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International Financial Integration and the External Positions of Euro Area Countries

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INTERNATIONAL FINANCIAL INTEGRATION AND THE EXTERNAL POSITIONS OF EURO AREA COUNTRIES

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ABSTRACT/RÉSUMÉ

International financial integration and the external positions of euro area countries

This paper describes the dynamics of the external positions of euro area countries since the formation of EMU. While external imbalances have been the main focus in recent times, current account balances can only be properly interpreted in the context of understanding the overall international balance sheet and the dynamics of the net foreign asset. The creation of the euro represented a fundamental financial shock, whose effects then coincided with a reshaping of the international financial system through important financial innovations and the credit boom and securitization boom that followed. The paper builds a profile of the international balance sheets of euro area countries in order to understand the sources and implications of shifts in net positions over the last decade. It is also considers the gross scale of cross-border holdings. To understand the international risk distribution, the overall position is broken down between equity and debt components. The international currency exposures embedded in the international balance sheets are described. In relation to net flows and net positions, the paper tracks the distribution and persistence of current account balances and net foreign asset positions across the member countries. Furthermore, we document that other factors (such as valuation effects) have been important in the dynamics of the net foreign asset positions, in addition to the contribution made by the cumulative current account position.

This working paper relates to the 2010 OECD Economic Survey of the Euro Area (www.oecd.org/eco/surveys/euroarea).

JEL classification: F21, F32, F34, F36

Keywords: euro area, capital flows, international investment positions, currency exposures

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L'intégration financière mondiale et les positions extérieures des pays de la zone euro

Ce document décrit la dynamique des positions extérieures des pays de la zone euro depuis la formation de l'Union économique et monétaire. Alors que les déséquilibres externes ont été au centre des intérêts ces derniers temps, l'interprétation des soldes des opérations courantes ne peut se faire qu'à la lumière de la situation financière mondiale et de la dynamique des actifs nets extérieurs. La création de l'euro a représenté un choc financier fondamental, dont les effets ont alors coïncidé avec une réorganisation du système financier international à travers d'importantes innovations financières ainsi que de l'explosion du crédit et de l'envolée de la titrisation qui s'en ont suivies. Ce document établit un profil de la situation financière globale des pays de la zone euro afin de comprendre les origines et implications des positions nettes au cours de la dernière décennie. Il étudie également la forte ampleur des avoirs transnationaux. Pour comprendre la répartition internationale des risques, la situation globale est décomposée en avoirs et dettes. Les risques de change intégrés dans les bilans globaux y sont décrits. Le document retrace la répartition et la persistance des soldes courants et des positions nettes extérieures dans les différents pays membres, en lien avec les flux et positions nets. Par ailleurs, on montre qu'outre l'apport fourni par le cumul des soldes de la balance courante, les autres facteurs (tels que les effets de valorisation) ont été importants dans la dynamique des positions nettes extérieures.

Ce document de travail se rapporte à l'*Étude économique de la zone euro*. (www.oecd.org/eco/etudes/zoneeuro).

Classification JEL : F21, F32, F34, F36

Mots clés : zone euro, flux de capitaux, position d'investissements internationaux, risque de change

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International financial integration and the external positions of euro area countries

By Philip R. Lane[1]

Introduction

The aim of this paper is to describe the dynamics of the external positions of euro area countries since the formation of Economic and Monetary Union (EMU). While external imbalances have been the main focus in recent times, current account balances can only be properly interpreted in the context of understanding the overall international balance sheet and the dynamics of the net foreign asset position.

The creation of the euro represented a fundamental financial shock (see also Lane, 2010, and Lane and Milesi-Ferretti, 2008). By eliminating currency risk among the member countries, a critical barrier to international financial integration was dismantled, especially in relation to debt instruments. In addition to the scope for increased international risk sharing, it is plausible that international financial integration also lowered risk premia and facilitated the running of larger current account imbalances. Moreover, to the extent that governments were less concerned about external balance in the absence of currency risk, national macroeconomic policies may have been re-directed away from acting as a countervailing force in the determination of the current account balance (Lane, 2009).

However, it is also important to emphasise that the international financial system was reshaped by important financial innovations during this period. In particular, the credit and securitization booms, that began around 2003/2004, were forces that extended across all advanced-country financial systems. The impetus for international financial integration meant that cross-border asset trade was heavily boosted by these innovations. Moreover, to the extent that securitization was perceived to effectively diversify risk, this innovation contributed to a reduction in country-level risk premia and the expansion in current account imbalances.

