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Why do married women work less in the UK than in France?

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ABSTRACT

Compared to their French counterparts, British married women choose fewer working hours but similar employment rates. This is driven mostly by the labour supply choices of those with young children. To understand why, I estimate a structural labour supply model and simulate counterfactual hours distributions. Differences in non-work income and childcare prices together explain about two-thirds of the observed labour supply gap for mothers of young children. Most prime-aged British married women also face significantly lower taxes compared to their France counterparts though they do not work significantly more aggregate hours. I estimate strong preferences differences across the Channel.

1. Introduction

Following Prescott's (2004) influential paper about why Americans work more than Europeans, a large literature focused on understanding international differences in hours of work.[2] However, besides Blundell et al. (2013) and Bargain et al. (2014), not much attention has been paid to the different female choices across countries. This paper aims to fill that gap and to address the issue of cross-country hours of work from a micro-econometrics perspective. An extensive microeconomic literature studied the reaction of female labour supply to different institutional frameworks - the reaction to tax-credit programs or stay-home benefits, the impact of childcare costs and availability, or the role of household income taxation. Few papers try to put these institutions into perspective internationally and understand what might explain different cross-country outcomes.

I choose to focus on the United Kingdom (UK) and France because they respectively figure in the middle and lowest rank of Prescott classification of average hours worked in the OECD. Among the European countries, the UK is considered the one with the lowest taxes, the most flexible labour market and an Anglo-Saxon preference for leisure - they would prefer leisure less than their Continental neighbours. France is often associated with high taxes, heavily regulated labour markets and a high preference for leisure.

I estimate the same discrete choice, secondary earner model in each country. To avoid composition effects, I focus on the group of married women with employed husbands exclusively. The reason is that they appear very similar along key observable characteristics in both countries. The recent paper by Bargain et al. (2014) uses similar tools to estimate labour supply elasticities of females across many more countries. This paper differs from mine in that I account for childcare costs, demand-side constraints, part-time wages and estimate labour supply preferences and wages simultaneously. While they aim to compare cross-country labour supply elasticities, I go a step further and try to identify which institutions and budget constraints items may explain observed labour supply differences. To do so, I use the model to simulate counterfactual hours distributions under different policy experiments.

The main contribution of the paper does not lie in the novelty of the model. In fact, the model developed here relies heavily on the existing micro-econometrics literature. The main purpose of the paper is the comparison exercise. As such, I prefer to estimate the same model with similar data rather than improve country-specific descriptions of the household environment at the cost of comparability. In each country, the approach could have been enhanced by choosing different datasets and model specifications, without applying the same logic to the other country. However, this would strongly diminish the ability to draw any meaningful conclusions from the international comparison. While the estimated elasticities and behavioural responses appear in line with the literature, the possibility that they could be over-estimated - because of the specification and identification assumptions - should not be fully discarded.

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[2] See Alesina et al. (2005); Blanchard (2004); Rogerson (2006); 2008) for instance.

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Table 1
Main results.

French sample	Av. weekly hours	UK hours difference	Change in French hours under British:			
			Childcare costs	*Stay-home income & childcare*	*Budget constraint*	*Preferences*
Youngest child < 6 y.o	20.4	−3.2	−1.3	−2.2	1.2	−3.4
Youngest child 6–18 y.o	24.4	−1.7	–	−0.2	2.2	−3.0
No underage child	28.2	1.6	–	−0.1	2.6	−4.6
All women	24.4	−1.5 *	−0.5	−0.8	2.0	−3.5

Note: "Budget constraint" means UK taxes and benefits as well as childcare costs are simulated on the French sample. * This is the average gap of the three rows above weighted by the share of each category in the French sample.

In the data, hours worked by married women with working husbands are higher in France than in the United Kingdom. Mothers of children younger than six account for three-quarters of the gap, almost entirely driven by the intensive margin of work.

Table 1 below summarises the main results of the paper. Firstly, the average weekly hours of mothers with young children are lower by three hours in the UK relative to France. For that group, the higher cost of British childcare explains just under half of the gap while its interaction with income available outside work - through the husband's earnings - can explain two-thirds of the gap. Secondly, for all the women in the sample, the British budget constraints would push the French to work more than observed.

Finally, when substituting solely the British preferences parameters, the aggregate working hours of all French women would be much lower. This is explained by large falls in their choices of working hours despite slightly higher participation rates. This pattern observed in every group suggests that there might be some fundamental differences between the two countries. Whether this is a reflection of different tastes for non-working time per se, intra-household allocations, working complements available to households[3] or social norms cannot be distinguished by the approach taken here.

