

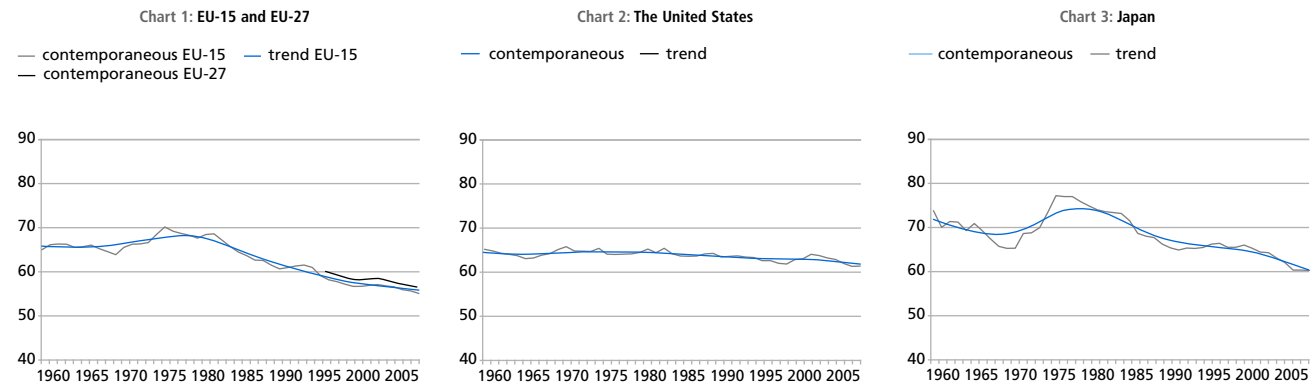
# EMPLOYMENT IN EUROPE 2007

**European Commission**  
Directorate-General for Employment, Social Affairs and Equal Opportunities  
Unit D1

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## EMPLOYMENT IN EUROPE 2007

## Labour income share



Source: AMECO database and own calculations.

Table 1 - The labour income share in the EU-15 Member States – summary

|                | Average<br>1960–2006 | Coefficient<br>of variation | Maximum     |             | Minimum     |             | ADF-<br>t-value | Fluctuations |             |             |
|----------------|----------------------|-----------------------------|-------------|-------------|-------------|-------------|-----------------|--------------|-------------|-------------|
|                |                      |                             | share       | year        | share       | year        |                 | synchron.    | persistence | variability |
| Belgium        | 61.3                 | 5.5                         | 66.9        | 1981        | 55.2        | 1961        | -1.49           | -0.0         | 0.67        | 0.67        |
| Denmark        | 59.1                 | 3.1                         | 62.9        | 1975        | 56.3        | 2005        | -2.98           | -0.5         | 0.34        | 0.47        |
| Germany        | 61.6                 | 4.1                         | 66.1        | 1974        | 55.9        | 2006        | -1.49           | 0.2          | 0.54        | 0.42        |
| Greece         | 66.5                 | 12.5                        | 91.9        | 1960        | 57.0        | 2003        | -3.50           | -0.3         | 0.40        | 0.78        |
| Spain          | 62.4                 | 5.8                         | 67.9        | 1976        | 54.5        | 2006        | -2.68           | -0.0         | 0.71        | 0.49        |
| France         | 61.4                 | 5.3                         | 66.9        | 1981        | 56.7        | 1998        | -1.62           | -0.4         | 0.62        | 0.63        |
| Ireland        | 62.1                 | 12.1                        | 71.2        | 1975        | 47.1        | 2002        | -1.59           | -0.5         | 0.45        | 0.54        |
| Italy          | 62.5                 | 8.5                         | 69.7        | 1975        | 53.3        | 2000        | -1.76           | -0.5         | 0.43        | 0.64        |
| Luxembourg     | 52.6                 | 7.1                         | 62.2        | 1977        | 46.4        | 1969        | -2.20           | -0.4         | 0.42        | 0.66        |
| Netherlands    | 63.0                 | 5.7                         | 70.4        | 1975        | 56.7        | 2006        | -2.09           | -0.1         | 0.54        | 0.54        |
| Austria        | 66.2                 | 6.9                         | 72.9        | 1978        | 55.8        | 2006        | -1.52           | -0.3         | 0.50        | 0.69        |
| Portugal       | 67.0                 | 9.4                         | 87.9        | 1975        | 59.6        | 1969        | -1.80           | -0.2         | 0.60        | 1.14        |
| Finland        | 62.5                 | 8.0                         | 70.3        | 1966        | 53.7        | 2000        | -2.74           | -0.2         | 0.57        | 0.55        |
| Sweden         | 62.1                 | 5.8                         | 69.2        | 1977        | 55.4        | 1995        | -2.77           | -0.1         | 0.67        | 0.75        |
| United Kingdom | 65.3                 | 2.8                         | 72.2        | 1975        | 61.8        | 1997        | -4.07           | -0.2         | 0.61        | 0.70        |
| <b>EU-15</b>   | <b>64.2</b>          | <b>5.6</b>                  | <b>69.9</b> | <b>1975</b> | <b>57.8</b> | <b>2006</b> | <b>-1.72</b>    | <b>-0.1</b>  | <b>0.65</b> | <b>0.51</b> |
| Japan          | 68.0                 | 6.4                         | 76.4        | 1975        | 60.2        | 2006        | -1.77           | -0.6         | 0.69        | 0.61        |
| United States  | 63.7                 | 1.8                         | 65.9        | 1970        | 60.9        | 2005        | -2.49           | -0.1         | 0.53        | 0.34        |