Accordingly, it is helpful to build a profile of the international balance sheets of euro area countries in order to understand the sources and implications of shifts in net positions over the last decade. It is relevant to describe the gross scale of cross-border holdings. To understand the international risk distribution, it is also helpful to break down the overall position between equity and debt components. Along another dimension, it is also insightful to understand the international currency exposures that are embedded in the international balance sheet.

In relation to net flows and net positions, we track the distribution and persistence of current account balances and net foreign asset positions across the euro area countries. Furthermore, we document that

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1. Professor of International Macroeconomics at Trinity College, Dublin. The views expressed are those of the author and should not be interpreted as representing those of the OECD or its member governments. The author wishes to thank Sebastian Barnes and his colleagues in the OECD Economics Department for helpful comments on an earlier draft.

other factors (such as valuation effects) have been important in the dynamics of the net foreign asset positions, in addition to the contribution made by the cumulative current account position.

International Balance Sheets

As has been emphasised by Lane and Milesi-Ferretti (2001, 2007), the gross scale of international balance sheets has expanded in recent decades. This has implications for international risk sharing and also the international transmission of financial shocks.

A standard measure of de facto international financial integration is the IFI ratio, which is the sum of foreign assets and foreign liabilities expressed as a ratio to GDP

$$IFI = 100 * \frac{A + L}{GDP} \qquad (1)$$

where A denotes the stock of foreign assets and L the stock of foreign liabilities. Table 1 shows this ratio for euro area countries for 1999, 2002 and 2007. It underlines that cross-border positions have grown very rapidly for euro area countries over the last decade.

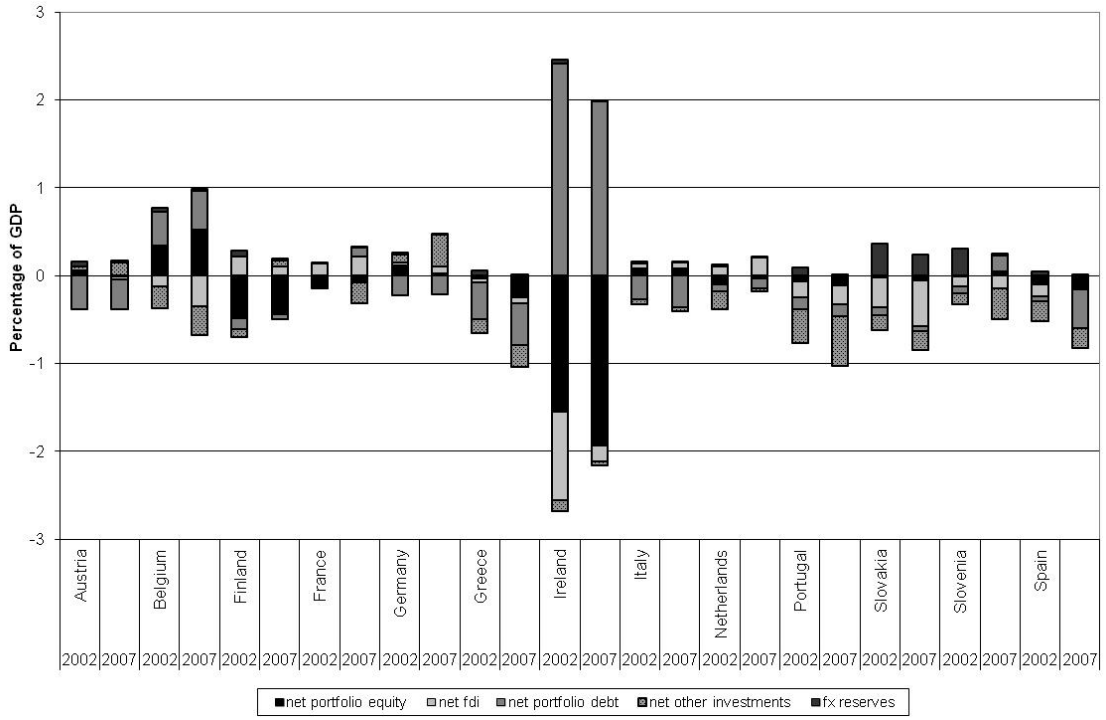
Table 1. Trends in International Financial Integration

