

The Dynamics of Ireland's Net External Position*

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Abstract

Ireland's net external liability position expanded in dramatic fashion during 2008-2010, despite relatively small net financial flows during this period. Understanding the source and persistence of this negative shock is critically important in assessing the future path for the Irish economy. However, data analysis is made difficult by the confounding impact of Ireland's major role as an international financial centre, such that the "core" international balance sheet remains obscure. However, there is considerable indirect evidence to believe that a substantial component of this decline is genuine and relates to the internationally-leveraged structure of the financial portfolios of domestic Irish residents.

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1 Introduction

At the end of 2006, Ireland's net external position (the value of its foreign assets minus its foreign liabilities) was minus 5.3 percent of GDP; at the end of 2009, it stood at minus 103.1 percent of GDP. Although the net external position improved slightly during 2010 to minus 90.9 percent of GDP, this very high level of net external liabilities was a contributory factor to the adverse market sentiment towards Ireland, since it grouped Ireland with a number of other at-risk countries and raised questions about the future path for domestic demand and external sustainability.

An important feature of the rapid deterioration in Ireland's net external position during this period is that it cannot be attributed to exceptionally-large current account deficits. In particular, the dramatic decline was mainly recorded as the result of "other" changes rather than officially-measured net financial flows. The aim of this paper is to examine this remarkable episode.

This issue is important, since the net external position is a critical state variable in open-economy macroeconomic models. In particular, all else equal, a large negative net external position suggests that a country will need to run large trade surpluses over a sustained period in order to ensure external sustainability. Under this scenario, a return to a positive current account balance (as Ireland has recently achieved) does not imply that domestic spending has room to grow but rather is just the start of a sustained period during which the level of domestic spending remains substantially below the level of domestic output.

Going further, a large negative net external position is empirically associated with sustained real exchange rate depreciation, which is an adjustment mechanism that supports the re-alignment of the economy from the nontraded sector to the traded sector (Lane and

Milesi-Ferretti 2002, 2004). Under monetary union, real depreciation implies that price deflators grow more slowly than in trading partners, such that the growth path for nominal GDP is negatively affected relative to the growth path for real GDP. This in turn has implications for debt sustainability projections in which the level of nominal GDP is a key variable.

Moreover, the size of the aggregate net external position is also important in assessing the feasibility of resolving sectoral balance sheet problems through financial engineering. For instance, Gros (2011) suggests that Ireland's low net external liability position (if measured by the cumulative current account balance) suggests that the high gross external debts of the government and the domestic banking system can be re-financed by the sale of foreign assets by residents in exchange for domestic assets. More generally, the resolution options during a sovereign debt crisis or a banking crisis are broader if the net external position is in better shape.

The structure of the rest of the paper is as follows. Section 2 provides a brief review of the accounting of the net external position. The developments in Ireland's net external position are described in Section 3, while Section 4 outlines some possible interpretations of the Irish data. Section 5 concludes.

2 Conceptual Framework

In a given period t , the change in the net international investment position can be written as

$$\Delta NIIP_t = NET_FLOW_t + NET_OTH_t \quad (1)$$

where NET_FLOW_t is the net financial outflow (that is, the net acquisition of foreign assets or net issuance of foreign liabilities) and NET_OTH_t are “other changes.” In principle, the net financial flow (aggregating across the financial account and the capital account) should match the current account balance, with countries running a current account surplus being net acquirers of foreign assets, while countries running a current account deficit are net issuers of foreign liabilities. In practice, in any given year, there is a gap between the measured current account and measured net financial flows, which is labelled as “net errors and omissions” in the balance of payments data. (We return to this issue below.)

In turn, the second term can be decomposed as

$$NET_OTH_t = NET_VAL_t + NET_OAJ_t \quad (2)$$

where NET_VAL_t are net valuation effects and NET_OAJ_t are net other adjustments.

