Credit

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Tracking the Flight from Peripherals

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- **When safe becomes risky** — We have long feared an acceleration in capital flight from peripherals as one of the major risks to the credit outlook. But tracking, for example, shifts in the usage of government and corporate bond benchmarks is extremely difficult.
- **On TARGET** — Analysis of TARGET2 imbalances relative to countries' current accounts shows clearly that private capital flight was occurring even before the latest bout of Greek worries.
- **Plotting the private exit** — Italy lost at least €160bn in 2011; Spain some €100bn, consisting of a mixture of bank deposits, government and corporate bond sales by foreigners.
- **Once started, hard to stop** — In Greece, Ireland and Portugal, once begun, capital flight has continued almost monotonically, showing no sign of reversal even when markets have been rallying. We think this is because of the asymmetric nature of risk for bond- and deposit-holders, and see little reason why Spain and Italy should be any different.
- **Substantial further flight likely** — We estimate a further €200bn in flight from each of Spain and Italy is quite likely without further policy action. Economic deterioration, ratings downgrades and especially a Greek exit would almost certainly significantly accelerate the timescale and increase the amounts of these outflows.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Monitoring capital flight

The risk of sudden capital flight has long been a worry for fixed income investors. The upside offered in bonds is strictly limited, while their downside is almost unlimited. The moment investors begin to doubt they will receive back par, they have a tendency to run for the exits. The "safer" the investment and the larger are investors' holdings, the greater is the asymmetry. This makes monitoring the behaviour of other creditors an important survival skill. For example, the pulling of collateral from Lehman was a significant forewarning of its bankruptcy, yet neither investors nor regulators had the tools in place to track such flows at the time.[1]

These days, the entities of greatest concern are European sovereigns and banks. More than half the investors in our latest survey cited sovereign imbalances as their single biggest source of worry. Most seem to have got their tactical positioning in peripherals where they want it – indeed, we reckon their underweights are a significant support for the market. But their *absolute* holdings of both sovereigns and banks remain very elevated, both relative to their perceived risk and relative to what investors would recommend their clients hold if given a blank sheet of paper.

With both Spain and Italy likely to be in recession this year and their sovereign and bank credit ratings under pressure, there is a significant risk that at some point investors decide also to curtail their *absolute* holdings of such debt, for example through an abrupt change in benchmarks. Just such a shift occurred in most HY benchmarks when GM and Ford dropped to junk in May 2005, and investors decided the concentration risk was unacceptable.[2]

But monitoring such changes is well-nigh impossible. The consultants responsible for shifts are famously slow-moving, and no comprehensive database exists of how much money tracks different indices. Often, it takes until names lose their investment grade ratings before investors become forced sellers, even if the downgrades seem relatively obvious beforehand (just look at the price action surrounding Portugal's downgrade to junk in January, for example).

However, macro data on TARGET2 imbalances and current accounts do make it possible to track private sector outflows, and analysis of government bond holdings and bank deposits gives some idea of where the outflows are coming from. This paper analyses the outflows which have already occurred from the Euro area peripherals, and tries to draw conclusions about their future path.

The piece consists of three parts. First, we show how to back out private sector outflows from TARGET2 and national balance of payments data. We find that Spain and Italy have already suffered from capital flight to the tune of 10% of GDP. Second, we look at the main sources of capital flight in Greece, Ireland and Portugal. We show that, once started, they have continued almost monotonically, showing no sign of reversal even when markets are reversing. We argue that this is not only because of the path these countries have followed, but also because of the asymmetric nature of risk for bond and deposit-holders. Finally, we show that Spain and Italy seem to be going through the same process, if anything at an earlier stage. We estimate that the scale of likely further capital flight is around €200bn in each case. Economic deterioration, ratings downgrades and especially a Greek exit would almost certainly increase the size and accelerate the timescale of these outflows.

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[1] See *Are the brokers broken?*, M. King, 5 Sep 2008.

[2] See *Liquidity Risk and Correlation Risk: A Clinical Study of the General Motors and Ford Downgrade of May 2005*, Acharya, Schaefer & Zhang, June 2008. Each issuer would have constituted around 6 percent of unconstrained HY benchmarks, versus 2 percent or less for every other issuer. By comparison, Italy today constitutes 9 percent of the Citi World Government Bond Index, and 24 percent of the Euro Government Bond Index.

