# Box 9

### DEVELOPMENTS IN TOTAL HOURS WORKED IN THE EURO AREA: A LONG-TERM PERSPECTIVE

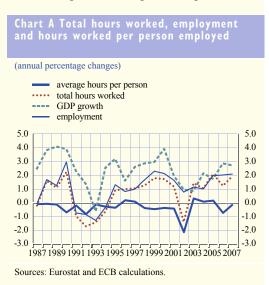
In recent years, a number of structural reforms to labour market regulations have been introduced in euro area countries which have fundamentally affected the functioning of labour markets. Policy measures have varied across Member States, ranging from those aimed at easing the employment of additional and temporary workers to those aimed at increasing the flexibility of hours worked by full and part-time workers. Easing the employment of temporary workers provides a means of increasing the participation rate among certain segments of the labour market, in particular young women and older workers.<sup>1</sup> This box puts the latest developments observed in euro area total hours worked into a historical perspective, highlighting the extent to which labour market reforms have helped both to increase the flexibility of the euro area economy and to raise the level of potential output growth by directly affecting the level of labour utilisation.

### Developments in employment and average hours worked per person

When analysing long-term developments in the total number of hours worked it is useful to differentiate between changes in headcount employment and in actual hours worked per person employed, since, a priori, these two components might behave differently over the business cycle and over the long term. Chart A shows developments in total hours worked, employment and hours worked per person employed in the euro area over the period 1987-2007.<sup>2</sup>

The contribution to the growth in total hours from changes to average hours per worker

was limited before the mid-1990s, when employment changes were the main driving force behind developments in total hours. During the second half of the 1990s, however, changes to average hours worked appear to have played a more important role, reflecting both the onset of legislative changes affecting working arrangements across many of the euro area Member States and a sharp rise in part-time employment growth. While the number of total hours increased strongly during the second half of the 1990s, it fell again sharply as the economy weakened in 2001-02. The main cause of this appears to have been a considerable decline in average hours worked, in part reflecting cyclical developments, but also likely reflecting the



1 See, for example, V. Genre, R. Gomez-Salvador and A. Lamo (2005), "European women: Why do(n't) they work?", ECB Working Paper No 454, March; and also OECD (2006): Ageing and Employment Policies: Live Longer, Work Longer, OECD, Paris.

2 The Eurostat Labour Force Survey (LFS) combines, on a comparable basis, the results from the various national LFS enquiries. The figures reported here are taken from Eurostat's latest European LFS and relate to employed people aged 15-64. Euro area data for the period 1985-99 have been estimated using available data for euro area countries. Discrepancies in employment totals as a result of non-responses for full and part-time employment have been adjusted by allocating non-respondents to the full and part-time categories in proportion to known contemporaneous shares.



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culmination of policies aimed at reducing the working week in several Member States (France, Belgium and the Netherlands). While positive rates of growth in average hours worked characterised the period 2003-05, rates have slowed again more recently.<sup>3</sup>

# Developments in full and part-time employment

Changes in total hours worked can be further investigated by examining the contributions to changes in employment and average hours worked by those engaged in full and part-time employment. The year-on-year change in total hours worked can thus be decomposed into four separate components, reflecting changes in full and part-time employment and changes



Sources: Eurostat Labour Force Survey and ECB calculations.

in average hours worked by full and part-time employees. Chart B shows the contribution to the overall change in total hours worked (the dashed line) by full and part-time workers (the bars). Each bar represents the contributions of the respective components for each year. The sum of the bars corresponds to the overall change in total hours worked.

There appears to be very little contribution to total hours from part-time employment growth prior to the mid-1990s. The importance of the contribution from part-time employment gradually increased from the second half of the 1990s, particularly during the early years of the decade beginning in 2000. The dynamism of job creation in the euro area since 2005 is also reflected in the strength of full-time employment growth.

# A comparison with developments in the United States

One of the main explanations for the gap in GDP per capita between the euro area and the United States is the notable disparity in hours worked between the two economies.<sup>4</sup> Over the past ten years, however, there has been a strong acceleration in the number of total hours worked in the euro area, which stands in contrast to developments in the United States, where a small deceleration has taken place. As the table shows, while total hours growth accelerated in the euro area between the two decades (from an average of 0.3% per year between 1987 and 1997, to 1.2% per year in the decade ending 2007), the growth of total hours worked slowed in the United States (from 1.3% to 0.9%, respectively). While much of the euro area acceleration can be explained by enhanced labour utilisation over this period, the main drivers of this to date can be clearly traced to improvements in participation and employment rates. Meanwhile, average hours worked per person continue to decline at a faster pace in the euro area than in the United States.

<sup>3</sup> See also N. Leiner-Killinger, C. Madaschi and M. Ward-Warmedinger, "Trends and patterns in working time across euro area countries 1970-2004: causes and consequences", ECB Occasional Paper No 41, December 2005.

<sup>4</sup> It has been suggested that the causes for this disparity relate to differences in regulatory arrangements (including working time directives, personal income tax regimes, etc.), holiday and leave entitlements and personal preferences regarding leisure. See, for example, O. Blanchard (2004), "The economic future of Europe", Journal of Economic Perspectives, Vol. 18, No 4, pp. 3-26; or more recently Chapter 3 of OECD (2008), Economic Policy Reforms: Going for Growth.

(average annual po	ercentage changes)					
	Working age population	Participation rate	Employment rate	Hours worked per person	Labour utilisation	Total hours worked
	(a)	(b)	(c)	(d)	sum (b to d)	sum (a to d
euro area						
1987-1997	0.4	0.2	-0.1	-0.3	-0.1	0.3
1998-2007	0.4	0.8	0.5	-0.4	0.8	1.
United States						
1987-1997	1.0	0.2	0.1	-0.1	0.3	1.
1998-2007	1.3	-0.3	0.0	-0.2	-0.4	0.9

### Population growth, labour utilisation and total hours worked

Sources: Eurostat and ECB calculations.

## **Concluding remarks**

When analysing trends in working hours, it has to be kept in mind that these are partly shaped by institutional changes. Working hours in the euro area are low by international standards and as the euro area faces the prospect of an ageing population, one of the key challenges will be to increase labour utilisation so as to maintain growth potential. While increases in euro area employment and participation rates have helped to offset some of the outstanding differential with the United States in the growth of total hours worked, average hours worked continue to decline at a faster pace in the euro area than in the United States. On a positive note, however, increases in employment, particularly in the growth of part-time jobs, and the higher variation of working hours of part-time workers can be seen as indications of a more flexible labour market in the euro area. This higher flexibility, in turn, enhances the adjustment capacity of the euro area to shocks.