	1998	2002	2007
Austria	2.01	3.44	6.04
Belgium	5.11	6.85	10.48
Finland	2.08	3.36	4.84
France	2.68	3.40	5.53
Germany	2.01	3.09	4.12
Greece	1.16	1.71	2.77
Ireland	9.35	16.01	25.74
Italy	1.77	2.10	2.87
Luxembourg	112.26	175.57	244.40
Netherlands	4.77	7.03	9.84
Portugal	2.41	3.63	4.84
Slovakia	1.17	1.49	1.58
Slovenia	0.83	1.32	2.41
Spain	1.56	2.50	3.58

Note: IFI ratio is sum of foreign assets and foreign liabilities, expressed as a ratio to GDP.
Source: Author's calculations based on update of Lane and Milesi-Ferretti (2007).

Lane and Milesi-Ferretti (2008) document that the speed of cross-border financial integration has been especially rapid for high-income countries, since a main driving force has been the impact of financial innovation on international asset trade among countries with highly-developed financial systems. A second driving force has been the creation of the euro, since the elimination of currency risk and the associated deepening of euro-denominated financial markets generated a discrete increase in cross-border asset trade among member countries. These forces were especially important in credit markets.

Figure 1. Composition of Gross International Balance Sheet



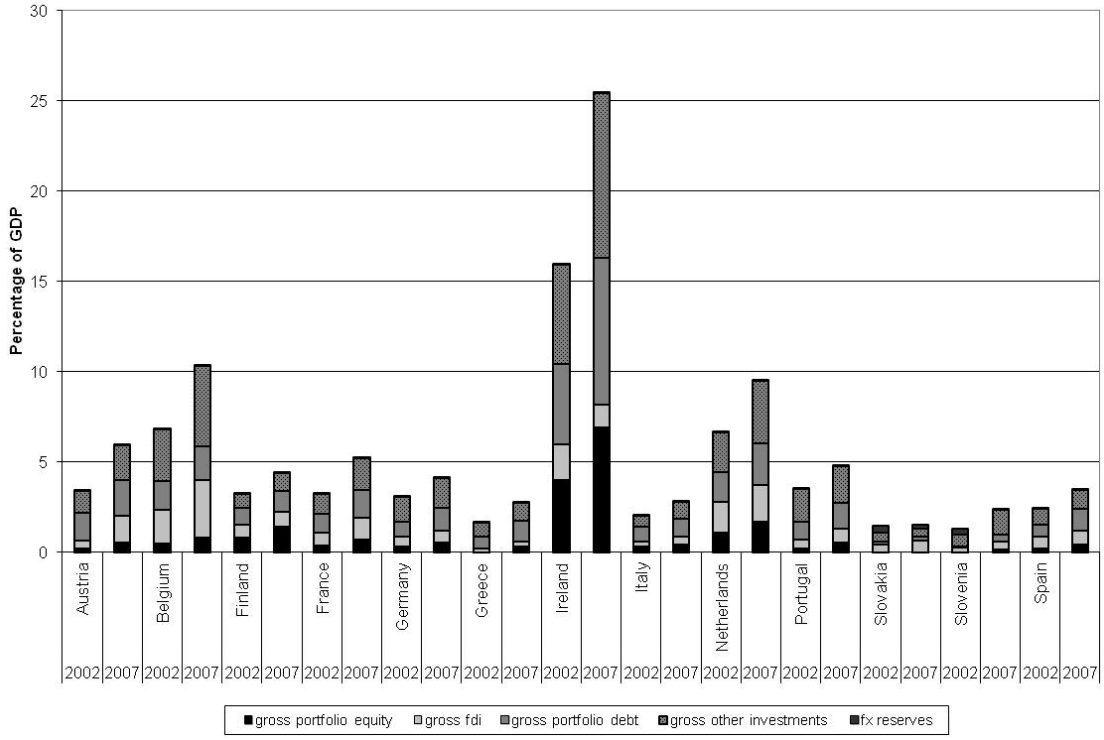
Source: Author's calculations based on update of Lane and Milesi-Ferretti (2007).

Indeed, the expansion in international balance sheets has been disproportionately concentrated in debt components. This is shown in Figure 1 which displays gross equity positions and gross debt positions for 2002 and 2007.

$$GEQ = \frac{EQA + EQL}{GDP}; \qquad GDEBT = \frac{DEBTA + DEBTL}{GDP} \tag{2}$$

where the equity component is split between portfolio equity and FDI and the debt component is split between portfolio debt, other debt and reserves. Figure 2 shows the corresponding net positions in each category in 2002 and 2007.

