Box 7

ASSESSING THE RECENT IMPULSE FROM THE EXTERNAL SECTOR TO EURO AREA ACTIVITY

When assessing the strength of the external impulse to an economy, two measures are commonly used: exports and net trade (i.e. the difference between exports and imports). This box shows that these two concepts provide different information, which at times can give conflicting pictures. While net trade has the advantage of reflecting the income available in the domestic economy from trade flows, it may understate the extent to which external developments generate activity in the economy, through the creation of additional income. This is particularly relevant for the analysis of developments in the euro area at the current juncture. For 2004, considering net trade alone would understate the stimulus to activity from the external sector.

Exports and net trade feature in the accounting identity which equates total supply (GDP plus imports) and total demand (consumption, both household and government; investment, fixed and in inventories; and exports):

Total supply = Total demand
GDP + imports = Consumption + Investment + Exports (1)

From this identity, GDP is obtained as:
GDP = Consumption + Investment + Exports-Imports
or GDP = Consumption + Investment + Net trade (2)

Identity (2) provides an accounting decomposition of the sources of income (GDP) ultimately available in the domestic economy, the net trade component being a measure of the income obtained from external trade. For the euro area, since export and import data in the national accounts include intra-euro area trade, the net trade measure has the advantage of reflecting only transactions with the rest of the world. However, identity (2) is not well suited to providing an economic representation of how income and activity are generated. In this respect, identity (1) is more useful, since it separates demand and supply aspects. For instance, a parallel increase in exports and imports would leave both the right and left-hand sides of the second identity unchanged, while the first identity would record an increase in both total demand and total supply. In identity (2), the net trade contribution would not suggest that additional value added had been generated by the rise in exports. By contrast, in identity (1), the rise in the share of exports in total demand would clearly appear, suggesting that the external sector was providing a positive contribution to total demand.

When considering net income generated in the economy by the external sector, the export measure has the drawback of not reflecting imports induced by higher exports, which – by themselves – reduce net income. This is an important limitation, as the internationalisation of production processes is likely to have led to an increase in the import content of euro area exports. For a given rise in exports, the related increase in imports is therefore larger than in the past, which reduces net income left in the euro area. The net trade measure does not suffer from this drawback since it takes into account the rise in the import content of exports. However, this measure has the disadvantage that it also includes imports which are triggered by autonomous shocks to domestic demand.

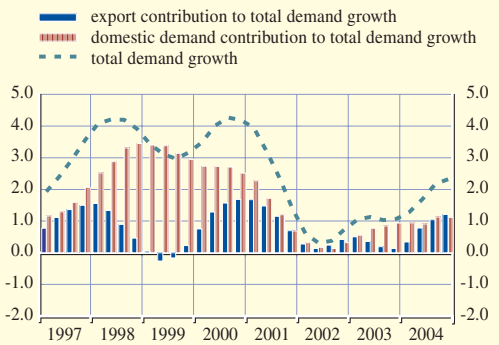
Chart A Euro area net trade and domestic demand contributions to GDP growth

(four-quarter moving average growth rates and percentage point contributions; seasonally adjusted)

Sources: Eurostat and ECB calculations.
Note: Trade flows refer to extra-euro area trade in goods only. Goods account for around 80% of extra-euro area trade.

Chart B Euro area export and domestic demand contributions to total demand growth

(four-quarter moving average growth rates and percentage point contributions; seasonally adjusted)



Sources: Eurostat and ECB calculations.
Note: Trade flows refer to extra-euro area trade in goods only. Goods account for around 80% of extra-euro area trade.

These considerations are particularly relevant in the analysis of recent developments. The contribution of net trade to euro area real GDP growth in 2004 was positive but not particularly large, at 0.4 percentage point for the year as a whole (see Chart A). According to identity (2), real GDP growth appears to have been driven by domestic demand over this period. However, the decomposition of euro area total demand into domestic and external demand shows that exports were a major component of total demand last year (Chart B). The contribution of extra-euro area exports of goods to total demand was 1 percentage point, significantly larger than the 0.3 and 0.1 percentage point contributions recorded in 2002 and 2003 respectively. Extra-euro area exports of goods thus contributed about the same amount as the rest of demand, despite a much smaller weight in overall demand. Considering developments along the lines of identity (1) thus makes the significant contribution of the external impulse to activity in 2004 more apparent.

Both identities are subject to the caveats affecting all static accounting representations. In particular, they do not allow a quantification of how much domestic demand has been induced by the rise in exports. Simulations using macroeconomic models are generally employed for this purpose. They typically show that induced domestic demand is significant and rising over time, possibly becoming larger than the net trade effect.

Overall, while both net trade and exports are useful measures of activity, it should be borne in mind that the former may in some circumstances give an understated picture of the impulse from the external sector. In addition, both measures do not allow the identification of spillovers from the external to the domestic sector of the economy, which, according to macroeconomic models, are significant. This is particularly relevant for the analysis of current developments, which suggests that the external sector has significantly contributed to the recovery which started in mid-2003.