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**PAY INEQUALITY IN 25 EUROPEAN
COUNTRIES**

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Pay inequality in 25 European countries

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Abstract

This paper analyses disparity in women's pay across 25 European countries using EU-SILC 2005. First, the gender pay gap is examined. Next, the impact of working hours and parenthood is analysed. We show that women suffer a wage disadvantage compared with men all over Europe, except for Poland. Motherhood usually reinforces the gender gap but most discrimination is sex-related so that it concerns all women as potential mothers. There is no uniform relationship between the parenthood and the gender wage gap. Finally, female part-timers face either a bonus or penalty (between 2% and 30% roughly).

Keywords: wage gap estimation/decomposition, gender, parenthood, working time.

Jel Codes: C21, J24, J31, J71

Summary

This paper analyses the variety in women's pay across 25 European countries using harmonised and comparable EU-SILC 2005 data. In a first step, the gender pay gap is documented upon. Next, the impact of working hours and parenthood status is analysed. We do not confine wage gap measurement and analysis to a pure human capital model but instead regress wages on a large number of independent variables (occupational status, industrial affiliation, firm size, and so forth). First we compute raw wage gaps which we then decompose using the Oaxaca (1973) and Blinder (1973) method in a gap that is explained by differences in observable characteristics and a gap that is due to different returns to identical characteristics or to unobserved heterogeneity.

A first finding is that women suffer a wage disadvantage compared with men all over Europe, with the exception of Poland. The 25 countries studied nevertheless show great variety in the size of the price effect without there being any correlation with the size of the raw gender wage gap.

Motherhood usually reinforces the gender wage gap but most discrimination is sex-related so that it concerns all women as potential mothers. Not only is the motherhood gap smaller in size, it is even negative in a number of countries (EE, LU, UK, NL, IT, HU, EL, PL and DK). Again the price effect turns out very large.

We have next computed the wage gap between mothers and fathers to show that motherhood status generally worsens women's wages whereas being a father tends to have a positive impact on men's wages. Our analysis divides countries into three groups: those where parenthood worsens the gender wage gap (UK, SK, HU, CY, FI, AT, FR, IS, PT, SI, BE), those where it improves the gap (PL, EL, IT, LT, IE, EE, LU) and those where it does hardly change it (the remaining countries).

In a final analysis, we were interested in quantifying the wage penalty for women of working part-time as compared with full-time. Again we find three scenarios. In eight countries, there exists a part-time wage premium ranging between 2% in Germany and the Czech Republic and 34% in Estonia. In the Netherlands there is near wage equality between women working part-time and full-time. Finally, in the remaining countries a clear wage penalty is associated with women's reduction of working hours (comprised between 2% in Norway and 29% in Ireland and Greece). As before, no correlation seems to exist between the size of the raw part-time/full-time wage gap and the price effect.

In sum, despite the fact that EU member states share the well-known *acquis communautaire* which in terms of employment yields a wide set of rules and objectives to achieve professional equality between men and women, a high level of wage inequality persists, especially when studied along gender lines.

Introduction

The European Community Household Panel survey (ECHP) was a pioneering data collection instrument. It was launched in 1994 but expired in 2001. In the meantime, the EU was enlarged from 15 to 25 member states (and in 2007 to 27 member states). In line with this geographical change, the ECHP was replaced with a new data collection process, the EU-SILC (Survey on Income and Living Conditions), the first wave of which, 2003, covered seven countries of which six member states (Belgium, Denmark, Greece, Ireland, Luxembourg and Austria) and Norway. The 2004 wave included 14 countries, the 2003 ones plus France, Spain, Italy, Portugal, Finland, Sweden and Estonia. Recently, a third wave became available with 2005 data covering 27 countries, the EU-25 and Iceland and Norway. EU-SILC is expected to become the reference source of statistics on income and social exclusion in the European Union.

Data collection under the EU-SILC regulations displays some important differences from its predecessor, the ECHP. Their impact can be significant, depending on the country and the indicators concerned. This paper aims at exploring the information this new data base yields in terms of wages. We analyse the variety in women's pay across 25 European countries¹. In a first step, the gender pay gap is documented upon. Next, the impact of working hours and parenthood status is analysed.

Sex, parenthood status and working hours are treated in this paper as the main criteria to distinguish between workers. However, whether, women, men, parents, non-parents, part-timers or full-timers, wages are generally to a large extent determined by human capital, occupational status and industrial affiliation. Wages are therefore regressed on a large number of independent variables. In other words, we do not confine wage gap measurement and analysis to a pure human capital model. In this paper, we therefore first compute raw wage gaps which we then decompose in a gap that is explained by differences in observable characteristics and a gap that is due to different returns to identical characteristics. Unobserved heterogeneity is also captured in this last gap.

A first finding is that there is great variety in the size of wage gaps across Europe but the impact of gender, parenthood status and working hours is crucial in all countries. The gender wage gap is well documented upon. For instance, in 2006 a report was

¹ Note that for Malta and Latvia, no reliable gross hourly wage measure can be computed from the EU-SILC data base.

published by the Equality Unit of the European Commission on the gender wage gap in the EU-25 based on the European Structure of Earnings Survey (excluding the public sector, health care and education) for 2002 (Plantenga and Remery 2006). The gender pay gap is calculated as the difference between men's and women's gross hourly wage as a percentage of men's average gross hourly wage. The largest gap is found in the UK (30%), the smallest in Slovenia (11%). Part-time work, which almost exclusively involves women, leads to a significant gap in working hours, and consequently, in earnings. Moreover, even by the hour, part-time workers appear to be penalised in a great number of countries. A comparative study of the wage gap between women working part-time and full-time at the EU-15 level was conducted by Manning and Petrongolo (2005) based on ECHP data pooled over the period 1994-2001. They showed that the raw log full-time/part-time pay gap ranged between 14.1% in Italy and -23.5% in the United Kingdom. Finally, the presence of young children in the household not only has a depressing impact on female labour market participation rates but it also affects wages through a reduction of working hours. Moreover, as for part-time work, parenthood status in itself is usually associated with a pay penalty for mothers and a wage bonus for fathers thus deepening the gender wage gap. The effects of maternity on women's wages were analysed for 10 European countries by O'Dorchai and Sissoko (2008 forthcoming) based on a sample of pooled ECHP data for the period 1996-2001. They found the raw wage gap between non-mothers and young mothers, that is mothers who had their first child before the age of 25, to vary between -22% in the UK and a bonus of 11% in Greece.

In sum, despite the fact that EU member states share the well-known *acquis communautaire* which in terms of employment yields a wide set of rules and objectives to achieve professional equality between men and women, a high level of wage inequality persists, especially when studied along gender lines. This paper aims to quantify this inequality from different angles using the most recent available data of the new EU-SILC database.

