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The challenge of an aged and shrinking population: Lessons to be drawn from Japan's experience [☆]Peter S. Heller ^{*}

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ABSTRACT

Japan is the first industrial country to have an aged and shrinking population. Such a demographic situation poses numerous macroeconomic and microeconomic challenges, with the former further amplified by Japan's high public debt level. This paper underscores the multiple criteria to consider in evaluating Japan's policies as it has approached this demographic tipping point. In examining Japan's macroeconomic policies as well as the specifics of its social insurance policy framework, it seeks to draw lessons relevant for countries confronting the prospect of an aged population, while recognizing the importance of viewing Japan's policies in the context of its unusual culture and history. The paper notes Japan's current initiatives to grapple with its recent years of anemic growth and with the fiscal and social challenges arising in an aged population.

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Introduction

In the last two decades, much has been written about the aging of industrial and emerging market countries. The focus has been largely prospective, with the literature focusing on the implications of a shift in the demographic structure for countries that have witnessed significant reductions in fertility and unprecedented increases in longevity. But soon many industrial countries will actually cross this demographic threshold, and begin to experience the slow but inexorable rise in the population share of those age 65. Because of its own particular history of an intense but

short-lived baby boom, followed by a dramatic drop in fertility and a pushing back of longevity, Japan is already beyond this point. Its baby boomer cohort, born in 1947–49, began turning 65 in 2012. The share of its over-65 population will rise to 26.5 percent this year and 29.4 percent by 2020. Furthermore, Japan's population is projected to *shrink* from 127 million today to 117 million in 2030 and 97 million in 2050 (NIPSSR, 2014b, 2012; National Statistics Japan, 2015).

These changes have been long anticipated by Japan's policy makers and academics, as have been their potential economic and social consequences (Fukawa and Itaru, 2009; Government of Japan, Cabinet Office, 2011b; Kaneko, 2011). The obvious question is: what lessons—both positive and negative—can other aging countries draw from Japan's approach to an aged and shrinking population? Typically, the literature on aging populations has focused on whether government-managed pension and health care systems will prove financially viable in the face of a large retired population. But the challenges that will confront a country experiencing such a sharp demographic change involve more than the impact on a government's finances.

This paper will draw lessons from how Japan has pursued its economic and social policies during the period before it approached this demographic milestone. It will examine its policies from several perspectives, starting from Japan's macroeconomic and overarching policy stance and then examining micro-level issues related to its social insurance system of pensions, medical care, and long-term care. Some lessons are highly relevant for countries that are a decade away from when their 65+ populations

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will swell. For industrial countries much closer to the threshold, adaptation will be harder and the policy choices more constrained. Japan's approach reflects a social insurance system that is rooted in Japan's unique socio-cultural and historical context. In particular, its approach to medical care and health insurance may prove less relevant for emerging market countries exploring alternative medical system models.

This discussion provides the perspective of an economist familiar with how other countries have confronted an aging population. While recognizing the wealth of studies on these issues by Japanese experts, three observations offer support for this paper's insights. First, fresh outside eyes may discern what insiders cannot. Second, many policy reforms have proven to be extremely difficult for Japan to adopt and thus much remains to be done. Third, while most Japanese and Western scholars have identified the challenges associated with an aging population, the focus has not been on the issues now confronted once that population has reached the "aged" doorstep.

Criteria for judging the effectiveness and appropriateness of policies for an "aged population"

Most of the economics literature on aging populations has focused on the demographic imbalances that will emerge, the threats to the sustainability of government finances, and the excessive burdens that are thrust onto future generations (e.g., [European Commission, 2014](#); [Ogawa et al., 2010](#)). Generally missing is a more *holistic* perspective on the multiple challenges a country must confront if it is to maintain and improve social welfare for both present and future generations in the context of a transitioning demographic structure. The following criteria would seem appropriate in evaluating a country's policies in this context.

Ensuring fiscal sustainability

Does a government's fiscal commitments—reflecting the servicing of its existing public debt, promised future expenditure, the delivery of essential public services, and necessary public investment—match its expected future stream of revenues? Any significant imbalance would either force cutbacks in a government's promises – throwing into question the welfare of households of different age groups – or provoke doubts about a country's future growth prospects.

