Determinants and Economic Implications of "Bridge Employment"

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Abstract: Driven by a series of economic and social factors such as population aging, an increasing number of elderly individuals are choosing to remain in the labor market after reaching retirement age, making "bridge employment" a focal point of societal attention. Drawing on Chinese international research findings, this paper initially provides a comprehensive overview of the determinants of bridge employment at the individual, family, and institutional levels, including factors such as educational attainment, health status, intra-generational and inter-generational interactions, and public pension systems. Subsequently, it analyzes the economic effects of bridge employment at these three levels, focusing on its impact on health outcomes, consumption levels, spouse health, children's labor supply and fertility decisions, material capital accumulation, labor supply, and other macro and micro variables. Finally, it concludes by offering insights into future research directions based on existing studies.

Keywords: Bridge Employment; Aging Population; Elderly Labor Supply; Elderly Health; Intergenerational Care

1. Introduction

In recent years, China has witnessed a notable increase in life expectancy and undergone significant transformations in its economic and social structures. This shift has led to a growing trend where more elderly individuals are opting to continue working in the labor market even after reaching the traditional retirement age, a phenomenon commonly referred to as "bridge employment". According to data from the seventh national census conducted in 2020, the proportion of employed individuals aged 65 and above accounted for approximately 5.02% of the total employed population in the country. Looking ahead, as the aging population continues to expand, elderly individuals

participating in bridge employment are poised to become an increasingly integral part of the labor force, thereby exerting a substantial impact on the labor market dynamics. This study aims to consolidate pertinent research findings and explore the determinants and economic implications of decisions related to bridge employment from the perspectives of individuals, families, and institutions. Building on this analysis, the study will also delve into policy recommendations and outline potential avenues for future research in the realm of bridge employment.

2. Determinants of Bridge Employment

When examining the determinants of bridge employment, this study emphasizes three key dimensions: individual, family, and institutional levels.

2.1 Individual-Level Determinants

2.1.1 Educational attainment

As individuals increase their educational attainment, the entry into the labor market is correspondingly delayed, potentially shortening period for returns on educational investments and impacting income levels. To compensate for this, individuals may choose to extend their working years to expand the for returns on educational timeframe investments, thereby increasing their income [1]. Furthermore, studies suggest that individuals with longer educational attainment are less likely to experience a decline in wages as they age, further enhancing their motivation to prolong their working years.

2.1.2 Health status

Existing research indicates that improvements in health status enhance an individual's labor productivity and corresponding wage levels, enabling individuals to derive greater satisfaction from work and thus prompting them to extend their working hours [2]. On the other hand, improved health status also reduces the time individuals spend on healthcare, allowing

them to allocate more time to work and thereby increasing the likelihood of individuals opting for bridge employment [3].

Current research has not reached a consensus on the relationship between deteriorating health status and an individual's decision to engage in bridge employment. On one hand, deteriorating health status diminishes an individual's labor productivity and corresponding wage levels, strengthening their preference for leisure [1,4], reducing the time available for work [3], and prompting individuals to decrease their labor supply. On the other hand, deteriorating health status often accompanies increased healthcare expenditures, hastening the depletion of an individual's wealth and savings. Faced with these challenges, individuals may be compelled to increase their labor supply to secure more labor income, especially for those with lower income levels [5]. Considering these pathways, deteriorating health status may paradoxically lead individuals to opt for bridge employment.

2.2 Family-Level Determinants

2.2.1 Intra-Generational interactions

Intra-generational interactions often manifest in the form of spousal coordinated retirement and their impact on each other's labor supply decisions. Spousal coordinated retirement is a significant form of intra-generational interaction, but the mechanisms and directions of influence of various factors on retirement decisions between spouses differ, thereby exerting complex effects on individual decisions regarding bridge employment.

