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Taiwan's National Pension Program: A remedy for rapid population aging?

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A B S T R A C T

The population of Taiwan is aging rapidly. One undesirable outcome is public financial deficits, which, in turn, brings about another undesirable result, i.e., intergenerational inequity. We study how these outcomes can be mitigated by focusing on the National Pension Program (hereafter referred to as the NPP), because it is a key government response to population aging, as well as a clear illustration of how fiscally unsustainable social programs can undermine the equity across generations. Four questions are asked: (1) How serious is intergenerational inequity in Taiwan? (2) Does the NPP reduce or exacerbate the imbalance in financial burdens across generations? (3) How can the financial sustainability of the NPP be restored? and (4) How can intergenerational equity be restored? To address these questions, we apply the Generational Accounting method to 2010 NTA data and official population projections. The results suggest that the NPP may enhance the welfare of the current elderly, but the financial burden on the generations not yet born is bound to increase unduly. As such, the NPP alone is not a panacea for rapid population aging, and all citizens and the State should work together to find better and more comprehensive solutions.

1. Introduction

Population aging has proceeded at an alarming speed in Taiwan. The total fertility rate of the economy, which was one of the highest in the world in the 1950s, fell below 2.1 in 1984, and slumped to 0.895 in 2010. The percentage of elderly in the total population, although just around 12.5% in 2015, is projected to rise to 27.5% by 2035, surpassing that of Italy (27.1% in 2035), and may rise further to 40.6% in 2060, surpassing that of Japan (39.9% in 2060), which is currently the world's oldest country (NDC, 2014, p. 63).

The extremely rapid aging of the population has brought about undesirable outcomes. One adverse result is the heavy financial pressure on social programs that aim to aid the elderly. In Taiwan, where the rapid weakening of family support has created a strong need for public support of the elderly (Lai and Tung, 2015), a major government response has been the National Pension Program (hereafter referred to as the NPP) introduced in 2008, which covers all those who are not already covered by occupational pension programs.

Yet the financial sustainability of the NPP is dubious. According to a recent official report on the NPP, the actuarial sustainable premium rate is 21.16%, while the prevailing rate was a mere 8% in 2015 (to rise gradually to 12% in 2031, by law), resulting in huge deficits that will become visible in just a few years (Huang et al., 2012). Similarly, Labor Insurance and most other social insurances are expected to become financially insolvent in the near future, even though they may appear to register surpluses now.

Compounding the problem is the fact that public debt has grown rapidly over the last quarter of a century. In 1990, the central government's debt as a percentage of GDP was only about 5%; it jumped to 33% in 2010 and skyrocketed to about 45% in 2015, a rate higher than that of half of the OECD countries in 2010.

The financial imbalances in both the government and social insurances will only worsen with an aging population, since more elderly people will be receiving social benefits, while fewer working-age people will be paying into the national treasury and pension funds. What is worrisome is that the deficits will accumulate and the payment cannot be deferred indefinitely. As it is most likely that the financial burden will fall upon the future generations, rather than on us, the current generations, intergenerational inequity will deteriorate.

In this paper, we study the imbalance in the public financial burden across generations. It is irrefutable that public financial solvency does not guarantee intergenerational equity; however, it is

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also unquestionable that public financial deficits will result in a generational imbalance. Since fiscal sustainability is easier to measure than intergenerational equity, we begin by studying the financial sustainability of the NPP, which is an important government response to Taiwan's rapid population aging.

Four questions are asked. First, is there any intergenerational inequity in Taiwan at all? Second, does the NPP reduce or exacerbate the imbalances in the financial burdens incurred by different generations? Third, is the NPP financially solvent and, if not, how can its financial sustainability be restored? Fourth, is the public sector, as a whole, financially solvent, and if not, how can its financial health be improved and intergenerational equity be regained?

To address these questions, we use the Generational Accounting (GA) method, which is a good tool for measuring public finances over time and across generations. We employ the National Transfer Accounts (NTA) data of 2010 as the baseline data, and then make projections using official population forecasts. Basic generational accounts, as well as a number of hypothetical cases and policy scenarios, are carefully studied and compared.

The next section reviews the population policies and old-age social security system in Taiwan. The third section introduces the methodology and data. The fourth section reports major findings on generational accounts, and discusses our four research questions. The final section summarizes the main results and discusses whether the NPP is a good remedy for the rapidly aging society in Taiwan or not.

2. Taiwan's population policies and old-age social security system

This section reviews the demographic changes taking place in Taiwan, the population policies being discussed or implemented, and major social insurance programs that target the elderly.

