## Gender Wage Gaps in Europe: Always the same or entirely different

Paul Ramskogler\*, Aleksandra Riedl†, Florian Schoiswohl‡

## **Abstract**

Over the last decades, a flourishing stream of literature substantially deepened our knowledge about the development and the determinants of the gender wage gap as demonstrated in the authoritative reviews by Blau & Kahn (2016) or Olivetti & Petrongolo (2016). At least for industrialized economies it is possible to single out some key developments. Firstly, there has been an - albeit not steady - overall decline in the gender wage gap while the contribution of differences in endowments to the overall gap have lost in significance. This however, secondly, has led to an increasingly important role of factors other than the endowment-differences of agents (i.e. the remuneration effect), and leaves therefore relatively more influence to occupational segregation (Katz & Murphy, 1992; Blau & Kahn, 2003; Olivetti & Petrongolo, 2014).

In this respect, Blau & Kahn (2003), Beblo, et al. (2003), and Olivetti and Petrongolo (2014) specifically utilize variation of the gender wage gap and its determinants over time as well as across countries. However, these studies are based on microdata before 2004, as more recent time-series data on gender wage gaps for European countries is currently inexistent.<sup>1</sup>

Therefore, we aim to fill this gap and estimate the gender wage gap for 30 European countries over the time-period 2004 to 2014. Thereby, we especially focus on the objective to build comparable and consistent time-series of the gender wage gap and of components related to observable, unobservable, and participation differences. This is an important contribution to the scientific literature on gender pay differentials in Europe, as it enables to analyse gender pay gaps using both, the variability between countries and over time<sup>2</sup>.

<sup>\*</sup> Oesterreichische Nationalbank, Austria; E-Mail: paul.ramskogler@oenb.at

<sup>†</sup> Oesterreichische Nationalbank, Austria; E-Mail: aleksandra.riedl@oenb.at

<sup>&</sup>lt;sup>‡</sup> Wirtschaftsuniversität Wien, Austria; E-Mail: florian.schoiswohl@wu.ac.at

<sup>&</sup>lt;sup>1</sup> Blau & Kahn (2003) uses microdata from the International Social Survey Programme (ISSP) for 1985–94. Beblo, et al. (2003) and Olivetti and Petrongolo (2014) bases the estimates of the gender pay gap on the ECHPS, which covers the time 1994-2001. Additionally, Eurostat provides data on gender pay gaps based on SES, but these are only calculated every fourth year and excludes several important industries.

<sup>2</sup> As a first attempt to focus more on the time-variability, Olivetti & Petrongolo (2016) uses EU-KLEMS

data to obtain time-series for the remuneration of employees by industries. Using cross-country variation for a fixed point-in-time, Christofides, et al. (2013) counts on EUSILC data for 2007. Böheim, et al. (2007) compare the gap in two points in time (1983 and 1997) but only for Austria.

For this purpose, we use the EU SILC cross-sections (2004-2014) and utilize standard decomposition techniques according to Oaxaca-Blinder or Juhn-Murphy-Pierce together with adjustments for selection biases (Heckman) which play a significant role in quite a few European economies (Blinder, 1973; Oaxaca, 1973; Heckman, 1979; Juhn, et al., 1993). The empirical strategy is primarily driven by three major objectives. First, we seek to derive a homogenous set of estimates of the gender wage gap over time based on comparable microdata and for a large set of European countries. Second, we study the effects of different definitions of the target population on the time-variability of our time-series of the wage gap. Third, we take care of the potential sensitivity of the obtained series with respect to different correction methods for selection-bias as indicated in Beblo, et al. (2003).

The resulting time series of the wage gap reveals interesting first results. In many European countries we see a downward trend in the raw gap, as well as in the unexplained gap when controlling for age and work-experience. Furthermore, this finding remains robust against selection-bias correction. During the crisis, however, wage gaps seem to have increased in several countries, which might indicate that gender-specific labour demand and supply factors have played a major role.