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Social security and trust fund management

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In this paper we investigate why and to what extent the government should have a social security trust fund, and how it should manage the fund in the face of demographic shocks, based on a simple overlapping-generations model. We show that, given an aging population, a trust fund in some form could achieve the (modified) golden rule or to offset the negative income effect of a PAYGO system. Besides, in a closed economy where factor-prices effects dominate, using the trust fund as a buffer for demographic shocks could lead to a widening of intergenerational inequality. We also the discuss policy implications of our analysis on the social security reform debate in Japan, including the fixed tax method and the use of the trust fund in the face of a rapidly aging population. *J. Japanese Int. Economies* **18** (4) (2004) 528–550. Kobe University, 2-1 Rokkodai-cho, Nada-ku, Kobe 657-8501, Japan.

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1. Introduction

The Japanese government has a huge social security trust fund, which amounted to nearly 150 trillion yen for the Employees' Pension Insurance program (EPI; *Kosei Nenkin Hoken*) at the end of 2002. This is equivalent to about five years of EPI benefits, compared to about three years of benefits in the United States and only one to two months of benefits

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in the United Kingdom, Germany, and France. In a pure pay-as-you-go (PAYGO) system, the social security taxes paid by young workers and benefits paid to retirees are balanced at any time. In reality, however, tax revenue can both exceed and fall below benefit payments, and the gap between the two determines the path of the trust fund.

The very high level of the Japanese trust fund implies that social security taxes have generally exceeded benefit payments. This presumably reflects Japan's relatively young population structure thus far, as well as the government's strategy of building up the trust fund before facing a rapidly aging population. Given pessimistic prospects for birthrates and wage income growth, however, the current level of the trust fund appears not to be sustainable. In fact, the trust fund has started to fall short of official projections in recent years, mostly due to a reduction in social security tax revenue, reflecting lackluster economic conditions.

It is unclear, however, what the optimal level of the trust fund is and how the government should manage it. European governments do not require a huge trust fund as they use the fund simply to absorb unexpected, temporary shocks to social security finances. Alternatively, the government seems to be able to use the trust fund more strategically. For instance, it is often argued that the government should redistribute income between generations through the fund to hold down social security taxes on smaller cohorts. Also, as suggested by Feldstein's (1974) argument, the government may want to accelerate capital accumulation by increasing payroll taxes and adding them to the trust fund.

In fact, how to manage the trust fund in the long run is one of main issues in the social security reform debate in Japan. The Ministry of Health, Labor, and Welfare (MHLW), which is in charge of Japanese social security programs, has repeatedly claimed that it should keep the trust fund at a high level to hold down future increases in social security taxes given a rapidly aging population. This affects the current generations because, to sustain the trust fund at a certain level, they have to give up an opportunity to pay lower taxes or receive higher benefits. Indeed, the MHLW plans to continue raising the tax rate over the next decades, albeit with the trust fund at hand at a high level. More and more politicians and economists now insist that the government should start to reduce the trust fund to mitigate demographic pressures, which are expected to mount rapidly in the future.

The outlook for the trust fund is also one of the key issues in the social security debate in the United States. The US Social Security Trust Fund now amounts to over one trillion dollars, but the latest 2003 Social Security Trustee's Report released the official projection that the OASDI trust fund will be exhausted sometime around 2042. In the United States the baby boom generation will begin to retire around the year 2010, at which time the large trust fund will start to be run down. If the fund is exhausted, benefits would have to be cut and/or taxes raised, or the government would have to completely change the social security programs. Aaron and Reishauer (1998) insist on shifting the existing trust fund from (non-marketable) government bonds to private securities to raise the rate of return of the trust fund, thereby extending the period before its balance is exhausted. Federal Reserve chairman Greenspan (1999) and many others criticize this, however, arguing that such a shift in the portfolio of the fund would do nothing for national savings and social welfare.