Promoting fairness in intergenerational burden sharing

Too large a burden of intergenerational support borne by particular generations is unlikely to be socially or politically sustainable. Excessive taxes borne by working age cohorts would jeopardize their ability to provide for their own future retirement needs as well as to invest in their children's human capital—the latter being an important requirement for any country's long-term economic viability. Conversely, excessive poverty among the elderly would be a source of social malaise that could provoke a political reaction from elderly voters.

Realizing fair burden sharing across generations is difficult in most industrial countries, when long-promised social insurance commitments prove financially unsustainable and governments are forced to pursue alternative unpopular approaches for resolving fiscal imbalances (i.e., cutting benefits, raising taxes on the elderly, increasing taxes on the working age generation, or reducing other services to children and working age groups). Politicians often shift the burden forward to unborn or younger cohorts, though the increased attention by markets to fiscal sustainability

has made this more difficult. Further complicating policy-making are the analytical challenges to empirical estimation of the relative benefits and burdens being received or borne by different generations.¹

Promoting the well being of the population

This is a criterion that risks being excessively general and thus unhelpful. Yet there are important dimensions of a "good society" which cannot be ignored:

Promoting long-term per capita growth

Will the pressures to support the elderly compromise investments that could realize productivity growth in support of increasing per capita income for future generations—specifically, investments in infrastructure, human capital and R&D?

Advancing the health of the elderly

Specifically, are the elderly living longer, in a relatively healthy condition, or living longer but uneasily, with multiple chronic diseases? Are quality medical care services readily available to them? In Japan, the evidence suggests increasing longevity with added unhealthy years ([Yong and Saito, 2009](#); [Crimmins et al., 2008](#)). With increased longevity, will the share of the very elderly afflicted by dementia rise and can Japan's long-term care insurance system cope with such an outcome?²

This criterion should also relate to the state of health of others in the population (children in particular). Equally, the roots of poor health in the elderly (at least in Japan) may stem from diet, smoking, and the work pressures experienced by much of the working-age population.

Avoiding "elderly destitution"

Are policies to achieve fiscal sustainability being achieved at the expense of a significant group of elderly being left destitute—living homeless or in questionable circumstances? In countries such as Japan, where the culture expects family members to support the elderly, the social onus may not be fully felt by society in general. But with low fertility rates, this may result in many elderly being left without obvious sources of financial support.

Preserving a country's cultural integrity

Historically, Japan has been adept at adapting external innovations and policy approaches to its unique cultural identity. But this may also imply excluding valuable innovations in social insurance policy that sit uneasily with societal and political traditions.

¹ The new methodology of National Transfer Accounts is one approach to gauging the extent of intergenerational burden shifting (see [Ogawa et al., 2010](#)). But this methodology itself confronts challenges in judging the incidence of taxes across generations. In Japan, for example, only a handful of studies estimate the incidence of Japan's tax and social insurance contribution system, and these all tend to be partial or incomplete analyses.

² A final philosophical issue is that inevitably, in an aged society, a significant portion of the elderly will be experiencing a closing down of life, a narrowing in their capacity and serious limitations, not only physically but mentally. This in itself is a form of inequality in social welfare. But it is not one that offers easy solutions as to what is necessary to provide so that there is at least a modicum of comfort for those living in such reduced and narrow states.

Some generic lessons

Lesson 1: Avoid policies that overemphasize a population's "agedness"

It would obviously be ironic for this paper to argue *against* a focus on the "agedness" of a population. But this implicit contradiction arises from the surprising speed at which the demographic situation and standards of health have outpaced the underlying social insurance framework. For countries that still have flexibility in their policy framework, the policy message is to avoid enshrining specific ages for the entitlement to retire, to receive pensions, or to obtain favorable social privileges.

