## Does employment protection affect unemployment? A meta-analysis

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## **Abstract**

Despite extensive research efforts, the magnitude of the effect of employment protection legislation (EPL) on unemployment remains unclear. This paper applies meta-analysis and meta-regression methods to a unique data set consisting of 881 observations on the effect of EPL on unemployment from 75 studies. Once we control for publication selection bias, we cannot reject the hypothesis that the average effect of EPL on unemployment is zero. The meta-regression analysis, however, reveals that the choice of the EPL variable matters: estimates that build on survey-based EPL variables report a significantly stronger unemployment-increasing impact of EPL than estimates developed using EPL indices based on the OECD's methodology, where the latter relies on coding information from legal provisions. Furthermore, using multi-year averages of the underlying data tends to dampen the reported unemployment effects of EPL, and product market regulation serves as a significant moderator variable.

**Keywords:** Unemployment; labour market institutions; employment protection; metaanalysis.

**JEL codes:** C54; C83; E24.

One of the most fundamental questions in economics is about the determinants of unemployment, and high rates of unemployment remain a key policy concern. Several explanations have been put forward to explain the evolution of unemployment rates. One prominent explanation suggests that employment protection legislation (EPL) is a major factor. In this context, the increase in unemployment in most OECD countries in the aftermath of the financial crisis of 2007/08 has trigged a new wave of interest in the relationship between EPL and unemployment (e.g. Amable and Mayhew 2011; Cahuc et al. 2019). The view that 'structural' reforms geared towards reducing employment protection can help to lower unemployment has greatly influenced policy debates during the post-crisis era. In Europe, several governments have introduced measures to increase the flexibility of existing labour regulations to make it easier for firms to hire and fire workers, leading to intense debates about the actual impact of such deregulation measures (e.g. Eggertsson et al. 2014; Campos et al. 2018; Duval and Furceri 2018). However, a focus on tackling unemployment by calling for labour market deregulation has strongly shaped policy-making since at least the 1990s (e.g. OECD 1994; IMF 2003).

Is the focus on employment protection supported by robust evidence concerning the direction and magnitude of the effect of EPL on unemployment? In theory, this effect is ambiguous. On one hand, the standard competitive model predicts that employment protection will increase unemployment, as employers are reluctant to hire workers because they fear that these workers cannot be laid off easily (e.g. Addison and Teixeira 2003). On the other hand, more rigid EPL may increase job retention, because companies lay off fewer employees in the face of high severance pay and procedural costs of dismissal, especially during economic downswings. In essence, the theoretical expectations about the direction and magnitude of the effect of EPL on unemployment are not clear-cut (e.g. Bertola 1990). Understanding the relationship between EPL and unemployment is therefore also an important question for empirical research. However, existing studies report mixed results concerning the impact of EPL on unemployment.

Whereas some papers indeed provide evidence for the view that more rigid hiring and firing regulations push up unemployment (e.g. Elmeskov et al. 1998; Di Tella and MacCulloch 2005; Feldmann 2009; Holt and Hendrickson 2017), other studies contradict these findings by reporting negative or zero effects (e.g. Baccaro and Rei 2007; Dutt et al. 2009; Stockhammer and Klär 2011; Avdagic 2015). In sum, the extant literature has not been able to present convincing econometric evidence to resolve conflicting theoretical arguments. Relevant studies often differ markedly based on the structure of the data and the details of the econometric specification. Considering the wide range of estimates reported in the literature, it is therefore quite challenging to undertake generalisations based on traditional literature reviews.

This article contributes to the literature by presenting the first quantitative literature review of the effect of employment protection on unemployment based on meta-analysis and meta-regression techniques (e.g. Stanley and Doucouliagos 2012) that allow us to conduct formal hypothesis tests and draw valid statistical inferences. As it is well known that differences in econometric specification and in the data used can have a sizeable impact on empirical estimates, this paper sets out to make sense of the substantial variation of estimates concerning the relationship between EPL and unemployment.

We tackle two main questions. First, what does the existing evidence tell us about the effect of EPL on unemployment? The meta-analysis, in combination with formal tests on publication selection bias, will provide answers to this question as we conduct a comprehensive survey and quantitative analysis of the relevant econometric estimates on the relationship between EPL and unemployment. Second, what factors explain the heterogeneity in the reported results on the EPL-unemployment nexus? We use meta-regression analysis to address this question by exploring the impact of the data structure, econometric specification details and publication characteristics on the reported EPL-unemployment estimates.

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