Review of the literature

Economic literature advances several reasons for the existence of a gender pay gap, related to human capital (Mincer and Polachek 1974), the wage structure (Blau and Kahn 1996), domestic (home and childcare) responsibilities (Albelda et al. 1997),

equality legislation and discrimination (Becker 1971). Whereas today, in most countries, women have higher educational qualifications than men, they remain underrepresented – because of educational segregation – in the most valued fields of study (engineering, science, and so forth). Moreover, the division of household and care work is still very gender-biased so that many more women than men interrupt their careers or reduce their working time and as such lag behind in terms of skill acquisition and experience. Moreover, women are frequently confined to jobs that are ranked at the lower end of the occupational hierarchy (Bergmann 1989). This at least partly reflects the workings of the glass ceiling that prevents women from reaching high-responsibility positions even when they have the necessary abilities but also the fact that female-dominated occupations are frequently undervalued (Albrecht et al. 2003, Arulampalam et al. 2004, Levine 2003). The overall structure of wages is another determinant of the observed wage gap between women and men (Blau and Kahn 1996). A concentrated wage distribution and a legally defined minimum wage improve women's earnings especially of the lowly qualified. The wage structure is influenced by the bargaining system (Blau and Kahn 1997). Centralised wage bargaining enhances wage equality. However, even a centralised system has little leverage if it covers only a small proportion of the work force (the example of the UK). Over the past decade most member states have evolved towards decentralisation and fragmentation of the wage setting process and towards a reduction of the minimum wage. This trend works against policies to tackle the gender pay gap.

Besides their sex, women's wages undergo the negative effects of maternity. Given that almost all women are mothers, the motherhood wage penalty is relevant within the larger context of gender inequality. Economic theory helps to understand the family pay gap from two angles: household production (Reid 1934, Lancaster 1971, Ironmonger 1972, Becker 1981) and human-capital (Mincer 1962, 1974, Ben-Porath 1967, 1970 and Becker 1975, 1985).

The theory of household production explains how utility-maximising households or individuals use time and market goods to produce welfare-enhancing outputs. Household income thus decreases with time spent at activities other than work, as such time is valued implicitly at the market wage rate.

From a human-capital point of view, time outside the labour market may be interpreted as a disinvestment or depreciation in accumulated human-capital, resulting in decreased market productivity and a lower earning potential. During career interruptions, women not only fail to accumulate work experience but they

also lose specific human-capital and market skills and they forego on-the-job training opportunities.

The residual pay gap between mothers and non-mothers may be due to the selection of less productive women into childbearing, a selection that is driven either by unobserved heterogeneity (Heckman and Willis 1977) or by endogenous fertility (Gustafsson 2002, Gustafsson et al. 2003, Del Boca and Repetto-Alaia 2003). Children may reduce women's productivity not only through a human-capital effect but also through a diversion of effort from market to home activities, as children raise the relative return to the latter and decrease that to the former. With endogeneity of fertility, the following is meant. Given that women are free to choose whether or not to have children, they will be more likely to do so if the cost of children is low. Since the market wage they forego when they decide to have children is an important component of the cost children entail, the lower this wage the lower the cost, and, thus, the more women will be likely to decide in favour of having children.

Furthermore, past spells of part-time employment (most frequently opted for in the family formation period) have long-term wage effects (Ben-Porath 1967, 1970, Becker 1975, 1985).

These theoretical foundations for the family gap in pay are broadened by the empirical identification of other and more precise factors that have an influence on its size. Besides part-time work, mothers' 'preference' for other 'family-friendly' work arrangements (jobs that are more compatible with family life because they offer convenient hours, are close to the home, and so forth) entails negative wage effects. Indeed, mothers trade off earnings for increased flexibility and the more employers are monopsonistic, i.e. have wage-setting power, the more earnings women will have to trade in to obtain greater flexibility.

The national institutional context, and in particular the nature of overall labour market regulation and family policies are other determinants often advanced in the literature. Besides reducing the gender pay gap, wage-compressing institutions tend to weaken the price effect of motherhood by setting a floor on mothers' wages. Extensive family policies potentially contribute to achieve parity between mothers and non-mothers. In this respect, the positive impact of public childcare is straightforward, unlike that of leave systems which may either raise mothers' relative earnings by allowing them to accumulate experience and remain attached to the firm or, when leaves are long, cause female participation rates to drop and damage future career and on-the-job training opportunities, which in turn decrease earnings.

Lastly, women with children may be less well-paid simply because of discrimination or employer preferences for childless women (because they believe mothers to be less productive).

Finally, economic theory advances a number of reasons for the existence of a wage gap between part-time and full-time workers: labour supply and demand interactions: some categories of persons prefer, be it in a free or a constrained way, to work part-time rather than full-time and employers are not indifferent to the way they schedule work hours among these heterogeneous workers so that only a mix of workers' preferences, skill differences and employer preferences can generate a part-time wage penalty/premium (Ermish and Wright 1991, Shepard et al. 1996, Rose 1998); arguments related to the cost structure of firms: because of fixed costs a firm's total labour costs do not increase proportionally with hours worked (Montgomery 1988, Hamermesh and Rees 1993, Lindbeck and Snower 2000); productivity-related factors: productivity varies with the number of hours worked, either positively in the presence of start-up effects or negatively due to fatigue effects (Barzel 1973, Moffitt 1984, Tummers and Woittiez 1991); and wage implications of the institutional settings in a specific region or country: part-timers are paid lower wages because they are less unionised and because unions bargain on the basis of net wages but also the structure of income and pay roll taxes and anti-discrimination legislation (Riley 1997, Vella and Verbeek 1998, Koskela and Vilmunen 1996).

Estimation approach

The purpose of this analysis is to measure the main reasons for the difference in the gross hourly wage rate of similarly skilled women and men working in similar jobs. To achieve this, we use a straightforward estimation method. For each of the 25 countries in our sample, semi-logged wage equations are estimated for female (f) and male (m) workers, for mothers (mo) and women without children (nmo), for mothers (mo) and fathers (fa) and, finally, for part-time (pt) and full-time (ft) working women:

$$\log (W_f) = \beta_f X_f + \varepsilon_f \quad (1a)$$

$$\log (W_m) = \beta_m X_m + \varepsilon_m \quad (2a)$$

$$\log (W_{mo}) = \beta_{mo}X_{mo} + \varepsilon_{mo} \quad (1b)$$

$$\log (W_{nmo}) = \beta_{nmo}X_{nmo} + \varepsilon_{nmo} \quad (2b)$$

$$\log (W_{mo}) = \beta_{mo}X_{mo} + \varepsilon_{mo} \quad (1c)$$

$$\log (W_{fa}) = \beta_{fa}X_{fa} + \varepsilon_{fa} \quad (2c)$$

$$\log (W_{pt}) = \beta_{pt}X_{pt} + \varepsilon_{pt} \quad (1d)$$

$$\log (W_{ft}) = \beta_{ft}X_{ft} + \varepsilon_{ft} \quad (2d)$$

The dependent variable ($\log (W_f)$ for women, $\log (W_m)$ for men, $\log (W_{mo})$ for mothers, $\log (W_{nmo})$ for non-mothers, $\log (W_{fa})$ for fathers, $\log (W_{pt})$ for part-time working women and $\log (W_{ft})$ for full-time working women) is the log of gross hourly wages in euros. In some countries, this wage measure can be derived from income reported for the actual period and in others from income reported for the reference period (the year preceding the date of interview). The first group of countries includes Austria, Belgium, Spain, Greece, Italy, Poland, Portugal, Ireland and the UK. The second one Cyprus, the Czech Republic, Germany, Estonia, France, Lithuania, Luxembourg, the Netherlands, Slovenia, Slovakia, Denmark, Finland, Hungary, Iceland, Norway and Sweden. Gross hourly wage includes usual paid overtime, tips, commissions, supplementary payments (13th or 14th month), holiday pay, profit shares, bonuses. However, income from investments (assets, savings, stocks and shares) is excluded.

