Box 8

THE IMPACT OF THE EUROPEAN SYSTEM OF ACCOUNTS 2010 ON EURO AREA MACROECONOMIC STATISTICS

The introduction of the new European System of Accounts 2010 (ESA 2010) in line with international statistical standards has, through its implementation from September 2014 onwards, resulted in revisions to national accounts and European macroeconomic statistics.[1] In addition, all EU Member States have implemented statistical benchmark revisions introducing new data sources and compilation methods. These changes affect important economic indicators such as GDP, external trade, government deficit and debt, and private sector debt. This box provides an overview of the resulting revisions to the levels and growth rates of these indicators.

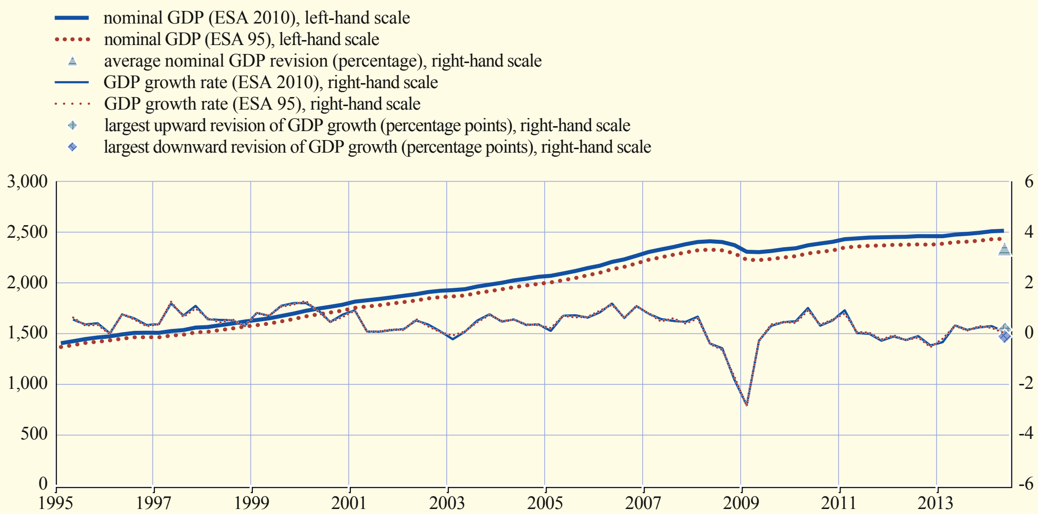
GDP

Overall, the nominal level of euro area GDP in 2010[2] was revised upwards by 3.5% compared with data based on the previous version of the European System of Accounts, the ESA 95. Of this change, 1.9 percentage points were attributed to the capitalisation of research and development and 1.3 percentage points to changes in data sources. The total revision for 2013 was 3.1%.

While changes were registered for levels, the quarterly growth rates for euro area GDP remained close to the previously published figures based on the ESA 95. The average revision over the period from the first quarter of 1995 to the second quarter of 2014 was around 0.0 percentage point

Chart A Revisions to euro area nominal GDP and real growth rate

(EUR billions; quarterly percentage changes, percentages and percentage points; seasonally adjusted)



