

Reviewer Comments by John Piggott

Director, Australian Institute for Population Ageing Research
Australian School of Business
University of New South Wales
Australia

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**Review of Program on Intergenerational Equity (PIE):
Professor Noriyuki Takayama, Institute of Economic Research, Hitotsubashi University**

Summary:

This project has made major strides in understanding one of the world's most inexorable problems, and one of Japan's most immediate issues: in the light of demographic transition, what are the inter-generational implications, and what policies might be best deployed to address concerns that arise from such impacts? The project has been pursued with engagement not only from Japanese experts, but also from the international academic community. This is vital, because scholars around the world are working on this suite of issues, and their work bears directly on the PIE research program; and because the Japanese experience, being at the forefront of population ageing, has the potential to inform the rest of the world on the relative efficacy of alternative policy approaches.

Overall, I would judge that the structure of the PIE Program is well suited to producing relevant research within the broad field of the Program's mandate.

Program structure:

The overall program has 5 major research teams, covering

1. Pensions, fertility and technical innovation (Takayama-Aoki)
2. Labor (Genda)
3. Retirement (Shimizutani)
4. Health care and long term care (Ogura)
5. Social Choice Theory and Welfare Economics (Suzumura-Hara)

These fit together well. The first three focus on different aspects of demographic shift. Financing retirement with a smaller labour force, the determinants of fertility (a phenomenon which generates

a smaller labour force), and technological innovation, the IP treatment of which may affect returns inter-generationally, are all topics which are studied by the Takayama-Aoki team. The generational and intergenerational importance of labour experience is taken up by the Genda team, with studies focusing on both cohort effect and inter-generational impacts of labour experience using micro data, and also the demographic structure of workers within firms, a crucial issue as labour must work longer in the face of population ageing. Finally, the retirement decision, along with human capital accumulation, the most crucial labour supply decision of all, receives independent attention (Shimizutani team). This team is also involved in JSTAR, a project which has the potential to transform the empirical analysis of retirement and population studies in Japan.

The last two teams focus on issues which are highly relevant to inter-generational issues, but are perhaps intellectually separate from the first three. The Ogura team focuses on health care, an area of the most serious concern to economists worldwide as they attempt to grapple with increased longevity, shrinking labour supply, and burgeoning health care costs, driven more by technical innovation than by demographic shift. Finally, the intellectual framework within which normative judgements about these issues must be made is being researched and extended to more comprehensively accommodate intergenerational dimensions of social welfare (Suzumura-Hara).

I judge that in combination, these teams encompass both the theoretical and applied expertise to deliver on the Program's promise.

Research output:

The overall research output is extremely impressive (Part 1, sections 1.9, 1.10) with 10 book publications, and 74 publications of research papers, most in refereed journals. Some of these have been placed in **highly ranked international journals**, while other more applied pieces have found homes in English language journals with a Japanese orientation. Both types of research clearly have value, and it is heartening to see this spread.

International engagement:

Here again, the outcomes are extremely impressive. The program has organised 12 international conferences over the last three years, and the result is that PIE is now recognised globally as a centre of research excellence in Japan. As well, PIE participants have presented many papers at conferences and seminars outside Japan, and the number of these increases as the program has matured. This trend shows that **the research undertaken by PIE is being increasingly recognised**

internationally. This is testament to the foresight of the Director, and the high standards he has applied to research being undertaken within the Program.

Specific comments on research papers:

My interests lie in pensions and retirement, so I will focus on three papers written by Professor Takayama, each of which deals with an issue in pension economics with a Japanese focus.

On Fifty Million Floating Pension records in Japan

This paper does three things. It documents the extraordinary phenomenon which has come to light over the last several years concerning lost records and discounted pension payouts to the retired in Japan over a long period. It attempts to explain how this came about, and how the Government is currently responding. Finally, it offers some possible broader policy responses which may reduce the chance of similar circumstances arising again.

The paper is important, both within Japan and internationally, for several reasons. First, operational risk in private pension funds has been well chronicled, but not in public pension funds. The Japanese experience shows that it is important to analyse and manage operational risk in public, pay-as-you-go funds as well. It begins with a statement of what happened, moves on to a description of the circumstances of why it happened, then analyses how these contributed to the event. It then discusses government response, and finally makes some policy suggestions.