2.1. Demographic changes and population policies

The population statistics summarized in Table 1 vividly illustrate the drastic demographic changes that have taken place in Taiwan. In 1950, Taiwan had one of the highest total fertility rates (TFR) in the world, with a high proportion of children (41.4%), and low proportion of elderly (2.5%) making up its overall population. However, with the economic takeoff and effective birth control measures in the 1960s, the fertility rate has decreased relentlessly since then. By 2014, the TFR was only 1.165 per woman at childbearing age. At the same time, life expectancy has increased. For males, life expectancy at birth has risen from 53.05 years (1950) all the way to 76.72 years (2014). Accordingly, the young dependency ratio has decreased from 0.74 children (aged 0–14) per working age adult (aged 15–64) in 1950 to 0.19 in 2014, and the elderly dependency ratio has gone up from 0.04 elderly (aged 65 and above) per working age adult in 1950 to 0.16 in 2014.

Listed at the bottom two rows of Table 1 are the medium-fertility rate projections of the National Development Council (NDC). By 2060, the young dependency ratio will fall to 0.17 and the elderly dependency ratio will soar to 0.80. This is not only an astonishing contrast with the situation in 1950, but also a bleak prospect relative to other countries. In Japan and Italy, two of the oldest countries in 2014, the percentage of elderly population is projected to be 39.9% and 30% in 2060, respectively, whereas it will be 40.6% in Taiwan (NDC, 2014, p. 63). In other words, Taiwan may become the oldest country in the world in just a few decades.

Along with the massive demographic transitions, the *Population Policy Guidelines* issued by the government since 1969 have also switched from promoting birth control to encouraging fertility. In the latest *White Paper on Population Policy* (MOI, 2014), the government gave priority to raising fertility, increasing female labor participation, promoting in-migration, and pension reform, among other policies.

All four targets are quite challenging. As in other East Asian countries, pro-natal policies in Taiwan have so far met with limited success (McDonald, 2007, 2013), the migration policies have been overly conservative due to high political sensitivity (Lin, 2012), and female labor participation is still much behind that in Singapore or Hong Kong, in spite of some recent improvements (Lee, 2014).

The last goal, pension reform, has remained a political hot potato. In 2012, the government promised to conduct pension reforms, in order to appease the social anxiety heightened after a series of official actuarial reports revealed that most public insurances would go bankrupt in less than two decades. The reform proposal, mainly to do with delaying the eligible pension age or reducing pension benefits, however, went nowhere so far, because of the lack of a consensus among citizens from different sectors and different generations (Hao, 2015).

2.2. Taiwan's public pension system and health insurance at a glance

The public sector provides two types of old-age social security, that is, in-kind and cash benefits. The main in-kind benefit for the elderly is the provision of public health, and the main cash benefit is public pensions.

The public pension system in Taiwan is complicated in structure. The system has evolved in three stages. In the first stage, from the late 1950s until the early 1990s, there were only two occupational insurances, namely, Labor Insurance (LI) and Government Employee Insurance (GEI), in addition to welfare assistance provided to a very small group of elderly, the Veteran Home-care Allowance (VHA)[1]. Thus, the system was essentially a "Bismarck" model, with contributions forming the basis of entitlement.

In the second stage, between 1993 and 2008, a "Beveridge" element was added to the system, with the introduction of a number of welfare benefits for the elderly, such as the Medium and Low Income Elderly Living Allowance (MLIE), the Old-age Farmer Welfare Allowance (OAF), the Old-age Welfare Allowance (OA), and the Indigenous Senior Citizens Welfare Allowance (ISC). [2,3]

Finally, since late 2008, all Taiwanese citizens have been entitled to old-age benefits, as a result of the NPP's coverage of the non-working population. In addition, since 2009, LI retirees have been able to choose between a lump-sum payment and an annuity upon retirement, but before 2008 they could only receive a one-time benefit.

The current old-age pension system is illustrated in Fig. 1, which follows the World Bank's multi-pillar framework. At Pillar 0, three welfare allowances are listed, which are the MLIE, the OAF, and the VHA. The other two forms of elderly welfare assistance that began in the second stage, the OA and the ISC, were consolidated into the NPP in 2008 and are not presented in the graph.

At Pillar 1, there are five mandatory public insurance programs, which are the NPP, LI, GEI, Servicemen Insurance (SI), and Farmers' Health Insurance (FI). All, except for the NPP, are occupational insurances.

At Pillar 2, there are three mandatory social programs, the Labor Pension Plan (LPP), the Private School Pension Plan (PSP), and the Public Servant Pension Fund (PSPF). LPP participants are LI

1 Beneficiaries of the VHA (started in 1968) numbered around 57 thousand in 2012, while LI and GEI covered 9.6 million and 580 thousand insurants, respectively.

2 The MLIE, OAF, OA and ISC started in 1993, 1995, 2002, and 2002, respectively.

3 Beneficiaries of the ISC were indigenous citizens aged 55–64. After they became 65 years old, they would be entitled to the OA.