Persistent intra-euro area imbalances had been building up in the years prior to the financial turmoil. This box provides a closer look at country heterogeneities in the run-up to the financial crisis and in more recent quarters, drawing on the country information underlying the sectoral euro area accounts.\(^1\) For the analytical purpose of this box, accounts are compiled for two groups of countries of the euro area, taking together countries that had run external current account surpluses over a period of five years ending with the onset of the financial crisis in 2007 (the “external surplus group” – Belgium, Germany, Luxembourg, the Netherlands, Austria and Finland) and separately those that ran current account deficits (the “external deficit group” – Ireland, Estonia, Greece, Spain, France, Italy, Cyprus, Malta, Portugal, Slovakia and Slovenia).\(^2\)

The criterion used to assign countries to each group was selected for illustrative purposes in order to present some common stylised facts on the boom period observed up to 2008. Each of the groupings in this box is itself rather heterogeneous, comprising countries with very large external deficits or surpluses, while others had (and still have) current account positions that were close to balance. In addition, the countries often differ considerably in terms of other indicators, such as the fiscal position or the presence of specific boom-bust market cycles. Obviously, the composition of the group is closely tied to the reference period and would change over time. Germany, for instance, would have been in the “external deficit group” in the case of a similar

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1 This type of presentation was first used in “The financial crisis in the light of euro area accounts: a flow-of-funds perspective”, *Monthly Bulletin*, ECB, October 2011. The group aggregates are obtained by simple aggregation of national data, while maintaining additivity to euro area totals, by way of allocating any difference relative to the euro area totals (stemming mainly from intra-euro area balance of payments asymmetries) to each grouping on a pro rata basis. No further consolidation is conducted (which is broadly appropriate as the EAA are mainly compiled on a non-consolidated basis).

2 Greece, Cyprus, Malta, Slovakia, Slovenia and Estonia are included over the whole period studied, despite their having joined the euro area only progressively.
exercise conducted at the beginning of the century, while Italy and France would have been in the “external surplus group” at that time – which, in itself, underscores the point that corrections and reversals of imbalances within Monetary Union occur over time.

**Developments in net lending/net borrowing**

Chart A, panel 1, depicts the net lending/net borrowing by sector of the economy \(^3\) for the euro area as a whole, on a four-quarter-sum basis, according to the traditional sectoral breakdown (showing households, non-financial corporations (NFCs), government and financial corporations). Chart A, panel 2, shows these financial deficits/surpluses for the government sector and the private sector \(^4\) only, but distinguishing between the external surplus and the external deficit groups defined above. Chart A, panel 1, illustrates that the period from 2006 to 2008 was characterised, for the euro area as a whole, by a sharp increase in NFCs’ net borrowing, which was then reversed in the period from 2008 to 2010. Together with an increase in the net lending of households, this later reversal found a counterpart in a considerable increase in net borrowing by government.

Taking a country group view, Chart A, panel 2, highlights the pronounced increase in financial deficits of the private sector in the external deficit group during the boom years, which were matched by ample private sector surpluses, as well as by sharp reductions in government deficits, in the external surplus group. These growing sectoral imbalances across the two country groupings partly reflect increased financial integration and the easier cross-border circulation of savings within Monetary Union. At the same time, they also reflect the impact of local demand booms and supply rigidities on competitiveness.

In 2008 the financial crisis triggered a reduction of the financial imbalances of the private sector in the external deficit group, which turned sharply into surpluses in 2009. At the same time, in the external surplus group, the private sector surpluses increased further. In the absence of any significant improvement in the euro area’s current and capital account (the line “euro area” in Chart A, panels 1 and 2), these mounting private sector surpluses had their counterpart in generally high government deficits. \(^5\) Furthermore, in the external deficit group taken as a whole, the fiscal situation did not improve sufficiently during the boom years (with an overall deficit of 1.4% of GDP in 2007), so that public finances ended up seriously impaired by 2009-10, and in need of immediate and substantial corrective measures. This contrasts with governments in the external surplus group that used the boom period to turn their overall deficit into a surplus (in 2007), although this did not prevent the later occurrence of excessive deficits that were also in need of correction.