Using TARGET2 to monitor outflows

Investors worried about the possibility of capital flight from euro peripherals face a struggle when it comes to obtaining relevant data. Statistics on foreign holdings of government bonds are available only with a significant time lag (currently for February 2012 in Spain, and for January 2012 in Italy), and are recorded inconsistently in different countries.[3] Numbers monitoring the usage of different fixed-income benchmarks are virtually nonexistent. And the interpretation of data on falling bank deposits is complicated by, for example, changes in bank deposit levy legislation (causing some Spanish banks to encourage depositors to switch into non-deposit instruments like *pagares* instead) and money market fund guarantees.

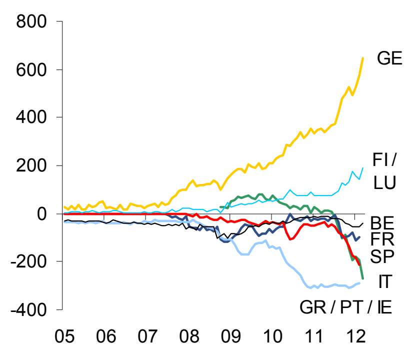
Introducing TARGET2

Amid this vacuum, TARGET2 imbalances have gained a certain notoriety: while they are a potential guide to outflows, they are an imperfect one, and their significance is hotly debated.[4]

TARGET2 is the Euro area's main payment settlement system, owned and operated by the Eurosystem (the ECB and 17 national central banks). It is widely used to settle not only transfers relating to monetary policy operations, but also payments between banks, acting either in their own right or initiated on behalf of their customers. Transactions are settled by transferring the reserves which banks hold within the Eurosystem.

Imbalances arise within TARGET2 when there is a systematic build-up of cross-border payments in a particular direction. They are therefore directly affected by capital flight. For example, when a depositor transfers money from a Greek bank to a German bank, the transaction is typically settled via TARGET2, and results in a debit on the reserves of the Greek bank with the Bank of Greece, and a credit to the reserves of the German bank with the Bundesbank. The central banks, however, do not actually transfer collateral between themselves. Instead, the Bundesbank receives a "claim" on the ECB through TARGET2 for the amount of the transfer, and the Bank of Greece records a corresponding TARGET2 liability.

Figure 1. Rising TARGET2 imbalances
€bn



Source: National central banks, Haver Analytics.

Having remained roughly in balance from the inception of the euro to 2007, TARGET2 numbers have recently attracted attention thanks to their subsequent strong divergence, with Germany and other "core" central banks running a large surplus, and peripheral central banks a large deficit, with the ECB (Figure 1).

This divergence is a reflection of the increased difficulty periphery banks and sovereigns are having finding private market funding. Up until 2007, German banks used to recycle the net cash inflows they received (from foreigners paying for Germany's net exports) in net foreign lending and net asset purchases, much of it back to the periphery. This kept the TARGET2 flows in balance.

Since 2007, German banks' increased reluctance to do so has meant that the proceeds of Germany's current account surplus have increasingly been redeposited at the Bundesbank. The financing of the peripherals' current account deficits has therefore no longer come through the private sector, but through TARGET2.

[3] For example, referring sometimes for government bond outstandings, and at other times for general government debt outstanding. Spanish statistics are available slightly more recently for the "registered" holders of government bonds than for "term investment" holders – but the former include net repo holdings and seem likely to be inconsistent with the accounting used elsewhere. See the appendix of *Who's afraid of sovereign bonds?*, S. Merler & J. Pisani-Ferry (Feb 2011) for a useful discussion of the data.