The explanatory or independent variables on the right-hand side of the different equations that are captured by the vectors X with the appropriate indices include personal characteristics such as marital status (a dummy variable, the reference being "not legally married"), country of birth (three dummies indicating whether the person was born in the same country as where he or she is living, in another EU member state or in a non-EU country, the first possibility being used as the reference; note that this dummy is not available for Denmark and that for Slovenia only two outcomes exist: born in the country of residence or in a non-EU country), citizenship (three dummies indicating whether the person is a citizen of the country in which he or she lives, of another EU member state or of a non-EU country, the first possibility being used as the reference; this dummy is missing for Slovenia), home ownership (a dummy variable that indicates whether or not the person lives in a household that owns the accommodation) and region of residence (dummy

variables that are available only for nine countries and that vary in number according to the country considered: Austria (3), Belgium (3), Germany (6), Spain (7), France (9), Greece (4), Hungary (3), Italy (3) and Poland (6)), human capital indicators such as level of education (measured by 3 categories – lower secondary at most, upper secondary at most or post-secondary tertiary or non-tertiary education – with the lowest level as the reference category) and experience measured as the number of years spent in paid work (Spain, Greece, Italy, Portugal, Poland, Cyprus, the Czech Republic, Germany, Estonia, France, Lithuania, Luxembourg, the Netherlands, Slovenia, Slovakia) or as the potential number of years spent in paid work using the formula age minus age at first regular job (Austria and Belgium) or, finally, approximated by age (Ireland, the UK, Denmark, Finland, Hungary, Iceland, Norway and Sweden), the square and the cube of the experience indicator; job and firm characteristics such as a dummy indicating whether the individual supervises other workers or not, 20 occupational dummies corresponding to the second level of the International Standard Classification of Occupations (ISCO-88)² with office clerks as the reference, 11 industry dummies corresponding to the 1-digit NACE-codes³ with the enlarged manufacturing sector as the reference, a dummy capturing contract type (permanent versus temporary employment contract with a permanent contract as the reference; this dummy is not available for Denmark) and finally, establishment size measured by the number of employees in the local unit. The ε terms with the appropriate indices are the usual errors terms.

To estimate the wage equations we use standard OLS with White (1980) heteroskedasticity consistent standard errors, well aware of the potential bias of our estimates since standard OLS estimates are computed for each individual conditional upon his/her sex, parenthood status and working hours, respectively. In other words, the models do not account for systematic selection of women and men into employment or parenthood and of women into part-time and full-time jobs. To do so, it would have been necessary to apply a two-stage Heckman (1979) procedure. However, we do not believe this to be a major weakness, especially given the persistence of many methodological problems linked to the identification of the Heckman (1979) procedure (Manski 1995, Vella 1998). Once the wage equations were estimated, the Oaxaca (1973) and Blinder (1973) procedure was applied in order to decompose the wage differential into a characteristics effect and a price effect. Respectively men, non-mothers, fathers and full-time working women are the reference category. We explain the method for the first set of wage equations that

² Occupational categories 8 and 9 are taken at the 1-digit level and occupational classes 71 and 72 are dropped.

³ Sections A (agriculture, hunting and forestry) and B (fishing) were pooled and also sections C (mining and quarrying), D (manufacturing) and E (electricity, gas and water supply).

allow to estimate the gender wage gap. However, the method for the three remaining sets of equations to compute, respectively, the wage gap between mothers and non-mothers, between mothers and fathers and between full-time and part-time working women can be deduced in a perfectly straightforward manner.

$$\overline{\log(w_m)} - \overline{\log(w_f)} = (\bar{Y}_m - \bar{Y}_f)\hat{\beta}_m + \bar{Y}_f(\hat{\beta}_m - \hat{\beta}_f) \quad (3)$$

where the indices m and f refer to men and women respectively, $\overline{\log(w)}$ represents the average of the logarithm of gross hourly wage, and \bar{Y} is a vector containing the mean values of the explanatory variables (personal characteristics, human capital characteristics, job and establishment variables). The first term on the right-hand side of the equation sign represents the share of the gender wage gap that is due to differences in observable characteristics between female and male workers. In other words, if both women and men were remunerated as in the reference case (men), how do their differing characteristics affect their respective wage rates? The second term measures the part of the wage gap explained by differences in the returns to observable characteristics. To put it differently, how much would a person with female characteristics gain from being a man rather than a woman? This term is often referred to as the discrimination component or the price effect.

Since we are interested in evaluating the absolute wage gap between female and male workers, the logged hourly wages and wage differential should be transformed into monetary terms. To do this, the methodology recommended by Stewart (1983) and Rodgers (2004) is applied. We use the exponential function to rewrite the difference in predicted mean log hourly wages in monetary terms

The wage difference:

$$\overline{\log(w_m)} - \overline{\log(w_f)} = \hat{\beta}_m \bar{Y}_m - \hat{\beta}_f \bar{Y}_f = \hat{\gamma} \quad (4)$$

is re-expressed as :

$$\overline{w_m} / \overline{w_f} = \exp(\hat{\gamma}) \quad (5)$$

We can then easily rewrite the gender wage gap we are interested in as:

$$(\overline{w_m} - \overline{w_f}) / \overline{w_f} = \exp(\hat{\gamma}) - 1 \quad (6)$$

Data and variables

The data used in the present paper are taken from the 2005 wave of the new EU-SILC data base which replaced the former European Community Household Panel after its expiration in 2001. Just like its predecessor, EU-SILC provides harmonised data on households and individuals, related to employment, family situation, housing, income, health and social life for seven European countries in its first 2003 edition, for 14 countries in the 2004 wave and for as many as 27 European countries in 2005. It is the only European data base that provides adequate information on children and labour market outcomes for all EU-25 Member States plus Norway and Iceland.

However, rather limited sample sizes and variety in the number of variables available for each of the countries are amongst its main flaws. Furthermore, EU-SILC still suffers from some negative beginner's features. Indeed, recorded data still show inconsistencies and non-response rates remain high for some variables.

