

**Box 3****The structure and development of value added in the euro area**

Gross domestic product (GDP) covers the goods and services produced by the individual sectors of the economy. Measured on a value added basis, it counts only the values which are added at each stage of production. In this issue of the ECB Monthly Bulletin value added data for the euro area are, for the first time, presented in terms of total gross value added and a breakdown into six major categories. In the table below these categories are referred to as agriculture and fishing, industry (excluding construction), construction, trade and transport, financial and business services, and public administration (see also Table 5.1 in the "Euro area statistics" section of the ECB Monthly Bulletin). In particular, this breakdown provides valuable information on output developments in the euro area services sectors for which only a few short-term indicators are otherwise available at the euro area level. The value added data are own ECB estimates based on national data, covering 97% of the euro area in terms of GDP weights, as Ireland, Luxembourg and Portugal do not yet release a quarterly breakdown of value added. The coverage is lower for periods prior to 1995 and in cases where some countries have not yet released data for the latest available quarter of the euro area estimate. In order to characterise the estimates as the ECB's own calculations, they are presented as indices, but these will be replaced by the corresponding values and volumes, expressed in euro, which Eurostat intends to compile in the future.

**Composition of growth in real value added in the euro area**

(percentage changes; seasonally adjusted)

	W <sup>3)</sup>	Annual rates <sup>1)</sup>							Quarterly rates <sup>2)</sup>						
		1998	1999	1998				1999			1998	1999	1999	1999	1999
				Q4	Q1	Q2	Q3	Q4	Q4	Q1					
Real gross value added	100.0	2.8	2.3	2.0	1.8	1.9	2.5	2.9	0.3	0.6	0.6	1.0	0.7		
of which:															
Agriculture and fishing <sup>4)</sup>	2.6	2.3	2.2	1.0	1.5	1.2	3.3	2.8	0.6	1.0	0.2	1.5	0.0		
Industry	29.7	2.3	1.8	0.4	0.2	1.0	2.2	3.7	-0.4	0.5	0.8	1.3	1.1		
Excluding construction <sup>5)</sup>	23.7	3.1	1.7	0.8	0.2	0.7	2.0	3.8	-0.6	0.3	0.9	1.4	1.1		
Construction	6.0	-1.1	2.1	-1.4	0.0	2.5	2.9	3.3	0.3	1.4	0.3	0.9	0.7		
Services	67.7	3.0	2.5	2.8	2.5	2.3	2.6	2.6	0.6	0.6	0.5	0.9	0.6		
Trade and transport <sup>6)</sup>	20.7	4.2	3.3	3.5	3.1	3.1	3.6	3.6	0.6	1.2	0.5	1.3	0.5		
Financial and business services <sup>7)</sup>	25.4	3.5	3.0	3.2	3.0	2.7	3.0	3.1	0.8	0.5	0.8	0.9	0.8		
Public administration <sup>8)</sup>	21.6	1.4	1.2	1.6	1.4	1.1	1.1	1.1	0.3	0.1	0.2	0.4	0.3		

Sources: Eurostat and ECB calculations.

1) Annual rates: percentage change compared with the same period a year earlier.

2) Quarterly rates: percentage change compared with the previous quarter.

3) Weights. Referring to 1995.

4) Also includes hunting and forestry.

5) Includes mining, quarrying, manufacturing, electricity, gas and water supply.

6) Also includes repairs, hotels and restaurants, communication.

7) Also includes real estate and renting services.

8) Also includes education, health and other services.

