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Euroland's hidden balance-of-payments crisis

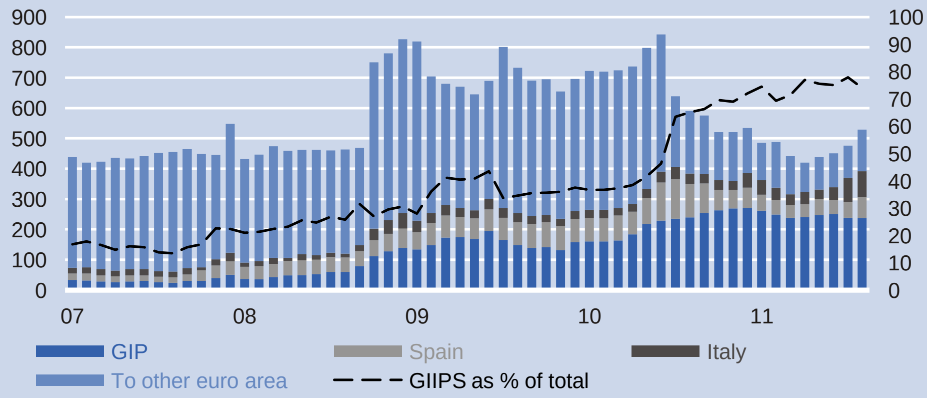
Below the surface of the euro area's public debt and banking crisis lies a balance-of-payments crisis caused by a misalignment of internal real exchange rates. At present, the Eurosystem generates real resource transfers in the form of subsidised credits from the creditor to the debtor countries, but this arrangement does not seem stable as these transfers are not politically authorised and hence it will compromise the Eurosystem if they are sustained indefinitely.

The path of least resistance seems to be an appreciation in creditor countries through the inflation of goods, services and asset prices, i.e. given that an outright budgetary transfer from the creditor to the debtor countries is unlikely – and the latter also probably unable to achieve internal real depreciation.

With representatives of debtor countries holding a majority of votes in the ECB's Governing Council, a policy of easy money and exchange rate depreciation that leads to overheating in the creditor countries seems most likely. The authorities in creditor countries could insure their population against inflation and a soft currency policy by offering them index-linked securities that would convert into a new currency should these governments eventually decide to abandon the euro.

Alternatively, authorities could aim at generating a combination of intra-EMU transfers, deflation in the debtor countries and inflation in the creditor countries such that the economic pain felt in each country group is shared between them in a way that leaves it below the level triggering a break-up of EMU.

ECB refinancing credit to banks
EUR bn (left), % total ECB standard refinancing (right)



Sources: ECB, NCBs, DB Research

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In our article of June 8, 2011[1] we discussed the role of the Eurosystem in the funding of balance-of-payments imbalances of euro-area countries. In the present note we elaborate on our earlier analysis and discuss recent developments and the outlook. Our main point is that below the surface of the euro area's public debt and banking crisis lies a balance-of-payments crisis caused by a misalignment of internal real exchange rates. At present, the Eurosystem generates real resource transfers, in the form of subsidised credit, from the creditor to the debtor countries. But this arrangement does not seem stable as these transfers are not politically authorised and hence it will compromise the Eurosystem, or lead to inflation, if they are sustained indefinitely. With outright budgetary transfers from the creditor to the debtor countries unlikely and the latter also probably unable to achieve internal real depreciation through deflation of goods, services and asset prices, the path of least resistance seems to be an appreciation in creditor countries through the inflation of goods, services and asset prices. With representatives of debtor countries holding a majority of votes in the ECB's Governing Council, a policy of easy money and exchange rate depreciation that leads to overheating in the creditor countries seems most likely.