According to the country considered, the number of observations ranges between 6,744 for Iceland (3,406 men and 3,338 women) and 47,311 for Italy (22,596 men and 24,715 women). In our sample we have retained only persons between 25 and 64 years of age and we have excluded the self-employed and family workers. We have also dropped two occupational categories (ISCO 71: extraction and building trades workers and ISCO 72: metal, machinery and related trades workers). Moreover, observations were lost due to restriction of the sample to employees for whom information on their wages was available and to data inconsistencies. Taking into account sample attrition, the size of the final samples used ranges between 1,330 in Iceland (672 men and 658 women) and 14,113 in Italy (7,884 men and 6,229 women). Note that the retained country samples remain representative of the respective populations.

Women's share of the total number of observations retained varies between 42% in Luxembourg, Spain and Greece and 56% in the UK. Of all women as few as 18% are mothers in Estonia and Portugal and as many as 41% in Belgium. Note that for the present analysis we have defined mothers as women with at least one child aged under 15 years of age living in the household. The category of non-mothers thus includes four subgroups of women: (1) mothers whose youngest child is fifteen or older but still living in the household, (2) mothers whose child(ren) has (have) left the household for some reason, (3) women who have not yet had a child but will have one in the future, and, finally, (4) women who will never become mothers. The latter three subgroups cannot be distinguished in the EU-SILC, which only yields information for children present in the household. The fourth subgroup is the true control group for the analysis of the wage gap between mothers and non-mothers.

However, in terms of labour market options and choices, we assume that the presence of a child of fifteen or above has a weak effect similar to that of a child who for some reason or other has left the household, even if this was at a young age. Of all men, as few as 17% are fathers in Estonia and as many as 42% in Austria. Fathers are defined in the exact same way as mothers. Among parents, mothers have the lowest share as compared with fathers' in Luxembourg (39% versus 61% of fathers) and the highest in the UK (58% versus 42% of fathers). Finally, female part-timers' share as compared with that of female full-timers ranges between 5% in Slovenia and Slovakia and 71% in the Netherlands.

Full-time and part-time employment can be defined in various ways. The EU-SILC survey defines part-time employment in terms of work status rather than on the basis of the number of working hours. For our purposes, this raises the question of whether the wage differential between part-time and full-time employees derives from their work status or from their working hours. The answer to this question goes beyond the subject of this paper, in which we have decided to define part-time work by work status. Indeed, information on part-timers' working hours in EU-SILC is often not very reliable (especially when they work less than 15 hours a week). To refine this analysis it would be interesting to remove workers whose weekly working hours are below 15. These are indeed very casual workers who, by the definition of international organisations such as the ILO (1990), are considered to be inactive. By excluding this group of occasional workers, we would avoid biasing the genuine characteristics of workers with a stronger labour market attachment (working more than 15 hours a week). This is therefore definitely something to do in future work on this topic.

Detailed descriptive statistics on all variables used in the present analysis and for all 25 EU member states studied are available from the author upon request.

Wage equations and decomposition results

Besides Poland, all 25 countries studied put forth a sizeable raw gender wage gap (cfr. Table 1). In other words, women suffer a wage disadvantage compared with men all over Europe, with the exception of Poland where there seems to be wage equality. This raw gap varies between 8.47% of a woman's wage in Belgium and 36.35% in Estonia. Note that it is difficult to compare our country ranking with other studies since usually men are taken as the reference. Indeed, the unadjusted gender pay gap is usually computed as the difference between average gross hourly

earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. This is the methodology applied by Eurostat but also in overview reports such as the 2006 gender pay gap report by the EU expert group on Gender, Social Inclusion and Employment (Plantenga and Remery 2006). However, even if wage gap definitions, country coverage and the age group considered (here 25-64 years of age but in other studies often either 15-64 or 25-55 years of age) are different, our ranking of countries according to the size of the raw gender wage gap is in line with these other studies, a few exceptions aside (our results underestimate the gap in Poland and Denmark and overestimate it in Ireland, Norway, Luxembourg, Sweden, the Czech Republic and Estonia). Amongst the best performing countries we find the Southern European countries (to a lesser extent Spain) and Slovenia. Countries where the gender wage gap is very huge include Cyprus and the Czech Republic but also Sweden, Luxembourg, Finland, Germany, the UK, the Netherlands, Slovakia, Austria and Norway (gap over 20%).

This ranking of countries is not observed when we look at the decomposed parts of this raw gender wage gap. Indeed, as explained in the section on estimation approaches, we used the Oaxaca (1973) and Blinder (1973) method to decompose the gender wage gap in a part that can be attributed to differences in observable characteristics between women and men (such as marital status, home ownership, level of education, age, experience, occupational status, sector of economic activity, contract type and firm size) and a part that is due to different returns to identical characteristics or to unobserved heterogeneity. This second part is often referred to as the price effect or discrimination. The 25 countries studied show great variety in the size of this price effect. Moreover, our estimates do not indicate any correlation between the size of the raw gender wage gap and that of the price effect. For example, whereas we included Germany amongst those countries where the raw gap is largest, the price effect is smallest in this country (33%). In other words, two thirds of the raw wage difference observed between male and female workers in Germany can be explained by differences in observable characteristics other than level of education between both groups. Indeed, our descriptive statistics show that women are much less often married than men (58% versus 76% for men) and are less likely to be the home's owner (just 54% of women compared with 64% of men). Moreover, women appear to have less years of actual labour market experience than men (20 years versus 23 for men) and they are far less likely to have supervision authority over co-workers than their male colleagues (just 20% of women compared with 40% of men). As far as sectoral affiliation and segregation is concerned,

Women's employment is concentrated in low-paying industries such as health and social work (18% of women versus 5% of men) and education (10% of women versus 5% of men) whereas men by far outnumber women in sectors such as construction (8% versus 2%) and transport (8% versus 3%). Occupational or vertical segregation appears to be less striking but nevertheless exists with more women than men employed as service workers and shop and market sales workers. German women are also more likely to hold a temporary employment contract (9% of women versus 6% of men). Although comparatively speaking the price effect is smallest in Germany, it remains large at 33%. At the other end of the spectre we find countries such as Portugal, Italy, Slovenia, Lithuania, Denmark, Iceland, Hungary and Estonia, where observable characteristics play no role whatsoever in explaining the raw wage gap. In those countries, either pure discrimination in the form of a different return according to sex to identical characteristics or unobserved heterogeneity explain the entire observed raw gender pay gap. As regards the remaining countries, the price effect is smallest in Luxembourg (48%) but extremely large in Norway (85%), Finland (88%) and the Czech Republic (89%).

