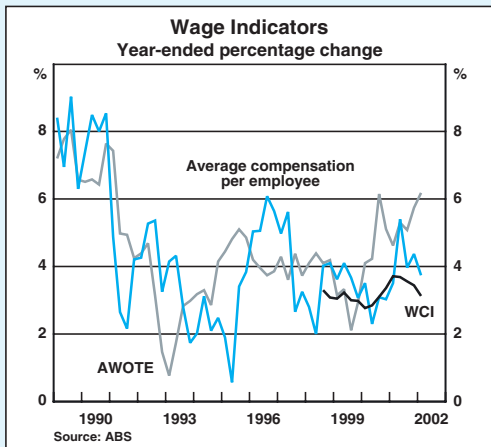


## Box B: Measures of Labour Costs

The various measures of labour cost growth in Australia can at times present quite different signals about wage trends (Graph B1). These differences arise, in part, because the series are designed to measure different concepts. Of the most commonly used aggregate measures, average weekly earnings (AWE), average weekly ordinary time earnings (AWOTE) and the national accounts measure of average compensation are all 'wage bill' measures designed to measure the average level of wages or labour costs per employee, whereas the wage cost index (WCI) is designed to measure wage changes for a basket of constant quality jobs.<sup>1</sup> The measures can also diverge because of their use of different information sources and the inclusion or exclusion of non-wage labour costs.

**Graph B1**



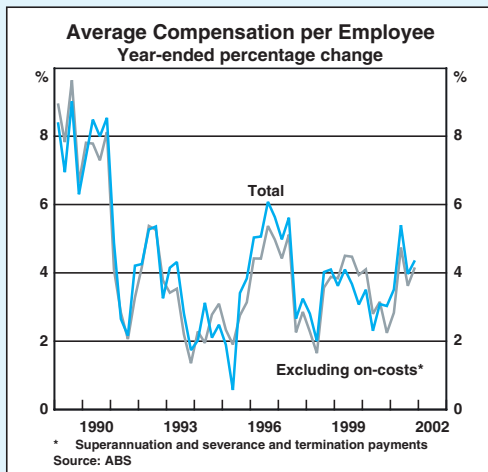
AWE and AWOTE are both sourced from the Average Weekly Earnings survey and exclude non-wage labour costs such as

severance payments and superannuation contributions. Because these measures are based on estimates of the wage bill per employee, their movements will in principle reflect both changes in wage rates and compositional changes in the workforce. For example, the AWE estimate can be affected by changes in the share of full-time and part-time workers in the sample surveyed, as part-time workers tend to have lower weekly earnings. AWOTE will not be affected in this way, as it is based only on full-time jobs, which means it should provide a more accurate indication of changes in the hourly wage. Both series, however, can be affected by other sources of compositional change. For example, a rise in the share of workers in higher-wage jobs in the sample will tend to increase average earnings per worker, even if the wage paid remains unchanged, and thereby will boost the estimate of wages growth obtained from these series.

The national accounts measure of average compensation per employee is conceptually similar to the other wage-bill measures, but differs from them in two respects: it is derived from a different survey, and it incorporates a broad measure of non-wage labour costs, including severance pay and superannuation. The historical data presented in Graph B2 suggest that the inclusion of these non-wage labour costs usually makes only a relatively small difference to the estimate of the growth in labour costs. Nonetheless this series has at times diverged quite substantially from those derived from the AWE survey, with much of the difference apparently a result of differences in survey design.

1. These various measures of labour costs are discussed in 'Alternative Measures of Labour Costs', Box C, *Statement on Monetary Policy*, November 2000.

Graph B2



Unlike the three average earnings measures discussed above, the WCI is designed to measure wage changes rather than levels. It measures wage rates<sup>2</sup> for a set of constant quality jobs and is analogous in its construction to the Consumer Price Index. As such, it is less subject to the influence of compositional change and hence is less volatile than the other measures. A consequence of this construction is that the average growth rate of the WCI over time may differ from the growth in the wage-bill measures. In particular, given the tendency over time for lower-skilled jobs to be replaced by higher-skilled jobs which generally attract higher earnings, the WCI will record a lower growth rate than the other measures in the medium term.

In estimating the growth in unit labour costs (that is, labour costs adjusted for productivity) it is necessary to use wage and

productivity estimates that are conceptually consistent. In particular, the effects of compositional change, which over time boosts both wages and productivity, need to be consistently treated. Available measures of productivity growth derived from the national accounts include these compositional effects and are therefore conceptually consistent with the wage-bill measures.<sup>3</sup> Because the WCI is designed to measure wage changes associated with specific jobs, it is difficult to construct a corresponding measure of productivity to enable a measure of unit labour costs to be calculated from this series. In particular, it would not be valid to estimate the growth in unit labour costs by adjusting the WCI using national-accounts based estimates of productivity. This would on average result in an underestimate of growth in unit labour costs, since compositional effects boosting wages and productivity would be excluded from the WCI but included in the productivity measure.

These considerations suggest that the appropriate choice of wage indicator depends upon the purpose for which it is being used. Wage-bill measures are conceptually consistent with available measures of productivity for the purposes of estimating growth in unit labour costs. However, these measures are relatively volatile as a result of short-term compositional changes in the workforce. The WCI is less volatile and may therefore be useful in assessing short-term wage trends, but it is not directly comparable with available productivity measures. ↗

2. The WCI does not include non-wage costs such as superannuation and payroll tax, although such a measure is currently being developed by the ABS.
3. In practice, AWOTE cannot be easily matched with an equivalent productivity measure, as there is no separate measure of output of full-time workers.