Figure 2. Net Equity and Net Debt Positions



Source: Author's calculations based on Lane and Milesi-Ferretti (2007).

The currency composition of foreign assets and foreign liabilities is another important dimension of the international balance sheet. Lane and Shambaugh (2010a) have developed a method to estimate the currency positions embedded in the international balance sheet. One key indicator is the FXAGG index which captures the net weight of foreign currencies in the international balance sheet. It ranges from -100 (no foreign-currency assets, only foreign-currency liabilities) to +100 (only foreign-currency assets, no foreign-currency liabilities), where a zero value indicates that the value of foreign-currency assets equals the value of foreign-currency liabilities. A second key indicator is NETFX, which is the net position in foreign currencies expressed as a ratio to GDP. The formulae for these variables are:

$$FXAGG = 100 * \frac{\omega_{FC}^{A} A - \omega_{FC}^{L} L}{A + L}$$
$$NETFX = FXAGG * \frac{(A + L)}{GDP} \qquad (3)$$

where ω_{A}^{FC} and ω_{FC}^{L} denote the proportions of foreign assets and foreign liabilities that are denominated in foreign currencies. As is explained and quantified in Lane and Shambaugh (2010b), a shift in the net foreign-currency position can be generated by a shift in the net foreign asset position or in the currency composition of foreign assets and foreign liabilities. In turn, the currency composition of foreign assets and foreign liabilities depends on the balance between equities and debt and the currency denomination of debt assets and liabilities. (Equity positions are considered to be denominated in the currency of the host country).

Tables 2 and 3 reports these indicators for the euro area countries. Table 2 shows that most euro area countries have been long in foreign currencies in recent years. This is true even for countries that have run large current account deficits, since these deficits have been mostly funded in euro, while some proportion of foreign assets remains denominated in non-euro currencies. The decline in the FXAGG ratio for Germany reflects the increasing proportion of euro-denominated assets in its international balance sheet which offsets the impact of running a current account surplus. As is shown in Table 3, the net position in foreign currencies has generally expanded as a ratio to GDP, in view of the scaling up of the overall gross international balance sheet.

Table 2. Foreign-Currency Exposure Index

	1999	2002	2007
Austria	-9.2	-9.0	-7.1
Belgium	3.7	3.4	3.0
Finland	1.8	9.2	11.7
France	11.1	8.0	8.5
Germany	6.5	6.5	6.8
Greece	-20.3	2.6	5.7
Ireland	12.2	10.1	9.6
Italy	-2.1	3.1	4.2
Netherlands	12.0	8.9	11.8
Portugal	2.5	1.6	1.3
Slovak Republic	-0.7	9.7	-5.0
Slovenia	4.9	13.0	6.3
Spain	8.0	7.4	5.5
Luxembourg	18.1	16.8	20.1

Source: FXAGG ratio. Based on methods described in Lane and Shambaugh (2010).

Table 3. Net Foreign-Currency Positions

	1999	2002	2007
Austria	-21.1	-31.0	-43.1
Belgium	20.0	23.1	31.0
Finland	6.0	30.9	56.7
France	33.4	27.2	46.9
Germany	14.5	20.0	28.0
Greece	-25.2	4.4	15.8
Ireland	138.2	161.1	246.3
Italy	-4.0	6.5	12.2
Netherlands	62.9	62.4	115.7
Portugal	5.8	5.8	6.1
Slovak Republic	-0.7	14.4	-7.9
Slovenia	3.9	17.2	15.3
Spain	14.5	18.5	19.6
Luxembourg	2216.0	2955.9	4903.2

Source: NETFX ratio. Based on methods described in Lane and Shambaugh (2010).

Table 4 shows the underlying foreign-currency weights for foreign assets and foreign liabilities. The impact of EMU was to greatly reduce the importance of foreign currencies in the international balance sheets of euro area countries. This is especially true in relation to foreign liabilities. However, the foreign-currency component of external assets varies across countries depending on the extent of positions outside the euro area.