Policy frameworks (such as in Japan) that promised such specific age points – 55 or 60 or 65—implicitly socialize the financing burden of excessive or unhealthy longevity. Such frameworks assumed that these were the ages at which individuals could no longer finance themselves from their own employment or from the assets they could have reasonably accumulated during their working lives. The granting of social privileges to the presumed "elderly" (discounted transit fares, etc.) sought to defray the costs of aged years that were not expected to be excessive. But policy-makers now face the challenge of introducing greater flexibility in setting such age points in response to changing demographic and health conditions. Specific entitlement policies need to be flexibly adjusted periodically and introduced with a long lead-time.³ It might require differentiating among the elderly in terms of their presumed functionality to participate in the labor force (rather than treating all those over a specific age (e.g., 65) as "dependent"). Experiences in Japan and other industrial countries suggest that many in the 65–75-age group have the physical and intellectual capacity to continue participating in the labor force.

Labor market institutions must ensure that remuneration practices focus more on productivity and less on seniority or age.⁴ Such policies are more easily accepted when the shift in the demographic structure is still a couple of decades away or when social insurance frameworks are underdeveloped. For countries with well-established norms, reform is much more difficult. Policies that have long conditioned the behavior of those about to become or are already past these age points will seek to maintain the "enshrined ages of privilege."

Some industrial countries have introduced flexible approaches in some policy spheres. Sweden's notional defined contribution (NDC) pension system—subsequently adopted by Japan, Italy, and Poland—is considered one obvious example, allowing for adjustment in pension benefits in response to changes in longevity, fertility, and the interest rate environment.⁵ Increasingly, statutory retirement ages are being adjusted with life expectancy developments in many European countries. Japan has periodically shifted the age benchmark for entitlement to specific social insurance benefits or in the required level of copayment. Also in the pensions sphere, the movement by many countries towards defined contribution frameworks has forced individuals to bear the risk of financing

their own retirement rather than such risks being borne by employers or society. However, in many countries—Japan particularly—labor markets have not so easily adapted to enable the extended employment of individuals past historically conventional retirement ages.

The origin of the problems associated with rigid age points for benefit entitlements can be briefly noted. In Japan (as in many other countries), social insurance frameworks as well as many other economic conventions (in terms of employment and wage practices) were formulated when the demographic norm was for fertility rates to be high and longevity expectations relatively limited. With a rising size projected for succeeding generations, Japanese policy makers reasonably assumed they could afford to improve the conditions of an elderly population for which a large proportion would not live more than a decade beyond age 65. The prospect of "surviving beyond age 65" as a risk to insure against could thus be financially supported through a social insurance framework. The mandatory age of retirement for many was set at age 60; the age for eligibility of social pensions was set at 60 or 65. Free medical care for the elderly seemed appropriate. Wage rates keyed to seniority were equally viable when the age of retirement was clearly delimited. For a country like Japan, modeling economic and retirement policies on those prevailing in other OECD countries offered another example of demonstrating successful policies against global norms.

Few demographers let alone policy makers could have anticipated how quickly such demographic and health norms would change. The reality of sustained, below replacement, fertility rates has only been concretized in the last two decades. Equally striking has been the dramatic change in expectations about longevity and about the conditions of health that can be expected. For longevity, particularly in Japan, life expectancy at age 65 has continued to increase steadily, and now reaches 18 years for men and 25 years for women.

There are three aspects to this change in health conditions. For many elderly, the time at which "agedness"—in terms of a limited functionality of life—is experienced has been extended. Exercise, diet, and a revolution in what medical science can achieve, have all contributed to this phenomenon for many in society and have underscored the role of *preventive* policies that enhance the quality of life and the degree of functionality of those in their elderly years. For other elderly, multiple chronic conditions have contributed to reduced functionality but with medical science still facilitating high expectations of longevity. And for the very elderly, medical science has allowed many to survive despite conditions of dementia.

There has thus been a disconnect between the speed at which the change in expectations about longevity and health options has been absorbed by individuals and the pace at which the policy environment has responded to these developments. In effect, over time, individuals have come increasingly to expect a period of retirement and pension receipts that can extend to 25–30 years rather than the 5–10 years of the past. Expectations as to the age of retirement have only grudgingly changed (even if the elderly do also partly participate in the labor force). In effect, the swiftness of these changes has outpaced the capacity of society to adapt its expectations and norms as to what can be financed within a social insurance context, creating significant challenges for intergenerational equity.