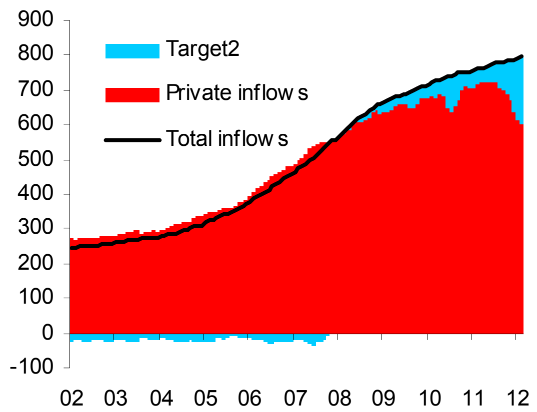
[4] See *TARGETing the wrong villain*, Buiter, Rahbari & Michels, June 2011.

Combining TARGET2 with balance of payments data

But to see how much of the peripherals' TARGET2 deficits is compensating for actual capital flight – as opposed to simply a growing dependence on the official sector for new financing – we need to combine them with balance of payments data. The balance of payments – which records all cross-border capital flows – comprises TARGET2 flows, other official sector flows (such as troika programme loans and ECB SMP purchases), and private sector flows. To observe private sector capital flight, we simply subtract out TARGET2 and other official sector flows from each country's financial balance.[5] [6]

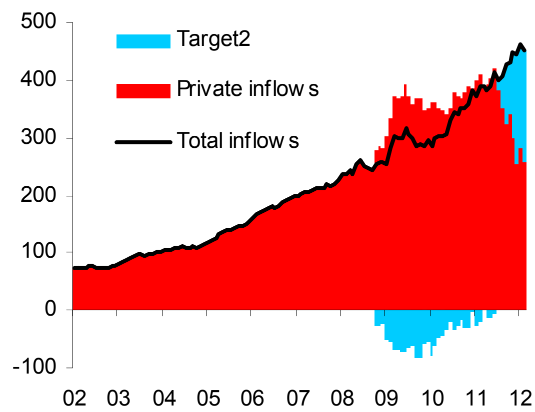
The numbers show clearly that the vast majority of TARGET2 funding has replaced foreign private sector borrowing rather than augmented it, and that Spain and Italy are already suffering from private capital flight in the same way as Greece, Ireland and Portugal did previously.

Figure 2. Spain – Cumulative foreign inflows (€bn)



Source: ECB, Haver Analytics, national central bank. Starting point is 2001 net IIP.

Figure 3. Italy – Cumulative foreign inflows (€bn)



Source: ECB, Haver Analytics, national central bank. Starting point is 2001 net IIP.

Interpreting the numbers

Figure 2 shows Spain. Up until 2008, its current account deficit could be financed entirely through private sector inflows; indeed, it ran a small TARGET2 surplus. Even after 2008, private inflows continued to creep up, albeit not at the same pace as the current account, with a small but increasing proportion being financed through TARGET2. Since mid-2011, though, there have been €100bn in private sector outflows (some 10% of GDP).

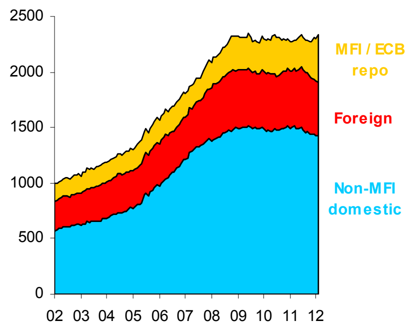
The story is similar in Italy (Figure 3). Here, the private sector outflows total some €160bn (again, 10% of GDP), and the turnaround is just as abrupt.

[5] This methodology comes directly from *Sudden stops in the Euro area*, S. Merler & J. Pisani-Ferry, March 2012; their appendix describes it in greater detail. The main thing we do differently is that we derive TARGET2 numbers from central bank balance sheet data rather than from a detailed analysis of financial account subsections.

[6] In practice in what follows we have only subtracted TARGET2 flows and official lending programmes, not ECB SMP purchases. Although we have spot estimates for the ECB's current holdings, we do not have these as timeseries. Note that because this constitutes another source of official sector inflow, this means private sector outflows will be even greater than the estimates we show. We think these differences are worth around €40bn in the case of Greece, €22bn in Portugal, €17bn in Ireland, €41bn in Spain and €98bn in Italy. See *Global Economics View: Looking into the Deep Pockets of the ECB*, W. Buiter & E. Rahbari, Feb 2012.

