The Refinancing of Banks Drives Target Debt

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The European Central Bank (ECB) annually reports at length about how wonderfully fast and smoothly its real-time payment system TARGET2 (**T**rans-European **A**utomated **R**eal-time **G**ross settlement **E**xpress **T**ransfer system) functions (European Central Bank 2010). The ECB does not report, however, that within this payment system huge disequilibria have developed since 2008. Hans-Werner Sinn must be credited for focusing on these disequilibria and interpreting them as balance of payments disequilibria (Sinn 2011; Sinn and Wollmershäuser 2011). This has provoked criticism from academia as well as in the media. These disputes cannot and will not be addressed in detail here. The aim of this paper is to examine the close relationship that exists in several euro member countries between increased refinancing of the banks at their central banks and the build-up of debt between the national central banks *via* the Target system. This will be done with the help of an empirical analysis of the development of the Greek banking system (see Neumann 2011). One conclusion of this analysis is that the Eurosystem ought to agree on regulation that effectively limits the future refinancing possibilities of the banks.

Current account financing *via* Target debt?

First, however, a comment on the contested aspect of the balance of payments interpretation of Target balances. Greece's balance is negative (June 2011: – 96.8 billion euros). Formally, it represents the net indebtedness of the Bank of Greece to the Eurosystem as operator of the payment system. In economic terms, however, the existence of the Target settlement system cannot be ignored. The Greek Target balance is the sum of net debt owed to the other central banks of the Eurosystem created by payment transactions. In technical terms, the balance is carried in the balance of payments as a liability to foreign countries.[1] This procedure is independent of the question of whether the payments underlying the balance served to settle merchandise transactions or portfolio positions.

In the case of Greece, the net capital imports *via* Target in the period from 2008 to 2010 corresponded, on average, to 90 percent of the capital imports needed to finance the current account deficits. There was, however, considerable volatility. At 50 percent, capital imports *via* Target were considerably lower in 2009 and in 2010 at 160 percent much higher (see Table 1). Nonetheless, these observations suggest *prima facie* that current account deficit have been financed to a considerable extent by Target debt. But this must not necessarily be the case. It could at least in part have served the financing of capital exports. This can be clarified with the help of the general balance of payments equation also used by Sinn und Wollmershäuser (2011):

$\Delta T = L + K$, while $K = KI - KE$.

An increase in the Target debt ΔT corresponds to the sum of the balances on current account L and capital account K, where the balance K is defined as the sur-

Table 1

The Greek current account deficit and Target debt

	Current account	Net capital imports *via* Target	Share	Capital account*
	Billion euros		%	Billion euros
2008–10	– 84.7	76.3	90	0.1
2008	– 34.8	24.6	70	5.3
2009	– 25.8	13.7	53	10.7
2010	– 24.1	38.1	158	– 16.0
* Adjusted by net capital imports *via* Target.				

Sources: Bank of Greece; calculations of the author.

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[1] Analogously, the Bundesbank records its positive Target balance (June 2011: 336.5 billion euros) as 'Other claims (net)' in the International Investment Position of the Deutsche Bundesbank in the European Monetary Union (see Table II.8, *Statistisches Beiheft Zahlungsbilanzstatistik zum Monatsbericht*).

plus of private and public capital imports *KI* over capital exports *KE*. The equation holds for the assumption of floating exchange rates *vis-à-vis* third currencies.

For the purpose of illustration two extreme cases are distinguished:

a) The current account deficit is completely financed by Target debt: $\Delta T = L < 0$. It follows that the private and public capital account should be balanced: $KI = KE$.
b) The Target debt does not serve the financing of the current account deficit but exclusively the financing of capital exports: $\Delta T = -KE < 0$. In this case the sum of private and public capital imports should correspond to the absolute value of the current account deficit: $KI = -L$.

These constructed 'ideal' cases show that basically there must always be an analysis of the capital account to determine whether and to what extent a current account deficit has been financed by the central bank with Target debt at the Eurosystem. That is why the last column of Table 1 reports the balances of the Greek capital account. The data show that in the period 2008–10 net private and public capital movements played in fact a largely insignificant role in the financing of the current account deficits. It can thus be concluded that during the three-year period the Greek current account deficit was financed at least to 90 percent by Target debt of the Bank of Greece. Beyond that, in 2010 the central bank financed in this way net capital exports of around 15 billion euros.