Lesson 2: Pensions, medical care, and long-term care are only part of the challenges faced by an aged society

Japan is unusual in the extent to which it has adopted comprehensive social insurance policies and introduced other noninsurance-related initiatives that seek to meet the needs of

³ Some analysts have proposed alternative flexible measures of elderly dependency, including: (i) a "prospective old age dependency rate" measuring the proportion of those over age 20 with life expectancy under 15 years or (ii) an "adult disability dependency rate," measuring the share of adults over age 20 with disability relative to those over age 20 without disability (Sanderson and Scherbov, 2007).

⁴ In Japan, both business and government need to reconsider employment practices, seniority-based wage profiles, and the role that training and education for seniors can play. The vibrant debate in Japan about the appropriate mandatory retirement age, the nature of the wage contract after age 60, and the challenges posed by youth employment and underemployment to the sustainability of the social insurance model, illustrates some of the key issues.

⁵ Where possible, actuarial principles should be used to determine the benefits to be received over the lifetime of the elderly; the practice of periodic actuarial reviews with adjustments in contribution rates and possibly indexation formulae becomes critical.

an aged society (see Part IV).⁶ Yet have these efforts been sufficient? Ultimately, economic success by the *nonelderly* population must undergird any country's capacity to meet the needs of its elderly. Japan's policy makers recognize the need for structural reforms that facilitate productivity growth, address inefficiencies in the labor market (including the factors limiting female and elderly labor force participation), strengthen human capital investments, reform immigration policies, and rectify excessive restrictions in many sectors (see Feldman and Yamaguchi, 2013; OECD, 2015; Wharton School, 2014; Oshio et al., 2011). Some changes have been made. For example, the availability of child-care facilities has been expanded and laws have been introduced to reform Japan's corporate governance structure and the rules relating to pension funds and institutional investors. Japan's experience also reveals the recognition of the need, at the micro level, to adapt infrastructure to accommodate more elderly within cities, and at the macro level, to downsize the quantity of social services provided by many towns and cities as their younger populations shrink. But overall, the agenda of needed reforms still remains substantial.

Lesson 3: Restoring fiscal sustainability must be coupled with ensuring that all elderly can meet their basic financial needs

Inevitably, the fiscal pressures of an aged society force a government to reassess the financial sustainability of its social insurance framework and to examine what changes are needed in contribution rates, tax policies, and benefits. But Japan's experience suggests that solving the *government's* fiscal problems is not the same as ensuring that many elderly are not poor. While most of Japan's elderly are financially well positioned, among OECD countries (OECD, 2015), Japan *still* has a relatively high elderly poverty rate, suggesting significant gaps in its welfare and social insurance framework. Takayama and Kitamura (2015), Oguro (2011), and Harding (2015) have noted that its elderly poverty rate may further worsen as a consequence of the features of its pension system. This suggests the importance, in a fiscally sustainable, multiple pillar pension system, of having a "zero pillar" that can provide a minimum transfer (perhaps means-tested) to limit the problem of elderly destitution (e.g., Australia's age pension).

For today's elderly, Japan needs to focus on: (i) whether it needs to revise its current structure of public assistance policies or the size of its basic pension; (ii) the potential role of refundable tax credits; (iii) the possible utility of a reverse mortgage system; and (iv) the relevance of strengthened *preventive* health measures to facilitate labor force participation by the elderly and contain potential medical costs.

Equally of concern, and looking forward, it remains unclear whether the relatively beneficial position *today* of most of Japan's elderly will still apply to those becoming elderly after 2025. *A fortiori*, the segment of Japan's working age cohorts characterized as "neets, freeters, parasite singles, or dropouts from the social insurance system" may have much less financial wherewithal to finance their elderly years than today's elderly (Genda, 2005).

