

Box 5

IMPROVEMENTS TO EURO AREA GDP AND NATIONAL ACCOUNTS

On 30 November 2005, in the first regular release for the third quarter of 2005, Eurostat introduced important changes in euro area annual and quarterly national account statistics. These changes relate to the introduction of chain-linked volume measures in annual and quarterly series and a new treatment of financial services indirectly measured (FISIM). The purpose of these changes is to improve the quality of euro area and EU national accounts and to enhance international comparability. In the course of 2005, many Member States carried out a general revision of national accounts, incorporating improved source data and implementing improved measures for government output. In many cases, it is not possible to clearly distinguish the effect of these changes on total GDP revisions.¹

In the compilation of the euro area volume growth of GDP and components, Eurostat has introduced annually changing country weights, based on Member States' data in prices of the previous year. In addition, for data before 1999, country weights are established using the exchange rates of the previous year. Previously, euro area results had been compiled using country weights from a fixed price and exchange rate base year (i.e. 1995). The country data on volume growth underlying the euro area estimate are compiled by the respective national statistical institutes using either an annually changing weighting structure or a fixed base year weighting structure, depending on the country (see below).

The new volume measures are presented in three ways:

- (i) as a chained index series, with the index equal to 100 in the new reference year 2000;
- (ii) as a chained level series (i.e. the chained index series is multiplied by the current price figure for the reference year 2000); and
- (iii) as quarterly or annual growth rates.

The introduction of chain-linking in euro area national accounts has not led to large revisions. This is because the source data used for estimating European aggregates consists of the most recent, officially published national data. Several countries (e.g. Germany, Spain and the Netherlands) had already introduced chain-linking of quarterly data earlier in 2005 or even before that. Consequently, prior to 30 November 2005, the effects of revisions of national data due to the introduction of chain-linking have been gradually reflected in releases of EU and euro area national accounts. However, some other countries (e.g. France and Italy) will not introduce chain-linking of quarterly data until 2006, which may lead to further revisions of euro area national account statistics.

In parallel, Eurostat has introduced a new treatment of the imputed output of financial intermediaries, FISIM. Previously, FISIM was recorded as intermediate consumption by a nominal (sector or) branch of activity. In the new treatment of FISIM, the value added by branch of economic activity changes through the allocation of part of FISIM to intermediate consumption, and GDP increases through the allocation of part of FISIM to final consumption and exports. Before 30 November 2005, there was no such allocation in the European

¹ For further information see Box 6 "Major changes in euro area and Member States' national accounts" in the June 2005 issue of the Monthly Bulletin, and Eurostat's website.

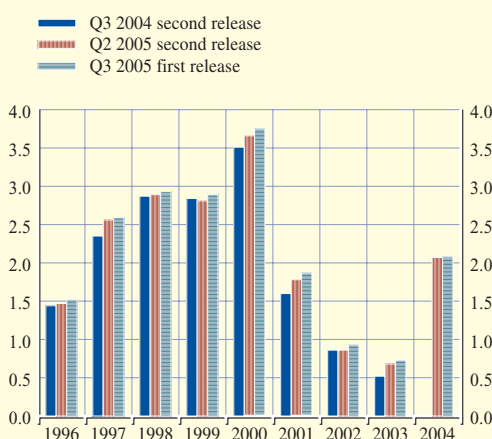
aggregates, which were therefore not fully consistent with the data published for the Member States (which in several cases already included allocated FISIM). The allocation of FISIM led to a considerable revision of euro area GDP levels by +1.2% on average. The effect on GDP volume growth rates is negligible.

Chart A shows that annual euro area GDP volume growth did not change significantly when compared with the second release for the second quarter of 2005 in October, which already included the introduction of chain-linking or other benchmark revisions for Germany, Spain, France, the Netherlands, Ireland, Luxembourg, Austria and Portugal. When compared with the second release for the third quarter of 2004, which did not include the changes in most of the above countries, revisions range between 0.1 percentage point and 0.3 percentage point. Chart B shows that the profile of seasonally and working-day-adjusted GDP volume growth is only slightly revised.

It should be noted that, for purely mathematical reasons, chain-linked volume measures are not additive: the sum of components does not equal total GDP. The residual between GDP and the sum of the components tends to increase over time for periods before and after the new reference year, ranging from -0.1% of GDP in 2004 to 0.3% in 1995. Components are, however, additive in the unchained series in prices of the previous year.

Chart A Annual euro area GDP volume growth

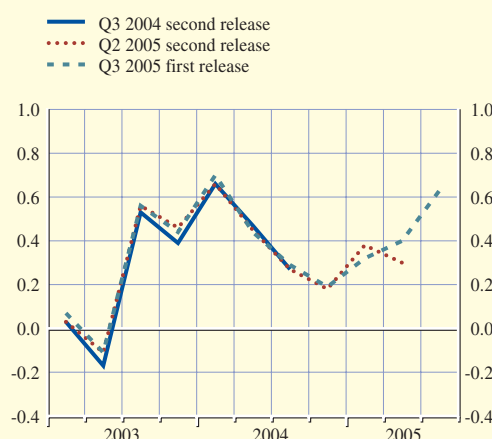
(percentages)



Sources: Eurostat and ECB calculations.

Chart B Quarter-on-quarter euro area GDP volume growth

(percentages; seasonally and working-day-adjusted)



Sources: Eurostat and ECB calculations.