology and mechanism of the Target 2, recent criticisms against Target 2 and the possible impact of countries exiting from the Euro.

### Target 2 Basics:

Target 2 is the system of Real Time Gross Settlements or Euro denominated payments, owned and operated by the Eurosystem via single Shared Platform provided by Bancad'Italia, Banque de France and Bundesbank.

Target 2 pertains to payments made between citizens of different countries within the Eurozone i.e. What happens when, lets say a Greek company wants to make a payment to a German company for the purchase of machinery. In any other economic system, funds would have simply been transferred from one bank to the other, with the bank accounts of the concerned parties debited and credited respectively. The system for Real time Gross settlements would have settled the transaction between the two banks. However, the case is not so straightforward for the Eurozone. The reason being, every county within the Eurozone has its own banking system and also its own Central Bank (like the Bundesbank in Germany, and Banco de Espana for Spain). Over and above this, there is the European Central Bank or the ECB, which is the Central Banker to the entire Eurozone and co-ordinates the National central banks.

As a result, the aforesaid transaction between the Greek and the German company will have to be routed through a system comprising and involving banks in both countries, national central banks of both countries and the ECB, apart from the two parties involved. Target 2 is the name given to this system.

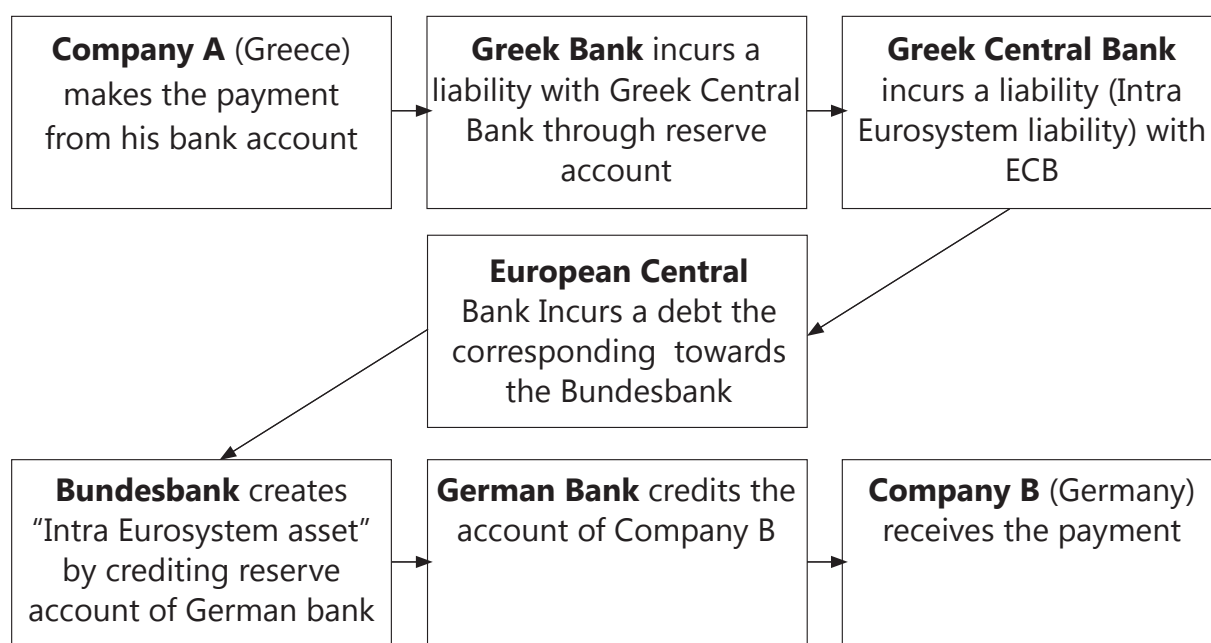
When company A (the Greek company), writes a cheque (or transfers fund electronically) of say 1 mn Euros in favour of company B (the German company), the balance in A's

account is reduced. On the other hand, the Greek bank’s reserve account with the Greek Central bank reduces i.e. decrease in assets. (In case the Greek bank’s account with the Greek Central bank is already running in deficit, the negative balance would increase i.e. increase in liabilities).

This is reflected in the Greek Central Bank’s balance sheet as a reduction in liabilities towards the Greek Bank (or increase in assets in case of a negative balance) and an equivalent increase (of 1 mn Euros) in the “Intra-Eurosystem liabilities” on its balance sheet. This is the most critical aspect in the whole process. The Intra-Euro liability is the amount that the Greek Central banks owes to the European Central Bank. On the other hand, there is a corresponding “Intra Euro-system assets” that’s gets created on the balance sheet of the Bundesbank (German Central Bank) which, represents the amount that the ECB owes to the Bundesbank. Thus, the ECB owes the same amount to the German Central bank as the amount owed to it by the Greek Central Bank.

