

# Labour Market Adjustments in Europe

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*Edited by*

Julían Messina

*Economist, European Central Bank, Frankfurt am Main,  
Germany and Visiting Researcher, CSEF, University of  
Salerno, Italy*

Claudio Michelacci

*Associate Professor of Economics, CEMFI, Madrid, Spain*

Jarkko Turunen

*Economist, European Central Bank, Frankfurt am Main,  
Germany*

Gylfi Zoega

*Professor of Economics, University of Iceland, Reykjavik,  
Iceland and Associate Professor, Birkbeck College, University  
of London, UK*

**Edward Elgar**

Cheltenham, UK • Northampton, MA, USA

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## 2. Cyclicalities of real wages in the euro area and OECD countries

**Julían Messina, Chiara Strozzi  
and Jarkko Turunen<sup>1</sup>**

### 1. INTRODUCTION

Despite the long tradition of empirical research on the cyclical behaviour of real wages there is no consensus view about the direction or the degree of cyclicalities of real wages in the euro area or in OECD countries. Indeed, available results appear to be sensitive to differences in the data and the methodology used to measure cyclicalities (for a survey see Abraham and Haliwanger 1995). Lack of comparable evidence limits our understanding of real wage cyclicalities and its determinants. Nevertheless, understanding cyclicalities of real wages remains central to both economic theory and policy. The original theoretical motivation concerns distinguishing between competing models of the business cycle (see Kennan 1988). More generally, the further development of advanced micro-founded theoretical macroeconomic models, such as Smets and Wouters (2003) for the euro area, relies on empirical evidence to guide modelling choices. In terms of economic policy, the introduction of common monetary policy in Europe makes the response of wages to business cycle fluctuations at the area-wide level a key issue for understanding macroeconomic developments in the euro area (ECB 2004).

Available empirical evidence on wage cyclicalities in OECD countries using aggregate data can be broadly classified into two categories according to the empirical methodology adopted in the studies.<sup>2</sup> Studies in the first category analyse the co-movement between real wages and a business cycle indicator by looking at contemporaneous correlations or simple OLS regressions of a (detrended) real wage series and a (detrended) business cycle series.<sup>3</sup> A classification of the major data and methodological differences among some of the studies that belong to this category is reported in Table 2.1a. Studies in the second category analyse the relationship between a (detrended) wage series and a (detrended) business cycle series using dynamic approaches such as Vector Auto Regressions (VAR).

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## DISCUSSION

### Karl Pichelmann

Commenting on the chapter by Messina, Strozzi and Turunen has turned out to be a very pleasant task assignment. The authors provide a considerable body of evidence on the degree of real wage cyclicality in the euro area, single euro area countries and a number of non-euro area OECD countries. In addition to standard correlation analysis of detrended real wages and aggregate output, they also use a VAR approach to better capture the dynamics in the co-movement of the two series. Moreover, the authors take a lot of care to test whether the differences in the estimated degree of real wage cyclicality are driven by choices regarding deflators, model specification and time horizon, or whether they reflect genuine cross-country differences. Finally, they attempt to relate the cyclicalities of real wages to a number of labour market institutions, but – as acknowledged by the authors themselves – this part of the analysis remains still rather preliminary.

Obviously, the brief discussion possible here cannot do full justice to the wealth of the empirical findings. Thus, I will concentrate on a limited number of measurement and methodological issues which may bear upon the interpretation of the empirical findings in the chapter.

- (i) Wages per hour or per worker? Data limitations force the authors to use nominal compensation per employee as the relevant wage series in the analysis. Obviously, this may introduce a pro-cyclicality bias, since average hours worked tend to increase in a boom and vice versa. Perhaps more important in the context of the chapter is that the cyclicalities of hours worked is likely to be affected by labour market institutions such as overtime regulations, short-time work schemes temporary lay-off practices and so on. However, regulations of this sort are themselves likely to interact with other labour market institutions analysed in the chapter and probably also with the wage-setting process proper. This already points to a subtle and fairly complex relationship between labour market institutions and the cyclicalities of real wages.
- (ii) Consumption wages or producer wages? In general it is hard to say whether it is more appropriate to use a consumer price deflator or a producer price deflator to construct the real wage series. The choice is not made easier in the present chapter by the fact that the labour market institutions analysed here are likely to impact upon both the labour demand and the labour supply schedule. Note though, that