

## RECENT SECTORAL PRODUCTIVITY DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES

The onset of recession heralded a sharp decline in aggregate productivity growth in the euro area, with productivity per person employed contracting by 4.1% year on year in the first quarter of 2009, according to national accounts data. Hourly productivity fell less steeply, as flexible working time arrangements and crisis measures in many euro area countries (such as short-time work in Germany) helped euro area firms adjust working hours rather than headcount employment over the course of the recession.<sup>1</sup> Since then, consecutive quarterly releases have shown ongoing improvements in productivity growth, with positive year-on-year growth observed since the fourth quarter of 2009. However, behind the aggregate rebound, sectoral productivity developments have differed substantially. This box examines recent sectoral productivity developments in the euro area, before comparing them with those in the United States over the past decade.

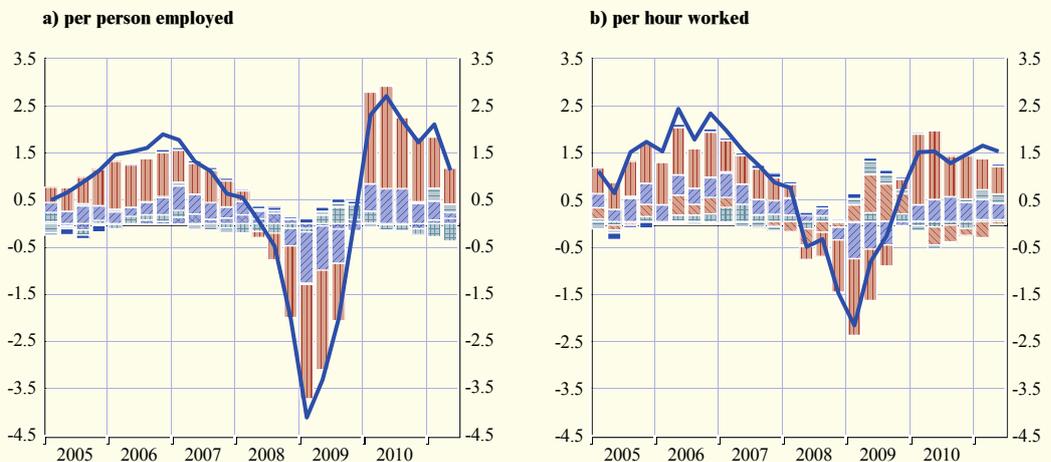
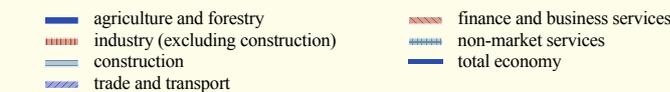
### Recent productivity developments in the euro area

In the aftermath of the recession, the first sectors to show a return to positive productivity growth in the euro area were the finance and business services sector (which includes financial intermediation and insurance, real estate and renting, as well as wider business services), construction and agriculture (see Chart A). In both construction and the finance and business services sector, the early rebound came about largely as a consequence of heavy labour shedding.

1 See also the box entitled "Recent productivity developments in the euro area and the United States", *Monthly Bulletin*, ECB, Frankfurt am Main, July 2011.

### Chart A Euro area labour productivity growth and sectoral contributions

(year-on-year percentage changes and percentage point contributions; quarterly data)



Sources: Eurostat and ECB calculations.  
Note: Latest observation refers to the second quarter of 2011.

More recently, strong employment growth in the finance and business sector has tempered productivity growth in this sector to the point of productivity contractions from the second quarter of 2010.

Overall, however, by far the most important drivers of aggregate euro area productivity growth have been the industrial sector (excluding construction) and, to a lesser extent, the trade and transport sector (which includes retail and wholesale trade, as well as the transportation and communications sub-sectors). Both sectors recovered strongly, on the back of rebounds in demand, following sharp contractions throughout 2009. In industry, the markedly greater improvements in productivity when measured in terms of persons employed as opposed to per hour worked (contrast panels (a) and (b) in Chart A) undoubtedly reflect, in large part, the widespread use of shortened working hour schemes in that sector in the course of the crisis, and their subsequent unwinding as output demand began to recover. Such schemes were also used in the transport sector, which had similarly suffered strongly from the downturn in global trade.