Table 1. Gender wage gaps in 25 European countries (2005)

	obs. men	obs. women	R ² men	R ² women	mean hourly gross wage men (euros)	mean hourly gross wage women (euros)	raw gender wage gap	Oaxaca decomposition	
								explained part	price effect
PL	5501	5137	39.63	53.82	2.48	2.49	-0.55%	-1052.76%***	1152.76%***
BE	1774	1537	45.63	44.34	16.88	15.56	8.47%	21.27%**	78.73%***
GR	1818	1330	52.62	60.92	8.39	7.68	9.28%	33.33%***	66.67%***
PT	1747	1646	54.13	67.98	5.97	5.44	9.76%	-7.21%	107.21%***
IT	7884	6229	43.83	46.58	12.54	11.38	10.18%	-25.84%***	125.84%***
SI	1553	1497	35.36	37.00	7.95	7.19	10.56%	-32.50%	132.50%***
LT	1771	1981	38.75	46.56	2.33	2.09	11.63%	-64.59%***	164.59%***
DK	1368	1389	25.89	29.57	23.45	20.99	11.72%	-0.68%	100.68%***
FR	3088	3211	31.82	32.37	15.57	13.67	13.89%	32.93%***	67.07%***
ES	5002	3654	47.81	55.89	9.65	8.43	14.49%	17.51%***	82.49%***
IE	1844	1826	43.25	49.91	21.09	18.31	15.19%	22.20%*	77.80%***
IS	672	658	29.29	21.19	21.40	18.31	16.89%	-10.28%*	110.28%***
HU	2339	2334	38.30	40.01	3.18	2.7	17.86%	-15.77%	115.77%***
NO	1526	1506	24.17	9.51	24.29	20.06	21.12%	14.95%*	85.05%***
AT	2253	1829	39.06	40.46	14.85	12.21	21.64%	24.91%***	75.09%***
SK	2624	2634	20.02	21.77	2.40	1.96	22.61%	18.93%***	81.07%***
NL	1854	1424	44.21	36.55	22.30	18.19	22.64%	29.67%**	70.33%***
UK	1470	1887	34.39	23.80	19.25	15.65	23.03%	42.53%***	57.47%***
DE	4616	4492	43.79	30.97	19.77	15.98	23.72%	66.73%***	33.27%***
FI	1864	2035	35.63	27.27	18.40	14.79	24.35%	12.46%**	87.54%***
LU	1838	1320	63.98	53.08	26.30	21.00	25.25%	52.06%***	47.94%***
SE	1291	1254	28.53	13.39	17.37	13.74	26.43%	15.68%	84.32%***
CZ	1837	1624	40.03	40.04	3.48	2.75	26.70%	10.80%*	89.20%***
CY	1925	1671	47.17	68.61	11.14	8.64	29.01%	27.39%***	72.61%***
EE	1817	1993	36.06	38.24	3.32	2.43	36.35%	-0.56%	100.56%***

Note: For LV no reliable measure of gross hourly wage can be computed.

Note: For countries in bold, the hourly gross wage measure is based on the variable "gross monthly earnings for employees"; for the others, the variable "employee cash or near cash income" was used.

Note: Couples and singles are considered; only employees are considered, not self-employed or family workers.

From this first analysis we thus conclude that depending on the country analysed, women suffer negative wage effects because they have characteristics (observed or unobserved) that are associated with a lower earnings potential or because they are outright discriminated against by employers or overall labour market organisation. Could this have something to do with the fact that most women are or will soon become mothers? In a second stage, we thus analysed the wage gap between mothers and non-mothers (Cfr. Table 2). How does this gap compare with the observed gender wage gap?

A first finding is that the raw motherhood wage gap tends to be much smaller than the raw gender wage gap, indicating that discrimination concerns all women as they are all potential mothers. Not only is the motherhood gap smaller in size, it is even negative in a number of countries pointing towards a wage bonus for mothers compared with non-mothers. Indeed, we find this to be the case in Estonia, Luxembourg, the UK, the Netherlands, Italy, Hungary, Greece and Poland. In these countries the wage bonus for mothers ranges between 1% in Poland, Greece and Hungary and 12% in Estonia. If amongst these countries, we focus on those where the raw wage gap exceeds 1%, then we observe that Luxembourg is the only one where differences in observed characteristics between mothers and non-mothers explain a noticeable share of the raw wage gap. Our descriptive statistics suggest that educational attainments play an important role, the proportion of mothers exceeding that of women without children amongst the highly educated in our sample (34% and 29 respectively). Mothers also have slightly more years of actual experience than non-mothers (19 and 17 years respectively). They are less numerous amongst low-paid service workers and shop and market sales workers but instead outnumber non-mothers amongst better paid (associate) professionals, especially teaching professionals. This is also shown by a comparison of mothers' and non-mothers' distribution across sectors of activity, mothers being better represented in education and public administration but less active in health and social work, generally a lowly paid sector of activity.

Strictly speaking, wage equality is observed only in Denmark but the raw wage gap is below 1% in three other countries: Greece, Poland and Hungary.

In the remaining countries, women's wages suffer downward pressure from the combined effects of their sex and motherhood status. The wage disadvantage for mothers ranges between 1% in France and Belgium and 14% in Slovenia. Again the figures show no correlation between the size of the raw motherhood wage gap and the price effect. As for the gender wage gap, the price effect that results from a

decomposition of the raw wage gap between mothers and non-mothers is very large in all countries. In other words, the wage difference between mothers and non-mothers can only to a small extent be attributed to differences in observable characteristics between both groups. However, there are a few exceptions to this overall rule: Cyprus, Germany, Lithuania and Ireland. In these countries, the observed wage gap can entirely be explained by the different characteristics of mothers and non-mothers. In Germany and Lithuania, mothers are better educated than non-mothers (in Germany 51% of mothers are highly educated compared with 47% of non-mothers and in Lithuania the respective proportions are 72% and 68%). Given that both horizontal and vertical segregation based on motherhood status is not very pronounced in Germany and that the descriptive statistics do not put forth any major differences in other observed characteristics, it appears that German mothers' underperformance in terms of education is the major source of their wage disadvantage as compared with non-mothers. In Lithuania, mothers' lower wage is due to their weaker level of education but also to discrimination in the form of occupational segregation, mothers clearly being overrepresented among teaching, life science and health and other (associate) professionals but not among professionals in the fields of physical and engineering science. In Cyprus, segregation, be it horizontal or vertical, appears to be the most important determinant of the wage difference between mothers and non-mothers. As regards horizontal segregation, women, and among women especially those with young children are more likely to be active in health and social work. Moreover, mothers also outnumber non-mothers in the financial sector. In terms of occupational segregation, the major difference between mothers and non-mothers in Cyprus concerns office and customer services clerks, an occupation that receives more women with than without children. Finally, in Ireland, horizontal segregation, in the form of mothers' overrepresentation in trade, is combined with two other characteristics that play to mothers' disadvantage in terms of wages. Indeed, mothers are more likely to hold temporary employment contracts and they are far less likely than women without children to hold occupations that involve supervising co-workers.

Amongst the remaining countries, the price effect is smallest in Austria at 45%. Note however, that the decomposition results are far less statistically significant than in the case of the gender wage gap. Indeed, a statistically significant price effect was found only for the Czech Republic, Slovakia and Slovenia. We would like to make just a few more comments to close off this analysis. Whereas Slovenia put forth one of the smallest gender wage gaps, it is the country where the motherhood gap is the

largest (14%). Lithuania is pretty similar in this respect. The Czech Republic is characterised by a very large gender wage gap but a small gap between mothers and non-mothers. The other countries' place in the ranking does not vary tremendously, they hold similar relative positions whether it is the gender or the motherhood wage gap that is under scrutiny.