The NET_VAL_t term captures the net impact of changes in the value of accumulated foreign assets and foreign liabilities and is typically broken down into two terms

$$NET_VAL_t = NET_MKTVAL_t + NET_ERVAL_t \quad (3)$$

where the first term captures the net impact of shifts in the market value of foreign assets relative to the market value of foreign liabilities and the second term captures the net impact of shifts in exchange rates on the relative domestic-currency value of foreign-currency foreign assets compared to foreign-currency foreign liabilities.

Market values will fluctuate in line with movements in equity and bond markets and in the valuation of unlisted positions. In addition, loan writedowns correspond to a reduction in the market value of loan assets and/or loan liabilities. Currency movements matter to

the extent that there is a currency mismatch between foreign assets and foreign liabilities. For instance, if a member of the euro area had more dollar foreign assets than dollar foreign liabilities, an appreciation of the dollar against the euro would generate a net valuation gain on the external position.

The NET_VAL_t term has attracted considerable attention in the research literature in recent years (see, amongst others, Lane and Milesi-Ferretti 2001, Lane and Milesi-Ferretti 2007, Gourinchas and Rey 2007, Curcuru et al 2008, Nielsen 2011). In particular, this term can be readily incorporated into macroeconomic models, since it is driven by asset prices and exchange rates that are jointly determined with other macroeconomic variables in the equilibrium solutions to such models. Moreover, the sharp upward trend in the size of foreign asset and foreign liability positions in the last fifteen years means that these valuation effects are much larger in magnitude now than was the case in earlier periods.

The NET_OADJ_t term captures the net impact of measurement changes. Data collection methods may shift over time. In addition, errors may be uncovered in prior data, which may then be corrected via this term. Recent work has emphasised the importance of such measurement revisions in the dynamics of net external positions (Lane and Milesi-Ferretti 2009, Gohrband and Howell 2010, Curcuru et al 2011, Zucman 2011).

In the Irish data, only the aggregated NET_OTH_t term is published, so that analysts cannot directly assess the relative importance of the NET_VAL_t and NET_OADJ_t terms.

3 The Recent Dynamics of Ireland’s Net External Position

Figure 1 shows the evolution of the cumulative current account balance and the net international investment position between 2002 and 2010. Between 2002 and 2007, there was little cumulative difference between these two measures; however, a very large gap opened up in 2008 and this gap has largely persisted through 2010.

As a result, Ireland now is in the top ten countries in terms of net external liabilities, as is shown in Table 1. Moreover, Table 2 shows the importance of “other” changes for Ireland over 2002-2010 in comparison to the other “top ten” countries (the other country where this component has been very important is Iceland).

Turning to individual years, Table 3 shows the contributions of financial flows and “net other” changes to the decline in the Irish international investment position during 2008. It presents two sets of calculations. The first follows the CSO’s “International Investment Position 31 December 2008” release (published on 30th October 2009), whereas the second uses the latest available data (October 2011) and so incorporates the impact of any revisions to the data.¹ The advantage of reporting both sets of estimates is that it illustrates the role played by data revisions in the accounting of the international investment position.

In relation to the revised data, the current estimate is that net “other” changes amounted to €83 billion in 2008, which corresponds to about 46 percent of 2008 GDP. Measured net financial inflows were also considerable at €16 billion (9 percent of GDP), although the quality of this estimate has to be framed in the context of the BOP statistical discrepancy

¹The “International Investment Position 31 December 2009” publication (published on 8th October 2010) reports a first revision of the 2008 IIP but the differences in that first revision are relatively minor compared to the initial estimates.

of €13 billion in 2008. That said, the decline in the net external position during 2008 is estimated at €100 billion.

Table 4 shows the data for 2009. In 2009, the “net other” term was again quite negative at minus €30 billion. Table 5 shows the 2010 data - the “net other” term was substantially positive at plus €36 billion, wiping out the 2009 decline. However, the cumulative decline over 2008-2010 is still very large.

4 Some Interpretations

How should we think about this large shift in Ireland’s net external position?