The emergence of balance-of-payments imbalances

Until the beginning of the euro crisis in 2009 EU officials tended to ignore the current account imbalances among EMU member countries. Some of them who failed to grasp the difference between a common currency area within a political union and a currency union of politically sovereign states even insisted that these imbalances were irrelevant. As long as financial markets were buoyant and credit easily available at rock-bottom cost for borrowers of differing quality, the flaw in this argument was not laid bare. This changed abruptly when risk appetite in credit markets plunged in the course of the financial crisis and EMU member countries with high government deficits or debt and a bleak economic outlook experienced a "sudden stop" of capital inflows and even net capital outflows.

Misalignment of internal real exchange rates ...

On the surface, the "sudden stop" led to a government funding and banking crisis. In response, EU authorities began to extend financial support – associated with pressure for fiscal adjustment – to the affected countries while the ECB supported the banks. Below the surface, however, lies a balance-of-payments crisis which has so far received only scant attention.[2] Recall that the balance of payments is defined as the sum of the current and capital accounts. In a floating exchange rate system, the balance of payments is always zero as the exchange rate adjusts so as to equilibrate the current account balance with the capital account balance. In a fixed exchange rate system, however, balance-of-payments imbalances can emerge when the exchange rate is above or below its equilibrium value. In the first case, when the exchange rate is overvalued, a country imports more than it exports, and the current account moves into deficit. At the same time, domestic asset prices in foreign currency are higher than foreign asset prices, so investors

[1] Mayer, Thomas, Jochen Möbert and Christian Weistroffer (2011). Macroeconomic imbalances and the Eurosystem. In: Deutsche Bank Global Economic Perspectives. June 8, 2011.

[2] The problem was identified first by Hans-Werner Sinn, President of the German Ifo Economic Research Institute, who recently published a collection of articles by a number of economists on the subject (Ifo Schnelldienst 16/2011 from August 31, 2011).

sell the first and buy the latter. This leads to net capital outflows and hence a deficit in the capital account. The combined deficits of the current and capital accounts then lead to a deficit of the balance of payments. Traditionally, balance-of-payments deficits have been funded by the sale of foreign exchange reserves of the central bank. When the stock of reserves is depleted and the central bank can no longer fund the deficit the exchange rate drops so as to restore equilibrium between the current and the capital account. In the second case, when the exchange rate is undervalued, the current and capital accounts and hence the balance of payments are in surplus and the central bank accumulates forex reserves. This process only comes to an end when reserve accumulation has increased the money supply to an extent that inflation rises to intolerable levels and the authorities up-value the exchange rate in an effort to regain price stability.

... has created a balance-of-payments crisis

The role of the intra-euro payment system (Target2)

Since EMU has been built as a union of sovereign states, each state has retained its own national central bank, which has become a member of the so-called Eurosystem with the ECB at the top. National inter-bank payment systems have been merged into a euro-area interbank payment system (Target2), where national central banks have assumed the role of the links between countries (see our article of June 8, 2011 for a description). A key consequence of this system is that each euro-area country has a national balance of payments in the form of the net position of its central bank within Target2. This net position can result in a claim (balance-of-payments surplus) or liability (balance-of-payments deficit) against the ECB, which is the heart of the payment system.[3]

Reserve money is used to fund payment outflows

The consequence of this system is that a country with a balance-of-payments deficit automatically receives unlimited funding. Take the example of a country which, due to an overvalued internal real exchange rate and a large government budget deficit, has a current account and a capital account deficit (with the latter due to capital flight as residents exchange overvalued domestic assets against foreign assets). As the banks extend credit to an over-indebted government and an uncompetitive private sector they are considered unsafe and are therefore cut off from private sources of funding. To ensure solvency, the banks in this country receive credit from their national central bank, which acts on behalf of the ECB. Thus, reserve money flows from the ECB to fund payment outflows induced by the current and capital account deficits. While banks in the country with the overvalued internal real exchange rate rely primarily on their national central bank and the ECB for funding of their balance sheets, banks in the country with the undervalued exchange rate that receive the payments have plenty of liquidity and therefore do not need ECB funds. Hence, the ECB's funding operations become tilted towards the countries with overvalued exchange rates.[4]

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[3] The nature of Target2 balances depends on the degree of cross-border diversification of euro-area banking operations. As long as banking operations remain organised along national lines, the Target2 balances are a good proxy for a country's balance-of-payments position. This would change only if banking operations became independent of national borders. In this case, Target2 would turn into a truly integrated euro-area payment system.