Table 2. Motherhood wage gaps in 25 European countries (2005)

							Oaxaca decomposition		
	<i>obs. women</i>	<i>obs. mothers</i>	<i>R² women</i>	<i>R² mothers</i>	<i>mean hourly gross wage non-mothers (euros)</i>	<i>mean hourly gross wage mothers (euros)</i>	<i>raw motherhood wage gap</i>	<i>explained part</i>	<i>price effect</i>
EE	1643	350	41.70	38.70	2.37	2.71	-12.39%	-6.35%	106.35%**
LU	1072	248	53.62	62.08	20.80	21.95	-5.23%	167.14%***	-67.14%
UK	1173	714	26.85	25.75	15.46	15.99	-3.31%	-360.09%	460.09%
NL	1121	303	38.22	43.01	18.07	18.59	-2.76%	-3.61%	103.61%
IT	5028	1201	46.90	49.94	11.33	11.62	-2.47%	-87.36%***	187.36%***
HU	1841	497	39.31	48.13	2.69	2.73	-1.49%	664.27%***	-564.27%
GR	1075	255	60.53	74.00	7.66	7.72	-0.78%	19.95%	80.05%
PL	4053	1084	54.08	54.76	2.49	2.50	-0.65%	171.43%***	-71.43%
DK	1088	301	27.77	43.15	20.98	21.04	-0.29%	-18.77%	118.77%
FR	2594	617	32.84	40.85	13.71	13.55	1.17%	29.28%*	70.72%
BE	905	632	48.67	45.27	15.64	15.45	1.26%	-379.17%*	479.17%
CZ	1316	308	40.16	50.99	2.75	2.71	1.64%	-99.97%***	199.97%***
PT	1352	294	68.93	72.61	5.45	5.36	1.75%	-151.33%	251.33%
ES	2932	722	57.74	55.17	8.46	8.31	1.77%	31.86%	68.14%
NO	1134	372	10.36	20.14	20.18	19.65	2.65%	5.26%	94.75%
CY	1351	320	68.57	72.48	8.68	8.44	2.83%	207.97%***	-107.97%
DE	3594	898	30.3	38.19	16.07	15.58	3.17%	102.40%***	-2.40%
SE	1020	234	14.72	29.41	13.85	13.29	4.17%	45.62%	54.38%
FI	1650	385	27.64	39.01	14.93	14.23	4.95%	11.55%	88.45%
IS	512	146	22.69	48.58	18.53	17.54	5.65%	1.68%	98.32%
LT	1535	446	45.15	58.29	2.11	2.00	5.67%	142.86%***	-42.86%
AT	1155	674	40.55	46.04	12.45	11.70	6.38%	54.99%***	45.01%
SK	1692	942	24.06	21.74	2.02	1.86	8.10%	26.61%**	73.39%***
IE	1477	349	51.57	52.13	18.61	17.01	9.45%	294.45%***	-194.45%
SI	926	571	50.23	31.19	7.53	6.63	13.55%	23.33%**	76.67%***

Note: For LV no reliable measure of gross hourly wage can be computed.

Note: For countries in bold, the hourly gross wage measure is based on the variable "gross monthly earnings for employees"; for the others, the variable "employee cash or near cash income" was used.

Note: Couples and singles are considered; only employees are considered, not self-employed or family workers.

From this section we conclude that motherhood reinforces the gender wage gap in most countries but that discrimination is sex- rather than maternity-related so that it concerns all women as potential mothers. To underscore this finding we have next computed the wage gap between mothers and fathers (Cfr. Table 3). Our aim is to show that the size of this gap is larger than that of the gender wage gap because of the fact that motherhood status generally worsens women's wages whereas being a father tends to have a positive impact on men's wages.

Our analysis divides countries into three groups: those where parenthood worsens the gender wage gap, those where it improves the gap and those where it hardly changes it. Let us start by looking at this third group of countries where there is no

sizeable difference between the raw gender wage gap and the raw wage gap between mothers and fathers. This group includes Denmark, Norway, the Netherlands, Germany, Sweden and the Czech Republic. For Denmark, we found no motherhood wage gap so that fact that the gender wage gap and the parenthood gap are nearly identical indicates that fathers and non-fathers also earn near identical wages in this country. For Norway, the Czech Republic and the Netherlands, we found motherhood to be associated with only a small wage bonus or penalty and it does therefore come as no surprise to observe that gender and parenthood gaps are very close. In Germany and Sweden, the motherhood gap does not generate a large difference between the gender wage gap and the parenthood gap. We should therefore conclude that men do not gain as much from their fatherhood status in those countries or even earn wages that are lower than those of non-fathers.

Table 3. Parenthood wage gaps in 25 European countries (2005)

									Oaxaca decomposition	
	<i>obs. mothers</i>	<i>obs. fathers</i>	<i>R² mothers</i>	<i>R² fathers</i>	<i>mean hourly gross wage fathers (euros)</i>	<i>mean hourly gross wage mothers (euros)</i>	<i>raw parental wage gap</i>	<i>explained part</i>	<i>price effect</i>	
PL	1084	1213	54.76	42.28	2.32	2.50	-7.50%	160.43%***	-60.43%	
GR	255	354	74.00	61.10	8.03	7.72	3.94%	-20.75%***	120.75%*	
IT	1201	1515	49.94	46.41	12.42	11.62	6.90%	5.39%	94.61%***	
LT	446	420	58.29	43.94	2.16	2.00	7.95%	-114.36%**	214.36%***	
IE	349	343	52.13	58.75	18.80	17.01	10.54%	-0.86%	100.86%***	
BE	632	676	45.27	43.08	17.18	15.45	11.23%	31.75%**	68.25%***	
ES	722	965	55.17	52.21	9.31	8.31	12.08%	-19.15%*	119.15%***	
DK	301	281	43.15	41.47	23.70	21.04	12.65%	78.27%	21.73%	
EE	350	314	38.70	39.02	3.16	2.71	16.67%	53.64%**	46.36%*	
LU	248	391	62.08	71.17	25.61	21.95	16.70%	40.75%***	59.25%**	
NL	303	428	43.01	48.50	22.42	18.59	20.63%	35.60%	64.40%	
SI	571	566	31.19	42.84	8.01	6.63	20.79%	-14.94%	114.94%***	
PT	294	334	72.61	66.28	6.51	5.36	21.40%	-49.02%	149.02%***	
IS	146	171	47.54	46.03	21.38	17.54	21.85%	-4.42%	104.42%	
NO	372	344	20.14	38.18	24.16	19.65	22.94%	8.29%	91.71%**	
FR	617	596	40.85	48.80	16.66	13.55	22.96%	40.40%**	59.60%**	
CZ	308	333	50.84	49.30	3.39	2.71	25.24%	-8.25%	108.25%***	
DE	898	963	38.19	49.51	19.61	15.58	25.91%	66.55%***	33.45%***	
AT	674	944	46.04	38.63	14.78	11.70	26.30%	24.97%***	75.03%***	
FI	385	359	39.01	54.55	18.14	14.23	27.49%	25.31%**	74.69%**	
SE	234	247	29.41	49.26	16.96	13.29	27.63%	29.17%	70.83%	
CY	320	351	72.48	52.14	11.17	8.44	32.31%	14.16%	85.84%***	
HU	497	539	48.13	43.11	3.62	2.73	32.47%	-15.89%	115.89%***	
SK	942	935	21.74	22.96	2.48	1.86	32.98%	3.68%	96.32%***	
UK	714	507	25.75	42.15	21.28	15.99	33.06%	62.66%***	37.34%**	

Note: For LV no reliable measure of gross hourly wage can be computed.