The first point to make is that Ireland’s status as an international financial centre means that it is very difficult to see through to the underlying “core” international balance sheet. Under perfect measurement, “pure” offshore financial intermediation should only involve an expansion in the gross scale of the international balance sheet but with no impact on the net external position, since all foreign assets would be fully backed by foreign liabilities. However, conceptual and practical limitations mean that measurement problems are significant. Moreover, the international financial services sector in Ireland also has financial linkages with other sectors, so that it also intermediates positions between domestic entities and foreign counterparts.

In addition to these problems, another interpretation challenge is the level of aggregation of the data, since the main aggregates in the international investment position data and balance of payments data do not differentiate across different types of domestic residents.²

²This is also a chronic problem with the widely-used BIS international banking data which reports on the external positions of national banking systems. The BIS data do not make a distinction between offshore-focused banks and those banks with a significant domestic presence in lending or deposit taking. Accordingly, the gross external debt of the banking system is much larger in the BIS data than if the

In its publications, the Central Statistics Office provides helpful detail on the split between IFSC and non-IFSC entities in Ireland’s international balance sheet. This is useful in understanding the composition of the large gross positions. However, it is not immediately useful in interpreting the evolution of the aggregate net position, since IFSC and non-IFSC entities also have bilateral inter-sectoral domestic positions. In particular, the IFSC sector acts as an intermediary for non-IFSC entities, so that the IFSC sector may show a negative net external position but have an exactly balancing positive net domestic position vis-a-vis the non-IFSC sector. Under this scenario, the true underlying net external position may be entirely driven by the non-IFSC sector.

Furthermore, the role of the IFSC in the global investment fund industry means that it is not easy to identify the underlying contributions of portfolio equity and portfolio debt to the “net other” changes. In particular, these two categories are intertwined since the vast bulk of Ireland’s portfolio equity liabilities consist of foreign ownership of shares in Irish-registered investment funds which in turn are predominantly invested in foreign portfolio equity assets and foreign portfolio debt assets (Lane and Milesi-Ferretti 2007 and Feletigh and Monti 2008).

As noted, it is important to keep in mind that the accurate measurement of the net external position is especially difficult in international financial centres, in view of the vast gross scale of cross-border positions in these economies and the complexity of accounting for inter-office cross-border positions within large international financial groups. Table 6 shows that Ireland is second only to Luxembourg in the gross scale of its international balance sheet relative to GDP and it is 8-10 times bigger than the international balance sheets of many larger economies.³ An outsized international balance sheet means that even small

sample is restricted to “domestic credit” institutions.

³This ranking excludes tiny offshore financial centres (see Lane and Milesi-Ferretti 2011a for a discussion

errors that asymmetrically affected the measurement of foreign asset and foreign liability positions may have a sizeable impact on the measured net foreign asset position.

The very large revisions that are shown in Table 3 are just one manifestation of the difficulty of tracking cross-border positions for very large financial centres. The measurement challenge in this period was especially large, in view of the major shifts in the gross asset and liability positions associated with the re-headquartering of some large global firms into Ireland and the move to “security-by-security” measurement of portfolio positions. There were further large gross changes in the external balance sheet during 2010 with the exit of a major UK bank from the local banking system and the transfer of many of the portfolio assets of a German-owned bank to a German asset management agency.

Leaving aside the complexities associated with the IFSC, what other interpretations are possible? One approach is to treat the end-of-sample measured net external position as the best possible estimate. But this calls for a coherent interpretation of the historical dynamics that generated this value for the net external position. If measurement were always perfect, it should be possible to allocate the dynamics of the net external position between net financial flows and net valuation effects.

In turn, under perfect measurement, net financial flows in each period should equal the current account balance. Since the net external position at the end of 2010 far exceeds the cumulated current account balance, the scope for attributing it to a persistent understatement of the current account deficit (for example, through under-counting of imports or under-counting of the net investment income deficit) is limited.

However, Figure 2 shows that cumulative net errors and omissions in the Irish balance of payments data have grown rapidly in recent years, standing at 12 percent of GDP at the end of that group).

of 2010. A substantial proportion may be attributable to unrecorded financial outflows, since the current BOP measurement procedures do not directly capture acquisitions of foreign assets by households that are not intermediated through the domestic financial system. This may be especially a problem in relation to high net worth individuals.