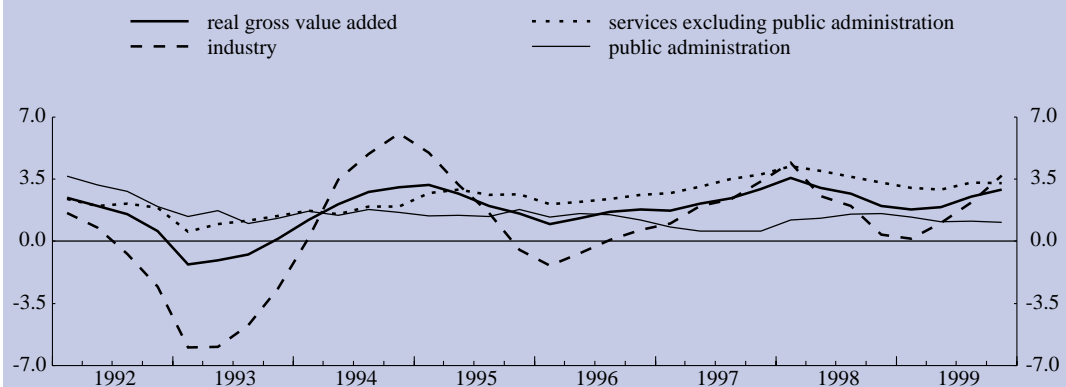
The estimates of area-wide value added confirm that, with regard to the structure and the development of sectoral output growth, the euro area displays those characteristics which are commonly associated with mature industrialised economies. In terms of the relative importance of the individual sectors, only slightly less than one-third of total gross value added is produced by industry, while the services sectors account for two-thirds. Agriculture and fishing make only a small contribution of less than 3% to total value added (see the table above). Services comprise a variety of activities and the three categories available under the current breakdown each have a weight of between 20% and 25% in terms of total gross value added.

On the basis of developments in growth of value added in the 1990s, the cyclical movements have been largest in industry, while growth in services has clearly been more stable (see the chart below). This relative stability of growth in services activities is essentially a result of the robustness of growth in value added in relation to financial and business services, including the real estate and rental services. The activities in this category tend

to have a lower cyclical sensitivity and in the period under review they dampened the somewhat more pronounced cyclical movements in the trade and transport category. Growth in value added in the category covering services relating to public administration and, inter alia, education and health also exhibited a relatively smooth path, as would be expected from the nature of the services provided. Value added in this category to a large extent reflects non-market activities and thus mainly the compensation of employees in the respective sectors. Growth of value added in this category was relatively subdued in the second half of the 1990s, partly as a result of efforts in euro area Member States to consolidate public finances.

### Sectoral output growth in the euro area

(annual percentage changes; quarterly data)



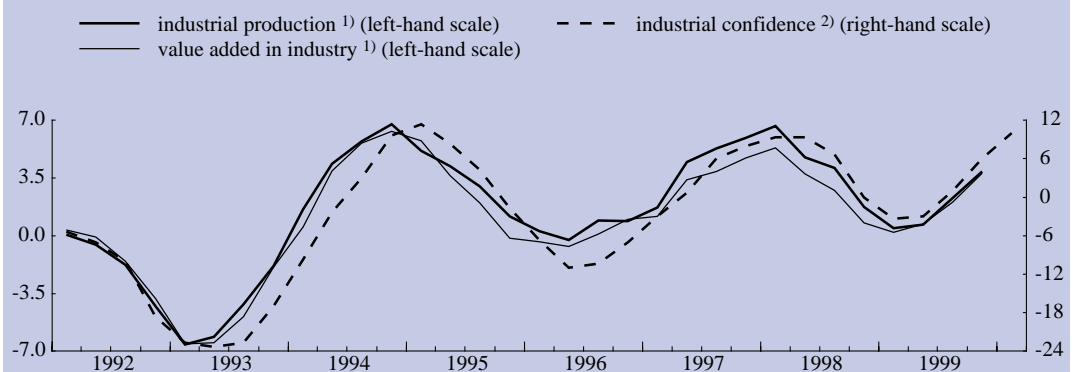
Sources: Eurostat and ECB calculations.

Note: For further information on the data used, please refer to the table in this box.

Looking at recent developments, the estimates for value added are consistent with the information provided by other indicators, namely that the strengthening of economic growth in the course of last year is mainly explained by a strong pick-up in industrial output growth. More generally, growth of value added in industry (excluding construction) is a reflection of industrial production growth, albeit with some small differences (see the chart below). For instance, by contrast with previous periods of cyclical downturn in the 1990s, it appears that the downturn in industrial production growth in 1998/99 was slightly stronger than that of industrial confidence and of growth in value added in industry excluding construction. Owing to a lack of suitable short-term indicators at the area-wide level, no such consistency comparisons can be made with regard to the estimates of value added in the services sectors.

### Industrial output growth and industrial confidence in the euro area

(quarterly data)



Sources: Eurostat, European Commission Business and Consumer Surveys and ECB calculations.

1) Annual percentage changes; excluding construction.

2) Percentage balances, deviations from the average since the first quarter of 1985.