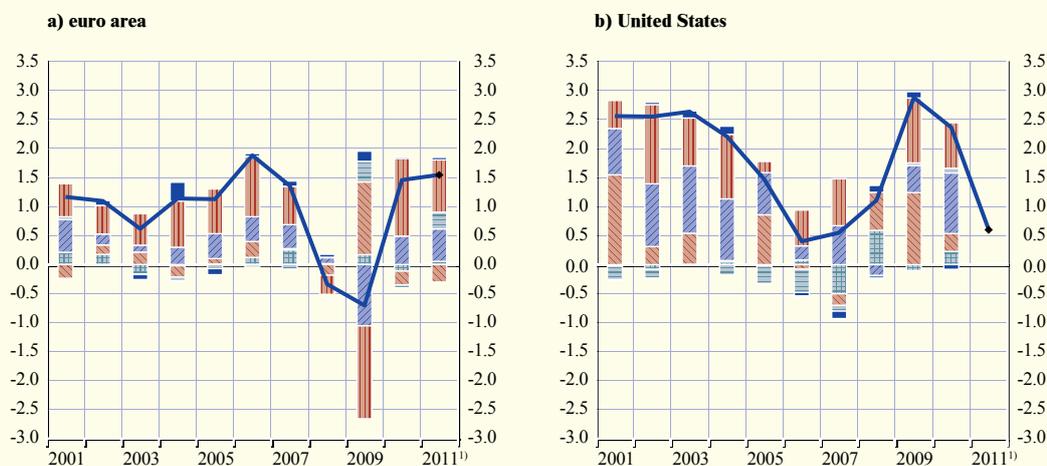
### A comparison with US sectoral developments

Quarterly productivity developments are not available with the same sectoral breakdown for the United States, but the US Economic Accounts provide sectoral estimates on an annual basis up to 2010. Chart B thus compares aggregate productivity growth per hour worked, and the contributions from the main economic sectors, on the basis of annual averages for the euro area and the United States since 2001 (the earliest year for which euro area hours worked are available). Taking a longer-term perspective, Chart B clearly illustrates two marked and long-standing characteristics that distinguish the euro area from the United States. First, hourly

**Chart B Sectoral productivity developments per hour worked in the euro area and the United States**

(year-on-year percentage changes and percentage point contributions; annual data)

- agriculture and forestry
- industry (excluding construction)
- construction
- trade and transport
- finance and business services
- non-market services
- total economy



Sources: Eurostat, US Economic Accounts and ECB calculations.

1) Latest full-year observation refers to 2010; 2011 figures are estimates, based on data available for the first two quarters for the euro area and the first three quarters for the United States. No sectoral breakdown is yet available for the United States.

labour productivity growth has typically been somewhat higher in the United States than in the euro area. Second, the patterns of productivity growth seem to be far more broadly based in sectoral terms in the United States than in the euro area, where growth appears to come largely from industry.

Looking at more recent developments, Chart B shows a much stronger decline in productivity growth per hour worked in the euro area than in the United States over the course of the recession, despite the magnitude of the peak-to-trough declines in GDP being similar in the two economies. This could be partly related to stronger employment protection legislation in many European countries, which is likely to have helped delay labour market adjustments at a time when demand was being heavily affected. In addition, it may also reflect a higher degree of labour hoarding in many European countries in the course of the crisis – relative to the United States – particularly in countries which had experienced significant labour shortages in key areas in advance of the recession. In the United States, meanwhile, sharp declines in activity led to swift and significant labour shedding, which contributed to keeping productivity growth in positive territory throughout the crisis.

Chart B also demonstrates the markedly different sectoral drivers of productivity growth across the two economies. While, until the recent recession at least, industrial developments contributed to aggregate productivity growth to a similar extent in both economies (adding, on average, 0.7 percentage point to aggregate hourly productivity growth in the euro area and 0.8 percentage point in the United States between 2001 and 2007), a much greater share of the productivity growth observed in the United States over this time – which was much stronger than in the euro area – was generated by strong growth in trade and transport services, as well as in the finance and business sector. Between 2001 and 2007 trade and transport contributed roughly 0.8 percentage point per year, on average, to aggregate US productivity growth, compared with just 0.3 percentage point in the euro area. At the same time, the finance and business sector contributed some 0.4 percentage point per year to US aggregate productivity growth, but nothing at all to euro area productivity growth (on the basis of annual averages). Part of the explanation for these differences may be related to the somewhat slower spread of new technology (particularly information and communication technology) in the euro area than in the United States.<sup>2</sup> However, the differences are also likely to reflect the more broadly based liberalisation in financial services in the United States in the last decade than in the euro area, which led to both strong value-added growth and considerable consolidation (often through mergers and acquisitions).

