FERTILITY CHOICE AND FINANCIAL DEVELOPMENT

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Fertility choice is parents make choices along family size with decisions about consumption, household income, child-rearing costs, condition of technology and also life-style. Fertility choice is measured by fertility rate that can be defined as the average number of children born per women over her lifetime. Suprisingly, global fertility rates are in general declining and current forecasts shows a decrease in fertility level globally. The total fertility rate (TFR) for the world remained at around five children per woman in the 1960s but it has declined dramatically from 4.98 in 1960 to 2.5 in 2010. In 2021, the total fertility rate is expected to be 2.44 children per woman globally It is expected to be around or below 2.0 by 2050 (United Nation, 2019).

Do you know that fertility choice actually has influenced by the development in financial sector that has grown over the last decades? Worldwide, well-developed financial system facilitates firms to access to the credit market and enhanced production efficiency and promote increases in wages in the modern market. Household have choice to move from traditional market (low wages, high fertility rate) to work in modern sector (high wages, low fertility rate).

Theories on Fertility

Most theoretical work on the economics of fertility was developed from studies by Leibenstein (1957) and Becker (1960) in which the economic theory of consumer behaviour was applied to childbearing (Robinson and Horlacher, 1971). Leibenstein (1957) claims that children increase their families' lifetime wealth instead of being net consumers of family resources. During their youth, they are capable of working and are a source of income to their families. Fertility is seen as a financially profitable trade when the value of resources returned by the grown-up children exceeds the value of resources consumed during infants.

Neher (1971) and Caldwell (1976) first proposed old-age security hypothesis around the time of industrial revolution where parents often viewed children as an instrument to secure old age support. Therefore, in the absence of capital markets, children serve as an asset that permits parents to transfer income to old age.

Another model economic choice of the family unit which uses dynamic macro-style frameworks known as Barro-Becker model has become dominant in investigating a range of issues and policies. One of the key decisions of a family is the fertility choice. Deciding on the number of children and the number of resources to invest in each of them has a long lasting impact on the economic outcomes of all family members. The influential work of Becker and Barro (1988) and Barro and Becker (1989) pioneered the use of dynamic altruistic models of fertility choice. The following are three controversial predictions of the model: (i) fertility is independent of family income; (ii) children are a net financial burden to society; and (iii) individual consumption is negatively associated to individual income.

Relationship between fertility and financial development

Previous theoretical findings concerning the link between financial development indicators and fertility are numerous (Basso, Bodenhorn, and Cuberes, 2014; Cigno & Rosati, 1992, 1996, 1997; Lehr, 1999; Filoso and Papagni, 2015). Cigno and Rosati (1992) hypothesised that fertility is endogenous and jointly determined with saving, whereby individual decisions are motivated by self-interest rather than intergenerational altruism. It also predicts that saving and fertility decisions are affected by the availability and attractiveness of market-based or state-provided alternatives to the family as a source of old-age support.

Cigno and Rosati (1997) formulated alternative models of household saving behaviour which were tested using Japanese post-war time series data. The early rise and fall of the saving rate explained by the interaction of state, capital market and extended family as providers of old-age social security. This theory foresees saving rate is to be influenced positively by productivity growth and negatively by social security coverage and the dependency ratio (number of children and retirement age people per person of working age).

Meanwhile, Lehr (1999) proposed a theoretical framework that financial intermediation by raising wages can affect fertility and labour allocation decisions. The increase in wages encourages households to abandon traditional sector intensive methods of production and supply labour for modernised firms. The participation of households in the modern sector and labour allocation decision leads to lower fertility rate. The theory designates two predictions: first, the development of financial intermediaries within one country will lower fertility and increase future employment in modern sector, and secondly, the countries with higher level of financial intermediation will have lower fertility level and higher modern sector employment as compared to countries with lesser level of financial intermediaries.

Filoso and Papagni (2011) hypothesised the association between credit accessibility and fertility decision. The life-cycle model which explained borrowing constraints reflects the uneasiness of borrowing resources to finance transfers to children in the first section of the life cycle. In the second section of the life cycle, saving constraints reflect the limited availability of instruments to allocate savings. The theory was attained by categorising dual nature of children, both as consumption and investment goods.

Conclusion

Generally, overpopulation has delayed the benefits of economic development such as high standard of living and economic welfare. Therefore, low fertility is necessary for economic welfare as it will raise quality of life, allowing for quality of children over quantity of children. This is necessary for the modern era of industrialization as more human capital is required. Parents should be prepared for more investment on human capital and choose the quality of children rather than quantity of children as it increases labour productivity.

However, an altered age structure will have consequences for the demand for financial services encountered by banks. With the baby boomer generation reaching retirement age and selling off their assets, banks can potentially cushion an eventual asset price meltdown. Hence, there are major challenges and opportunities and thereby bank can contribute to creating financial stability in their role as intermediaries to making the transition a smooth one. Since there will be relatively few individuals working and paying taxes in the future, it will be of benefit to society if individuals entering retirement do so with the funds necessary to live through it, without needing to social welfare institutions. With the world population growing older, leading to an increased level of accumulated wealth, the consumer demand encountered by banks is shifting from credit product to savings products. In particular, asset accumulation in anticipation of retirement is of increasing proportion of the population nearing retirement. Given the growing competition in the banking sector and in light of the demographic challenges this sector faces, banks have been forced by creating an innovation environment.

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