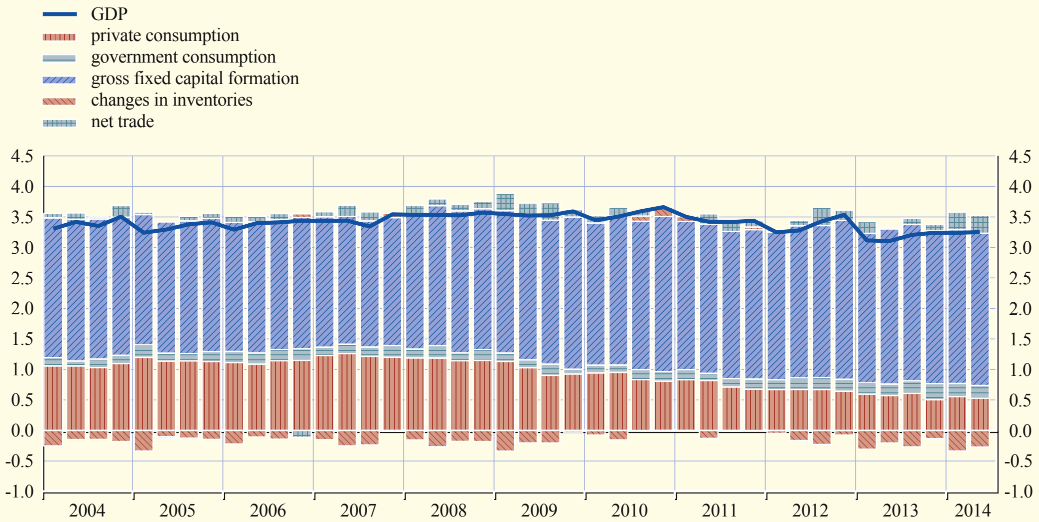
Sources: Eurostat and ECB calculations.

1 See the article entitled "New international standards in statistics – enhancements to methodology and data availability", *Monthly Bulletin*, ECB, August 2014.

2 The year 2010 has been used by Eurostat as a reference year for estimating the effects of the factors affecting the national and euro area GDP figures.

Chart B Revisions to levels of euro area GDP and domestic demand components as a percentage of GDP

(percentages; seasonally adjusted, quarterly data)



Source: ECB calculations.

in terms of absolute value. In 2014, quarter-on-quarter GDP growth for both the first and second quarters was revised up by 0.1 percentage point – in the second quarter from 0.0% to +0.1%.

In the new national accounts standards, expenditure on research and development and on military weapon systems is recorded as investment rather than intermediate consumption. This methodological change increases the level of euro area GDP.[3] The average revision of the level of nominal gross fixed capital formation for the period from 1995 to the second quarter of 2014 was +11.0% (or 2.2% of GDP), while the average real quarter-on-quarter growth rate increased by 0.2 percentage point.

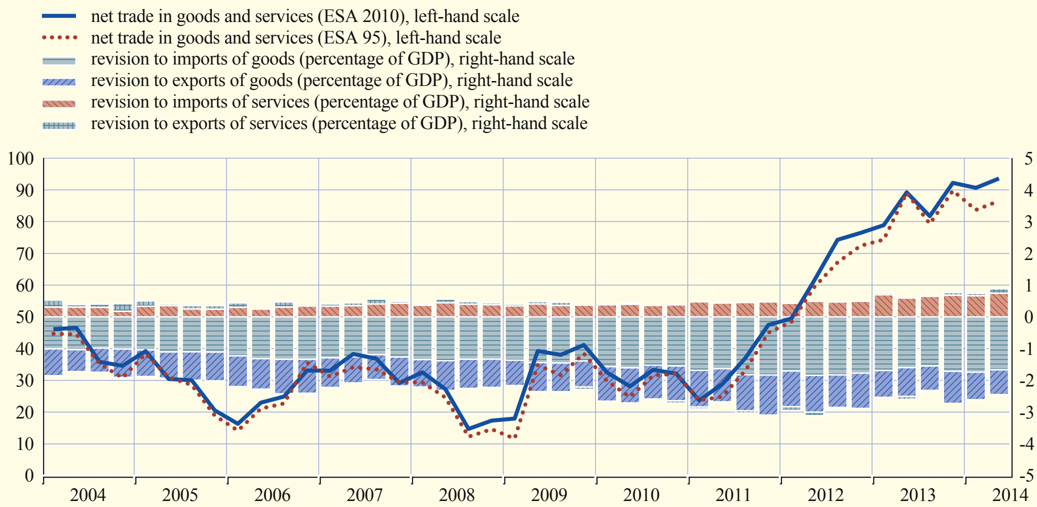
The revision of nominal domestic demand overall was close to that of GDP (+3.2% on average). The nominal levels of all other components of domestic demand were revised upwards, with the exception of changes in inventories. The level of private consumption rose by an average 1.7% (or 0.9% of GDP) and that of government consumption by 0.8% (or 0.2% of GDP).

