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Gender and the business cycle: An analysis of labour markets in the US and UK

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ABSTRACT

Starting from an improved understanding of the relationship between gender labour market stocks and the business cycle, we analyse the contributing role of flows in the US and UK. Focusing on the post 2008 recession period, the subsequent greater rise in male unemployment can mostly be explained by a less cyclical response of flows between employment and unemployment for women, especially the entry into unemployment. Across gender and country, the inactivity rate is generally not sensitive to the state of the economy. However, a flows based analysis reveals a greater importance of the participation margin over the cycle. Changes in the rates of flow between unemployment and inactivity can each account for around 0.8–1.1 percentage points of the rise in US male and female unemployment rates during the latest downturn. For the UK, although the participation flow to unemployment similarly contributed to the increase of the female unemployment rate, this was not the case for men. The countercyclical flow rate from inactivity to employment was also more significant for women, especially in the US, where it accounted for approximately all of the fall in employment, compared with only 40% for men.

1. Introduction

What is the role of labour market flows in explaining the gender dimension of the business cycle? The sparse analysis carried out to date has typically only described how the stocks of men and women in unemployment respond to aggregate fluctuations. Fig. 1 thus illustrates, for both the US and UK, that during economic recessions male unemployment rises faster than female, reducing the gender gap, and in the subsequent recovery, male unemployment falls faster, returning the gender gap to some trend. The relative resilience of the female unemployment rate during a downturn has been explained by one major factor, at least so far as the US is concerned: men and women tend to be occupied in economic sectors that are differently affected by recessions and booms. Occupations that predominantly hire men are typically more cyclical and, therefore, more severely affected by economic recessions (Wood, 2014).[1] However, the extent to which different responses to

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[1] For the UK there is some evidence that where men and women work cannot explain all of recent cyclical differences, and after controlling for this, during the Great Recession, female job losses were more sensitive to the downturn (Rubery and Rafferty, 2013; Perivier, 2014). Also, Elsby et al. (2013) tentatively suggest that women's real wages were particularly adversely affected by the latest downturn relative to men. Differences in the response of male and female wages, which may not be sectoral, could also be of some relevance.

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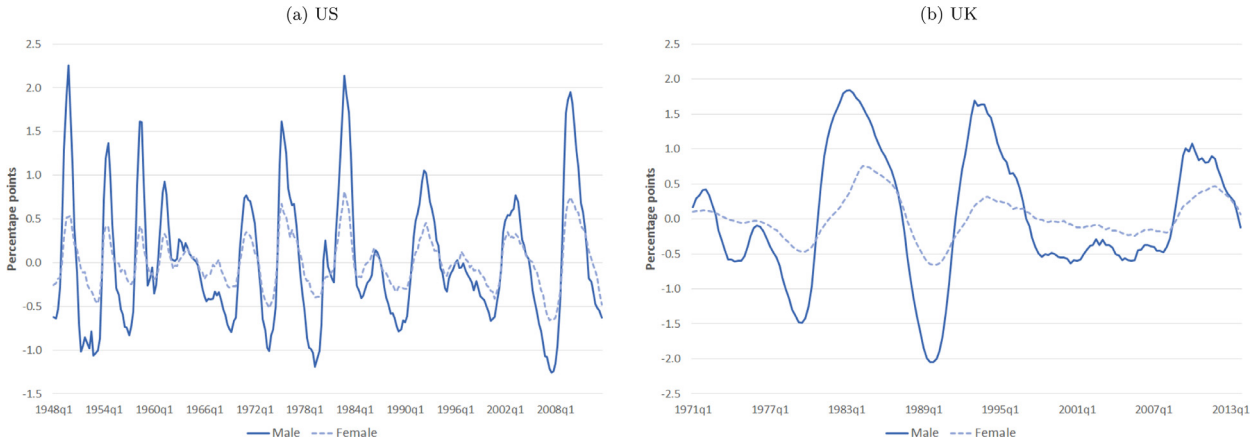

Fig. 1. Difference from trend of male and female unemployment rates, 16+. *Source* – own calculations from seasonally adjusted CPS (US) & Labour Force Survey (UK). Detrended using unobserved component model as described in Section 2 with constrained frequency parameter to match estimated cyclical periodicity of log GDP.

the cycle can also be related to the fluidity of the labour market has largely been overlooked in the literature.[2] By studying the flows between employment, unemployment and inactivity, we can determine which of the flows into and out of the three states drive the aggregate dynamics of labour market stocks. A flows analysis can tell us something more specific about the sources of the gender business cycle.

Notwithstanding the importance of using stocks to assess the health of the labour market over time, it is now well acknowledged that flows data offer some clear advantages, and the fluidity of the labour market has become the topic of a growing and influential literature since the original contributions of the 1970s.[3] The empirical analysis of flows has guided the development of the search and matching class of models now most commonly used to understand labour market fluctuations. Analysing flows data can give us more detailed insight into how labour market stocks change, and this could underlie differences in how men's and women's outcomes behave over the business cycle. Has a woman become unemployed because she has lost a job, or because she has completed full-time education and become active in the labour market? Similarly, has a man who has left unemployment done so because he has found a job, or because he has withdrawn from the labour market, perhaps due to disability or other reasons for inactivity? These transitions reveal quite dissimilar experiences, but they become hidden when looking only at the stock of unemployed, employed or inactive persons. In the example of the woman above, the two transitions would both result in an increase in female unemployment, but flows data would tell us that in the first case this was due to a job exit, and in the second case because of a positive labour supply response.

This study not only builds on but goes substantially beyond previous assessments of the relationship between gender and the business cycle, which have been more limited in scope or indirect, whether based on stocks or flows data.[4] We compare the experiences of the US and UK. These two countries had very similar pre-2008 industry and labour market structures. In both there is extensive and similar gender segregation of work.[5] Both countries experienced a significant narrowing of the employment rate gap between men and women since the 1970s, and the speed of this has slowed similarly since the 1990s (Fig. 2).

We begin in Section 2 by briefly revisiting the reduced form relationship between business cycles and gender labour market rates. Although other studies have estimated the relationship between unemployment rates and the business cycle over time, there is less direct evidence about the response of gender gaps for other statuses.[6] This broader view is necessary to contrast whether a stocks based view of the labour market reveals less than a flows based approach, specifically with regards gender. The estimated response of the male employment rate is more pronounced than the female, especially during the Great Recession, but this gender gap is not more generally significant. On the other hand, for unemployment rates, business cycles are not gender neutral, and affect men more than women. There are no substantial differences in inactivity rate responses to the cycle.

[2] For example, see the limited discussion of gender in key literature on labour market flows, such as Elsby et al. (2010, 2011), Shimer (2012). These previous papers moreover do not relate flows back to the overall picture of gender differences in the labour market over the business cycle.

[3] See for example Kaitz (1970), Perry (1972). More recently, important methodological contributions have been provided by Shimer (2005, 2012), Petrongolo and Pissarides (2008), Fujita and Ramey (2009), Solon et al. (2009), Elsby et al. (2010, 2015), Gomes (2012), Smith (2011).

[4] A notable exception to the lack of focus on gender differentials is Albanesi and Sahin (2013), who analysed the trend and cycle properties of the gender unemployment gap. The authors also concluded that, within recessionary periods, the male unemployment response in the US is stronger than the female, and this difference has been consistent over time, being mostly explained by the distribution of work by industry.

[5] Compare for example BLS (2013) for the US and ONS (2013) for the UK.

[6] See for examples Clark and Summers (1980), Blank (1989), Peiro et al. (2012), Hoynes et al. (2012) who all note the greater cyclical response of male unemployment than female.