Bundesbank bank, in turn will credit the same amount to the reserve account held by the German bank i.e. the increase in its asset on account of the Intra Euro-system assets is accompanied by increase in liabilities of the German Bank (reduction in assets if the German bank is running a negative balance). Finally, the German Bank, with the increase in it’s assets as a result of this accretion to its reserve account with the Bundesbanks, also increases its liabilities by an equivalent amount by way of credit to account held by B (the German Company). Thus, the German company receives the amount that it was supposed to receive from the Greek company. Just that, along with a transfer of electronic funds between the two parties, there have come into existence two more claims. One, the amount (i.e. 1 mn Euros) owed by the Greek Central Bank to the ECB (the Intra Eurosystem liability) and the equivalent amount owed by the ECB to the Bundesbank. In effect, this is the amount that the Greek Central owes to the Bundesbank. However, the individual central banks would be dealing only with ECB directly.

The following flowchart will make this process clear:



### **Alternatives to Target 2:**

As can be seen from the aforesaid discussion, the system of Target 2 leads to accumulation of the "Intra Eurosystem Assets and Liabilities" in the books of Central Banks, which keep on piling with time. Given the structural imbalances across various economies in the Eurozone, this is inevitable. To deal with this unidirectional movement of balances, some experts have suggested alternatives to the Target 2:

1. Limits on Target 2 balances: Hans Warner-Sinn have proposed maximum limits on the Target 2 balances. Although this comes across as a natural reaction to the aforesaid issue, its implications could be drastic. For instance, in our example, when company A from Greece writes a cheque in favour of company B in Germany, the cheque would bounce if let's say Greece has already reached its maximum limit for Target 2 balances, although company A has sufficient balance in his account. This would imply that Euros in Greek bank account are not the same as Euros in German bank account. Limits on transfers would eventually mean an end to Euro as a single currency.
2. Annual settlement of balances: At the end of every year, the central banks could actually settle the accumulated balances by means of transfer of assets. Apparently straightforward, the solution raises the question as to what assets could be transferred for settling the balances. Sinn proposes settlement via bonds "collateralized by each corresponding government with state owned real estate or senior rights to future tax revenue". This appears to be a drastic solution which may be politically unpalatable as well as economically unfeasible for the weaker and may ultimately lead to break up of the Eurozone.
3. A less extreme alternative could be transfer of the loan assets from one Central bank to the other. In the aforesaid example, the loan assets of the Greek banks and (hence the Greek Central Bank) could be transferred to the Bundesbank. In other words, the "Intra Eurosystem Assets" on the books of the Bundesbank could be replaced by Loans to Greek banks or Loans to Greek Central Bank. The losses if any, on these loans could be dealt with as per the Eurosystem rules, which prescribe spreading over losses to all the Eurozone countries based on a pre-determined norms.

The current Target 2 system needs to be evaluated on basis of how it could cope up with risks that the Eurozone is facing currently.

### **What happens in case of Capital Flight?**

No questions would be raised about the system, if the negative balances cancel out the positive balance over a period of time. That is to say, the movement of money is uniform across countries, with no countries having perpetual positive or negative balances. That

is of course in an ideal world. In reality, the growth in the intra Eurosystem balances has been highly lopsided. As can be easily surmised, the peripheral countries, who are mostly the importers which run current account deficits have accumulated huge Target 2 liabilities and not surprisingly, the Bundesbank of Germany has piled up the corresponding assets (approximately 700 bn Euros). In fact, the majority of Bundesbank assets today comprise of these Target 2 balances! What this means is a large part of the money created by the Bundesbank is against the claims that it holds against the ECB, which in turns holds with the rest of the Eurozone countries. In other words, a large amount of Euros circulating in Germany are actually electronic funds created by the Bundesbank against receivables, which are ultimately owed by the Central banks of Peripheral countries like Spain, Portugal, Italy and Greece

There would be no eyebrows raised, if these balances would have cleared in the short run or fluctuated mildly around their mean values. On account of the structural differences and disparities across the Eurozone countries, differences in the inflation rates and competencies within the Eurozone, growing fiscal and current account deficits of the weaker peripheral economies and consequent unabashed rise in public debt, a common currency union without appropriate fiscal union and finally with global financial meltdown and recession beginning in 2008, there was only one way the Target 2 balances would move.

To make the matters worse, with the speculation about (and the actual) deterioration of the peripheral economies investors and depositors have started shifting their funds to the German banks along with investing in sovereign German bonds. This capital flight has further exacerbated the Target 2 balance positions.

What would happen if there are large withdrawal demands on Greek banks and they run out of liquid assets? In that case, through the process of Target 2 balances, the Greek Central Bank can 'create' (not print) money to loan it to Greek banks through the reserve accounts that the banks maintain with the central bank. This would happen via collateralized refinancing option, which provides collateral to the Central bank, which can help mitigate losses in case of default. It is for this reason that some economists have argued that "Target2 credit" has acted as a form of official financing to the periphery which has financed the "sudden stop" or reversal in capital flows.

The aforesaid creation of money through central bank refinancing also implies replacement of private liabilities by public ones i.e. Large part of assets funded by central bank money instead of private depositors funds. This would of course, lead to severe liquidity crunch for the peripheral economy banks along with slowdown or even reduction in the credit creation pushing the economy further into recession. Fortunately, the Long Term Refinance Operations (LTRO) of the ECB has helped ease the liquidity position of the European banks by providing long term funds at very low rate (1%) and averted a crisis of liquidity at least temporarily.