Note: For countries in bold, the hourly gross wage measure is based on the variable "gross monthly earnings for employees"; for the others, the variable "employee cash or near cash income" was used.

Note: Couples and singles are considered; only employees are considered, not self-employed or family workers.

In a second set of countries parenthood improves the gender wage gap. This group includes Estonia, Luxembourg, Spain, Ireland, Lithuania, Italy, Greece and Poland. In Estonia, Luxembourg, Italy, Greece and Poland we did indeed find mothers to earn a wage bonus or at least an identical wage compared with non-mothers. However, Lithuania and particularly Ireland are part of those countries where we found the

motherhood wage penalty to be the largest. The fact that the raw wage gap between mothers and fathers is smaller than the raw gender wage gap thus indicates that in these countries fathers as compared with men without children face a wage penalty associated with their parenthood status that is even larger than the penalty mothers face as compared with non-mothers.

Finally, in most countries parenthood further deepens the gender wage gap. This is the case in Finland, the UK, Slovakia, Austria, Iceland, Hungary, Cyprus, France, Portugal, Slovenia and Belgium. This means that parenthood causes women's wages to drop and men's wages to increase. This finding is surprising only for Hungary and the UK since we found mothers to earn a wage bonus as compared with non-mothers in these countries. The fact that parenthood widens the gender wage gap thus indicates towards the existence of a sizeable wage premium associated with fatherhood.

There are just four countries in which differences in observed characteristics between mothers and fathers explain a very large part of the raw wage gap: Poland, Germany, Denmark and the UK. In Germany, Denmark and the UK, the bulk of the parenthood wage gap is explained by segregation. Indeed, mothers and fathers do not hold the same type of occupations and are not active in the same industries. At the occupational level, the descriptive statistics learn that mothers (particularly in Denmark) by far outnumber fathers amongst (associate) professionals in teaching, life science and health and other fields whereas they represent a minority among physical and engineering science (associate) professionals. In all these countries, mothers dominate the broad occupational category of service workers and shop and market sales persons and that of clerks. These trends are also observed in Poland. Yet, in this country, the raw wage gap between mothers and fathers is positive indicating that mothers on average earn a higher wage than fathers. This is clearly the result of mothers' educational supremacy. Indeed, 41% of Polish mothers are highly educated compared with just 21% of fathers. At the sectoral level, education and health and social work appear not just as highly feminised sectors of activity but they are also major employers of mothers of young children. Besides segregation, other elements significantly contribute to explaining the raw wage gap that is observed between mothers and fathers in the UK and Germany. These determinants include marital status (a much higher proportion of fathers is married in our sample), education (more fathers than mothers are highly educated) and supervision authority (many more fathers than mothers hold occupations that involve supervising co-workers). Finally, in Germany, the wage disadvantage of mothers as compared with

fathers may be at least partly due to the fact that mothers more frequently work under temporary employment contracts.

In all other countries, the price effect clearly dominates. It explains a proportion of 46% of the raw wage gap between mothers and fathers in Estonia. In the other countries, this proportion is larger and the entire gap is due to discrimination or unobserved heterogeneity in Greece, Lithuania, Ireland, Spain, Slovenia, Portugal, Iceland, the Czech Republic and Hungary.

In a final analysis, we were interested in quantifying the wage penalty for women working part-time as compared with full-time (Cfr. Table 4). Again we find three scenarios. In eight countries, there exists a part-time wage premium: Estonia (34%), Slovenia (18%), Iceland (5%), Denmark (5%), Finland (4%), Hungary (3%), Germany (2%) and the Czech Republic (2%). In the Netherlands, there is near wage equality between women working part-time and full-time. Finally, in the remaining countries a clear wage penalty is associated with women's reduction of working hours. Indeed, the raw wage gap between part-time and full-time working women in these countries ranges between 2% in Norway and 29% in Ireland and Greece. As before, no correlation seems to exist between the size of the raw wage gap between female part-timers and full-timers and the price effect that is identified through the decomposition of the raw gap according to the Oaxaca (1973) and Blinder (1973) method. As regards the part-time/full-time wage gap, differences in observed characteristics between the two groups play a more important role in a larger number of countries. Indeed, characteristics (such as education, experience but especially occupation and sector of activity) explain up to the entire part-time/full-time wage gap in Germany, the Czech Republic, Norway, Luxembourg, France, Belgium, Cyprus, Austria, Spain, Poland, Portugal and Greece. On the contrary, the price effect is total, or in other words, differences in observed characteristics do not contribute to explain the observed part-time/full-time wage gap in Estonia, Iceland and Sweden.

Table 4. Part-time/full-time wage gaps in 25 European countries (2005)