In addition to the methodological changes introduced by the ESA 2010, statistical improvements such as the incorporation of new data sources have also played a role in the upward revision of nominal euro area GDP. They led to a 1.3% increase in the level of euro area GDP in 2010. In some countries such changes accounted for the largest part of the overall revision, e.g. in Cyprus (8.4 percentage points out of a total revision of +9.5%) and the Netherlands (5.9 percentage points out of +7.6%). Among the four largest euro area economies, in Germany and France statistical improvements led to revisions of, respectively, only +0.6% and +0.8%, while in Spain and Italy they led to increases of 1.7% and 1.9%, half the respective overall revision. The level of GDP was revised upwards in all EU Member States except Latvia, where it was revised down by 0.1% owing to the impact of the statistical improvements.

3 For detailed information on the impact of the ESA 2010 across EU Member States see Eurostat's press release No 157/2014 of 17 October 2014, available on the latter's website (http://epp.eurostat.ec.europa.eu).

Chart C ESA 2010-related revisions to nominal euro area trade

(EUR billions; percentages; seasonally adjusted, quarterly data)



Sources: Eurostat and ECB calculations.

Net trade in goods and services

Owing to the change in the way "merchanting" and goods sent abroad for processing are recorded in the ESA 2010, trade in goods and services has been revised substantially. In the ESA 2010, the basis for recording international trade is the change in ownership of the goods concerned and not merely the physical cross-border movement of goods. As a result of this change, the nominal levels of imports and exports have decreased. The average downward revision of euro area imports and exports in absolute terms for the period since 1995 were 2.3% (or 0.8% of GDP) and 1.9% (or 0.7% of GDP) respectively.

General government balance (deficit/surplus) and debt

According to Eurostat's autumn 2014 excessive deficit procedure notifications, the 2013 euro area general government deficit and debt, expressed in terms of GDP, were revised downwards by 0.2 percentage point and 1.6 percentage points respectively.[4] The revisions for the period 2010 to 2012 were of a similar magnitude (see Table A).

The revisions have been very different across the euro area countries. For 2013, the general government balance-to-GDP ratio improved most in Ireland (by 1.5 percentage points), Luxembourg (by 0.6 percentage point) and Cyprus (by 0.5 percentage point). As regards general government debt, the 2013 ratio to GDP was revised significantly upwards for Austria (by 6.7 percentage points) and Belgium (by 3.0 percentage points), while it was revised significantly downwards for Cyprus (by 9.5 percentage points), the Netherlands (by 4.9 percentage points), Italy (by 4.8 percentage points) and Malta (by 3.2 percentage points). For other countries the revisions were smaller.

4 For more information see "Revisions to government deficit and debt of EU Member States for 2010-2013", note accompanying Eurostat's press release No 158/2014 of 21 October 2014.

Table A Revisions to euro area general government balance and debt ratios

(as a percentage of GDP)

		Ratio April 2014	Ratio October 2014	Total revision	Revision due to: ESA 2010	Other changes	GDP revision
Government balance (deficit (-)/surplus(+))	2010	-6.2	-6.1	0.1	0.0	-0.1	0.2
	2011	-4.1	-4.1	0.0	-0.1	-0.1	0.1
	2012	-3.7	-3.6	0.1	0.0	0.0	0.1
	2013	-3.0	-2.9	0.2	0.0	0.1	0.1
Government debt	2010	85.5	83.7	-1.8	0.8	0.3	-2.9
	2011	87.4	85.8	-1.6	1.0	0.3	-2.9
	2012	90.7	89.0	-1.7	1.0	0.3	-2.9
	2013	92.6	90.9	-1.6	0.9	0.3	-2.8

Source: Eurostat.
Note: Figures may not add up owing to rounding.