Source: AMECO database and own calculations.

Note: Coefficient of variation: standard deviation of labour share divided by mean; maximum/minimum share: maximum/minimum value recorded for the share; maximum/minimum year: year in which the maximum/minimum was observed; ADF t-value: t-value for augmented Dickey-Fuller test (unit root test with constant and trend); fluctuations-synchron: correlation between trend-deviation in labour income share and trend-deviation in GDP; fluctuations-persistence: coefficient of auto-correlation; fluctuations-variability: standard deviation of fluctuations in labour income share divided by standard deviation of fluctuations in GDP.

## 2.2. The labour income share in the EU Member States

### 2.2.1 The EU-15

Chart 4 shows the evolution of the labour income share for the total economy in each of the 27 EU Member States.<sup>12</sup> The solid lines show the

actual observations of the labour income share, while the dotted lines display the underlying trend. Table 1 summarises the main characteristics of the evolution of the labour share in each of the 15 Member States over the period from 1960 until 2006. Given the limited number of observations, Table 2 (see page 243) summarises the evolution of the labour income share in the new Member

States for the period ranging from the mid-1990s until 2006.

Following an increase during the 1960s and especially in the early 1970s, the labour income share started to fall in most of the EU-15 from the second half of the 1970s until the early 1980s.<sup>13</sup> In six of the EU-15, the labour income share reached a peak in 1975<sup>14</sup>, while in 11 Member States

<sup>12</sup> Readers should take note of the fact that the scales of the graphs are not uniform.

<sup>13</sup> Greece is an important exception to this rule, as its labour share fell from close to 90% in the early 1960s to about 60% in the early 1970s.