The sectoral composition of the differences in private sector balances between the two country groupings can be seen in Chart B. During the crisis, starting from the far lower levels reached at the height of the boom, the net lending of households increased more in the external deficit

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3 The net lending/net borrowing, or financial surplus/deficit, of a sector is the balance of its capital account, and measures the excess of saving and net capital transfers received over capital investments (net lending), or vice versa (net borrowing). It is the difference between the revenue and expenditure of each sector. It is also the balance of the financial accounts of the sector, which measures the difference between transactions in financial assets and transactions in liabilities.

4 Defined here as the sum of all non-government sectors (thus including public corporations).

5 It should be noted that this fundamental accounting constraint does not, in itself, indicate the direction of causality, i.e. whether the government deficits resulted from increased private surpluses/saving or, alternatively, whether the latter reacted to increased government deficits.

6 Some countries in the external deficit group (such as Spain or Ireland), however, recorded government surpluses at the height of the boom. Their current account deficits therefore reflected private sector dissaving and lagging competitiveness.
Chart A Euro area net lending/net borrowing

(four-quarter sums; EUR billions)

(1) By sector

- euro area
- households
- non-financial corporations
- financial corporations
- government

(2) By country group for the government and private sectors

- euro area
- private sector – external surplus group
- government – external surplus group
- private sector – external deficit group
- government – external deficit group

Sources: Eurostat and ECB.
Note: The net lending/net borrowing shown in the charts of this box has been adjusted, for convenience, so as to exclude “acquisitions less disposals of non-financial non-produced assets” (in order to avoid the distortions caused by the large proceeds from the sale of UMTS mobile phone licences in 2000).

Chart B Net lending/net borrowing by country grouping

(four-quarter sums; percentage of GDP)

(1) External surplus group

(2) External deficit group

Sources: Eurostat and ECB.
Note: The net lending/net borrowing shown in the charts of this box has been adjusted, for convenience, so as to exclude “acquisitions less disposals of non-financial non-produced assets” (in order to avoid the distortions caused by the large proceeds from the sale of UMTS mobile phone licences in 2000).
Financial corporations’ surpluses (mostly their retained earnings) were significant in both country groupings, but increased slightly more in the external surplus group in the wake of the crisis, after having declined when the boom peaked. However, overall, the heterogeneity between country groupings seems most pronounced in the case of NFCs. Whereas the NFCs in the external deficit group maintained a traditional net borrowing position throughout the period, those in the external surplus group experienced atypical long-lasting net lending positions as from 2003, which can generally be observed during recessions or that are associated with strong foreign direct investment abroad. It is worth noting that the expansionary financial balances of NFCs had turned around earlier, at the start of the crisis, in the external deficit group, with the net borrowing position peaking in the third quarter of 2008. In the external surplus group, the peak was only reached in the first quarter of 2009.

**Saving and investment**

Useful insight can be gained from the analysis of surpluses/deficits by looking at the dynamics of the two main components of net lending/net borrowing, namely investment (gross capital formation) and saving (including net capital transfers). Chart C, panel 1, shows the dynamics of the differentials between groups in both the saving ratios (i.e. the ratio of domestic saving to GDP in the external surplus group minus that in the external deficit group) and the investment ratios, which explain the dynamics of the gap between the external balances of the external surplus group and those of the external deficit group. As can be seen from the chart, the gradual but ultimately substantial increase of this gap in external balances prior to the recession of 2008 was

**Chart C Differentials between external surplus group and external deficit group**

(four-quarter sums; percentage of GDP)

(1) Saving and investment ratios

(2) Sectoral saving ratios

Sources: Eurostat and ECB.

1) The saving ratio differential includes net capital transfers.
driven mainly by increasing domestic saving differentials and, to a lesser extent, by increasing investment differentials (through ever higher investment ratios in the external deficit group). Chart C, panel 2, shows the rapid expansion of the saving differentials until 2007, resulting from generally falling saving ratios in the external deficit group standing in stark contrast to the pronounced increase in the external surplus group. In addition, it shows the sectoral contributions to the saving ratio differentials. The divergence of saving behaviour in the country groupings originated largely in the NFC sector, where the saving differential rose until 2008. The ratios of NFC saving to GDP in the external surplus group increased persistently throughout the five years to 2008, while they edged down steadily in the external deficit group over that period. The differential in household saving, by contrast, remained more stable over time.

