

Box 6

RECENT DEVELOPMENTS IN UNIT LABOUR COSTS AND THEIR IMPLICATIONS FOR EURO AREA INFLATION

A common approach to explaining and predicting inflation assumes that prices are determined as a mark-up on firms' costs. Since the cost of labour input accounts for a significant share of a firm's total costs, its developments are clearly important for inflation. An informative measure of the cost of labour for firms is unit labour costs, which measure total labour costs per unit of output. This Box discusses the link between unit labour costs and inflation in the euro area, focusing in particular on developments over recent years.

In assessing the cost pressures from the labour market, it is often useful to analyse changes in unit labour costs in addition to developments in nominal wages. A change in nominal wage growth does not necessarily put pressure on firms to change prices. For example, a high rate of wage growth linked to, or resulting from, stronger growth in labour productivity will not lead to any reduction in profits and should not, therefore, put pressure on firms to raise their prices. The rate of growth in unit labour costs is calculated as the difference between the rate of change in nominal wage costs and the rate of change in labour productivity. As such, unit labour costs provide a useful indicator of the pressure on firms to change prices as a result of developments in the labour market.

For a number of reasons, however, movements in unit labour costs do not always lead immediately or automatically to changes in the inflation rate. First, unit labour costs do not give a full picture of firms' costs. According to available estimates, labour costs on average comprise approximately 30-40% of total input costs of euro area firms. Importantly, capital costs and other input costs, such as oil prices or the cost of other material inputs, can also affect price developments. Second, firms may not always choose to change their prices in response to a change in labour costs, even after allowing for changes in labour productivity. Instead they may choose to adjust their profit margins because, for example, they fear losing their market share or do not wish to bear the cost of revising their prices. Such considerations are particularly relevant to short-term changes in unit labour costs or changes that are perceived to be only temporary. If, however, the change in unit labour costs is more long-term or is perceived to be permanent, the incentive for firms to pass it on in their prices tends to increase.

Chart A below shows the paths of unit labour cost growth and HICP inflation in the euro area over the period from 1992 until the first quarter of 2004. The chart suggests that movements in the two series are closely related but that the relationship is not perfect. In particular, inflation and unit labour cost growth often move in the same direction, but inflation seems to vary considerably less than unit labour cost growth. For example, in 1997 and 1998 unit labour cost growth fell significantly, but then rose again in 1999; this pattern was not reflected to the same extent in the inflation rate. One interpretation of this could be that firms judged the decreasing growth rate of unit labour costs in 1997 and 1998 to be temporary and therefore adjusted their

profit margins instead of their prices. However, persistent movements in unit labour cost growth, as captured by the eight-quarter moving average also plotted in Chart A, tend to be associated with corresponding shifts in inflation. In recent years, the growth rate of unit labour costs has risen considerably, mainly owing to the slowdown in labour productivity growth associated with the economic downturn. On average, unit labour costs grew by 2.3% from 2001 to 2003, and there was also a significant rise in inflation during this period. However, much of the increase in inflation can be explained by other shocks, including increases in the volatile food and energy components of the HICP. In addition, higher administered prices and indirect taxes and some increases in individual prices that occurred around the time of the euro cash changeover may have contributed to the rise in overall HICP inflation. In other words, during this period firms may have absorbed much of the increase in unit labour costs in the form of lower profits.

The profit margins of firms are difficult to measure using existing macroeconomic statistics (see also the article entitled “Measuring and analysing profit developments in the euro area” in the January 2004 issue of the Monthly Bulletin). However, Chart B shows one indicator of the profit mark-up rate, which is calculated as the difference between the rate of change in the deflator of gross value added and the rate of change in unit labour costs. In line with the above analysis, the chart shows that the growth rate of the profit mark-up indicator was negative from 1999 to 2003, with the exception of 2002. More recently, unit labour cost growth declined substantially in the first quarter of 2004, and available evidence suggests that it remained at a subdued level in the second quarter. The slowdown in unit labour cost growth is largely due to the stronger productivity growth in recent quarters. Assuming the growth in nominal wages remains stable, a pick-up in the profit mark-up indicator can be expected for the first half of 2004 and beyond in line with the further recovery in economic activity.

Chart A Unit labour cost growth and inflation

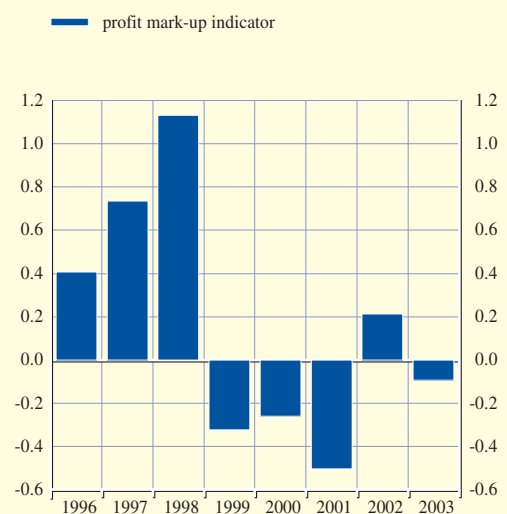
(annual percentage changes; quarterly data)



Sources: Eurostat and ECB calculations.
Note: Unit labour cost growth is calculated by subtracting the annual productivity growth from the annual growth rate in compensation per employee.

Chart B Profit mark-up indicator

(annual percentage changes)



Sources: Eurostat and ECB calculations.
Note: The profit mark-up indicator is calculated by subtracting the annual growth rate of unit labour costs from the annual growth rate of the deflator of gross value added at basic prices.