Current Project 1: One Child Policy

Abstract

This paper examines the impact of two family planning policies on demographic change and human capital accumulation in China. Using province-level data on unauthorised births, I build a heterogeneous-agent overlapping generation model to analyse fertility patterns from 1950 to present. The findings reveal that the policies have far-reaching effects beyond birth control and the quantity-quality trade-off. The birth control policy reduces the number of children per family, but with varying impact across socioeconomic groups. Meanwhile, penalties for out-of-quota births disproportionately affect low socioeconomic groups. I further show that the policy-induced rise in overall human capital of children is mainly driven by the composition effect instead of the quantity-quality trade-off. When composition effect dominates, a relaxation in fertility control does not necessarily lower overall human capital. This study reveals that heterogeneous effects can play an important role in shaping human capital and demographics.

Conclusion:

Suffice it to say that the demographic transition in China is amongst the most consequential developments for human welfare for the past 50 years. In this study, I present a heterogeneous agent overlapping generation model with endogenous fertility and human capital accumulation. I use this framework to study the birth control policy in China and examine its impact on demographics and human capital.

I first show that family planning policies reduced the total population by reducing the fertility rate, resulting in a rise in overall human capital. If birth restrictions were not in place, the welfare level would initially increase for the first few generations, followed by a permanent decline, because the utility gain from freely choosing the number of children is gradually overtaken by the utility loss resulting from lower human capital due to the quantity-quality trade-off.

Secondly, the fertility reduction is uneven across socioeconomic groups. Families with higher level of education or human capital have a low preference for children, implying that low income, low educated cohorts reduce their fertility the most, and hence their share in the whole population. To further investigate, I decompose the rise in human capital into an investment effect and a composition effect, and I show that the rise in human capital is mainly attributed to the composition effect, instead of the quantity-quality trade-off.

I then investigate a long-standing policy debate in China regarding whether a two-tiered one-child policy improved human capital. Crucially, urban and rural areas have different fertility quotas, and therefore composition effect and quantity-quality tradeoff could offset each other. The calibrated model suggests that a uniform policy results in even higher mean human capital while letting urban areas have higher fertility, indicating that the birth control policies may not yield the desired outcome if implemented sub-optimally.

China’s fertility policy suppressed fertility too much such that the total population is projected to shrink by a half by the end of this century. Looking forward, I propose different versions of policies and look at their impacts respectively in the short run. These new policies transfer payment from 1-child family to 3-children families in the form of direct cash transfers or education subsidy. I find that fertility will increase and bounce back to the natural replacement rate, but 1-child families require to pay an income tax of 14%-30% in order to achieve the goal. Direct cash transfer requires lower tax payment but have more negative effects on human capital, and education subsidies may help human capital accumulation but parents with more selfish concerns have low incentives to agree.

These policy analyses reveal that the fertility policies have had varying impacts across socioeconomic groups, and that reversing the population decline requires a careful balancing act between promoting human capital, controlling for inequality and encouraging higher fertility rates. A better fertility policy design that takes the composition effects into account could yield results that goes beyond the conventional quantity-quality (fertility-human capital) trade-off, and achieve better societal outcomes. Future research could explore the implications of the family planning policy under relaxed assumptions, such as endogenous productivity growth and balanced pension scheme in a general equilibrium framework. Further investigation into the distributional effects of birth control policies could also be explored, such as taking into account the sequential birth and gender of children.

Current Project 2: Singlehood stigma in the marriage market

The relationship between a woman's age at first marriage and the quality of her spouse (in terms of earnings and education) follows a hump-shaped pattern suggesting that there is an age penalty in the marriage market for women. In China, the age penalty for women appears at around the age of 27, beyond which, there's a noticeable and sharp decline in the quality of spouses women tend to marry. In contrast, this decline in spousal quality for men starts later, around the age of 33 and is much gentler. This raises the question: why are women penalized for their age in the marriage market? One aspect that has been explored in the literature is the fact that women’s reproductive capital depreciates as they age (Low, 2023). However, this channel becomes less relevant with the advancement of assisted reproductive technologies such as IVF which can potentially extend the reproductive years for women.