During the recession of 2008-09, the saving differentials decreased to some extent for both NFCs and households, as corporate saving contracted more in the external surplus group than in the external deficit group, and as household saving increased more in the external deficit group than in the external surplus group. These significant asymmetric movements in saving during the recession were subsequently partially reversed. Finally, while there were only few divergences in government savings between the two country groupings before 2007, they became notable thereafter. During the recession, government saving fell faster and more steeply in the external deficit group. This drift was not corrected, but compounded by the stronger rebound recorded in government savings in the external surplus group since mid-2010. In this group, gross saving again turned positive in the 12 months to the second quarter of 2011.

Corporate margins

One of the reasons for the decline in retained earnings and the associated high deficit position of NFCs in the external deficit group is their lower profitability, as measured, for instance, by the margin of gross operating surplus to value added (see Chart D). These margins were at similar levels of around 38% in the two country groupings until 2004, but started to diverge thereafter, increasing to a maximum of 43.7% at the end of 2007 in the external surplus group, while they fell in the external deficit group. This opened up a gap of almost 6 percentage points, which narrowed temporarily during the 2008-09 recession, but started to widen again during the subsequent recovery. As of the third quarter of 2011, NFC margins generally remain depressed in the external deficit group, standing 3.4 percentage points lower than in the external surplus group. One of the main reasons for the lower corporate margins of the external deficit group is to be found in the far larger increase in wages paid by businesses in those countries. Indeed, any change in total

![Chart D Ratio of the gross operating surplus to value added of NFCs](chart.png)

(four-quarter averages; percentages)

Sources: Eurostat and ECB.
Compensation of employees can be decomposed into output growth in volume terms and changes in unit labour costs. In the external deficit group, the latter rose by 28% in the ten years to 2010, compared with an increase of less than 11% in the external surplus group. This gap reflects wage growth in the external deficit group over the past ten years that was excessive in comparison with that in the external surplus group, leading to a loss of competitiveness. This compressed corporate margins in the external deficit group, as businesses could not pass on cost increases in full, especially in the case of NFCs exposed to foreign competition.

**Leverage**

The different configuration of surpluses/deficits across the euro area also resulted in differing debt accumulation patterns. This is visible in the debt ratio of the non-financial sectors (see Chart F). The debt ratios in terms of income or GDP for the household and the NFC sectors respectively increased steadily in the external deficit group, while they remained virtually unchanged in the external surplus group. In the case of households, developments were driven primarily by the housing boom in parts of the external deficit group (in particular Spain and Ireland), while those in the NFC sector were more broadly based. At the same time, NFCs in the external surplus group set out on a path of deleveraging in 2009, while trends towards deleveraging in the external deficit group were far more subdued, with essentially stable debt ratios in recent quarters. Similarly, the household debt ratio remained more resilient in the external deficit group than in the external surplus group, resulting in a broadly unchanged overall euro area ratio in recent quarters.

**Conclusions**

All in all, using a presentation of the euro area accounts in terms of external surplus and external deficit groups can shed light on the dynamics of the growing sectoral imbalances within the

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7 Weighted by GDP.
euro area during the boom. Ex post, these imbalances have mostly reflected the impact of local demand booms in the external deficit group. The analysis of saving and investment patterns shows that, until 2008, a large part of the growing imbalances between the two country groupings was a result of divergences in NFCs’ retained earnings, which increased in the external surplus group, while they decreased in the external deficit group. This, in turn, reflected mainly the impact of rapidly rising wages in the external deficit group, which came without a commensurate increase in productivity, implying a deterioration of competitiveness in the external deficit group. Finally, the imbalances during the boom years and the incomplete rebalancing of sectoral surpluses/deficits since the onset of the crisis are also reflected in continued differences in leverage dynamics, with the non-financial sectors of the external surplus group presenting more favourable debt ratio dynamics.