Table 4. Foreign-Currency Weights in Foreign Assets and Foreign Liabilities

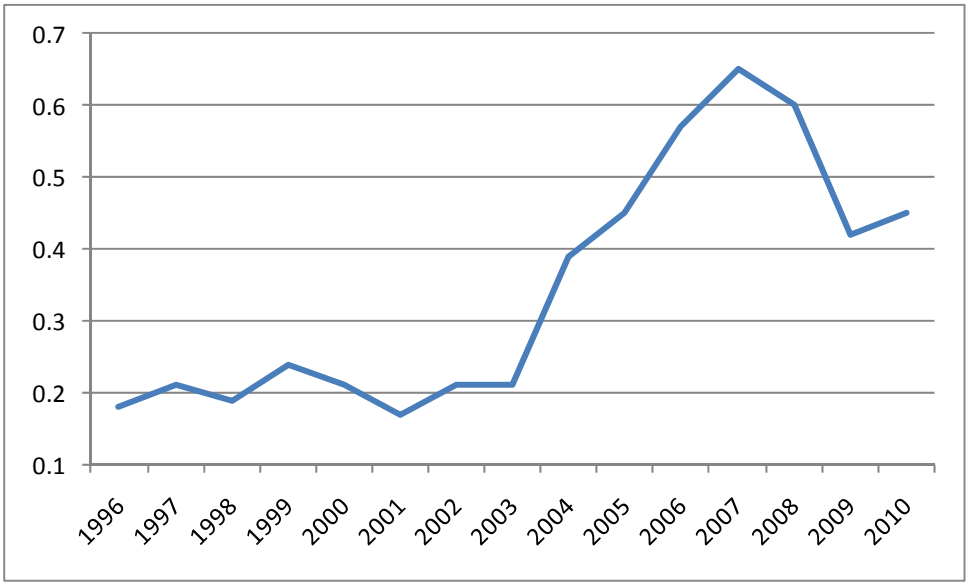
	1995		2002		2007	
	w_a	w_l	w_a	w_l	w_a	w_l
Austria	0.85	0.81	0.32	0.45	0.27	0.39
Belgium	0.93	0.67	0.21	0.16	0.19	0.14
Finland	0.89	0.75	0.51	0.23	0.45	0.18
France	0.82	0.45	0.34	0.19	0.32	0.15
Germany	0.66	0.49	0.34	0.22	0.30	0.19
Greece	1.00	0.76	0.67	0.28	0.55	0.17
Ireland	0.98	0.52	0.41	0.20	0.38	0.18
Italy	0.74	0.66	0.28	0.18	0.24	0.12
Netherlands	0.94	0.46	0.42	0.22	0.41	0.18
Portugal	0.75	0.43	0.29	0.17	0.24	0.14
Slovak Republic	1.00	0.76	1.00	0.53	1.00	0.51
Slovenia	1.00	0.71	1.00	0.71	1.00	0.69
Spain	0.69	0.49	0.40	0.15	0.33	0.12
Luxembourg	1.00	1.00	0.48	0.15	0.53	0.13

Note: Fraction of foreign assets (w_A) and foreign liabilities (w_L) that are denominated in foreign currencies.
Source: Lane and Shambaugh (2010a).

Net external positions

In relation to net positions, Figure 3 shows that the dispersion of current account balances markedly increased from 2004 onwards. It is important to understand that the creation of the euro per se did not immediately induce a widening in external balances. Rather, the timing of the expansion in current account positions coincides with the global credit boom that began around 2004.

Figure 3. Dispersion of Current Account Balances



Note: Cross-country standard deviation of current account balances (expressed as a ratio to area-wide GDP).

Table 5 shows that average current account balances during 1999-2007 were quite varied across the member countries, such that the dispersion in positions has been accompanied by considerable persistence. Those countries running the largest average deficits are typically those countries that entered EMU with lower output *per capita*.

Table 5. Average Current Account Balances, 1999-2008

Luxembourg	10.5
Finland	6.2
Netherlands	5.4
Belgium	3.8
Germany	2.8
Austria	1.3
France	0.8
Italy	-1.1
Ireland	-1.6
Slovenia	-2.0
Spain	-5.5
Slovakia	-6.6
Greece	-8.0
Portugal	-8.8

Source: Eurostat.

We can obtain more insight into the dynamics of current account positions by examining the evolution over sub-periods, as is shown in Table 6. This table shows the changes in the current account between 1997 and 2009 over the sub-periods: 1997-2003; 2003-2005; 2005-2007; 2007-2009. The main message from this table is that the amplification of current account imbalances was not concentrated around the formation of EMU (the 1997-2003 period, taking into account anticipation effects). Rather, the period 2003-2007 saw a further widening in current account positions, which must relate to other factors. (During the 2007-2009 period, there has been a general compression in current account positions).