In particular, the large residual in 2010 may be related to capital flight during the financial crisis, with fears about the banking system prompting the transfer of assets to foreign bank accounts. Disregarding the (positive or negative) returns earned on these unrecorded foreign assets, the implication is that the net foreign asset position may be substantially less negative than the official value, with 12 percent of GDP (the cumulative level of net errors and omissions) a relevant benchmark estimate.

Alternatively, it is possible to argue that there were historical errors in the valuation of Ireland's foreign assets and foreign liabilities, with the capital gains on Ireland's foreign assets over-stated and/or the capital gains on Ireland's foreign liabilities under-stated. By this account, the recent deterioration in the measured net foreign asset position may just represent a correction of a historically over-optimistic calculation of the contribution of net valuation gains to the net external position.

This is difficult to sustain for market securities (listed equities and bonds) since reference markets prices are available, except to the extent that historical approaches may have relied on estimated returns on model portfolios rather than the more recent "security-by-security" measurement. There is certainly scope for measurement error in the valuation of assets and liabilities in the FDI category, in view of the role of self-reporting of valuations by the relevant firms in this category. However, shifts in the value of FDI positions did not play a major role in the 2008-2010 period. Indeed, if anything, it is possible to argue that the 2008-2010 period should have seen a large write-down in the valuation of Ireland's foreign

direct investment liabilities in some sectors and that the true level of Ireland’s FDI liabilities may not be as large as in the measured data. This is especially the case for “domestic-facing” FDI positions (retail banking, retail, property). It may also be an important issue in relation to the valuation of the equity liabilities associated with foreign-owned banks that ran significant proprietary trading operations out of their Irish operations.

The Central Statistics Office also provides some detail on sectoral composition of the international balance sheet across the government, monetary financial institutions, non financial corporations (including other financial intermediaries) and households. However, the capital flow data and “other adjustment” terms are not reported at this level of detail, so that the sectoral source of the large “other adjustment” term is not identifiable.

The Central Bank of Ireland now reports a very rich set of sectoral financial accounts, which include both balance sheet data and transactions data for each sector. In principle, the “rest of the world” sector in the quarterly financial accounts should be closely aligned with the IIP data and it should be informative to understand the domestic sectoral counterparts to the “net other adjustment” term. However, the “rest of world” data in the quarterly financial accounts are not sufficiently similar to the II data for Ireland to read across in a precise fashion the sectoral counterparts of the large decline in the net foreign asset position.

Subject to that caveat, it is still helpful to examine the “net other adjustment” terms for each sector over the 2008-2010 period. Table 7 shows the data. Focusing on the cumulative “net other adjustment” term over 2008-2010, the household and non-financial corporate sectors both experienced significant negative adjustments. However, by far the largest negative adjustment is in the “other financial intermediaries” sector. However, since the data do not reveal the “ultimate beneficial ownership” patterns, we cannot directly conclude

that the bulk of the negative adjustment in the international balance sheet is attributable to this sector. More generally, the “net other adjustment” term at the individual sector level is the sum of “net other adjustments” vis-a-vis domestic positions and “net other adjustments” vis-a-vis external positions, so that there is no one-to-one correspondence between sectoral and external data categories.

Given that the reported data do not clearly reveal the sources of the large negative “net other” component, what else can be said about this development? We have already noted that the level of foreign assets is plausibly under-stated due to the capital flight issue. Aside from that factor, it is hard for an external analyst to provide a compelling narrative of this negative shock.

Indeed, some factors suggest that the valuation component of the “net other” term during this period should have moved in the opposite direction. As noted above, the value of domestic-facing inward FDI projects should have fallen in response to the major domestic recession. In terms of publicly-listed firms, the shares of the Irish banks were mainly owned by foreign investors, such that the wipeout of these shares should have seen a decline in the “core” portfolio equity liabilities of Ireland. More generally, the ISEQ price index fell far more than global stockmarket price indices during 2008, such that foreign portfolio equity investors in Ireland would have suffered more negative returns than Irish investors in foreign portfolio equity assets. More recently, the writedowns of the subordinated debts of the Irish banks should map into a reduction in the value of external portfolio debt liabilities.