The paper **provides the first (to my knowledge) comprehensive account of a major piece of social security mismanagement**, perhaps the most serious to have occurred in a developed nation. (Less developed economies, such as Chile back in the 70s, operated social security systems which were very corrupt, but those arrangements existed within a governance structure whose integrity was seriously compromised.) It is extremely valuable to have an authoritative account of this series of events available internationally. It would be useful to see further development of this study contextualise the event within the broad category of operational risk.

Reforming Social Security in Japan: Is NDC the Answer?

This paper, along with the Pension Coverage paper assessed below, begins with two propositions. First, the current social security system in Japan is seriously unfunded, and the legacy cost is large. As a result, in an attempt to retain some kind of fiscal management, promises have been progressively wound back (for example, the switch from wage indexation to price indexation of

pensions in payment, and increases in the eligibility age). For this reason, among others, confidence in the system is being lost, and fewer young people are paying pension contributions.

The question the paper poses is whether there is a way to re-establishing fiscal management of Japanese social security while developing a set of promises that are resilient to changing demographics and financial turmoil, this offering greater certainty to elderly Japanese reliant on social security (the heavy majority). It argues that such a paradigm does indeed exist, in the form of a *Notional Defined Contribution* (NDC) arrangement, which has at its heart the idea that the social security promise can take the form of a Defined Contribution contract, even though the accumulation phase is simply a book-keeping exercise and therefore *notional*. Such a promise would not need to be broken by governments in fiscal embarrassment.

This paper has important implications for the future of Japanese pension reform. Already, contingency clauses exist in social security policy. It would make much sense to seriously consider the formal introduction of such a system. One aspect of this not seriously analysed in the paper is that existing reserves might possibly be invested to cushion some of the demographic shortfall of a DC system, and that the net fiscal cost might therefore be further contained. It would be interesting to see, in a later stage of the Program, further work along these lines, to develop the argument even more forcefully.

Pension Coverage in Japan

This paper examines pension fund coverage in Japan. While the current retired almost all receive social security, drop-out rates are increasing (for some reasons, see the above papers), although perhaps the most important is the increased contribution rate now legislated to help meet current liabilities – a natural consequence of population ageing, with important inter-generational implications. A further trend of concern is the increasing proportion of workers employed by small firms with imperfect accounting systems, or who are in the informal sector – these, along with the self-employed, are notoriously difficult to reach in terms of coverage.

The paper is important in giving an account of the present circumstances of policy and coverage in Japan, and of fiscal implications of some alternatives. Future development of this work could cover the question of protection from consumption erosion of the currently retired, were a consumption tax to be used to finance a tax-financed minimum pension system (an important inter-generational equity issue); and whether such a pension should be payable to all age-eligible Japanese, or whether it should be means tested. These are important policy design issues which need to be properly studied

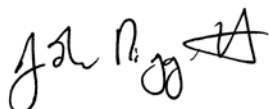
and resolved before policy is implemented. This paper highlights some of the issues which need to be tackled in such a more comprehensive project.

Overall Assessment

My overall assessment of the Program thus far is very positive – important issues are being tackled in a deep and intellectually rigorous way, international collaboration has been actively engaged, and the research output thus far has received international recognition, both in conference presentation and journal acceptance.

In reflecting on what has NOT been covered in the Program thus far, the issue of Governance seems to be important but relatively neglected. This could cover a number of areas – governance of pension funds, national governance of social security, especially social security reserves, and governance of other inter-generationally relevant structures, such as aged care programs. I believe a separate project on this topic would be highly beneficial.

As well, it would be good to see more interaction between the teams. To take one example, both the Shimizutani team and the Ogura team have worked on aged care, but little interaction appears to have taken place. Perhaps intensive workshops on issues where there is overlap between the teams' research would pay dividends in the final result for both Japan and the rest of the world.



Professor John Piggott, PhD, FASSA
Director, Australian Institute for Population Ageing Research,
Australian School of Business
University of New South Wales,
Sydney 2052,
Australia.