The overarching policy challenges confronting Japan

Three questions can be asked about Japan's capacity to meet the challenges of an aged population. First, can its government restore durable long-term per capita income growth while also achieving a sustainable fiscal position? Second, can Japan realize a socially

acceptable degree of inter- and intra-generational equity as its population gradually shrinks and the burden of supporting an increasingly aged population gets heavier? Intergenerational inequities are bound to emerge even if faster productivity growth is achieved and this will intensify pressures to ensure that the elderly bear a heavier share of the tax burden. Third, can Japan overcome the political obstacles that have blocked policies to address these issues? The answers to these questions are equally relevant to other soon-to-be aged countries and offer further important policy lessons.

Lesson 4: Keep the ratio of public debt to GDP down before reaching the status of an "aged" population

Japan illustrates that "macro" dimensions may constrain what is ultimately feasible, both for the financial decisions of a government as well as for households and enterprises. Japan's capacity for policy actions with regard to its aged population is heavily constrained by its excessive public debt (Imrohorglu and Sudo, 2011; Jones and Urusawa, 2013; Klein, 2015).⁷ The problem is particularly difficult because even if Japan successfully raises its income per capita, its large nominal public debt (particularly if one includes implicit pension liabilities) requires Japan to realize *nominal* GDP growth (in the face of a shrinking labor force). If Japan cannot realize primary budget surpluses sufficient to bring down its public debt, this will force *more* difficult *micro* adjustments in social insurance policies and fiscal transfers affecting the elderly. Indeed, even if one focuses only on Japan's micro policy successes in dealing with the elderly, one would be neglecting the extent to which fiscal deficits and higher levels of public debt were used to finance these successes.⁸

Getting the macro dimension sustainable is thus critical. It enables a more predictable and unconstrained policy environment in adjusting micro policies, whether related to the elderly or to other societal problems; ensures the availability of fiscal space during periods when expansionary policies are needed; allows for more gradual adjustments in hard-to-change social institutions; and reduces a country's vulnerability to exogenous shocks. The IMF's recent debt sustainability analysis for Japan illustrates how the sensitivity of Japan's fiscal position to many downside risks can affect its debt position (IMF, 2015).

The principal qualification to this lesson is highly topical in the current weak global growth environment characterized by low (if not negative) nominal interest rates and the possibility of deflation. Within the European Union, Germany has emphasized the need for fiscal austerity policies because of the recognition of an aging European population and the high public debt shares accumulated during the financial crisis. But others have argued that many aging European countries confront high rates of unemployment and that the risks to long-term fiscal sustainability need to be weighed against the costs in foregone output. The reconciliation of tradeoffs for most countries may lie in using fiscal policy for growth-promoting investments in human capital, infrastructure and technological innovation that also provide support for aggregate demand.

In the case of Japan, the constraints posed by its heavy public debt level cannot be assumed away by such a reorientation of fiscal policy. The likelihood of an effective default by the mid-2020s has been argued by Hoshi and Ito (2012), and is still worrisome despite

⁷ Japan's gross public debt, which in the early 1980s was about 50 percent of GDP, reached 226 percent of GDP in 2015, the highest among OECD countries. Even if one focuses on its net debt ratio (taking account of the large holdings of Japanese government bonds held by the government's pension fund), the ratio is still very high at 134 percent of GDP.

⁸ Takezawa (2014) indicates that the rate of growth of social expenditure in Japan has almost always dwarfed GDP growth since 1991; thus the rising debt levels since then cannot only be seen as the product of macro stimulus packages.

⁶ One example of the latter is Japan Post's "Watchover services," which has its postal workers regularly visiting elderly customers. It is also collaborating with Apple and IBM to provide, over the next 5 years, 4–5 million Ipad's to the elderly that are "loaded with software to help them communicate with family and friends, monitor their health and buy goods and services" (New York Times, 2015).

recent initiatives by the Abe government (viz., the increase in the VAT rate in April 2014 and the promise to carry through with a second rate increase in 2017). Even the more optimistic budget scenario issued in mid-2015 suggests that a significant primary budget gap will remain⁹ relative to what is needed to achieve fiscal sustainability, particularly after 2020.