However, in the other direction, it is possible to think of the “core” Irish external balance sheet as being quite exposed to a decline in global equity and property prices. In particular, if it were possible to properly strip out the impact of the international financial services sector, it is plausible that the underlying international balance sheet would have shown

a “long foreign equity/property, short foreign debt” profile at the onset of the financial crisis. The foreign debt liabilities were largely intermediated through the domestic banking system, which ran up a spectacularly-large net foreign debt position in the international inter-bank market and bond market (Honohan 2009). Domestic pension and insurance funds were large-scale holders of foreign equities, as was the State through the National Pension Reserve Fund. Furthermore, there was large-scale acquisition of foreign property assets, in both the commercial and residential sectors.

Such an internationally-leveraged position is extremely vulnerable to a global decline in asset prices, since the value of foreign equities and foreign property falls but the value of foreign debt liabilities remains largely unchanged. Accordingly, the limited current account deficits for Ireland during the pre-crisis period represented an incomplete picture of Ireland’s engagement with the international capital markets, since the net flows were smaller than the gross flows, with Ireland taking on a riskier investment profile by borrowing abroad to fund the acquisition of foreign equities and foreign property assets.

Finally, it is important to re-emphasise that this narrative is not easily seen in the published data in view of the difficulty of cleanly separating the “core” external balance sheet from the large-scale financial entrepot trade associated with the IFSC. However, glimpses of this account can be seen in the sectoral financial accounts, even if these cannot be tightly linked to the international balance sheet.

5 Conclusions

The net external position is a key state variable in macroeconomic models. All else equal, a large, negative net external position implies that a country will need to run large trade

surpluses (by maintaining domestic spending at a level substantially below domestic output) on a sustained basis in order to ensure external sustainability. Conversely, a smaller net external position is consistent with a stronger profile for the future path of domestic spending.

Accordingly, it is critically important to determine the true level of Ireland's net external position with greater accuracy. As it stands, there is immense uncertainty about its value and the dramatic decline in the position during 2008-2010 has not been adequately explained. In this area, sufficient statistical and analytical resources should be allocated by the official sector to solving this puzzle.

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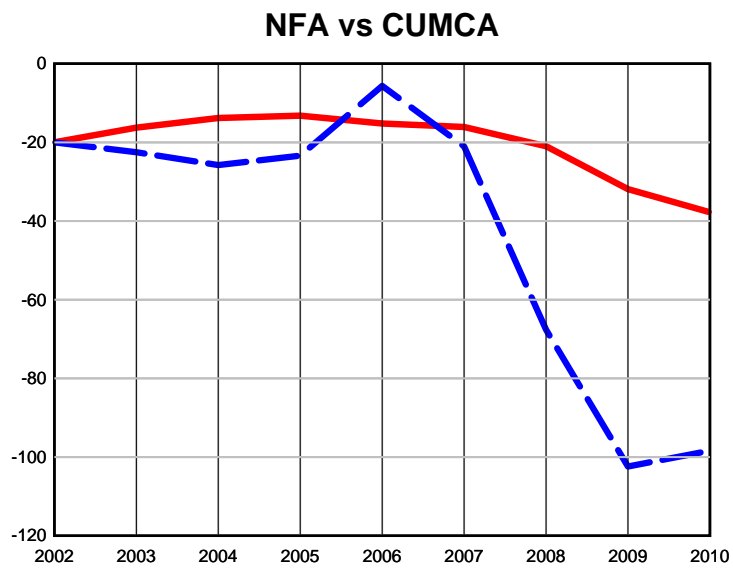


Figure 1: Cumulative Current Account Balance and Change in Net Foreign Asset Position, 2002-2010.