In the following Section 2 describes the data used and preliminary evidence. In Section 3, I present the structural labour supply model and discuss the limitations of the empirical strategy adopted. Section 4 presents the parameter estimates and simulated elasticities. Section 5 performs a series of policy simulations to understand the drivers of the observed labour supply differences. Section 6 concludes.

2. Data and preliminary evidence

2.1. Focusing on a comparable group across countries: Married women with employed husbands

To ensure the cross-country comparison is consistent, I need to rely on homogeneous datasets. I use the Labour Force Survey (LFS) in the UK and its equivalent in France the Enquete Emploi en Continu (EEC). These datasets are continuous rolling-panels interviewing households in a particular week. They provide detailed information, every quarter, about employment, hours of work, and demographics like gender, age, education attainment, marital status, number and age of children etc. Questions in both surveys follow ILO recommendations and are comparable. This allows me to confidently compare demographic and key variables such as hours of work or earnings. The LFS and EEC contain about 480,000 and 280,000 observations respectively. In order to minimise the impact of negative business cycles, I study the year 2007 (just before the start of the Great Recession).

The focus of the paper is on labour-supply determinants and not other life-cycle choices so I need to study homogeneous groups in both countries. The population of prime-aged married females present very similar characteristics across the Channel and represent the same share of the prime-aged female population.[4] For instance, in 2007 the average age at first marriage was just under thirty in each country. The average age at which prime-aged married women had their first child was twenty-eight in the UK and twenty-seven in France. The number of divorces per thousand couples were respectively twelve and eleven. The education distribution and number of children among these married women are very similar (see Table 5 in the online appendix). I consider that the similar ages at first marriage, divorce rates and marriage rates in the two countries point towards similar attitudes to marriage. I rely on the results of Ellwood (2000) and Lundberg and Pollak (2007) that do not find evidence of taxes having an impact on marriage decisions. I do not aim to model the education and fertility decisions, and will consider them as fixed. Baughman and Dickert-Conlin (2009) or Baughman and Dickert-Conlin (2003) do not find conclusive evidence that fertility is influenced by taxes and financial incentives.

I focus on households where the husband is working. The large evidence gathered in the literature on the sensitivity of female labour supply to household demographics as opposed to males explains my choice of developing a secondary earner model and not a household model. Across the Channel, husbands appear very similar along observable characteristics.[5] Husbands' labour supply seems to seldom vary throughout their life-cycle. They work slightly longer hours and are slightly less likely to be employed in the UK but their labour supply decisions are not affected by the presence of children in either country (Table 5 and Figure 14 in the online appendix). Most non-working husbands in France are unemployed while this is not necessarily true in the UK. Unemployment benefits can be perceived for a year longer in France than in the UK. The long-term unemployed in the UK might move on to different parts of the welfare system, while in France they are still claiming unemployment benefits.

I follow the standard approach in the literature to build my sample. I focus on households where: the wife is between twenty-five and fifty years old, neither the husband nor the wife is studying, self-employed, retired, a member of the forces or seriously disabled. About the same share of the initial population is cut from the samples in both countries.[6] I drop women working as teachers or professors as they are likely to report working part-time when in reality they work full-time but do not

[3] For example, regarding mothers of young children, in France, they use mainly two types of childcare: Nurseries and childminders. In the UK, the demand for childminders seems limited but not that for nurseries. The under-development of the childminder market in the UK appears to limit the overall supply of care places available and keeps the market price of childcare much higher than in France. See the online appendix for further details.

[4] The shares of single or out-of-wedlock women are extremely different as seen in Table 5 in the online appendix. In the UK, the tax-benefit system, through the housing benefits, seems to penalise cohabitation (Adam and Brewer, 2010) and this could explain why many more women are observed as single in the UK compared to France.

[5] Their average age in the data are forty-two in the UK and forty in France. The distributions of their hourly productivity (Figure 13 in the online appendix) are centred around the same point. It is more spread in the UK, but not shifted to the right or left of the French distribution.

[6] The disabled population proved to be challenging, as the incapacity benefit is perceived by far more households than the Allocation Adulte Handicape in France. As a result I consider households in the UK as seriously disabled if they receive a disability living allowance, the proportion of disabled households in each country are then of the same magnitude.