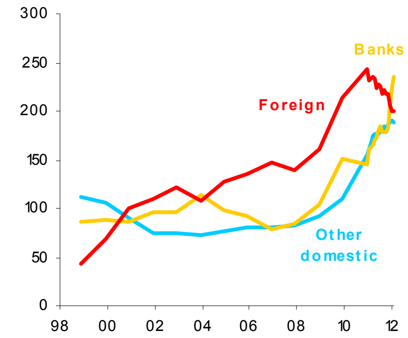
Figure 4 to Figure 9 help to show where the outflows in each case have come from.

Figure 4. Spanish Bank Deposits
€bn



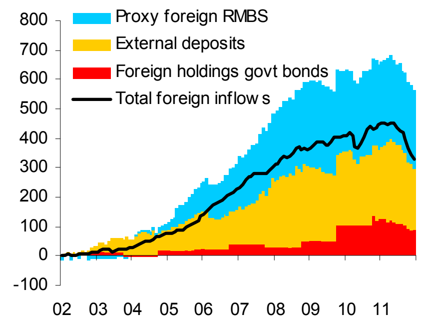
Source: Bank of Spain

Figure 5. Holders of Spanish Govt Debt
€bn



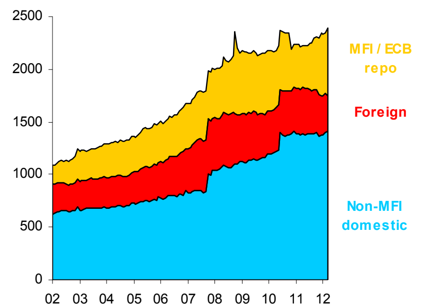
Source: Spanish Treasury. Includes stripped + unstripped, and uses term investment holdings.

Figure 6. Spain – Cumulative capital flows
€bn



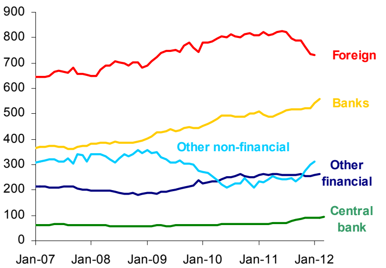
Source: Citi Investment Research and Analysis. Blue area equals the two-thirds of MBS outstandings we estimate to be foreign-owned.

Figure 7. Italian Bank Deposits
€bn



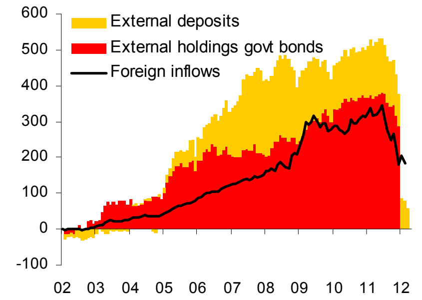
Source: Banca d'Italia.

Figure 8. Holders of Italian Government Bonds
€bn



Source: Banca d'Italia, Haver Analytics

Figure 9. Italy – Cumulative capital flows
€bn



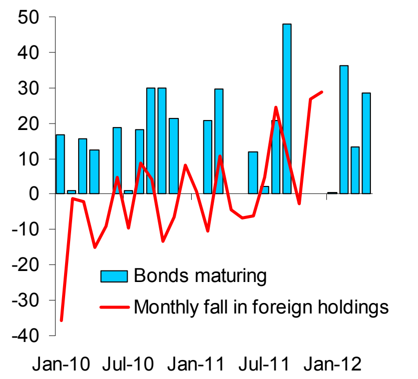
Source: Citi Investment Research and Analysis. Last data point for government bond holdings is Dec-11.

The first component is bank deposits. Although domestic bank deposits have in both Italy and Spain on aggregate proved remarkably stable,[7] there has been around €100bn in flight from foreign deposits in each country. Much of their banks' ECB borrowing has probably been designed to cover for this (Figure 4 and Figure 7). Separate data suggests that the collateral pledged consists primarily of government-guaranteed bank bonds in Italy, but existing assets in Spain.

