

## Box 4

### Labour hoarding in the euro area

The adjustment of euro area employment in the current period of subdued economic activity has sometimes been perceived as slow and somewhat limited, raising the question of whether labour hoarding, i.e. companies holding on to more workers than necessary in the downturn, has occurred in the euro area. The purpose of this box is to discuss the definition of labour hoarding and its determinants, and to assess the evidence of labour hoarding in the euro area. This analysis suggests that there is some evidence of labour hoarding in the euro area in the current period of subdued activity, although it is regarded to be broadly in line with developments observed in previous slowdowns in activity.

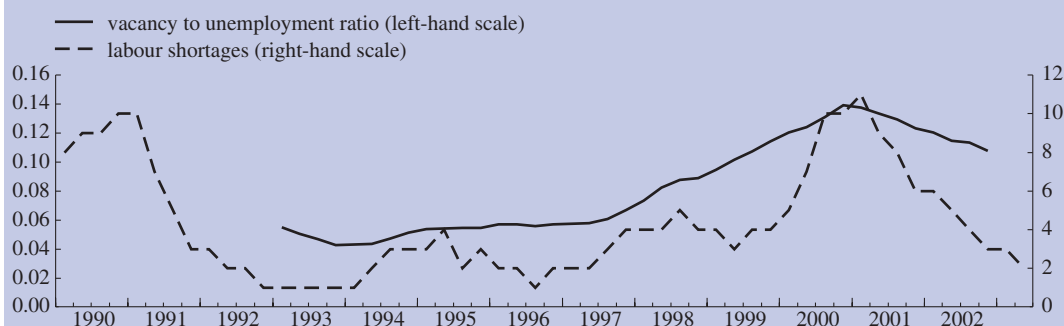
#### Defining labour hoarding

Labour hoarding can be defined as that part of labour input which is not fully utilised by a company during its production process at any given point in time. Under-utilisation of labour can manifest itself in various forms, such as reduced effort or hours worked, and the shift of labour to other uses, such as training. From the company's point of view, some labour hoarding may be optimal given the fixed costs associated with adjusting staff numbers. These costs include costs of recruitment, screening and training of new workers, as well as costs related to the termination of contracts such as severance pay. Therefore, in the face of a downturn in activity, companies may prefer to reduce labour input, at least to some extent, by shortening the hours worked, which is less costly than reducing staff numbers. This behaviour is reflected in the fact that labour productivity, measured by output divided by total employment, tends to decline in economic downturns. Conversely, during economic upturns, companies which have hoarded labour in the past are more likely to delay hiring new staff until labour productivity has increased sufficiently and the upturn has gained strength.

Fixed costs associated with adjusting staff numbers are, to a large extent, determined by labour market institutions, such as the level of employment protection legislation (EPL), e.g. procedures determining dismissals, severance pay and limits to the type of contracts that can be offered. Euro area countries have a high degree of EPL, which therefore gives rise to an institutional set-up which favours labour hoarding. In addition to the institutional factors, labour hoarding is also influenced by the economic environment. In

#### Chart A: Vacancy to unemployment ratio and labour shortages

(ratio of vacancies to unemployment, as a percentage)



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

Note: Labour shortages refer to manufacturing companies reporting shortage of labour as the main factor limiting production as a percentage of all responses (other possible responses are insufficient demand, shortage of material, financial constraints and others).

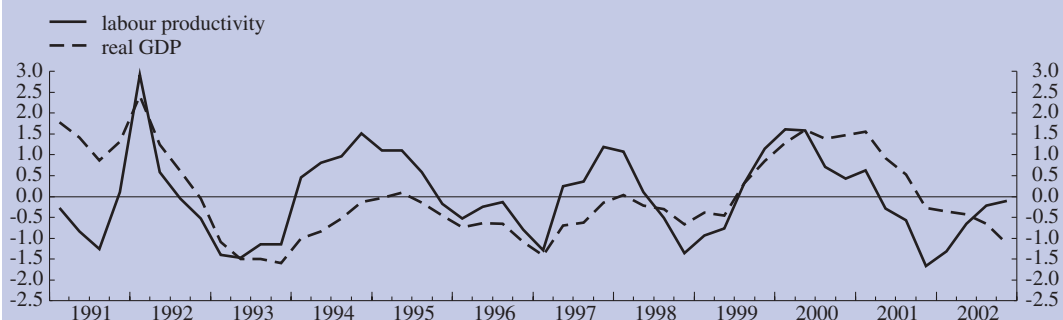
particular from the early 1990s until the end of 2000, euro area labour markets were characterised by an increasing tightness, as measured by the ratio of vacancies to unemployment (see Chart A). Together with strong product demand, this resulted in difficulties in hiring workers reflected in the increasing number of companies reporting that a shortage of labour was the main factor limiting production. These recruitment difficulties, together with the initial expectation of a short-lived downturn in activity, may have encouraged companies to hoard labour more than they would have done otherwise.

### Evidence of labour hoarding in the euro area

Labour hoarding is difficult to quantify since the concept refers to an “appropriate” level of employment, which is not observable. Some evidence stems from available data on hours worked<sup>1</sup>, which suggest that euro area companies have reduced their labour input through lower average working hours, although not to a large enough extent to avoid a decline in the levels of output per hour. As explained above, further evidence is provided by developments in the cyclical component of labour productivity. However, for the most recent period, it is difficult to distinguish cyclical changes in labour productivity from long-term trend patterns in any reliable manner. With regard to the euro area, several factors, such as a rise in part-time employment or the impact of labour market reforms, suggest that trend growth in productivity diminished at the end of the 1990s compared with earlier in the decade. Chart B shows an estimate of the cyclical component of labour productivity, when the trend component is allowed to vary over time.<sup>2</sup> This reveals a clear pro-cyclical pattern of labour productivity, consistent with typical labour hoarding behaviour. However, assuming that the estimated trend has correctly captured long-term developments since the late 1990s, there is no evidence that labour hoarding has been more prevalent in the current period of subdued activity than in other previous slowdowns. In particular, the cyclical pattern of labour productivity has been very similar to slowdowns in activity in the 1990s. In the course of 2002, businesses may have increasingly resorted to shedding labour to restore productivity.

### Chart B: Cyclical developments in average labour productivity

(normalised data)



Sources: Eurostat and ECB calculations.

Note: The data refer to the cyclical components extracted from the labour productivity and real GDP series using the Hodrick-Prescott filter. The data are normalised by dividing the difference from the mean with the standard deviation.

Overall, current analyses suggest that euro area companies may have hoarded labour during the current period of subdued activity, although this pattern seems to be broadly in line with developments observed in previous periods of slowdown in activity. Looking ahead, this is likely to result in the typical slow recovery in employment as, for a large number of companies, the current staff levels may initially be sufficient to allow increases in production without recruiting new staff until the forthcoming recovery has gained strength. The likelihood of weak employment growth in the short term is consistent with the normal cyclical pattern of labour productivity and is supported by data on employment expectations, which remain rather low.

1 See also Box 8 entitled “The information content of data on total hours worked in industry” in the March 2003 issue of the ECB’s Monthly Bulletin.

2 The cyclical component of labour productivity has been extracted using the Hodrick-Prescott filter.