							Oaxaca decomposition		
	<i>obs. pt women</i>	<i>obs. ft women</i>	<i>R² pt women</i>	<i>R² ft women</i>	<i>mean hourly gross wage pt women (euros)</i>	<i>mean hourly gross wage ft women (euros)</i>	<i>raw pt/ft wage gap</i>	<i>explained part</i>	<i>price effect</i>
EE	143	1850	58.56	44.70	2.34	3.55	-34.12%	-71.13%***	171.13%
SI	71	1426	63.39	38.14	7.14	8.68	-17.82%	57.01%***	42.99%
IS	205	451	23.89	34.91	17.40	18.39	-5.38%	-963.67%***	1063.67%
DK	345	1044	47.96	30.16	20.72	21.87	-5.24%	26.55%***	73.45%
FI	264	1771	31.79	32.94	14.73	15.29	-3.69%	63.26%***	36.74%
HU	221	2117	50.73	43.15	2.69	2.78	-3.20%	30.18%***	69.82%
DE	2518	1974	29.93	36.82	15.83	16.1	-1.71%	230.56%***	-130.56%**
CZ	124	1500	53.15	42.10	2.74	2.79	-1.55%	106.92%***	-6.92%
NL	1008	416	37.28	49.32	18.21	18.18	0.16%	22.19%	77.81%
NO	384	1084	20.73	13.54	19.56	19.19	1.95%	131.11%***	-31.11%
LU	448	872	50.09	61.42	21.19	20.66	2.55%	664.89%***	-564.89%***
SE	310	944	19.14	16.00	13.89	13.37	3.90%	-68.76%**	168.76%
UK	786	1063	25.27	24.70	16.00	15.27	4.81%	93.88%***	6.12%
FR	986	2208	30.69	38.40	13.71	13.08	4.81%	191.05%***	-91.05%***
BE	661	876	45.24	49.60	16.06	14.89	7.88%	126.82%***	-26.82%
CY	150	1521	58.15	72.14	8.70	8.00	8.67%	348.13%***	-248.13%***
AT	816	1013	37.67	42.92	12.77	11.44	11.60%	106.64%***	-6.64%
SK	136	2498	41.53	21.76	1.97	1.76	12.13%	93.51%***	6.49%
IT	1304	4743	34.44	50.49	11.80	10.05	17.38%	99.17%***	0.83%
LT	158	1823	57.84	47.21	2.11	1.80	17.43%	87.52%***	12.48%
ES	743	2865	44.04	59.39	8.77	7.23	21.21%	149.40%***	-49.40%***
PL	470	4553	49.98	54.74	2.55	2.07	23.27%	123.73%***	-23.73%***
PT	116	1530	58.02	70.31	5.52	4.39	25.71%	184.92%***	-84.92%***
EL	191	1139	47.44	66.49	7.93	6.15	28.95%	115.24%***	-15.24%
IE	675	1149	43.72	52.21	19.29	14.94	29.10%	72.73%***	27.27%***

Note: For LV no reliable measure of gross hourly wage can be computed.

Note: For countries in bold, the hourly gross wage measure is based on the variable "gross monthly earnings for employees"; for the others, the variable "employee cash or near cash income" was used.

Note: Couples and singles are considered; only employees are considered, not self-employed or family workers.

Conclusion

According to the country considered, women's wages suffer downward pressure either by the fact that compared with men they have characteristics that are associated with a lower earning potential, or by pure discriminatory practices applied by employers or embedded in overall labour market regulation that play to their disadvantage.

Is this finding related to the fact that women are or will soon be mothers? Indeed, motherhood tends to strengthen the gender wage gap in most countries. However, a major finding to come out of this analysis is that discrimination primarily works along gender lines so that all women are affected in their role of actual or potential mothers.

The robustness of this conclusion was tested by comparing the gender wage gap with the wage gap between mothers and fathers. If it is true that motherhood worsens female wages while fatherhood improves men's then we should find that the

wage gap between mothers and fathers systematically deepens the gender wage gap. Results are less straightforward and allow to distinguish between three groups of countries. Parenthood does indeed widen the gender wage gap in 11 of the 25 countries analysed (Finland, the UK, Slovakia, Austria, Iceland, Hungary, Cyprus, France, Portugal, Slovenia and Belgium). On the contrary, the opposite is observed in eight countries (Estonia, Luxembourg, Spain, Ireland, Lithuania, Italy, Greece and Poland). Finally, whether parents or not, the wage gap between women and men stays the same in the remainder of countries (Denmark, Norway, the Netherlands, Germany, Sweden and the Czech Republic).

Finally, we have analysed the wage penalty associated with part-time work among women. Again results put forth three scenarios. A wage bonus is associated with part-time work in Estonia (34%), Slovenia (18%), Iceland (5%), Denmark (5%), Finland (4%), Hungary (3%), Germany (2%) and the Czech Republic (2%). Wage equality between female part-time and full-time workers exists in the Netherlands. Finally, in the remaining countries, a working time reduction has negative wage consequences for women. Indeed, the full-time/part-time wage gap ranges between 2% in Norway and 29% in Ireland and Greece.

Despite long standing legislation on equal pay, women in Europe thus earn less than men. Differences in human capital no longer play a major role in the persistence of the gender pay gap. The gender pay gap is more related to the level of occupational segregation and the impact of the wage structure. To quote Plantenga and Remery (2006): "*Women seem to be swimming upstream: women with an improved educational background, fewer children and shorter periods of employment interruption are confronted with a labour market with growing wage differentials and a reduced share of collectively agreed wages and wage components.*"

Policy responses are generally threefold: 1) equal pay policies; 2) equal opportunities policy; and 3) wage policies.

As regards the first type of policies, note that the legal framework is generally not the problem, its effective enforcement is.

Childcare, as part of equal opportunities policy, is an important arrangement to enable women to have more continuous employment patterns. Yet the availability and affordability varies extensively across Europe. Moreover, this paper shows that discrimination operates along gender lines rather than according to parenthood

status so that it is the disadvantage derived from sex rather than that associated with maternity that requires special policy attention.

Over the past decade most member states have evolved towards decentralisation and fragmentation of the wage-setting process and towards a reduction of the minimum wage. This trend works against policies to tackle the gender pay gap. Moreover, what works well in one country will not necessarily be appropriate in another. Policies should thus account for national particularities.

What is more worrisome than the negative side-effects of various policies to tackle the gender wage gap is the general disinterest in the issue: *"In several European countries the gender pay gap has a low profile both in the public debate and in the policy agenda. Summarising, one of the main problems is that there is no real owner of the problem, as nobody really feels responsible for closing the gender pay gap. Organising political support for closing the gap seems to be an important challenge for the near future."* (Plantenga and Remery 2006)

This disinterest is not confined to national contexts. Indeed, the same seems to be happening at the level of the European Union. With the revision of the European Employment Strategy in 2005, tackling the gender pay gap is no longer a separate target but it is included in two general guidelines for which no explicit timeframe is fixed.

The question remains whether soft policy initiatives such as the yearly organisation of an Equal Pay Day in a number of countries will be sufficient to eliminate the persisting pay gap between women and men. This hardly seems a serious one.

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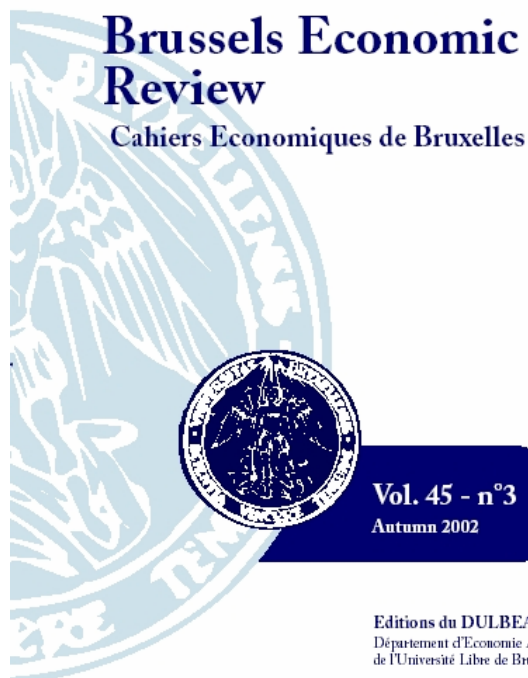
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