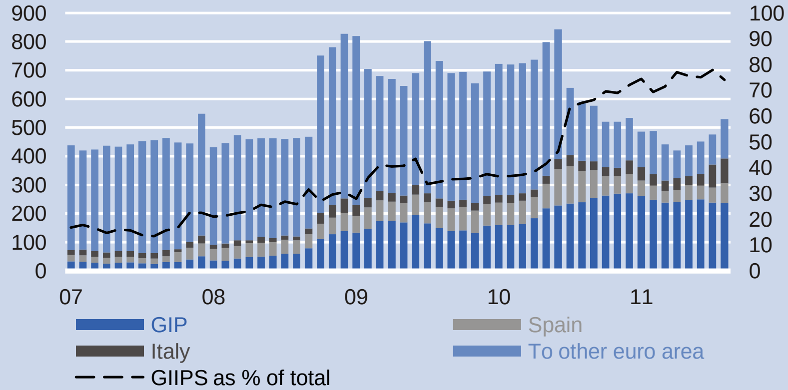
[4] In this example we have linked balance-of-payments imbalances to exchange rate misalignments. In theory, a balance-of-payments deficit could also arise in the case of irrational capital flight entirely unrelated to a country's fundamentals. While markets certainly tend to exaggerate, we regard irrational capital flight on a

ECB credit to banks in the deficit countries increases

Chart 1 shows the credit extended by the ECB to euro-area banks under its standard and longer-term refinancing operations. Note that with the intensification of the euro crisis the share of credit going to Greece, Ireland, Italy, Portugal and Spain (GIIPS) sharply increases. As banks in these countries were increasingly shunned as borrowers by banks in other euro-area countries, they had to rely on the ECB to fund their assets.

ECB refinancing credit to banks

EUR bn (left), % total ECB standard refinancing (right)



Sources: ECB, NCBs, DB Research 1

Claims of the Bundesbank against the ECB

EUR bn

Source: Deutsche Bundesbank 2

Chart 2 shows the development of the net claims of the Bundesbank against the ECB resulting from payment imbalances within the Target2 system. Before the beginning of the financial crisis in 2007, Germany's current account surpluses vis-a-vis other euro-area countries were funded by private-sector capital flows, and hence Germany's intra-EMU balance of payments was close to zero. However, as the financial crisis mutated into a euro crisis Germany's balance of payments moved into surplus as the current account surplus was augmented by a capital account surplus. In 2009-2010, Germany's cumulated BoP surplus amounted to about EUR 200 bn, of which EUR 156 bn was due to the current account and the rest to the capital account surplus. Thus, the Bundesbank not only financed Germany's current account surplus, replacing earlier private capital flows, but also net capital imports into Germany – to a large extent owed to the repatriation of German investments abroad. Associated with this change in lending patterns was also a big transfer of credit risk from the private banking sector to the Bundesbank.[5]

Intra-euro claims and liabilities rise

Table 3 shows net claims and liabilities of Eurosystem central banks against the ECB for the end of last year and the latest available observation. Balance-of-payments imbalances (reflected in these positions) have further increased in the course of this year. The most significant deterioration occurred in Italy, where a small net surplus of EUR 3.4 bn turned into a large net liability of EUR 103.5 bn. With the Italian current account balance vis-a-vis the euro area having changed only little during the first half of this year, the deterioration reflects a rapidly rising deficit in the capital account. This was due to a shift in funding of Italian banks from private sources to the ECB as

sustained basis entirely unrelated to the country's fundamentals as being extremely unlikely.

[5] As the Bundesbank is eager to point out, its credit risk is determined by the Eurosystem's refinancing operations with commercial banks and not the intra-system balances (Target2).

