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Essays on Wage Formation and Globalization

Andreas Hauptmann

Dissertationen

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Andreas Hauptmann
Nürnberg, November 2015

Chapter 1
Introduction

This thesis studies wage formation processes in the context of a globalizing economy and different institutional settings. Wage formation is highly relevant for employees, firms, policy makers and scientists alike, and therefore constitutes an important area for economic research. Globalization and other changes in the economic environment, such as technological progress and the deregulation of product markets, have also affected the conditions for wage formation. For instance, there are widespread concerns that globalization and international economic integration results in wage losses and increases inequality. Globalization may increase aggregate output, but also affect the distribution of income between firms and workers and different groups in the labor market unequally. Collective labor representation can mitigate or aggravate the effects for employers and employees. Moreover, increasing international and national competition together with technological progress can affect unionization and the coverage of collective wage contracts.

Against this background, this thesis addresses three main questions: First, how does collective bargaining coverage evolve in modern economies if firms are free to opt for alternative modes of wage-setting? Second, how does the increasing international exposure of firms affect wages in the context of different institutional settings? Third, how do wages and competitiveness affect the export participation of firms?

The immanent complexity of the subject does not allow for a unified answer, although all these topics are closely related. Consequently, each chapter of this thesis contains an independent analysis addressing different aspects, using a variety of economic and econometric methods.

The starting point for the analysis is presented in Chapter 2 by studying endogenous selection into wage regimes based on differences in cost structures. The choice between different wage regimes is essential to understand how wages are determined in modern economies and how different modes of wage-setting evolve over time in an environment with technological progress and increasing product market competition. The analysis is motivated by two seemingly contradicting observations: On the one hand, it is widely believed that firms oppose unions because they reduce profits. On the other hand, in most European countries, collective bargaining is at the discretion of the employer. The aim of the chapter is therefore to contribute to a better understanding of why firms might prefer collective bargaining over other modes of wage setting. The analysis is carried out in a theoretical general equilibrium framework with endogenous selection of wage regimes, where firms are free to choose to bargain with a local union or to refrain from it. Selection is driven by differences in the cost structure between wage regimes. It is shown that cost differences are sufficient to explain incomplete collective bargaining coverage rates as an equilibrium outcome. Furthermore, the results show that the decrease in collective bargaining coverage rates can be attributed to technological progress and product market deregulation.

Chapter 3 investigates wage formation in international firms subject to collective agreements. The growing inequality over the last decades in many Western countries has been attributed to technological change, institutional reforms and globalization. Previous research has shown that the rise in wage inequality can be attributed to higher wages at exporting firms, the so called exporter wage premium. In this context, recent theoretical contributions have emphasized that more trade exposure can influence the wage structure by reducing the exporter wage premium in firms subject to collective bargaining (e.g. Egger and Etzel, 2012). We test this hypothesis by employing German linked employer–employee data. One important challenge is to separate the effects from differences in the workforce structure and rent-sharing. We construct a measure of plant-level profitability that is free from compositional effects. We find that rent-sharing is less distinct in more export-intensive firms or more open industries. This chapter is joint work together with Gabriel Felbermayr (Ifo Institute Munich) and Hans-Jörg Schmerer (IAB Nuremberg) and has been published in the *Scandinavian Journal of Economics*.[1]

Chapter 4 addresses another aspect of wage formation in exporting firms. Again, the point of departure is the exporter wage premium, referring to the empirical observation that exporting firms pay systematically higher wages. It is also well documented that this wage premium decreases substantially once worker and firm characteristics are accounted for. However, the identification is based on the within variation of the data and might yield imprecise estimates if the variation over time is low. Recent contributions provide theoretical explanations for the exporter wage premium: Egger, Egger, and Kreickemeier (2011) base their rent-sharing mechanism on a fair-wage framework. Fair-wage considerations are, among other things, related to the firm's "ability to pay". Chapter 4 contributes to this literature by providing new empirical evidence for the fair-wage framework based on the system of industrial relations in Germany. The collectively agreed wage constitutes a legally binding wage floor. But firms are always allowed to pay more if they want to. The empirical analysis is based on the IAB establishment panel and employs different estimators addressing potential endogeneity and the truncation of the dependent variable from below. The results show that a firm's export intensity is systematically related to payments above collectively

1 See Felbermayr, Hauptmann, and Schmerer (2014). Previous versions of the paper have been circulated as Felbermayr, Hauptmann, and Schmerer (2012a) and Felbermayr, Hauptmann, and Schmerer (2012b).

agreed wage floor and therefore support the fair-wage hypothesis. The chapter is co-authored by Hans-Jörg Schmerer (IAB Nuremberg) and has been published in *Economics Letters.*[2]

Chapter 5 addresses the link between wages and globalization from another perspective. German exports soared in the recent past, and this has been accompanied by a heated public debate. Adversaries object, that years of wage moderation increased international competitiveness and have allowed Germany to grow at the expense of its trading partners in the Eurozone. But beyond the debate on current account imbalances, an additional question arises, which has not received much attention in the literature. What are the determinants of a firm's export participation? Chapter 5 studies this question empirically. It constructs plant- and industry-competitiveness measures to investigate their influence on export participation. The findings indicate that a higher plant-level competitiveness, measured by lower unit labor costs, is positively associated with export participation. The analysis is carried out for different estimators and margins of export participation. There is no evidence that industry-level competitiveness affects export participation. Furthermore, low-wage firms are less likely to export, which is in line with the literature on the export wage premium. The chapter is joint work together with Daniel Etzel (University Bayreuth) and Hans-Jörg Schmerer (IAB Nuremberg) and has been published in *Economic Systems.*[3]

Finally, Chapter 6 briefly concludes the main findings of the thesis.

2 See Hauptmann and Schmerer (2013).

3 See Etzel, Hauptmann, and Schmerer (2013).