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World Development Vol. xx, pp. xxx–xxx, 2016

http://dx.doi.org/10.1016/j.worlddev.2016.11.009

Temporary Jobs, Institutions, and Wage Inequality within Education Groups in Central-Eastern Europe

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Summary. — In this paper we investigate the drivers of wage inequality within education groups in Central-Eastern European Countries by employing EU-SILC microdata before (2007) and after (2012) the crisis. Our main focus is on the variability of temporary/permanent workers wage gap and on the role of institutions (labor market deregulation, union density, and wage coordination) in shaping the gap across education groups and along the wage distribution. Results, obtained by means of OLS and quantile regression methods, confirm that holding a temporary position corresponds to a statistically significant negative wage gap with respect to permanent jobs, especially for low-paid jobs and tertiary educated workers. The impact of institutional settings on the wage gap varies remarkably across education groups and wage levels, and strongly depends on the macroeconomic conditions.
Labor market deregulation and weaker minimum wage provisions reduce the wage gap; this could be related to the fact the these institutional features reduce the duality on the labor market, triggering a downward convergence of permanent wages toward the lowest level of the temporary employed, especially in the context of labor reallocation and declining wages typical of recession. Stronger wage setting institutions, on the contrary, seem to reinforce duality in the labor market, although to different extents depending on the group of workers and on the part of the wage distribution concerned.

Keywords — temporary workers, education, wage inequality, labour market institutions, quantile regression

1. INTRODUCTION

This paper aims at investigating the drivers of wage inequality within education groups in Central-Eastern European Countries (CEECs), focusing on individual, economic, employment, and demographic characteristics of dependent workers and on countrywide institutional settings. While inequality between education groups in Europe has traditionally been one of the main focus of theoretical and applied research, relatively little effort has been devoted to analyze the size of within-group disparities and their drivers. However, especially under certain structural and institutional conditions, which may favor labor market segmentation and persistence into low-pay traps, this dimension of inequality may be relevant. The geographical scope of our analysis adds further interest to our study, since the countries considered here are still experiencing, to varying degrees, processes of institutional change related to their transition toward full market economies.

In this paper, for the reasons explained in the next section, we focus on the importance of employment status (particularly temporary/permanent positions) in connection with three labor market institutional settings: (i) labor market deregulation on the side of fixed-term contracts, (ii) union density, and (iii) wage coordination. The contribution of the paper to the existing literature, as extensively explained in the next section, is: (i) to provide a comparative descriptive picture of hourly earnings inequality in Central-Eastern EU countries by education and employment status before and after the 2008–10 crisis; (ii) to show and explain the importance of institutional factors in shaping the wage disadvantage observed for temporary workers compared to permanent ones, in each education group; (iii) to provide evidence on the variability of temporary/permanent gap and of the role of institutions along the wage distribution of each education group. The paper is structured as follows: the next section provides the literature-based conceptual framework of our working hypotheses, along with a discussion of the main alternative views and the description of our original contribution. Section 3 presents the data and the descriptive evidence. In Section 4 the econometric approach is described, while in Section 5 the outcomes of our empirical analysis are reported and commented. Section 6 concludes.

2. LITERATURE-BASED CONCEPTUAL FRAMEWORK, WORKING HYPOTHESES, AND CONTRIBUTION OF OUR ANALYSIS

In the last years, the theoretical and empirical literature on wage differences between permanent and temporary jobs has been flourishing. In order to limit here the discussion to those contributions that are relevant to our empirical analysis, we structure this section around the four working hypotheses (*WH*) we want to test empirically, which correspond to the main dimensions of our empirical analysis. Although for a better and clearer presentation they are kept separate here, we are aware that many aspects dealt with are overlapping and intertwined and this will be accounted for when commenting the results. For each WH we provide here the literature-based conceptual framework that in our perspective underpins it, a discussion of possible alternative views and the explanation of the original contribution of our analysis.

(a) *Permanent/temporary workers wage gap between education levels*

Our first working hypothesis deals with wage gap differences in job positions across education levels: the

* Final revision accepted: November 8, 2016

Please cite this article in press as: Perugini, C., & Pompei, F. Temporary Jobs, Institutions, and Wage Inequality within Education Groups in Central-Eastern Europe, *World Development* (2016), http://dx.doi.org/10.1016/j.worlddev.2016.11.009

permanent/temporary wage gap may remarkably vary across education levels due to the different intensity with which formal education and unobservable informal abilities are combined together (WH1).

Generally speaking there is a well-documented theoretical and empirical evidence of a prevailing and systematic negative wage gap between temporary and regular workers (Jovanovich, 1979; Rebitzer & Taylor, 1991; Guell, 2000; Booth, Francesconi, & Frank, 2002; Bosio, 2014; Brown & Sessions, 2005; Da Silva & Turrini, 2015; Picchio, 2008). Some explanations rely on contract theory and asymmetric information. The employer has an information disadvantage at the moment of hiring and the worker-firm match is regarded as an "experience good" (Jovanovich, 1979); in such a context, fixed-term contracts allow firms monitoring the matching quality without having to incur separation costs. Another reason explaining the wage penalty for temporary workers is based on the efficiency wage theory (Guell, 2000; Rebitzer & Taylor, 1991), with the contract renewal used as an effort-incentive device instead of wages. Thus, fixed-term workers accept lower wages because firms link their performance to the promise of a contract renewal or to their employment on a permanent basis.