Net positions of Eurosystem central banks against the ECB

EUR bn

	End-2010	Aug/Sept 2011		Change since end-2010
DE	325.6	449.6	Sept	+124.0
LU	67.9	72.4	Aug	+4.5
NL	40.5	64.8	Sept	+24.3
FI	19.7	43.4	Sept	+23.7
IT	3.4	-103.5	Sept	-106.9
MT	-1.2	-0.5	Aug	+0.7
SI	-2.1	-2.4	Aug	-4.6
CY	-6.4	-7.9	Sept	-0.3
SK	-13.3			
BE	-13.9	-24.1	Sept	-10.2
ECB	-21.2			
AT	-27.5	-35.5	June	-8.0
FR	-28.3	-33.5	Aug	-5.2
ES	-50.9	-82.8	Sept	-19.0
PT	-59.9	-59.4	Aug	+0.5
GR	-87.1	-97.5	Aug	-10.4
IE	-145.2	-140.6	Aug	+4.6

Sources: ECB, NCBs, DB Research 3

other euro-area banks became reluctant to lend to their Italian counterparts and the Eurosystem stepped into sovereign debt markets. As can be inferred from the table, surplus countries have so far extended balance-of-payments credit in the amount of EUR 630 bn to the deficit countries. This comes in addition to any credit extended directly by governments and the ECB through its Securities Markets Programme (SMP).

The capital account and subsequent balance-of-payments imbalances reflected in the Target2 balances have contributed to a sharp widening of relative foreign net asset positions among euro-area countries. As Chart 4 shows, Germany has acquired more net foreign assets while all other countries have incurred net foreign liabilities. Target2 balances seem not only to have substituted for existing funding sources, but to have added to the net foreign asset positions (although it is not clear to what extent the rising divergence in positions is due to changes within the Eurosystem and between the respective countries and rest of the world).

Partial solutions for parts of the problem

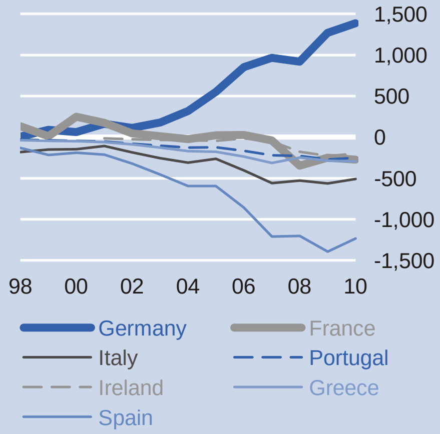
Policy makers and economists have been slow in comprehending the full scale of the euro crisis. Initially, the problem appeared to be confined to a liquidity logjam in the Greek government bond market that could be solved with a three-year IMF adjustment programme. As the Greek adjustment programme ran into difficulties and Ireland and Portugal experienced government funding and banking crises politicians began to realise that the problems were more severe. Still, even after Spain and Italy experienced government and bank funding problems, policy makers did not materially change their approach to crisis resolution. Governments and the ECB continued to provide short-term funding assistance to financially troubled governments and banks, perhaps in the hope that something would come up in the future that would make the crisis go away.

New effort at crisis resolution ...

In the course of October, a number of countries, led by Germany and the Netherlands, began to question the effectiveness of the approach to crisis resolution followed so far and demanded a more comprehensive restructuring of Greek government debt. To fortify European banks against a larger write-down on their holdings of Greek government debt and against potential contagion to other problem countries in case of a default of the Greek government, they pushed for a significant strengthening of banks' capital base. The new effort at crisis resolution includes (1) a larger haircut on private creditors of Greece; (2) an increase of banks' core Tier 1 capital ratio to 9% after having marked to market their sovereign debt holdings; and (3) an effort at leveraging the EFSF, e.g. by offering first-loss bond insurance through the EFSF, so as to use available funds more effectively.