The second component of capital flight is foreign holdings of government bonds. In Italy, foreign holdings of Italian government debt fell from €828bn in June 2011 to €730bn in January 2012, with the slack being taken up by domestic banks and nonfinancial sectors (likely mostly households, Figure 8). Since "foreign holdings" seem likely to include at least some of the ECB SMP holdings, this means that the drop in foreign private sector holdings was likely larger still.

[7] Although Spanish figures for non-MFI domestic deposits do also fall by around €50bn in the second half of 2011, closer inspection shows this to be overwhelmingly attributable to a fall in the outstandings of securitisation vehicles, which are confusingly categorised as deposits from other (non-monetary) financial institutions. See Table 8.28 in the *Boletin Estadistico* from the Bank of Spain.

Figure 10. Not waiting for redemption
Italy – net drop in foreign holdings vs amounts maturing (€bn)



Source: Citi Investment Research and Analysis

In Spain, the absolute numbers are smaller but the percentage drop is larger (both relative to foreign holdings and as a proportion of the total debt stock). Foreign holdings of government bonds fell from €240bn to €200bn during 2011, with the pace accelerating slightly in the second half of the year (Figure 5).[8] [9] Relative to Italy, much more of the drop has had to be made up for by purchases from banks, with less support from other domestic sectors.

Note that in both cases, there is clear evidence of net selling, and not just that foreigners were allowing their bonds to mature. While there is some linkage between those months showing a drop in net foreign holdings and those featuring bond redemptions (shown in Figure 10 for Italy), it is weak, and selling in 2H11 clearly exceeds the proportion of bonds maturing that foreigners would have held.

Figure 6 and Figure 9 try to relate these measures explicitly, summing the cumulative net change in foreign government bond holdings and foreign bank deposits and plotting them versus the total private inflow from the financial account. In Italy, the major driver looks to have been foreign selling of government bonds. In Spain, the pullback in foreign lending to the private sector looks to have been relatively more important: indeed, even by adding together the flows in foreign bank deposits and foreign holdings of government bonds, we still fall short of the total.[10] We think much of the difference comes from foreign holdings of Spanish MBS, about two-thirds of which is foreign-owned, and from which foreigners are now pulling back, both through net sales and through bond buybacks and amortisations.

So while there is very little evidence to date of domestic capital flight in Spain and Italy, there is every sign that foreigners are reducing their exposures. How much more capital flight should we expect?

Comparison with Greece, Ireland and Portugal

We think the example of Greece, Ireland and Portugal suggests that there is a lot more to come. It is not that we anticipate widespread domestic deposit flight, though this would make things worse still. Rather, it is that the dynamics of capital flight in Greece, Ireland and Portugal suggest that, once started, it is very hard to stop.

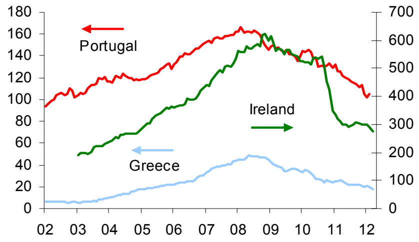
In all three cases, once foreign bank deposits started to fall, they have continued to do so, almost monotonically, varying in speed but never really in direction. Even in the second half of 2010 for Portugal, or in 2011 for Ireland when the situation seemed more stable, there were never more than three consecutive months of inflow (Figure 11).

[8] Note that the Spanish Tresor releases two sets of holdings data, “Term investment” and “Registered”. The latter includes the effect of net repo holdings, and shows a much larger run-up in foreign debt holdings, a much later peak (Sep-11 rather than Dec-10), and a much sharper fall. To our minds this risks exaggerating the size of the foreign exodus – repo lenders are more likely to have been taking a view on interest rates than on the price movements of Spanish bonds – and are less likely to be comparable with the flow-of-funds style legal ownership definition which we expect has been used in Italy and elsewhere. Even on the “term investment” holdings, though, the foreign exodus is clearly visible.

[9] There is an alternative source of foreign ownership information in the Bank of Spain national accounts. These refer to general government debt, rather than central government debt and do not show any decline at all in foreign holdings. If the two series were consistent, this would imply that foreigners have *increased* their holdings of regional government debt, which seems to us unlikely.