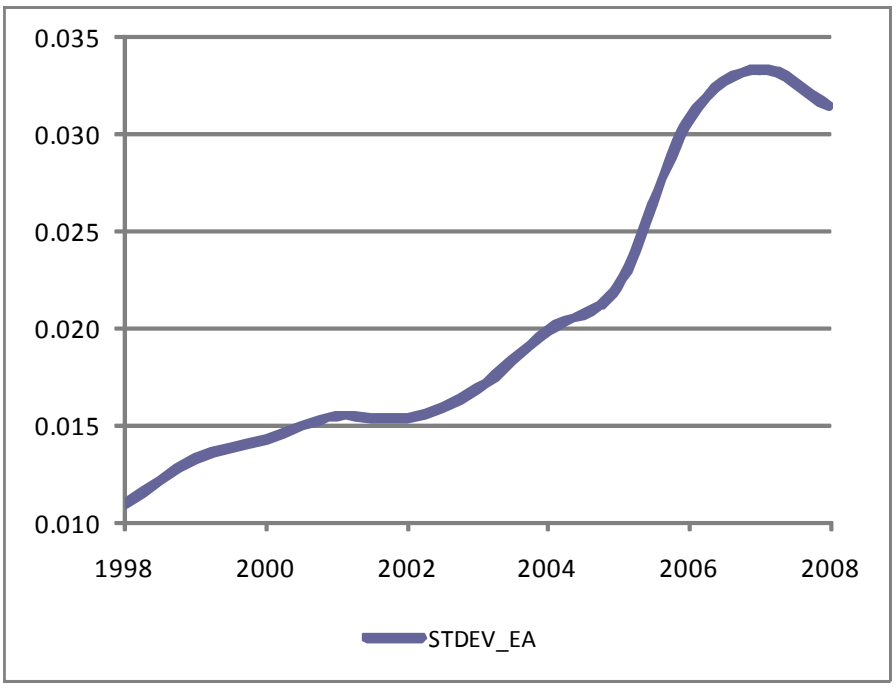
Table 6. Shifts in Current Account Balances, 1997-2009

	1997	D97/03	D03/05	D05/07	D07/09	2009
Austria	-2.4	4.1	0.3	1.1	-1.7	1.4
Belgium	5.5	-1.4	-1.5	-0.4	-2.4	-0.3
France	2.7	-1.8	-1.2	-0.6	-0.5	-1.5
Germany	-0.5	2.4	3.2	2.5	-2.8	4.8
Italy	2.8	-4.1	-0.4	-0.8	-0.9	-3.4
Luxembourg	9.9	-1.8	2.8	-1.3	-4.0	5.7
The Netherlands	6.5	-1.0	1.8	1.4	-3.4	5.2
Finland	5.6	-0.4	-1.5	0.6	-2.8	1.4
Greece	-3.7	-2.9	-1.0	-6.9	3.2	-11.2
Ireland	3.1	-3.1	-3.5	-1.8	2.4	-2.9
Portugal	-5.8	-0.3	-3.4	0.1	-0.6	-10.1
Spain	-0.1	-3.4	-3.8	-2.7	4.9	-5.1
Slovakia	-8.5	2.6	-2.6	3.2	2.1	-3.2
Slovenia	0.3	-1.1	-1.0	-3.0	4.5	-0.3

Source: Eurostat.

A similar story applies for the dispersion in net foreign asset positions, which is plotted in Figure 4. The cross-country variation in net foreign asset positions progressively climbed during 1997 to 2008, with an acceleration taking place around 2003/2004.

Figure 4. Dispersion of Net Foreign Asset Positions



Note: Cross-country standard deviation of NFA positions (relative to area-wide GDP).

Table 7 shows the change in net foreign asset positions over 1999 to 2007. While the cumulative current account balance has been a key driver, other factors have also played a substantial role. One main reason why the net foreign asset position may diverge from the cumulative current account is the contribution of valuation effects. Such valuation effects are generated by movements in asset prices and exchange rates that alter the value of foreign assets relative to the value of foreign liabilities.

Table 7. Creditors and Debtors (percent of EA GDP), end 2008

Creditors		Debtors	
Total	8.11	Total	-23.05
Germany	6.12	Spain	-8.94
Belgium	1.12	France	-4.31
Netherlands	0.55	Italy	-3.93
Luxembourg	0.30	Greece	-1.93
		Portugal	-1.73
		Ireland	-1.09
		Austria	-0.50
		Slovak Republic	-0.41
		Slovenia	-0.12
		Finland	-0.09

Note: Net foreign asset positions, expressed as a ratio to area-wide GDP. Author's calculations based on update of Lane and Milesi-Ferretti (2007).