The revisions of the general government balance-to-GDP ratio are due to several factors which partially offset one another, namely the impact of the ESA 2010 introduction, other statistical improvements (new and updated data sources and improved compilation) and the revisions to nominal GDP.

With respect to the ESA 2010, the three main changes that impacted the government deficit levels were related to a) changes in the sector classification criteria, affecting the number of entities classified in the government sector; b) the treatment of lump sum transfers from pension schemes to the government; and c) the exclusion of interest on swaps and forward rate agreements from the deficit calculation. For the euro area as a whole, these methodological changes triggered only negligible revisions to the government deficit level. However, for some euro area countries they had a noticeable impact on the general government balance.

The other changes (not related to the introduction of the ESA 2010) contributed only 0.1 percentage point to the total revision of the euro area government deficit in 2013.

The upward revision of nominal GDP (see above) contributed 0.1 percentage point to the overall revision of the 2013 government deficit ratio for the euro area as a whole. In Ireland, Cyprus and Slovenia the increase in the nominal GDP level contributed 0.4 percentage point or more to the improvement in the ratio of the general government balance to GDP in 2013.

As regards the downward revision of the general government debt-to-GDP ratio, several partly offsetting factors played a role. Changes introduced by the ESA 2010, mainly the inclusion of certain entities in the government sector, led to an increase in the euro area debt ratio by 0.9 percentage point for 2013. The impact was particularly significant in Belgium, Ireland, Austria and Portugal. Moreover, other revisions (not related to the ESA 2010) increased the euro area government debt ratio by 0.3 percentage point for the same year. However, these two factors together were more than compensated by the impact of the increased level of nominal GDP on the ratio, which amounted to 2.8 percentage points.

Debt indicators for corporations and households

Debt indicators for the other institutional sectors of the economy based on the financial accounts have been affected by changes to the boundaries between the sectors and by new guidance for the separation of financial and non-financial corporations.

In particular, the reclassification of certain holding companies from the non-financial to the financial sector lowers the debt of non-financial corporations and increases the recorded size of the financial sector (see Table B). This shift is particularly large in some countries that have a sizable number of holding companies, such as Belgium. The decrease in non-financial corporation debt due to the reclassification of holding companies is offset by upward revisions stemming from improved data sources, resulting in particular in a better coverage of non-MFI financing. Moreover, debt of non-financial corporations can now be measured more comprehensively by including trade credits, an important source of financing, with data available from all euro area countries on a quarterly basis. This resulted in an overall increase in the ratio of non-financial corporation debt to GDP at the end of 2013 by 21 percentage points.

Financial sector debt has increased not only because of the inclusion of additional holding companies but also owing to the clear requirement to record entities (such as special purpose entities) as residents if they are incorporated or registered in a country, even if they have little or no physical presence there. Reviews of data sources and methods have also tended to increase the recorded debt of financial corporations. Finally, as the reclassified holding companies generally have relatively large outstanding amounts of equity, the debt-to-equity ratios for financial corporations have decreased.

As regards the recorded indebtedness of the household sector, the downward revision of the debt-to-GDP ratio stems exclusively from statistical improvements and the effect of the revisions to GDP.

Table B Revisions to debt indicators by sector

(outstanding amounts at end-2013 as a percentage of GDP)

	Non-financial corporation debt[1)]	Financial sector debt[2)]	Household debt (loans)
Old value	104.8	457.6	64.3
Methodological revisions (sector delineation)	-5.3	2.3	0.0
Benchmark and other revisions	5.5	2.5	0.5
Inclusion of trade credits in non-financial corporation debt	24.8		
Denominator effect (division by new GDP)	-4.1	-14.0	-2.0
Total change in indicator	21.0	-9.1	-1.6
New value	**125.8**	**448.5**	**62.7**

1) Debt securities, loans, liabilities from pension schemes and, in the new debt indicator for non-financial corporations, trade credits.
2) All liabilities excluding equity (shares, other equity and investment fund shares other than money market fund shares).