Net foreign assets of euro area countries*

USD bn



*Including Target2 balances

Source: IMF 4

As on previous occasions, the most recent efforts represent a step forward in addressing the problems afflicting the euro area, but they fail to deliver the comprehensive solution expected by some observers. The insolvency of Greece and the insufficient capital endowments of many European banks have finally been recognised, but the measures taken are unlikely to restore Greece to solvency and the European banking system to full health. Moreover, it is doubtful whether offering bond insurance through the EFSF will open the markets for Italy and Spain again.[6] However, apart from

6 Offering first-loss bond insurance against a default of Italy strikes us as being akin to offering glass insurance to a homeowner next to a nuclear power plant on the

providing only partial solutions to the insolvency of Greece, the liquidity problems of Italy and Spain and the weakness of the European banking system, the Council decisions entirely ignore the deeper problem of internal real-exchange-rate misalignments and the associated intra-EMU balance-of-payments crisis.

Adjustment scenarios

Without the ability to adjust nominal exchange rates, intra-EMU real-exchange-rate misalignments can only be corrected by relative price changes. In the following we discuss the case, in which a "Latin" part (i.e. deficit and thus debtor countries) of EMU suffers from an overvalued internal exchange rate vis-à-vis a "Germanic part" (i.e. surplus and thus creditor countries). We also assume that the "Latin part" was seduced by the artificially low interest rates that prevailed during the first decade of EMU to accumulate a high burden of public and private debt. With the "Latin" part now suffering from current and capital account deficits, the balance-of-payments deficit by the "Latin" part is funded by the Germanic central banks via the ECB.

As long as the balance-of-payments imbalances persist, claims of the Germanic central banks against "Latin" central banks via the ECB rise. Since interest on these claims is given by the ECB's refi rate, which can be set to zero if the majority of ECB Council members decides so, and since there is no repayment obligation, the claims can theoretically rise to infinity. Economically, however, the balance-of-payments imbalances and hence the rise in national central banks' claims and liabilities vis-a-vis the ECB represent real resource transfers from the surplus to the deficit countries. In other words, goods, services and assets are transferred from the creditor to the debtor countries at subsidised prices, with the subsidy measured by the claims and liabilities vis-a-vis the ECB. The transfer is automatic and outside any budgetary control. However, representatives of the creditor countries in the ECB Governing Council and other Council members concerned about the integrity of the Eurosystem may well use their influence to limit these transfers below the comfort level of the debtor countries. Hence, it seems that a resource transfer through the Eurosystem cannot be enforced on a permanent basis. In addition, excessive reserve money creation in debtor countries will eventually raise the euro-area reserve money stock above a level consistent with low inflation (a point, which we take up further below).

Scenario 1: Legitimise public transfer payments

The creditor countries could decide to legitimise the transfer of resources by appropriating corresponding payments to the debtor countries in their government budgets. In this case, public transfer payments would turn the current account surplus in the creditor countries into a deficit and the deficit in the debtor countries into a surplus so that balance-of-payments deficits would be eliminated despite continuing capital account deficits in the debtor countries. However, given the aversion of tax payers in the surplus countries to the legalisation of transfers to the deficit countries, this does not seem to be a viable solution.

Scenario 2: Devalue internal real exchange rate in the debtor countries

Alternatively, the creditor countries could exert pressure on the debtor countries to devalue their internal real exchange rate through a reduction of prices for goods, services and assets. In this case "Latin" goods, services, and assets would become cheaper against

verge of a meltdown. Neither the homeowner nor the owner of Italian bonds would feel much relieved by such insurance.

their "Germanic" counterparts and the current and capital accounts would go back to equilibrium. From the creditor countries' point of view, the devaluation would have to be even bigger so as to create balance-of-payments surpluses that allow the elimination of the accumulated net liabilities of "Latin" central banks vis-à-vis the ECB. However, a deflation of goods, services and asset prices would almost certainly require the write-off of sizeable amounts of public and private debt incurred by debtor countries during the period of easy credit. Since this would be likely to create political and social problems in the debtor countries and force losses on financial institutions that have lent to the debtor countries, this solution would be fiercely resisted by the debtor countries and the banks that have lent to them.