On one hand, spousal coordinated retirement decisions are closely linked to the preference for enjoying life together as a couple. If one spouse derives less positive emotions from retirement compared to the positive emotions gained from retiring together, the retirement decision of one spouse will influence the retirement decision of the other [6]. On the other hand, if one spouse nearing retirement experiences deteriorating health due to external shocks (such as accidents), leading to a reduction in labor supply time or even exiting the labor market, the shared family wealth level may decrease due to the external shock. In this scenario, the other spouse may increase their labor supply, delay their exit from the labor market, and bridge the financial gap caused by the negative health shock to meet the family's consumption needs [7,8].

2.2.2 Inter-Generational interactions

Economic support provided by the younger generation to the older generation (referred to as positive reciprocity) and the care support provided by the older generation to the younger generation may prompt the older generation to retire early, reducing the likelihood of them opting for bridge employment [9]. Furthermore, providing economic support to the younger generation (referred to as negative reciprocity) can increase financial pressure on the older generation, compelling them to extend their working hours to secure more labor income [10].

2.3 Institutional-Level Determinants

At the institutional level, the public pension system exerts differentiated effects through income effects, substitution effects, and liquidity effects, thereby influencing individual decisions regarding bridge employment.

The income effect refers to the situation where an individual receives a positive net benefit from the public pension system, meaning that the pension income they receive over their lifetime exceeds their contribution payments. In such cases, individuals tend to retire early to enjoy leisure time; conversely, they may choose to delay retirement if the net benefit is negative [11]. The substitution effect occurs when the compensatory pension income earned continuing to work after reaching the minimum age for receiving public pensions is positive. In this scenario, individuals are inclined to keep working, substituting work time for leisure time; the opposite holds true if the effect is negative [12,13]. The liquidity effect pertains to the relatively poor liquidity of public pensions compared to other forms of wealth reserves. Public pensions may not adequately address various unforeseen liquidity needs in the future, prompting individuals to postpone their exit from the labor market to ensure sufficient liquidity reserves for various uncertainties [4].

3. Economic Effects of Bridge Employment

3.1 Economic Effects at the Individual Level

3.1.1 Personal health

Bridge employment often accompanies an increase in income levels and a relaxation of budget constraints, allowing individuals to allocate more funds towards health investments,

thereby improving their health status [14]. However, bridge employment also entails individuals dedicating more time to work, which may naturally encroach upon the time allocated for health investments, potentially leading to a deterioration in personal health. Studies indicate that extending working hours can raise the time cost of medical services, leading individuals to reduce the time spent on healthcare services, thereby accelerating their health deterioration, especially for individuals with lower income levels [15].

3.1.2 Personal consumption

With increased labor income and pension income, bridge employment often comes with an increase in expected income for individuals, allowing them to relax their lifetime budget constraints and consequently elevate their consumption levels [16]. Furthermore, driven by altruistic motives, the expected income growth resulting from bridge employment may also translate into transfer payments to children, such as inheritances, thereby reducing the consumption levels of individuals engaging in bridge employment [17,18].

3.2 Economic Impacts at the Family Level

3.2.1 Spousal health status

Research suggests that extending one's working years can significantly enhance the family's income status, thereby easing budget constraints and leading to several positive effects on the health of the spouse. Firstly, with more financial resources available due to extended work, the spouse can allocate additional time towards leisure activities or health investments, such as fitness and preventive measures, ultimately improving their overall health condition [19]. Secondly, by reducing exposure to work-related stressors and financial pressures, the spouse may experience improved mental well-being, which can have a positive impact on their overall health status [20].

3.2.2 Children's labor and fertility decisions

For the past years, as more women join the workforce and labor market conditions worsen, such as the prevalence of long working hours, the feasibility of young parents raising the next generation diminishes. Consequently, grandparents are increasingly taking on the responsibility of caring for their grandchildren [21].