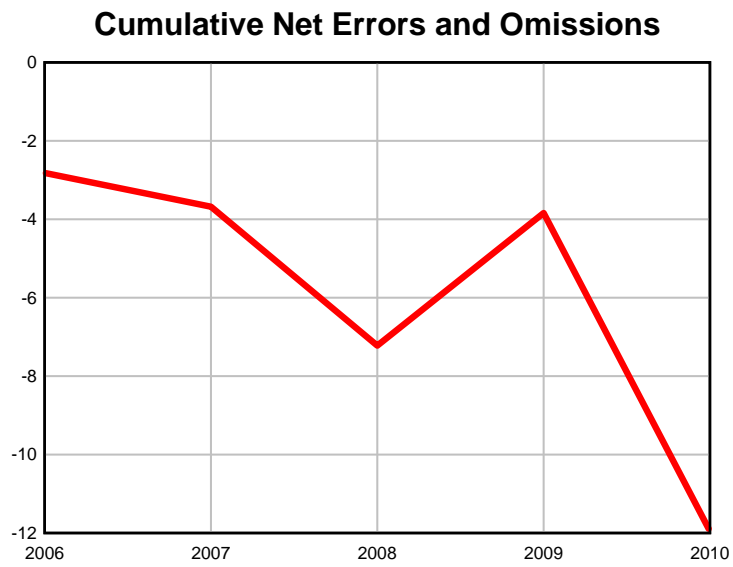


Figure 2: Cumulative Net Errors and Omissions. Note: Expressed as a ratio to GDP. Initial year for cumulation is 1998.

Table 1: The World's Top Ten Debtors, 2010

	NFA/GDP
Iceland	-673.1
Hungary	-116.9
Portugal	-116.6
Bulgaria	-103.4
Ireland	-98.4
Greece	-98.1
Spain	-88.4
New Zealand	-87.0
Latvia	-82.9
Slovak Republic	-72.9

Note: Based on updated version of dataset reported in Lane and Milesi-Ferretti (2007).

Table 2: Evolution of Net External Position and Cumulative Current Account Balance.

	D(NFA) 2002-2010	CUMCA 2002-2010	D(NFA) 2008-2010	CUMCA 2008-2010
Iceland	-594.6	-130.8	-429.1	-56.6
Hungary	-42.7	-9.2	-8.2	-5.9
Portugal	-51.3	-52.1	19.4	-34.9
Bulgaria	-73.7	-65.5	10.4	-35.0
Ireland	-78.4	-19.3	-61.6	-10.1
Greece	-38.4	-53.4	45.5	-39.1
Spain	-41.4	-33.1	18.9	-20.9
New Zealand	-3.5	-4.7	9.8	-14.9
Latvia	-39.3	-46.0	18.1	-5.6
Slovak Republic	-46.2	-10.4	-4.2	-14.1

Note: Based on updated version of dataset reported in Lane and Milesi-Ferretti (2007).

Table 3: Change in NIIP During 2008

	Initial (1) Start	(2) Flows	(3) OTH	(4) End	Revised (5) OTH	(6) End
Foreign Assets						
Direct Investment	101.9	12.9	6.5	121.4	6.5	121.4
Portfolio Equity	441.0	-22.7	-110.8	307.4	-110.8	307.4
Portfolio Debt	897.6	50.2	-90.4	857.4	9.3	957.0
Other Investment	828.9	67.7	0.7	897.3	0.2	896.8
Reserve Assets	0.6	0.1	0.03	0.7	0.03	0.7
Total	2,270.1	108.1	-194.0	2,184.2	-94.8	2,283.4
Foreign Liabilities						
Direct Investment	138.4	-11.2	11.7	138.9	8.2	135.3
Portfolio Equity	784.7	-7.6	-138.1	638.9	-138.1	638.9
Portfolio Debt	545.3	-10.7	7.8	542.3	107.3	641.8
Other Investment	838.7	153.8	0.2	992.7	11.2	1,003.7
Total	2,307.0	124.2	-118.5	2,312.8	-11.5	2,419.7
Net	-36.9	-16.1	-75.5	-128.6	-83.2	-136.3

Note: Drawn from CSO database and BOP/IIP releases.

Table 4: Change in NIIP During 2009.