The appreciation of the euro against the dollar during 2002-2007 meant that euro area economies suffered valuation losses on dollar-denominated assets. The poor performance of the US stock market relative to European stock markets further meant that net external positions for European countries declined due to the rise in the value of portfolio equity liabilities relative to the value of portfolio equity assets. However, the contribution of these forces differs across euro area countries in line with the gross scale of international balance sheets and the composition of assets and liabilities across portfolio equity, debt, reserves and FDI.

However, it is not feasible to obtain a precise estimate of the contribution of valuation effects to NFA dynamics for the member countries, since most countries do not separately report valuation effects. Rather valuation effects are bundled together with other adjustments to the estimated value of foreign assets and foreign liabilities. A major problem is that shifts in data collection methods means that asset and liability positions are subject to substantial revisions. Since the historical data on capital flows are typically not revised in a proportionate manner, it is not possible to trace out a consistent set of stock-flow accounts that can accurately quantify the contribution of valuation effects.

Table 8. NFA Dynamics, 1999-2007

	Total	CUMCA	Other
Austria	-9.5	9.7	-19.2
Belgium	9.0	22.3	-13.3
Finland	11.2	35.8	-24.6
France	-7.1	3.6	-10.8
Germany	25.2	22.3	2.9
Greece	-94.8	-49.7	-45.1
Ireland	-27.5	-12.2	-15.3
Italy	-16.5	-8.2	-8.4
Luxembourg	88.5	58.5	30.0
Netherlands	6.8	38.1	-31.3
Portugal	-86.8	-55.9	-30.9
Slovakia	-55.5	-30.7	-24.9
Slovenia	-23.1	-13.1	-10.0
Spain	-75.8	-35.6	-40.3

Note: Total is change in NFA between 1999 and 2007, expressed as a ratio to 2007 GDP; CUMCA is cumulative current account balance between 1999 and 2007, expressed as a ratio to 2007 GDP; Other is the contribution of other factors to the change in the NFA position (valuation effects; data adjustments).

Lane and Milesi-Ferretti (2009) provide a comprehensive forensic analysis of these issues for the United States. While the data are lacking to conduct a similar exercise for individual euro area economies, the European Central Bank provides the decomposition for the aggregate euro area. The aggregate decomposition shows that valuation effects are the dominant source of other adjustments over a cumulative time period.

Keeping that caveat in mind, it is still instructive to note that the stock-flow adjustment has been quite negative for many euro area countries. The general evolution of asset prices and exchange rates is consistent with a considerable role for valuation losses in explaining this negative contribution. Indeed, for the euro area as a whole, the net foreign asset position is not too far different to the position for the United States, despite the very different history of current account balances. To some extent, this reflects the exchange of positions between the US and the euro area, with the United States holding euro-denominated foreign equity assets while the euro area holds dollar-denominated bonds and equities.

In addition to the valuation channel, the outstanding levels of foreign assets and liabilities also operate through the generation of investment income flows. In principle, the yields on these instruments could vary

across states and time to provide risk sharing. In the data, the dominant source of investment income is provided by interest payments on debt positions. (Dividends on portfolio equity positions are quite small but profits on FDI positions are significant for a small number of euro area countries.) In turn, the yields on debt positions are highly correlated across euro area countries, since the yields on cross-border positions closely follow general movements in the euro area yield curve. Accordingly, an increase in the interest rate improves incomes for those countries with positive net debt positions, while it reduces incomes for those countries with negative net debt positions.

Conclusions

This study has aimed to build a profile of the external positions of euro area countries. It has emphasized that member countries dramatically expanded cross-border financial positions since the creation of the euro. In part, this reflects a wider trend among high-income countries towards international financial integration. However, cross-border financial integration in the euro area was disproportionately boosted by the creation of the euro, with the elimination of currency risk and the deepening of area-wide markets generating a discrete increase in cross-border financial trade.

In relation to current account balances, the expansion in positions widened from 2004 onwards. The timing is coincidental with the boom in credit markets and securitisation.

It is important to analyse the risks associated with large external imbalances in the context of the expansion of gross international balance sheets. The elimination of currency risk within the euro area means that there are no currency risks associated with intra-area cross-border holdings. This has meant that the banking and sovereign debt crises that are currently being experienced have not been amplified by intra-EMU shifts in nominal exchange rates.