The decision of an individual to engage in bridge employment can limit the time available

for intergenerational care, influencing their children's decisions regarding work and family planning [22]. In terms of children's work decisions, if parents are unable to provide intergenerational care, children may need to take on the responsibility of caring for the next generation themselves. This could lead to a reduction in their own work hours to accommodate caregiving responsibilities. particularly affecting female individuals [23]. Regarding fertility decisions, if a parent chooses bridge employment, their children may opt to have fewer children or delay starting a family in response to the changing family dynamics [24].

3.3 Macroeconomic Economic Effects

3.3.1Accumulation of material capital

Engaging in bridge employment may have repercussions on private savings, potentially impeding the accumulation of material capital. Initially, assuming a constant expected lifespan, bridge employment shortens the individual's retirement period, thereby reducing private savings earmarked for retirement security and subsequently diminishing the level of material capital accumulation [25]. Furthermore, bridge employment could curtail private savings through heightened personal consumption related to work and healthcare expenditures, thereby constraining the accumulation of material capital. It is crucial to acknowledge that the income growth resulting from bridge employment may also bolster private savings [16], thereby fostering the level of material capital accumulation.

3.3.2 Labor supply

The impact of bridge employment on the labor force can be dissected from intra-generational and inter-generational standpoints. Concerning intra-generational labor force dynamics, with the exacerbation of the aging population issue, individuals engaged in employment have emerged as a pivotal segment of the labor market [12]. However, it is imperative to recognize that certain bridge employment cohorts, supported by pensions, may accept lower wage levels, rendering them more competitive in the market compared to their counterparts of similar age, potentially equilibrium wage distorting levels jeopardizing the sustainable operation of the labor market [12].

In the realm of inter-generational labor force

considerations, if elderly individuals in bridge employment can serve as substitutes for younger laborers and the number of available job positions remains fixed, their decision to engage in bridge employment may heighten employment pressures on the vounger workforce, potentially triggering a decline in the number of young workers [26]. Conversely, the wealth of experience held by elderly workers can facilitate the enhancement of skills and knowledge levels among younger workers through a spillover effect, thereby enhancing the employability of the younger labor force [12].

Likewise, the impact of bridge employment on labor quality can be scrutinized through intragenerational and inter-generational lenses. In terms of intra-generational labor quality, individuals opting to extend their working years may elongate the period required for returns on human capital investments, prompting individuals to allocate more time and financial resources towards bolstering their human capital [27]. Regarding inter-generational labor quality, elderly individuals engaged in bridge employment may reduce the time allocated for intergenerational care, prompting offspring to prioritize quality over quantity in terms of childbearing, ultimately enhancing the long-term labor quality of the upcoming generation [18,24,28]. Furthermore, the transfer of work experience by elderly individuals engaged in bridge employment, leveraging the spillover effect of their human capital, can aid the younger generation in accelerating the accumulation of human capital, thereby contributing to the enhancement of the quality of the next generation's labor force [29].

4. Conclusion and Policy Recommendations

This study has reviewed research findings on bridge employment both in China and internationally, analyzing its determinants and economic effects from the perspectives of individuals, families, and institutions. The study suggests that, firstly, the determinants of bridge employment primarily include individual factors such as educational attainment and health status, family dynamics including intragenerational and inter-generational interactions, and institutional factors such as public pension systems and tax policies. Secondly, individual decisions regarding bridge employment not only impact personal well-being through health

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and consumption effects but also influence the health of their spouses, their children's labor supply and fertility decisions, and have broader effects on macroeconomic labor supply and material capital accumulation, subsequently affecting economic growth.

In terms of future research directions, there are several areas that can be further developed and refined. Firstly, there is a need to strengthen the theoretical framework surrounding bridge employment among the elderly, integrating it into traditional economic analysis systems. Secondly, there should be a deeper exploration of the multidimensional aspects of bridge employment behavior and its intergenerational economic effects. Thirdly, it is essential to critically examine and construct appropriate institutional frameworks to address real-world issues comprehensively.

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