	Initial (1) Open	(2) Flow	(3) OTH	(4) CLOSE	(5) OPEN	Revised (6) FLOW	(7) OTH	(8) CLOSE
Foreign Assets								
Direct Investment	121.4	17.2	51.1	189.7	121.4	19.2	0.1	200.8
Portfolio Equity	307.4	10.3	57.0	374.8	307.4	8.5	0.1	374.7
Portfolio Debt	857.4	-20.1	38.9	876.2	957.0	-8.8	0.03	977.9
Other Investment	897.3	-65.5	28.3	860.1	896.8	-63.4	0.03	864.4
Reserve Assets	0.7	-0.1	0.8	1.5	0.7	-0.1	0.001	1.5
Total	2,184.2	-58.1	176.1	2,302.2	2,283.4	-44.6	180.5	2,419.3
Foreign Liabilities								
Direct Investment	138.9	17.7	12.8	169.3	135.3	18.7	0.018	171.8
Portfolio Equity	638.9	19.0	159.4	817.4	638.9	20.2	0.159	817.9
Portfolio Debt	542.3	-10.0	2.9	535.2	641.8	2.1	0.003	646.7
Other Investment	992.7	-88.1	32.8	937.3	1,003.7	-86.5	0.031	948.6
Total	2,312.8	-61.4	207.9	2,459.3	2,419.7	-45.5	210.8	2,584.9
Net	-128.6	3.3	-31.8	-157.1	-136.3	0.9	-30.2	-165.6

Note: Drawn from CSO database and BOP/IIP releases.

Table 5: Change in NIIP During 2010

	(1) Open	(2) Flows	(3) OTH	(4) Close
Foreign Assets				
Direct Investment	200.8	13.4	46.7	261.0
Portfolio Equity	374.7	27.6	51.4	453.7
Portfolio Debt	977.9	-46.3	53.2	984.7
Other Investment	864.4	21.8	50.8	936.9
Reserve Assets	1.5	-0.01	0.1	1.6
Total	2419.3	16.5	202.1	2638.0
Foreign Liabilities				
Direct Investment	171.8	19.9	-6.7	184.9
Portfolio Equity	817.9	115.0	127.2	1060.1
Portfolio Debt	646.7	-39.7	6.3	613.2
Other Investment	948.6	-66.3	39.2	921.5
Total	2584.9	28.9	165.9	2779.8
Net	-165.6	-12.4	36.2	-141.8

Note: Drawn from CSO database and BOP/IIP releases.

Table 6: Gross Size of International Balance Sheets

	IFI
Top 10	
Luxembourg	24,109
Ireland	3,361
Hong Kong	2,256
Bahrain	1,590
Malta	1,434
United Kingdom	1,308
Singapore	1,242
Iceland	1,220
Switzerland	1,096
Cyprus	1,085
Others	
United States	292
Germany	470
France	526
Japan	196

IFI is sum of foreign assets and foreign liabilities, expressed as a ratio to GDP. Note: Based on updated version of dataset reported in Lane and Milesi-Ferretti (2007).

Table 7: Sectoral Valuation Effects

	2008	2009	2010	2008-2010
TOTAL	-14.4	-45.7	-69.2	-129.4
MFI	42.7	-14.3	-17.0	11.5
OFI	-27.9	-20.7	-52.5	-101.1
ICPF	6.3	5.3	-4.1	7.5
NFC	10.7	-33.0	-8.3	-30.6
HH	-37.7	15.9	-1.7	-23.5
GG	-8.5	1.0	14.3	6.8
ROW	14.4	46.5	69.3	130.2
from IIP	-83.2	-30.2	36.2	-77.2

MFI: monetary financial institutions; OFI: other financial intermediaries; ICPF: insurance corporations and pension funds; NFC: non-financial corporations; HH: Households; GG: general government; ROW: rest of world. Under perfect measurement, the ROW value should equal the negative of the IIP value. Source: Based on Quarterly Financial Accounts dataset from the Central Bank of Ireland; IIP data from the Central Statistics Office.