Thus, the Target 2 system seems to be geared to deal with situation of Capital flight from one country to another and the system seems to be working despite all the economic turmoil and ongoing market speculation. But things may get even worse.

### **What if some countries like Greece exit the Euro?**

So far as all the economies are a part of the currency union, this can go on (but still, how long?). What happens, if some of these economies collapse and exit out of the currency union. What would happen to all those "Intra Eurosystem liabilities" that the Greek Central owes to the ECB (and indirectly to the Bundesbank)? How will it be ensured that all the amount due to Germany will be repaid. The position of ECB here is like that of an exchange or a clearing house. So, does it bear the counter party default risk? It will surely have to play the role of a clearing house. But that does not mean that the ECB will make good the losses by simply printing the required amount of Euros and giving it to Germany. (That may lead to widespread inflation across the Eurozone along with depreciation of the Euro).

Instead, as per the Eurosystem rules, the losses on account of such a default or exit would be distributed across all the Eurozone countries based on a pre-determined formula (capital key, which in case of Germany is 27%). That means, the maximum loss that the Bundesbank will have to suffer would be 27%.

Thus, the fears about the extent of damage that a Greek exit could cast upon Germany on account of the piled up Target 2 balances are thus to be tempered down in the light of ECB's role as the clearing house. Furthermore ECB could also have the access to the collateral securities/assets held by the exiting central banks pertaining to the loans refinanced.

### **What if the entire Eurosystem breaks up?**

In an even more apocalyptic scenario, what if the Eurozone breaks up completely breaks up and the debtor countries fail to meet their commitments? Experts have contrary views about this. One view is that, Germany may have to suffer the loss on account of such default. The replacement of Euro by Deutsche Mark may lead to either a high rate of inflation in Germany or large-scale austerity measures in form of high taxation, which can adversely affect economic growth. The other point of view is that default may not affect Germany so harshly, as long as the Bundesbank maintains its trustworthiness by not printing excess amount of Deutsche Marks. This is so because, a fiat currency's value, its real purchasing power, is determined by how much money has been supplied and the various factors influencing money demand, not by the stock of central bank assets. That means, even if the assets of Bundesbank comprises of non recoverable "intra Eurosystem assets" after the break up, the value of the Deutsche Mark can still be held intact if amount of Marks supplied is in consonance with the economic fundamentals and people have faith in the Central bank credibility.

### **Money Supply and Target 2**

As mentioned earlier, Target 2 has been criticized for indirect financing of the Peripheral economies, while these economies have suffered current account deficits as well as capital flights. How does this impact the money supply in the Eurozone? Assuming

a hypothetical situation where there is no such thing as Target 2 and banks actually transferred net balances in terms of physical euros from one country to another. In such a (strange) world, the money supply (in terms of M0) in the peripheral economies would have reduced and the same would increase in Germany (and other Target 2 positive countries). In the absence of a currency union, the effect would have been depreciation of Peripheral currency and appreciation of the German currency. However, due to the currency union and Target 2, neither of the aforesaid happens (transfer of Euros or adjustment in currency value).

What does happen is that, the money supply (in terms of M3) in Germany increases (due to creation of "Intra Eurosystem assets" and reserve accounts (on the liability side) of the German Banks. Whereas, the money supply (in terms of M3) does not reduce in the peripheral economies. Instead as the private liabilities of these banks (in the form of deposits) decrease, they are replaced by public liabilities in the form of reserve accounts with the Central banks. In other words, the assets of these banks have come to be funded by the respective central banks. Thus, though the individual central banks do not print Euros, they can create money by creating Target 2 Liabilities and (electronically) funding their banks. Hence, one can say that the Target 2 system leads to higher money supply for the Eurozone as a whole. This implies that Target 2 would have increased the money multiplier ( $M3/M0$ ) for the Eurozone. In so far as the inflation has been kept under control by the ECB, it can be said that this higher money supply due to Target 2 has not adversely affected the Eurozone.

One crucial point about the aforesaid indirect financing of bank assets by Central banks through Target 2 liabilities is that it has provided liquidity to these banks. In this case, the banks would have had to force sell their assets in order to meet their liabilities, on account of the dwindling deposits and capital flights. This would have contracted the size of their balance sheets and consequent money supply, and plunged the peripheral economies further into recession (not that they are not in recession as of now). This would exacerbate the incidence of NPAs on the one hand and further increase the yields on sovereign bonds (of all countries) as these banks have substantial exposure to different sovereign papers. To make matters worse, the contagion would have impacted the liquidity position of banks in stronger economies to the extent of the inter-bank deposits between various Eurozone banks.

Only time will tell us how Germany will or will not be impacted by Target 2 balances it has accumulated. One thing which can safely be inferred from the foregoing discussion is that Target 2 has certainly lent a helping hand to the weaker peripheral economies in these turbulent times.