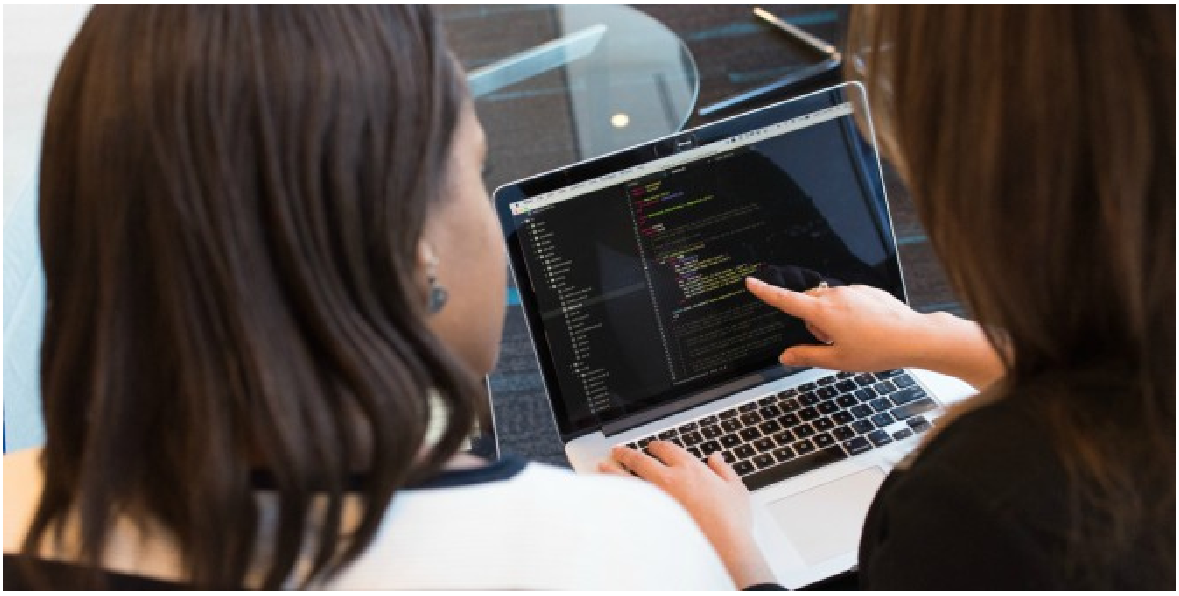
How the rise of the service sector boosted the demand for women workers



The rise in female participation in the workforce has been one of the most remarkable changes in the labour markets of high-income countries since World War 2. In the U.S, for example, the employment rate of women has more than doubled from about 35 per cent in 1945 to 77 per cent at the end of the 20th century, and several European countries, including the UK, experienced very similar trends.

There has been a vast amount of research on the causes and consequences of the rise in women's involvement in the labour market. Proposed explanations include growing investment in human capital, medical advances, technological progress in the household, wider availability of child care, and evolving gender norms. Our research puts forward a new and complementary explanation based on the rise of the service economy and its role in boosting the demand for female work.

Our emphasis on the evolution of the industry structure is motivated by a few observations:

- First, the sustained rise in female work since the late 1960s in the U.S. has been accompanied by a fall in male work, and a rise in women's relative wages. In 1968, women's hours were about 37 per cent of men's hours, and their wages were about 62 per cent of male wages. By 2008, these ratios rose to 73 per cent and 81 per cent, respectively.
- Second, the entire (net) rise in female hours took place in the broad service sector, while the entire (net) fall in male hours took place in goods-producing sectors, including the primary sector, manufacturing, construction and utilities. This pattern is closely linked to the process of *structural transformation*, and specifically the reallocation of labour from goods to service industries, with an expansion of the service share from 56 per cent in 1968 to 75 per cent in 2008.
- Finally, the rise in women's hours in the service sector was accompanied by a strong decline in their working hours in the household, from about 41 to 31 hours weekly, consistent with substantial *marketization* of home production.

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One of the reasons for the significance of services is that their production is relatively less intensive in the use of brawn skills than the production of goods. As men are better endowed with brawn than women, the historical growth in the service sector has created jobs for which women have a natural comparative advantage. While the introduction of brawn-saving technologies has to a large extent compensated the female disadvantage in physical tasks, women may still retain a comparative advantage in services, related to the more intensive use of communication and interpersonal skills, which cannot be easily automated. The simultaneous presence of producers and consumers in the provision of services makes these skills relatively more valuable in services, and a few studies have highlighted gender differences in the use of such traits.

Women's comparative advantage in services is clearly reflected in the allocation of their market hours. In 1968, the average working woman in the U.S. was supplying three quarters of her market time to the service sector, while the average man was supplying only one half. As structural transformation expands the sector in which women are over-represented, it has potentially important consequences for the evolution of women's hours of market work.

A second reason is related to women's involvement in household work. In 1965, women in the U.S. spent on average 41 hours per week in home production, nearly four times as much as men. Household work includes child care, cleaning, food preparation, and in general activities that have close substitutes in the market service sector. If the expansion of the service sector makes it cheaper to outsource these activities, one should expect a reallocation of women's work from the household to the market. While women were mostly working in home production and the service sector, and thus their market hours were boosted by the rise in services, men were predominantly working in the goods sector, and their working hours mostly bore the burden of de-industrialization.

In our research, we model a multisector economy in which market sectors produce commodities (goods and services) that are poor substitutes for each other in consumer preferences, while the home sector produces services that are good substitutes to services produced in the market. Production in each sector involves a combination of male and female work, and women have a comparative advantage in producing services, both in the market and the home.

Labour productivity growth is uneven, reducing both the cost of producing goods, relative to services, and the cost of producing market services, relative to home services. As goods and services are poor substitutes, faster productivity growth in the goods sector reallocates labour from goods to services, resulting in structural transformation. As market and home services are good substitutes, slower productivity growth in the home sector reallocates hours of work from the home to market services, resulting in marketization.

Due to women's comparative advantage in services, structural transformation and marketization jointly raise women's market hours and wages relative to men. In other words, gender comparative advantages turn a seemingly gender-neutral force such as the rise in services into a de facto gender-biased force.

Also, for both men and women, market hours rise with marketization but fall with structural transformation. Their combination is thus necessary to rationalize observed gender trends: marketization is necessary to boost female market work while structural transformation is needed to explain the fall in male market work.

We use US data to quantitatively assess the importance of the mechanisms described. The marketization and structural transformation forces predict the entire rise in the service share between 1970 and 2006, 20 per cent of the gender convergence in wages, one third of the rise in female market hours and 9 per cent of the fall in male market hours. By predicting changes in the overall allocation of time across market goods, market services, home services and leisure, the evolution in the industry structure explains about 60 per cent of observed changes in time allocation for men and women.

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Notes:

- *This blog post is based on the authors' paper Gender Gaps and the Rise of the Service Economy, American Economic Journal, forthcoming. Also available as CEP Discussion Paper No 1204*
- *The post gives the views of its authors, not the position of LSE Business Review or the London School of*

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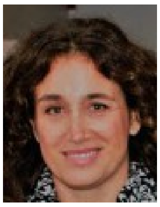

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