Scenario 3: Accept higher inflation in the creditor countries …

Finally, the deficit countries could exert their influence over the ECB to pursue a monetary policy that leads to higher inflation in the surplus countries. In this case, the internal real-exchange-rate realignment would be achieved by a rise in goods, services and asset prices in the creditor countries. As prices in these countries would rise faster than in the debtor countries, their intra-EMU current, capital and hence balance-of-payments surpluses would disappear. From the deficit countries' point of view, a policy that overheats the surplus countries is the best outcome as it spares them the costs of deflation. The adjustment costs would be shifted to the creditor countries in the form of the economic costs of inflation. Since these costs are intransparent and distributed over a long period of time it is difficult to organise resistance against them. A policy of easy money and a soft exchange rate could help achieve such an outcome.

... and the creation of excessive reserve money

As mentioned above, even in the absence of an explicit easing of monetary policy, continuous balance-of-payments deficits in those countries help to create the outcome described. If the Eurosystem is forced to continuously fund the banking system in the debtor countries in order to avoid a euro break-up, liquidity injected in the debtor countries will eventually find its way into the creditor countries. Capital inflows into the surplus countries, in turn, leave banks in this part of the euro area with access to relatively cheap funding. This may limit the ECB's ability to control the interest rate and sterilise excess liquidity in the surplus countries. Capital flight within the Eurosystem – even in a moderate form – can thus help facilitate the realignment of real exchange rates by creating inflationary pressures in the surplus countries. The ability of the deficit countries in EMU to reflate the surplus countries has been likened to the corresponding role of the reserve-currency country in a fixed exchange rate system.[7] The latter can also fund its balance-of-payments deficit through central-bank money creation and reflate its partner countries in this way. Thus, thanks to Target2, the deficit countries in EMU have the "exorbitant privilege" of obtaining central bank money from the ECB to fund their balance-of-payments deficits. The key difference between a fixed exchange rate system, such as the Bretton-Woods system where the US had the position of the reserve-currency country, and EMU is that in the former it tends to be the strongest country that assumes the role of the reserve-currency country while in the latter it is the weakest countries that are in this position.

[7] See Wilhelm Kohler, "Zahlungsbilanzkrisen im Eurosystem: Griechenland in der Rolle des Reservewährungslandes?" Ifo Schnelldienst 16/2011, pp. 12-19.

Conclusion

In this article we have argued that below the surface of the euro area's public debt and banking crisis lies a balance-of-payments crisis caused by the misalignment of internal real exchange rates. At present, the Eurosystem generates real resource transfers from the creditor to the debtor countries, but this arrangement does not seem stable as these transfers are not politically authorised and hence it will compromise the Eurosystem if they are sustained indefinitely. With outright budgetary transfers from the creditor to the debtor countries unlikely and the latter also probably unable to achieve internal real depreciation through deflation of goods, services and asset prices, the path of least resistance seems to be an appreciation in creditor countries through the inflation of goods, services and asset prices. With representatives of debtor countries holding a majority of votes in the ECB's Governing Council, a policy of easy money and exchange rate depreciation that leads to overheating in the creditor countries seems most likely. But will the electorates in the creditor countries accept such an outcome or push an exit from EMU? As we pointed out in a recent article of October 5[8], the authorities in creditor countries could insure their population against inflation and a soft currency policy by offering them index-linked securities that would convert into a new currency should these governments eventually decide to abandon the euro. Alternatively, authorities could aim at generating a combination of intra-EMU transfers, deflation in the debtor countries and inflation in the creditor countries such that the economic pain felt in each country group is shared between them in a way that leaves it below the level triggering a break-up of EMU.

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[8] Thomas Mayer, "EMU's Stress Test". In Deutsche Bank Global Economic Perspectives. October 5, 2011.

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