Moreover, the liquidity support provided by the ECB means that large external debt liabilities are consistent with macroeconomic stability so long as these external liabilities are denominated in euro. This stands in contrast with the historical experience of countries that undergo triple crises, with currency devaluation amplifying the adverse balance sheet dynamics that play a central role in banking and sovereign debt crises.

The expansion in equity-type liabilities has also meant that part of the negative wealth shock associated with domestic output declines and falls in domestic asset and housing prices have been transferred to foreign investors. Similarly, foreign ownership of state-contingent debt liabilities means that some of the losses on these instruments have been borne externally.

In the other direction, ownership of foreign assets may have partially shielded domestic residents in the worst-hit economies from the full impact of domestic shocks. An important exception is in the case where foreign assets bear similar return characteristics to domestic assets. For instance, the purchase of foreign real estate assets does not provide diversification for investors that are exposed to the domestic real estate sector if the downturn in real estate markets is international in scope. More generally, the global nature of the 2007-2009 financial crisis has meant that cross-border diversification has provided less insulation than would be the case in relation to purely country-specific shocks. Still, the considerable cross-country variation in the severity of the global crisis means that international financial integration has played an important role in distributing the differential costs across a wider group of investors.

However, a possible downside to international financial integration is that it may have limited the policy response to the accumulation of excessive external liabilities. If cross-border financial integration was perceived to reduce aggregate risk, it may have contributed to a passive attitude among policy makers to the risks embedded in large gross and net external liability positions. Rather, the scope for international

risk diversification may have encouraged entities in some member countries to increase the level of aggregate risk by increasing the gross scale of balance sheets and favouring debt financing over equity financing. In the absence of a sufficiently robust regulatory response, this perverse consequence of international financial integration may have been an important contributor to the accumulation of financial risks during the run-up to the global crisis.

Bibliography

Blanchard, O. and F. Giavazzi (2002), "Current Account Deficits in the Euro Area. The End of the Feldstein Horioka Puzzle?," *Brookings Papers on Economic Activity* 2, 147-209.

Blanchard, O. and G. Milesi-Ferretti, 2009, "Global Imbalances: In Mid-Stream?," *IMF Staff Position Note 09/29*.

Curcuru, S, T. Dvorak and F. Warnock, 2008, Cross-Border Returns Differentials, *Quarterly Journal of Economics* 123(4), 1495–1530.

Devereux, M. and J Yetman, 2009, "Financial De-Leveraging and the International Transmission of Shocks", *mimeo*, University of British Columbia.

Krugman, P. (2008), "The International Finance Multiplier," *mimeo*, Princeton University.

Gourinchas, P.-O. and H. Rey (2007), "International Financial Adjustment," Journal of Political Economy.

Lane, P. (2008), "The Macroeconomics of Financial Integration: A European Perspective," IIIS Discussion Paper No. 265.

Lane, P., and G. Milesi-Ferretti (2003), "International Financial Integration," *International Monetary Fund Staff Papers* 50(S), 82-113.

———, (2007a), "The External Wealth of Nations Mark II," *Journal of International Economics* 73 no. 2 (November), 223-50.

———, (2007b), "A Global Perspective on External Positions," in *G7 Current Account Imbalances: Sustainability and Adjustment* (Richard Clarida, ed.), NBER - University of Chicago Press.

———, (2008), "The Drivers of Financial Globalization," *American Economic Review (Papers and Proceedings)* 98(2), 327-332, May.

———, (2009), "Where Did All the Borrowing Go? A Forensic Analysis of the US External Position," *Journal of the Japanese and International Economies* 23, 177-199.

———, (2010a), "Cross-Border Investment in Small International Financial Centers," *IMF Working Paper No. 10/38*.

———, (2010b), "The Cross-Country Incidence of the Global Crisis," *IMF Economic Review*, forthcoming.

Lane, P. and J. Shambaugh, 2010a, "Financial Exchange Rates and International Currency Exposures," *American Economic Review* 100(1), 518-540.

Lane, P. and J. Shambaugh, 2010b, "The Long or Short of It: Determinants of Foreign Currency Exposure in External Balance Sheets," *Journal of International Economics* 80(1), 33-44.

Milesi-Ferretti, G. (2008), "Fundamentals at Odds? The U.S. Current Account Deficit and the Dollar," *Economic Notes* 37(3), 259–281.

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