We propose a static marriage market model that rationalizes the observed marriage market penalty for women while allowing us to explore the existence of a social stigma attached to single women older than a certain age. We further show that the extent to which women may feel social pressure to get married before a certain age can vary in different societies depending on the attitudes toward marriage and singlehood. Such a phenomenon may have multiple implications particularly concerning women's well-being. For example, women are less likely to continue investing in their human capital after they are married. Thus, a social pressure to get married at an earlier age may result in lower human capital for women. Another implication may be the risk of intimate partner violence: Once there is pressure to get married to skip the cost of being single, women may lower their standards for an appropriate match, and they may submit to a random suitor who does not necessarily meet their expectations.

The model that we propose further allows us to pin down the relative importance of a child in a marriage, and …

Current Project 3: Marriage and Learning

(Job Market Paper)

How important is it for couples to learn about each other before getting married? I address this question by examining Sweden’s survivors' insurance reform in 1989, which significantly reduced the benefits for widows upon their husband's death. This reform led to hastened marriages, and cohabitants who rushed to marry before the deadline of the old policy ended up divorcing more frequently \citep{Persson2020}. By exploiting the timing of cohabitation and marriage around the cutoff of the reform and observing subsequent divorce patterns, this paper quantifies the lifetime losses associated with these rushed marriages. In our framework, couples require time together to understand one another. Divorces resulting from hastened marriages can be seen as indicative of a poor match quality. Using indirect inference, I aim to quantify the cost of such mismatched unions and examine how this cost varies across cohorts with different educational backgrounds.

This study offers several contributions to existing literature. First, building on the framework of \cite{Persson2020}, we extend the timeframe to 40 years post-marriage to explore the long-term implications of the Swedish survival benefits reform. This allows us to identify the labour market responses of widows both with and without survival benefits and to assess the associated impacts on marital assortativeness and inequality. Second, this paper examines the policy within a dynamic cohabitation-marriage-divorce context, bridging multiple literatures that model both the matching aspect of the marriage market \cite{Reynoso2023} and the dynamics between marriage and divorce \cite{Voena2015}. I introduce a Bayesian framework that enables couples to update their perceived match quality and also account for age-dependent preferences within matched pairs. Lastly, I seek to understand the importance of couples spending quality time together before marriage. This is especially relevant from a policy perspective, as many countries are introducing 'de facto marriage' concepts, where cohabiting couples receive legal rights and obligations similar to those of married couples. Understanding the learning process and its influence on marital stability could provide valuable insights for policy guidance in various settings dependent on marital status.

\section{Data}

Swedish register data is required for this analysis, given that the sample size must be large enough to identify marriage around of the cutoff of the policy reform. Important variables include marital and cohabitation status, income (any claim of pension), labour supply (hours worked) of individual.

Apart from these, if possible, Any survey data indicating the time use in the household (time spent on leisure, on taking care of the children) would help a lot.

Abstract

How important is it for couples to learn about each other before getting married? I answer this question utilising Sweden’s survivors insurance reform, which is linked to the marriage contract. Pre-reform, a widow would receive a lifetime annuity of survivor benefits upon her spouse’s death. This leads to many hastened marriages. Exploiting the timing of cohabitation and marriage around the cutoff of the reform, this paper quantifies the life-time losses associated with the hastened marriages. Couples with a noisy matching quality experienced a loss of xxx. Divorcees exhibit higher labour supply but lower welfare than if otherwise stay married. The reform leads to other unintended consequences such as increased inequality due to higher assortative mating, lower subsidy for the economically disadvantaged, and lower labour supply of women when husband is much older. Removing the potential benefits increased the bargaining power and labour supply of women. Structural model helps shed lights on effect of the common law.

