



## [The Role of Gender in Employment Polarization](#)

CFM-DP2017-04

Fabio Cerina<sup>2,3</sup>, Alessio Moro<sup>1,3</sup> and Michelle Petersen Rendall<sup>4</sup>

<sup>1</sup>Centre for Macroeconomics, <sup>2</sup>CRENoS, <sup>3</sup>University of Cagliari, <sup>4</sup>University of Zurich

Employment polarization (i.e., the increase in employment shares both at the bottom and at the top of the skill distribution, combined with a decline in the middle) has been extensively documented for the U.S. economy in the last 30 years and has become a well-known stylized fact. Less well known in the literature are the characteristics of job polarization when distinguishing by gender, sectors and marital status.

We first document a number of novel facts on employment polarization. The change in the employment share at a given percentile can be decomposed into the change in the employment share (in total employment) of females and the change in the employment share (in total employment) of males. Using this decomposition, we show that employment polarization in the U.S. is mainly driven by women during the 1980-2008 period. Furthermore, while married women are mostly responsible for the increase at the top of the distribution, single women are mostly responsible for the increase at the bottom. Moreover, when performing a decomposition from a sectoral perspective, we find that changes in employment shares in service occupations are positive and U-shaped along the skill distribution (especially for women). By contrast, changes in employment shares of occupations in manufacturing display a relatively flat behavior, and are negative along the whole distribution. Finally, we document that employment polarization is absent in the 1960-1980 period: changes in employment shares of women are homogeneous along the skill distribution, while those of men are increasing along the distribution.

The second contribution of this paper is to provide a theory that accounts (both qualitatively and quantitatively) for the previous facts. To this purpose, we extend the canonical model of skill-biased technological change with a gender dimension, an endogenous market/home labor choice and a multi-sector environment. We then use our theory to produce polarization graphs that are comparable to the ones commonly used in the literature to analyze the data and we show that, by taking into account the endogenous response of heterogeneous individuals to technological changes, it is possible to account for overall, gender- and marital status-specific, and sectoral job-polarization facts. In addition, our theory helps to rationalize the absence of employment



polarization before 1980 and the changing behavior of employment shares in the various decades during the polarization era.

The main mechanism through which skilled-biased technological change contributes to generate employment polarization in the model is the following. By fostering an increase in the working time of skilled women (mainly married) skill-biased technological change accounts for most of the increase of employment shares at the top of the skill distribution, which takes place especially in sectors producing modern services. Also, by favoring a reduction in home production, it leads to an increase in the labor demand for services which are good substitutes to the ones produced at home, thereby accounting for most of the increase of employment shares at the bottom of the skill distribution. As the changes in employment shares at the top and the bottom of the skill distribution are positive, the change of employment shares in the middle turns out to be negative. Our results suggest that any policy aimed at dampening the overall pattern of employment polarization should consider the effect on the different demographic groups that contribute to the specific shape of this phenomenon.