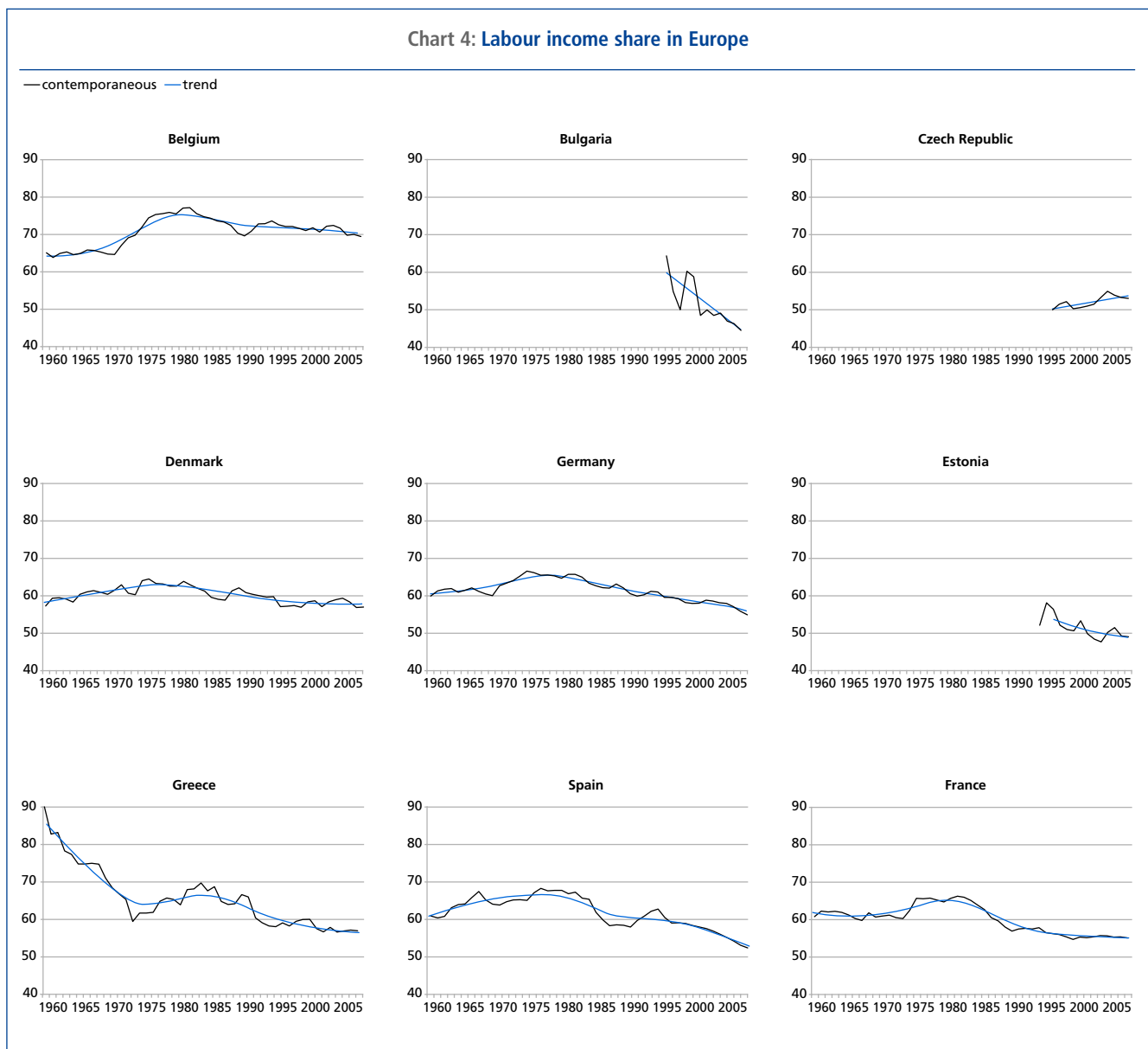
<sup>14</sup> Denmark, Ireland, Italy, the Netherlands, Portugal and the United Kingdom.

it peaked between 1974 and 1978<sup>15</sup>. In Belgium and France, the labour share reached its peak in 1981, while in Finland the peak was reached in 1966 and in Greece in 1960. Subsequently, in most of the EU-15 the labour share decline had reached a low in the late 1990s to early 2000s which was, on the whole, lower than the levels reached in the 1960s or 1970s. Only in Belgium, Luxembourg and Portugal was the labour income share lower in the 1960s than in the 1990s or 2000s.

In recent years, the fall in the labour income share seems to have been levelling off in some Member States (e.g. France, Belgium and Finland) or even showing a rebound in others (e.g. Ireland and Italy). Nevertheless, some countries continue to experience a downward trend (e.g. Austria, the Netherlands, Greece and Spain).

Overall, the labour income share was not stable in most of the EU-15 over the period ranging from 1960 until 2006<sup>16</sup> and the differences between