Current Project 4: US labor market

This paper examines the relationship between local labor market conditions and platform-based entrepreneurs’ performance. Drawing on the labor market frictions perspective, we hypothesize that local job scarcity induces high-ability individuals to sort into self-employment, increasing the share of high-quality entrepreneurs entering digital platform-based entrepreneurship. Combining data from a large online marketplace with official labor market statistics across U.S. states, we show that entrepreneurial businesses entering the platform in low vacancy rate locations achieve superior revenue performance. We also show that the vacancy rate positively moderates the relationship between local wages and entrepreneurial revenues. Finally, those entering platform- based entrepreneurship in low vacancy labor markets are more likely to multi-home and have a business partner, consistent with choosing founding strategies associated with being higher quality.

This paper develops and tests a theory around how frictions in the local labor market shape entrepreneurial performance outcomes on a large digital platform. We find empirical evidence sup- porting the hypotheses around how local labor market frictions affect the performance outcomes of entrepreneurs within a platform ecosystem. Our results indicate that higher local labor mar- ket frictions lead to overall superior entrepreneurial performance within the same platform-based ecosystem. Lower labor market frictions are associated with a more positive relationship between local wages and revenues from platform-based entrepreneurship. We also find evidence consistent with the mechanism driven by differences in the quality of entrants due to variations in local labor market conditions.

Past research on the impact of local conditions on participation in platform-based earnings opportunities focused largely on independent contracting, which showed that a higher local un- employment rate leads to an increasing supply of platform-based labor. Relatively less

attention has been paid to how local labor market conditions alter the composition of individuals seeking alternative income opportunities through digital platforms. We show that local labor market frictions significantly affect the quality of entrepreneurial endeavors through digital platforms.

Our findings contribute to the literature on how regional economic conditions shape entrepreneurial processes and outcomes. In particular, digital platforms enable new institutional settings that foster entrepreneurship (Nambisan, 2017), which bypasses constraints of local environments. Digital platforms can facilitate interactions across long distances, and render entrepreneurial dynamics similar across locations, leveling the playing field for individuals in relatively poorer or more disadvantaged locations. Local labor market frictions disproportionately affect individuals with higher ability or skill levels and spur the transition into platform-based entrepreneurship. While workers change jobs more frequently in dense labor markets and urban areas, leading to faster wage growth (Finney and Kohlhase, 2008; Wheeler, 2006), our findings suggest labor market frictions can also hinder the efficiency of matches between individuals and local earnings opportunities more generally. Therefore, local labor market frictions significantly moderate the relationship between local wages and platform-based entrepreneurial revenues.

Our results are also relevant to the strategic human capital literature, focusing on the effects of labor market frictions on strategic entrepreneurship. While prior literature studied factors affecting entrepreneurial transitions at the level of the individual (Roach and Sauermann, 2015), organization, and industry ,we shed light on market-level mechanisms that are equally important in contributing to systematic differences in entrepreneurial outcomes. We reveal labor market frictions as a significant source of superior performance when entrepreneurial processes are embedded within a digital platform ecosystems.

From a policy perspective, local employers and government agencies may consider supporting platform-based entrepreneurial activities, which can allow individuals constrained by lack of opportunities in the local labor market to develop alternative sources of earnings. By leveraging digital platforms, policy makers can orchestrate economic development opportunities for workers in distressed areas and allow them to benefit from digital affordances and overcome local constraints.

From a managerial perspective, our findings show that entrepreneurial individuals can use digital platforms to overcome local constraints and obtain superior business performance. Entrepreneurs from locations with scarcer local labor market opportunities can sustain a revenue premium when they started businesses in a platform-based ecosystem. Individuals constrained by the scarcity of opportunities in the local labor market frictions face inefficient matching outcomes between their skills and wage jobs. They may utilize digital platforms to overcome these constraints and outperform.