In view of the magnitude that Target debt has meanwhile reached on the balance sheets of the central banks of the Eurosystem, one may expect the ECB to create transparency by reporting in detail, at least in its Annual Report, about the development of the balances between the member banks.[2]

Refinancing credit and Target debt

The enormous expansion of Target debt by the GIPS countries (Greece, Ireland, Portugal, Spain), rightly deplored by Sinn and others, can only be understood against the background of the parallel excessive expansion of debt by the commercial banks of these countries at their central banks. It was promoted by the introduction of the essentially more efficient euro payment system Target2 in spring 2008 and by the ECB's shift to a policy of full allocation of tenders and lowering of collateral standards in autumn 2008. The Greek banks, which changed to the Target2 System in spring 2008, used it at once for a credit-financed expansion of their portfolio investment abroad. Within a mere three quarters they increased their debt six-fold at the Bank of Greece. Refinancing credits outstanding increased from 34 to 41 billion euros by the end of 2008 and thus to four times the banks' reserves of central bank money in the form of cash and deposits at the central bank.

Table 2

Two waves of debt of the banks and the central bank

	Changes in billion euros				
Period	Refinancing	Reserves	Net claims on the state	Net foreign assets	Target debt
April 2008 – Dec. 2008	+ 34.3	+ 1.6	+ 4.5	+ 32.5	+ 27.9
Nov. 2009 – May 2010	+ 48.5	+2.9	+ 11.6	+ 22.3	+ 41.6

Sources: Bank of Greece; calculations of the author.

It could be the case that in view of the then internationally widespread uncertainty regarding the solvency of big banks, the Greek banks primarily wanted to make sure that they had additional reserves of central bank money as a precaution and to keep them as excess reserves. This well-intended presumption is not confirmed by the data, however. As shown in Table 2, less than two of the newly borrowed 34 billion euros were added to bank reserves. Greek government bonds, too, were purchased in only small volumes. The large volume of borrowing served almost exclusively to finance the purchase of foreign assets. The banks increased their foreign portfolio by a net 32 billion euros, primarily investing in banks on Cyprus.

This first wave of an increased expansion of central bank debt was followed by a second one at the end of 2009. In no more than half a year (from November 2009 to May 2010) the Greek banks expanded their central bank debt by close to 50 billion euros. They used this to finance additional portfolio investment abroad and did so for a net 22 billion euros. In addition they invested 12 billion euros in government bonds after it became clear that there would be a rescue package for Greece. In part this debt also served

[2] In the ECB Annual Report 2010 only the negative Target balance resulting from the acquisition of GIPS country government bonds (December 2010: – 21.2 billion euros) is recorded without commentary.

as a replacement for the loss of domestic deposits that started in spring 2010.

As the Target balances arise from a multitude of individual payments for merchandise, services and portfolio dispositions, a significant correlation between Target balances on the one hand and the selected partial balances of the balance of payments on the other cannot be expected. This is confirmed by the Greek data. In contrast, the refinancing debt of the banks is almost perfectly correlated with the Target debt of the Bank of Greece, as is directly shown in Figure 1. Since 2008 the chronological movement of both variables follows the same pattern. Waves of steep increases are in each case followed by a consolidation phase on a high level. The logic of the relationship of the two variables is such that the taking on of refinancing debt permits the banks to refinance cross-border merchandise and financial transactions whose execution leads to corresponding payments *via* Target.[3] Whether this view is acceptable may be tested by the concept of Granger causality for the first differences of the two variables. The test results reported in Table 3 confirm our suspicion that the changes in the refinancing debt significantly affect ensuing changes in Target debt.[4] At 4.0, the value of the F test is highly significant (at a 2.5 percent level of significance).