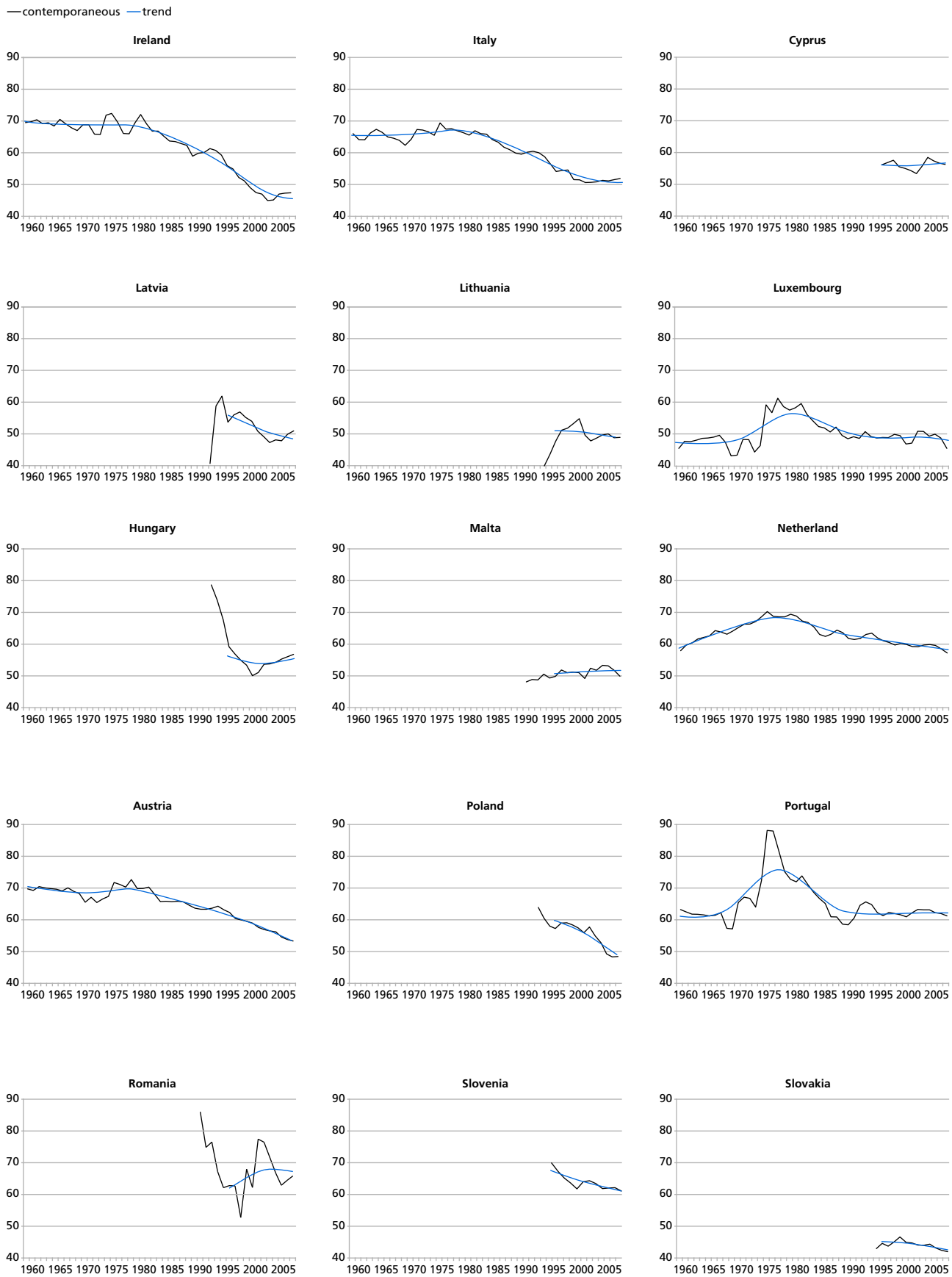
the lows and highs are quite notable. The smallest difference is recorded for Denmark, where the difference is just 6.6 percentage points, and the largest difference is recorded for Greece, where the difference is a significant 34.9 percentage points. In Portugal the difference between peak and trough amounts to 28.3 percentage points while in Ireland it reaches 24.1 percentage points. In the other EU-15 Member States, the differences were between 10.2 percentage points and 17.1 percentage points.

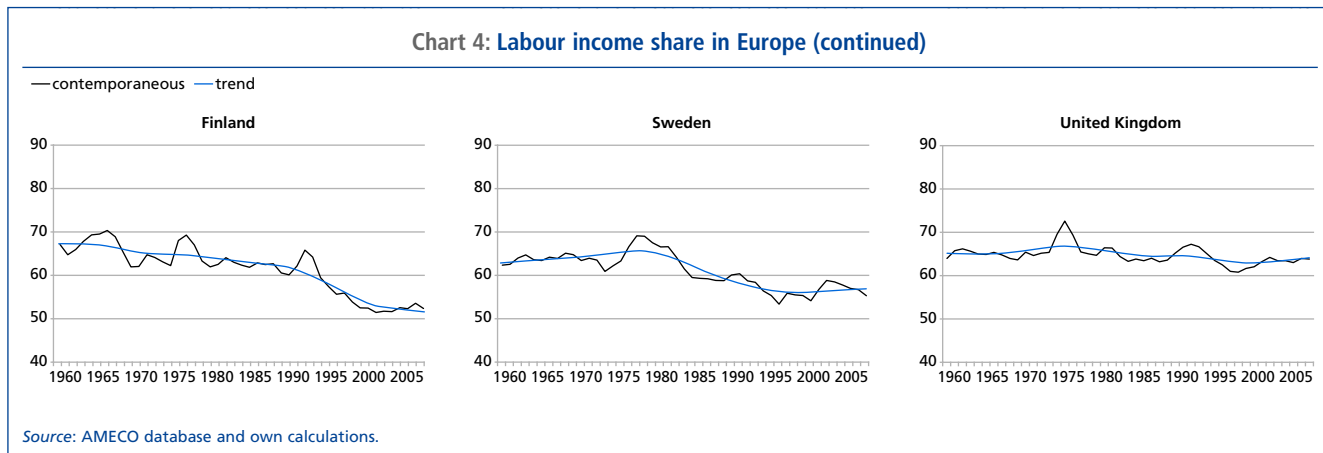


<sup>15</sup> The six countries mentioned in footnote 14 plus Germany, Spain, Luxembourg, Austria and Sweden.

