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Comment

Raj Chetty

Many governments now provide large-scale social insurance and pension programs as a safety net for the elderly. As populations age, these programs have led to rapidly growing fiscal obligations that governments must meet. However, under current tax policies, most governments will collect far less revenue than the total amount of benefits they have promised to elderly citizens in the future. Generational accounts show that the magnitude of the fiscal imbalance is very large for most developed countries (Auerbach, Kotlikoff, and Leibfritz 1999).

Japan is no exception to this problem. According to calculations by Takayama, Kitamura, and Yoshida (1999), Japan faces one of the largest fiscal imbalances, owing largely to its rapidly aging population and longevity of the elderly. Takayama et al.'s generational accounts imply that future generations will have to bear 2.7 to 4.4 times the fiscal burden that current generations do, meaning that sharp increases in tax rates are needed to sustain fiscal balance.

These generational accounts rely on detailed assumptions about the trajectory of the economy and demographics over a long horizon. The accuracy of the underlying assumptions is thus critical in obtaining reliable projections of fiscal imbalances.

In this chapter, Tadashi Fukui and Yasushi Iwamoto focus on the assumptions underlying one aspect of the generational imbalance problem in Japan: the fiscal burden of health and long-term care costs. Fukui and Iwamoto take issue with the *structural* forecasting methods used by the Japanese government to make projections about economic activity over the next century. Their primary criticism is that these methods are quite opaque and make many implicit assumptions that are hard for the user to decipher. They instead advocate a reduced-form or *mechanical* approach that does not rely on this complex structure. Fukui and Iwamoto's projections are based on transparent statistical extrapolations that do not rely on a specific economic model.

The author's mechanical method yields significantly less pessimistic estimates of the degree of fiscal imbalance due to health care costs. This is

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primarily because their projections imply a slower rate of growth in health care expenditure than the Japanese government predicts.

While transparency is certainly a virtue, the ultimate measure of the value of a forecasting method is its accuracy. Fukui and Iwamoto describe forecasts of both the structural and reduced-form methods in detail, but do not discuss which of these methods is more likely to be accurate. This issue is at least in principle empirically resolvable using historical data. For example, one could develop both structural and reduced-form forecasts using data available in Japan as of 1990. One could then predict the trajectory of variables such as labor force participation and health care costs, as well as total fiscal imbalance, for the next 15 years using each method. By computing the forecast errors for each method using data from 1990 to 2005, one could determine which method is more accurate.

Such an analysis could be particularly valuable in the context of two assumptions that Fukui and Iwamoto discuss at length in their chapter. First, the authors assume that the growth rate of health care costs will equal the rate of economic growth. In recent years, the fraction of GDP devoted to health care has risen sharply, suggesting that this assumption could be inaccurate. Second, the authors argue that the models used by the Japanese government overstate the rate of labor force entry by women and the elderly. Both of these claims can be tested by comparing the performance of the two forecasting methods in predicting historical trends in labor supply and health care costs.

In summary, Fukui and Iwamoto have raised a number of interesting and important issues regarding the assumptions underlying generational accounts in Japan. However, further research is required to determine whether the methods they propose will indeed outperform those used by the Japanese government.

References

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