

## Households and the Welfare State

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Consider the following facts. First, with dramatic changes in the household and family structure in every major industrialized country during the last couple of decades, today's households are very far from traditional breadwinner husband and housekeeper wife paradigm. Second, average households face significant uninsurable idiosyncratic risk and countries differ significantly on their social insurance expenditure. Third, since mid 1980s, household income inequality has been rising, generating a renewed interest in role of social insurance policies – OECD (2005). Fourth, structure of families (who is married with whom) and female labor supply behavior can play an important role for income inequality. According to Hyslop (2001), changes in marital sorting can account for about 25% of the rise of income inequality between 1979 and 1985 in the U.S. while changes in female labor supply contribute to another 20% of the rise. Finally, there are significant differences in the extent of marital status of population, assortative mating, female labor participation, and wage-gender gap across countries.

The existing general equilibrium models that economists use to evaluate social insurance policies largely rely on models populated by single-earner households. In such models a single decision maker, given government policies, decides how much to work and how much to save. Today's household structure, however, should force us to think beyond single-earner household models. The role of social insurance policies for an economy in which every household has only one worker can be very different than for an economy in which both household members work. Similarly, the role of social insurance policies can also be very different for an economy with a low degree of assortative matching in which agents from different educational backgrounds mix with each other by marriage, than for an economy with more segregation in marriages. Social policy can also play a very different role for an economy with low gender wage gap than one with high-gender wage gap. Finally,

thinking beyond single-earner households should also force us to consider very diverse social insurance policies, such as income maintenance programs and parental leave policies, under the same light.

Despite this background, we are unaware of systematic attempts to study public policies in environments that allow for heterogeneous two-earner households that face uninsurable idiosyncratic risk, an explicit consideration of labor supply responses in extensive and intensive margins, and a rich description of marital status of population (who is married with whom). We fill this void in this paper.

We have three main goals. First, we build a model economy populated with heterogeneous two-earner households facing idiosyncratic income risk. Second, we use this framework to evaluate effects of public policies on allocations and welfare. Finally, we investigate how the effects of these policies can depend on the structure of the economy in terms of degree of marital sorting, the extent of female labor force participation, and the wage-gender gap.

We build a life-cycle economy populated by married and single households. Individual wages are composed of two parts: their human capital and idiosyncratic shocks. Each male agent starts his life with a given level of education (human capital) and each education level is associated with a given lifecycle human capital profile. Females also start their life with a given education (human capital) level. Their human capital, however, evolves endogenously as enter and exit to the labor market. Idiosyncratic shocks to wages are modeled as in Heathcote, Storesletten and Violante (2010). The key feature of the wage process is that within a married couple household, innovations to shocks are *correlated* between husband and wife.

The basic structure of the model follows Guner, Kaygusuz and Ventura (2011). Married couples and single females have children that appear exogenously along their life cycle. Children are costly, if a female with a child decides to work, she has to pay child care expenses. Married couples also

face a cost (monetary or utility) of joint work. Each period, agents decide how much to consume, how much to save, and how much to work. Agents' labor supply can vary along extensive as well as the intensive margins. In particular, females might decide not to participate in this economy, since participation for them is costly. However, taking time from the market is also costly due to human capital accumulation.

We study the effects of public policy within this environment. We plan to consider two different types of public policies. First are the standard tools of social insurance, like income maintenance programs that provide cash transfers to households whose income falls below a certain threshold or progressive taxation. Second are policies that make labor supply of females less costly for households, like child care subsidies.

Although such policies are mainly studied for their effects on female labor supply, the current environment also allows studying their effects on welfare. In this environment, public policy can play an important role and this role will depend critically on the extent of the correlation between husbands' and wives' permanent characteristics and income shocks. First, consider the extreme case that only husband work and wives are not allowed to work. Then, this economy is effectively a single agent economy. Now imagine wives can decide whether to work or not. If the household is hit by a negative income shock, then the wife is more likely to enter the work force. This will be more likely if income shocks to husbands and wives incomes are not very highly correlated. This will also depend on the extent of gender gap as well as the existing government policies. If female labor supply behavior provides a significant level of insurance for the household, then it is less likely that traditional social insurance will be very important. On the other hand, policies that make female labor supply less costly can be as important as the traditional welfare programs.

## References

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