<sup>16</sup> The statistics in the eighth column of Table 1 underline the non-stationarity of the labour income share in most of the EU-15. Notable exceptions are the United Kingdom and Greece for which the null hypothesis of non-stationarity (i.e. a unit root) could be rejected at a fairly high confidence level. Due to the lack of sufficient observations a unit root test could not be performed on the data of the new Member States.

Chart 4: Labour income share in Europe (continued)





### 2.2.2. The new Member States

In the new Member States, the income labour share has been on a downward trend since the mid-1990s, with the exception of the Czech Republic, Malta, Cyprus and Romania. The strongest variations in the labour income share are found in Latvia, Bulgaria, and Romania, while the weakest variations are found in Cyprus, the Czech Republic, Malta and Slovakia.

With the exception of the evolution in Cyprus and Malta, these developments occurred in countries undergoing deep

structural transformations of their economies whereby, for instance, real wages have had to converge to meet productivity levels and the sectoral composition of the economies have had to adjust to the needs of a service-oriented, knowledge-based modern market economy.<sup>17</sup>

### 2.3. Wages, productivity and the labour income share

As an accounting exercise, the labour income share can be decomposed

into the real wage and (the inverse of average) labour productivity<sup>18</sup>. When the real wage grows at a slower pace than labour productivity, the labour income share shows a decline, and vice versa. As we decompose labour productivity further, the evolution of the labour income share can be written in terms of the evolution of the real wage (in efficiency units), the capital-to-output ratio (i.e. the inverse of capital productivity) and the capital-to-labour (in efficiency units) ratio – whereby 'labour in efficiency units' refers to the fact that the labour stock has been aug-

Table 2 - The labour income share in the new Member States

|                | Average | Coefficient of variation | Maximum share | Maximum year | Minimum share | Minimum year |
|----------------|---------|--------------------------|---------------|--------------|---------------|--------------|
| Bulgaria       | 51.1    | 10.9                     | 62.2          | 1995         | 44.6          | 2006         |
| Czech Republic | 51.7    | 2.6                      | 54.2          | 2003         | 49.9          | 1995         |
| Estonia        | 51.5    | 5.0                      | 57.4          | 1994         | 48.2          | 2002         |
| Cyprus         | 57.2    | 2.2                      | 59.3          | 2003         | 54.8          | 2001         |
| Latvia         | 49.9    | 11.5                     | 60.5          | 1994         | 37.6          | 1992         |
| Lithuania      | 48.6    | 7.0                      | 53.9          | 1999         | 40.4          | 1993         |
| Hungary        | 55.4    | 9.6                      | 68.3          | 1992         | 50.1          | 1999         |
| Malta          | 51.0    | 2.8                      | 53.3          | 2003         | 48.6          | 1990         |
| Poland         | 55.5    | 7.3                      | 62.5          | 1992         | 48.6          | 2005         |
| Romania        | 68.2    | 10.5                     | 84.1          | 1990         | 54.3          | 1997         |
| Slovenia       | 64.4    | 3.6                      | 69.8          | 1995         | 61.9          | 2006         |
| Slovakia       | 44.3    | 2.8                      | 46.9          | 1998         | 42.3          | 2006         |

Source: AMECO database and own calculations.

Note: Sample size: MT, RO: 1990–2006; LV, HU, PL: 1992–2006; EE, LT: 1993–2006; SK: 1994–2006; BG, CZ, CY, SI: 1995–2006.

<sup>17</sup> Though measurement problems related to the assumptions regarding the remuneration of the self-employed may also account for some of the decline (Askenazy, 2003).

<sup>18</sup> Let  $L$  be employment,  $W$  the nominal wage rate,  $Q$  value added and  $P$  the price level, then the labour share,  $LS$ , is defined as

$$LS = \frac{WL}{PQ} = \frac{W}{P} \frac{1}{\left(\frac{Q}{L}\right)}$$

i.e. the ratio of the real wage and (average) labour productivity, which shows that the labour share is also a measure of the real unit labour cost. Conventionally, the level of real unit labour costs is expressed relative to a base year, while the labour income share is expressed in levels.