As the United States emerged from recession, these three sectors quickly returned as the main – and joint – drivers of aggregate productivity growth, pushing it up to around 2.5% in 2010. A return to previous contribution patterns has also been evident in the euro area since the recovery, with industry (excluding construction) and, to a lesser extent, trade and transport together accounting for the 1.5% hourly productivity growth seen in 2010. In stark contrast to developments in the United States, and after a somewhat promising start in the initial recovery phase, the contribution of the euro area finance and business services sector to aggregate productivity growth has stalled again (contributing negatively in 2010 and in the first half of 2011).

2 For more on this aspect, see Gómez-Salvador, R., Musso, A., Stocker, M. and Turunen, J., “Labour productivity developments in the euro area”, *Occasional Paper Series*, No 53, ECB, Frankfurt am Main, October 2006.

In summary, while the industrial sector shows a similar contribution to overall productivity growth in both economic areas, other sectors – particularly the financial and business services sector – show a higher contribution in the United States than in the euro area. As economic growth appears to be slowing, euro area labour productivity growth can also be expected to slow. Further efforts to boost euro area productivity should include measures aimed at rebalancing the potential drivers of productivity growth, in particular in the underperforming service sectors. Such efforts are likely to require additional structural reforms to further open up European markets and encourage cross-border operations so as to create the conditions necessary for greater economies of scale, as well as policies aimed at stimulating innovation and promoting the use of productivity-enhancing technologies.

The unemployment rate increased for the second consecutive month, to 10.3% in October 2011 from 10.2% in September, slightly exceeding the level at which it most recently peaked in the second quarter of 2010 (see Chart 58). Along with the recent deterioration in employment expectations, this suggests that the recovery in the euro area labour market is drawing to a halt.

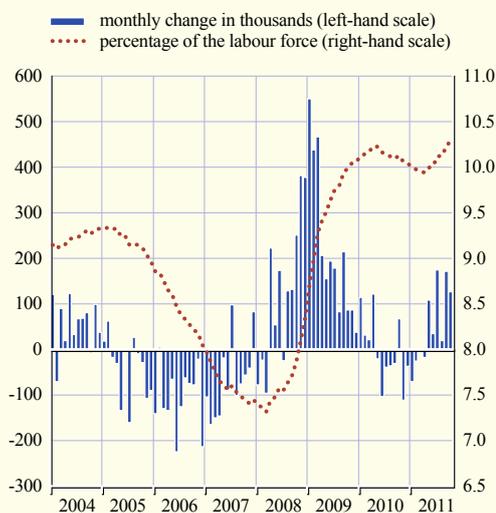
#### 4.3 THE OUTLOOK FOR ECONOMIC ACTIVITY

Real GDP in the euro area grew by 0.2% quarter on quarter in the third quarter of 2011, unchanged from the previous quarter. Evidence from survey data points to weaker economic activity in the fourth quarter of this year. A number of factors seem to be dampening the underlying growth momentum in the euro area. They include a moderation in the pace of global demand growth and unfavourable effects on overall financing conditions and on confidence resulting from ongoing tensions in euro area sovereign debt markets, as well as the process of balance sheet adjustment in the financial and non-financial sectors. At the same time, euro area economic activity is expected to recover, albeit very gradually, in the course of next year, supported by resilient global demand, very low short-term interest rates and all of the measures taken to support the functioning of the financial sector.

This assessment is also reflected in the December 2011 Eurosystem staff macroeconomic projections for the euro area, which foresee annual real GDP growth in a range between 1.5% and 1.7% in 2011, between -0.4% and 1.0% in 2012 and between 0.3% and 2.3% in 2013. Compared with the September 2011 ECB staff macroeconomic projections, there is a narrowing of the range of the real GDP growth projection for 2011 and a significant downward revision of the range for 2012. These revisions mainly reflect the impact on domestic demand of weaker confidence and worsening financing conditions, stemming from the heightened uncertainty related to the sovereign debt crisis, as well as downward revisions of foreign demand (see also Section 6).

Chart 58 Unemployment

(monthly data; seasonally adjusted)



Source: Eurostat.