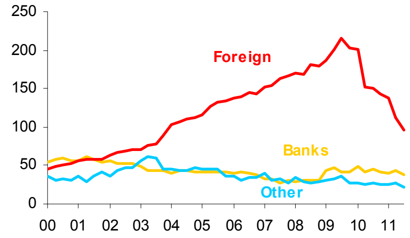
[10] Because the numbers for bond and deposit holdings are gross, we would expect their sum to exceed the net number for total private inflows. For example, if some Italian deposits held abroad have been repatriated, this will reduce the net total private inflow, yet not have any effect on the decline in Italian foreign bank deposits.

Figure 11. Foreign Bank Deposits (€bn)



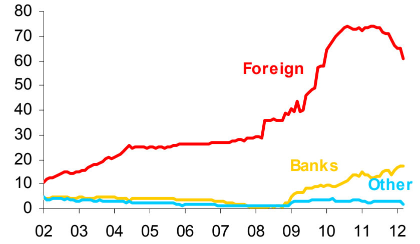
Source: ECB, Bank of Greece, Haver Analytics.

Figure 12. Greek Holdings of Govt Bonds (€bn)



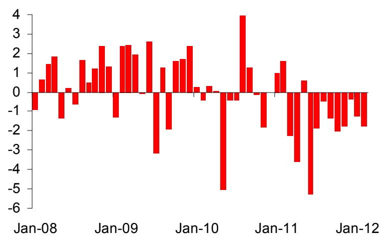
Source: Bank of Portugal, Haver Analytics, ECB

Figure 13. Ireland Holdings of Govt Bonds (€bn)



Source: Central Bank of Ireland, ECB.

Figure 14. Net purchases of Portuguese government bonds by foreigners (€bn)

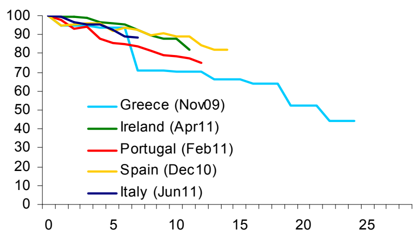


Source: Bank of Portugal.

Foreign holdings of government bonds follow a similar pattern. The decline in Greece starts quite early (September 2009), and in Ireland surprisingly late (April 2011, long after both the start of deposit flight and the November 2010 application for a bailout), but once begun, it does not stop. Portugal does not release regular data for foreign government bond holdings, but it does show flows, which exhibit exactly the same pattern (Figure 14).

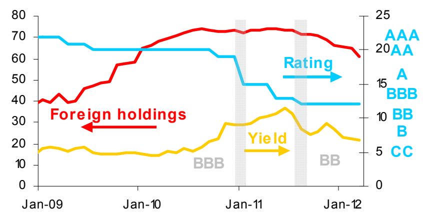
What we find striking here is the seeming insensitivity of the capital flight to the movements in markets. Figure 15 shows foreign government bond holdings as a percentage of their peak level, for example (the pattern for foreign deposits is relatively similar). The uniformity of the decline across markets is striking – almost as though a switch has been tripped. The unidirectionality is unsurprising in the case of Greece, where markets have moved only one way, but is much more so elsewhere: neither the bond rally in Ireland in 2H11, nor the LTRO-driven rally in Spain and Italy, seem to have had any effect.

Figure 15. Foreign govt bond holdings (% of peak level, months since peak)



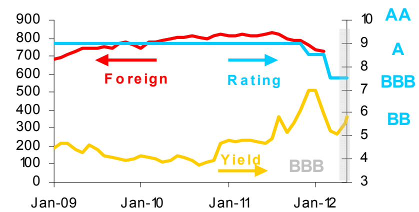
Source: National central banks, Spanish Treasury.

Figure 16. Ireland – Rating, 10Y Yield (%) and Foreign Holdings (€bn)



Source: Citi Investment Research and Analysis

Figure 17. Italy – Rating, 10Y Yield (%) and Foreign Holdings (€bn)



Source: Citi Investment Research and Analysis

Downgrades to junk may constitute one such "switch", prompting forced selling. It is this which produced such a sharp move in Greece in May 2010, and which seems to have accelerated the drop in foreign holdings in Ireland, even as its bonds started rallying (Figure 16). But in both Spain and Italy, foreign selling started long before even their downgrades to BBB (Figure 17 shows Italy, for example).