These arguments, however, do not explain the long-term persistence of individuals into temporary positions that lead workers into traps of repeated short-duration/low-productiv ity/low-pay positions (Belot, Boone, & van Ours, 2007; Nickell & Layard, 1999). Along this line of research, some authors associate the wage gap between temporary and permanent workers to investments in a lower amount of firm-specific training (Belot et al., 2007; Booth et al., 2002; Bosio, 2014). Due to their high turnover, temporary workers have less incentive to accumulate firm-specific skills that boost productivity. The lower productivity is, the lower will be the wages they get compared to permanent workers [1]. In this paper we take a step forward by analyzing the wage gap heterogeneity across education groups in combination with the evidence provided by the large literature on educational wage premia and returns to training (Arulampalam, Booth, & Bryan, 2010; Ashenfelter & Lalonde, 1996; Peracchi, 2006). Our working hypothesis (WH1) is that if complementarities between unobservable firm-specific human capital and formal education exist (Arias, Hallock, & Sosa-Escudero, 2001), then it is plausible to hypothesize a greater accumulation (and economic potential) of this informal knowledge for workers with tertiary education. Therefore, if temporary workers with higher formal education are not allowed to accumulate firm-specific human capital (due to their fixed-term contracts), the wage gap with respect to regular workers increases relatively more than for lower educated employees. To corroborate our conjecture, in our empirical analysis we employ a measure of knowledge specificity; based on Kleinknecht et al. (2014) and Vergeer, Kraan, Dhondt, and Kleinknecht (2015), who investigated the relationship between flexible labor and innovation/productivity, we test the idea that in job contexts with high knowledge specificity the position of flexible workers tends to further deteriorate compared to permanent workers.

(b) *Permanent/temporary workers wage gap along the wage distribution*

The second working hypothesis is related to the heterogeneity of the wage gap along the wage distribution: the existing heterogeneity, within each education group, of the permanent/temporary wage gap may to some extent depend on position of the worker along the wage distribution; this heterogeneity could be explained by differences in terms of skills mix that temporary and permanent workers are able to accumulate (WH2).

As underlined by the literature on returns to training (Arulampalam et al., 2010), heterogeneity could still be important along the conditional wage distribution, once education and other personal, economic, and socio-demographic characteristics of workers are taken into account. Our WH2 basically relies on this point and on the evidence supporting the idea of a *sticky floor effect* for temporary workers, in which the highest wage penalty is charged on the lowest paid jobs (Bosio, 2014; Comi and Grasseni, 2009; Mertens, Gash, & McGinnity, 2007, for Eastern European countries) [2]. Our contribution to the literature here rests on analyzing the variability in temporary/permanent wage gap along the wage distribution of the various education groups, to our knowledge still unexplored so far.

The wage distribution within education groups might reflect heterogeneity in the mix of specific/general skills that workers accumulate during their working life (Kessler & Lülfesmann, 2006; Lazear, 2003; Stevens, 1994). Again, if there are complementarities between this skill mix and formal education, we can hypothesize that educated temporary workers employed in high-paid jobs are more able to arrange a skill mix in which general competences become more important compared to specific skills. If this is the case, a high job turnover is no longer necessarily harmful to the graduate temporary worker, who is now better able to exploit his bargaining power and outside option, by anticipating the contract renewal and by exerting a choice among better paid jobs. As a result, the wage gap at the top of distribution for highly educated workers might significantly drop. On the other side, for secondary and primary educated workers, for whom weaker complementarities exist between formal education and informal skills, the chances to translate their general knowledge into higher productivity and wages are lower. As a consequence, a sizeable wage gap along the whole distribution emerges and smaller heterogeneity could be observed. Also with regard to WH2 we implement a corroborative empirical test using the proxy for knowledge-specificity: if specific knowledge prevails in the skill mix, the wage gap should be larger, independently of the position occupied by the worker along the wage distribution.

(c) *Permanent/temporary workers wage gap and labor market institutions*

The third working hypothesis is focused on the role of labor market institutions in shaping the wage gap: wage-setting institutions, that normally reduce wage dispersion, may produce different effects when remarkable labor market segmentation exists. In such conditions unions'power and wage bargaining coordination could only play the expected role for the insiders (permanent workers), while exacerbating downward wage flexibility for the outsiders (temporary workers); deregulation of temporary jobs, by affecting the accumulation of skills and increasing labor market segmentation, exacerbates the wage gap (WH3).

It is well known that in the presence of an asymmetric coverage of wage setting institutions for different job positions (with permanent workers being typically more unionized and better organized), between-group (unionized/non-unionized workers) effects might prevail over within-group ones, leading to an increase in inequality (Firpo, Fortin, & Lemieux, 2010). The common explanation for this evidence is based on the insider/outsider models (Booth et al., 2002), where permanent

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