Target balances only reflect the true problem, which is an excessive availability of low-interest central bank credit. If, in the framework of a political union, the euro central banks were integrated as dependent branches of the ECB, the consolidation of the branches would dissolve the Target balances in thin air. Nonetheless, the problem of commercial banks of the GIPS countries, which have become accustomed to borrow massively from the Eurosystem, would persist.[5] Greek banking statistics show a very dangerous development. In 2007 the ratio of refinancing debt to bank reserves amounted to 80 percent. Thereafter, it jumped from year to year, to 200 percent in 2008, 500 percent in 2009, 930 percent in 2010 and to even 1,200 percent, on average, for the first six months of 2011. Alarming is also a comparison with the stock of central bank money or monetary base. In a country with its own currency, the volume of refinancing credit can never be higher than the monetary base. This also applies to a currency union as a whole, but not to each individual region. The focus of the taking on of central bank credit can shift depending on the economic development of the regions between the regional or the national banking systems, respectively. By itself, this is no economic policy problem. If, however, as in Greece, the relationships are thrown out of kilter – the refinancing of the Greek banking system now amounts to four times the Greek monetary base – then the uninhibited access to central bank credit causes systemic risks, and not only for regional banking systems but for the entire euro area. Among the systemic risks is also the fact that the ECB falls under the influence of the banks and the central bank interest rate is kept lower than appropriate.

Table 3

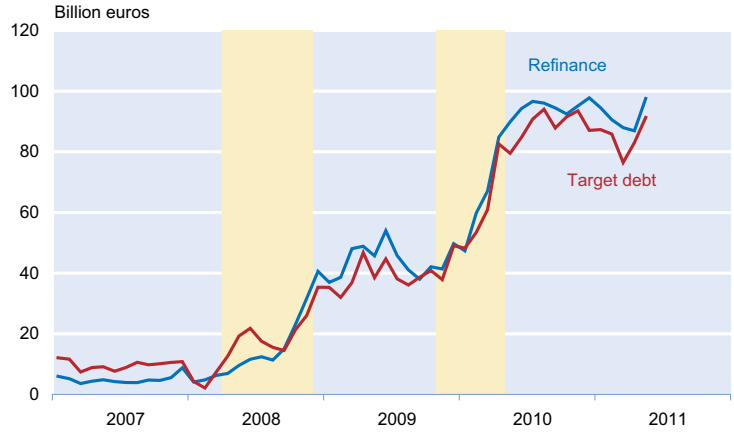
Granger causality test

Period: May 2008 – May 2011 2 Lags	F statistic	Probability of error
Δ Refinancing non-causal for Δ Target	4.00	0.025
Δ Target non-causal for Δ refinancing	0.14	0.867
Δ = monthly difference.		

Source: Calculations of the author.

Figure 1

Refinance of Greek banks and Target debt



Sources: Bank of Greece; Own calculation.

The central banks of the Eurosystem, but also the bank supervisory authorities, must no longer

[3] Not all payments are transacted *via* the Target2 system. At 91 percent, the market share of the system is very high, however (see European Central Bank 2010).
[4] We test the null hypothesis that changes in the refinancing debt are not the cause of ensuing changes in Target debt. This hypothesis is rejected by the data.
[5] Sinn and Wollmershäuser (2011) report central bank credits of the GIPS countries amounting to 350 billion euros at the end of March 2011. Accordingly, 80 percent of the total refinancing credits of the Eurosystem (424 billion euros) are recorded on the balance sheets of the GIPS central banks.

ignore these risks. It is time for them to deal with the question of how an excessive use of central bank credit by banks may be prevented. The newly founded European Systemic Risk Board (ESRB) could address this issue when the Eurosystem needs advice by the bank supervisors of the member states. In terms of content, at issue is the introduction of an upper limit. In the pre-euro era, when in Germany refinancing credit was still granted by the Bundesbank in the form of discounting commercial drafts, there were rediscounting contingents for the quantitative limitation of the availment that was fixed for each bank depending on the size of its liable funds. A comparable regulation suggests itself for the Eurosystem. The permissible volume of available central bank credit could be determined by a multiplier, identical for all banks, that relates the maximum permissible debt of a bank to the volume of its core capital. That would be a simple regulation that would lend each bank the flexibility to procure additional refinancing capacity by increasing its equity capital. The multiplier should not, however, become a new instrument for fine-tuning monetary policy. Rather, it should be of a size that need not be changed for many years.

References

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