To us, the more likely explanation, both in bonds and in deposits, lies in the asymmetry of returns on offer, and the deeply discontinuous way investors think about risk.

Bondholders are sheep, not wolves

The trouble, as we see it, is that bondholders are not at heart the wolf pack Swedish Finance Minister Anders Borg famously made them out to be. Sheep, or perhaps wildebeest, would be a more accurate description.

Bondholders and depositors alike have only limited upside, but lots of downside. They therefore tend to graze quietly upon their coupons or interest payments, relying on others – such as the rating agencies – to warn them of oncoming fundamental risks. Even if individual investors are often very sophisticated, they are constrained by those who set their benchmarks and risk guidelines, which tend to be much slower moving.

Figure 18. Percentage falls from peak

	Foreign deposits	Foreign govt bond holdings
Greece	64	56
Ireland	55	18
Portugal	37	25
Average	**52**	**33**
Spain	13	18
Italy	34	12

Source: Citi Investment Research and Analysis

Figure 19. Further flight to reach GIP average
€bn

	Foreign depo	Foreign govt	Total
Spain	-185	-30	-215
Italy	-60	-154	-214

Source: Citi Investment Research and Analysis

Once the flock has been disturbed, though, it can run quite quickly. And once it has changed its mind about a given risk, it can be almost impossible to get it to turn back. Those dropping Spain and Italy from their benchmarks, shifting their mandates towards AAA-only, or moving deposits away from peripherals, are very unlikely to return in a hurry. If anything, we think the risk is of acceleration. And it would seem that, having been disturbed once or twice already, investors are proving more alert to potential signs of danger in Spain and Italy than they were in Greece, Ireland and Portugal. Although the threshold for domestic capital flight looks to be higher than that for a retrenchment by foreigners, there is every sign that foreigners are pulling back already.

How far is the flock likely to run? In Greece, Ireland, and Portugal, foreign deposits have fallen by an average of 52%, and foreign government bond holdings by an average of 33%, from their peaks (Figure 18). The same move in Spain and Italy, taking into account the fall that has taken place already, would imply a further €215bn and €214bn in capital flight respectively, skewed towards deposits in the case of Spain and towards government bonds in the case of Italy (Figure 19).

Although large, if these flows occur slowly enough, they might not represent a major problem. After all, Portugal's banks have managed to replace fleeing foreign deposits with domestic ones, and ECB repo should allow a further ramp-up in banks' holdings of government bonds.

But we think the risks are skewed towards larger outflows occurring considerably more rapidly. Admittedly there are a great many unknowns, including the potential policy response. But none of these estimates allow for the possibility of domestic deposit flight. In the case of a Greek exit from the euro, that outcome seems highly likely. Nor is there any sign that the flight from Ireland and Portugal is diminishing (if anything, we expect the opposite).[11] Moreover, banks' appetite to buy further government bonds may prove limited if they start to suffer deposit flight – and all the more so if they suspect that deposit flight stems in part from their holdings of government bonds.

Above all, though, we think capital flight, like so much in markets, is a self-reinforcing process. Provided other depositors and bondholders are grazing quietly, there is no reason to run. But as risks come ever more into the spotlight – whether through the TARGET2 imbalances, benchmark shifts or the threat of EMU exit in Greece – the unattractiveness of the risk-reward becomes ever more obvious.

[11] While overall net private outflows from Ireland stabilised in early 2011 – consistent with the small fall in its TARGET2 liabilities – this is because its banks have been shedding foreign assets, not because the gross capital flight has diminished.

To our minds, capital flight will stop only once there is decisive policy intervention. The longer investors have to wait for this, the more decisive it will need to be. Even a Euro area-wide deposit guarantee scheme might struggle to be credible if investors fear the incentives for redenomination are strong enough – hence our recent note about capital controls.[12] Quite simply, investors in 'safe assets' need to be reasonably sure they will get their money back. Foreign investors in peripherals can no longer be sure of that.

[12] See *Capital controls in Europe: what would they mean for credit?*, H. Lorenzen, 17 May.

Appendix A-1

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