Lesson 5: Don't delay adjusting social insurance policies when substantial demographic change is apparent

As far back as the late 1980s, it was known that Japan's fertility rate was sharply in decline and that longevity rates at age 65 were high (by international standards) and rising. At that time, even a significant upturn in fertility would not have prevented Japan's demographic pyramid from turning rectangular in coming decades. Japanese policy makers and social insurance experts recognized the need for policy adaptation, both to cope with the sharp shift in the age structure in the second decade of this century and to meet the risks posed for fiscal sustainability by the expected rise in fiscal transfers and services to the elderly. Such awareness led to the adoption of a long-term care insurance program, the NDC reform of the pension system, and to the many decisions to adjust the contribution and copayment schedules associated with social insurance schemes.

But the bursting of Japan's asset bubble also engendered policy concerns that coincided with this awareness of the challenges posed by demographics. Macroeconomic policy goals subordinated the latter challenges. The authorities were reluctant to allow fiscal policy to further dampen demand during a recession. The experience with the economic slowdown induced by the VAT increase in the mid-1990s further solidified the Government's unwillingness to allow fiscal policy to be pro-cyclical. The results were twofold: first, social insurance expenditures continued to increase over the last two decades; second, the authorities did not implement some of the already agreed social insurance reforms (e.g., the so-called "macroeconomic slide") or make sufficient adjustments to other social insurance policies to limit the impact of an aging population.

This policy conflict has become even more acute as the public debt share has grown. The needed reforms would entail changes in pension eligibility ages; the specific conditions of access by the elderly to health insurance; the introduction of the macro slide and symmetric indexation; consideration of pension privatization or partial or full funding approaches to pension reform; and an increase in the copayments required from the elderly for medical and long-term care services.

The message for other countries is straightforward. When there are obvious signs that fertility rates are significantly below the replacement level and substantial increases in longevity are likely (see [Sleebos, 2003](#)), adjustments in key social insurance parameters are urgently necessary. Inevitably, this might require a phased-in approach to facilitate awareness and adjustments by individuals to the changed prospective environment to their financial position in their elderly years.

Lesson 6: Revisit assumptions on how social insurance burdens are to be shared across generations. Transparent assessments are necessary

The Japanese experience highlights the issue of determining how much different generations should bear of the financial burden of an aged population, ([Tokuoka, 2012](#); [Oguro, 2011](#); [Oshio, 2010](#)). What may have seemed an appropriate "solution" in a world of high

fertility and limited longevity became no longer viable as the age structure became increasingly rectangular. Past justifications, i.e., that the recently turned boomer cohort supported *their* parents, so that social solidarity should similarly apply, with the burden borne by the current work force—imply a far heavier burden on the latter than was ever borne by the now elderly. How much should the current labor force owe the elderly on account of the latter's investments and work effort when *they* were in the labor force? Should not the current elderly have saved a higher share of their income, to compensate for the human capital they failed to produce by opting for lower fertility? In the medical sphere, how much should "social insurance" principles apply when chronic (and not acute) illnesses dominate the demand for medical care?¹⁰

Any discussion of intergenerational burden sharing must also recognize that the government's role can only be partial. Individuals, through their family relationships, determine the amount of intergenerational *family* support (and indeed, this is seen as a legal obligation in some countries, notably China). Markets are also influenced by demographic change and globalization, affecting asset and relative factor prices, and thus how much of the burden is distributed among generations. As an example, shifts in the age structure of the population may be reflected in the value of housing wealth owned by the elderly and thus of the cost of housing to younger cohorts. If much of the housing stock comes onto the market coterminous with the retirement of many of the elderly, younger cohorts may effectively receive an intergenerational transfer in the form of a lower cost of real estate. Conversely, longer longevity is likely to reduce the prospective value of bequests to succeeding generations, as the elderly consume more of their assets before dying.

In a number of ways, Japan's policy environment has recognized that the elderly need to absorb more of the financial burdens of an aged population. One sees this in adjustments that have been made to pensions, medical copayments, and long-term care charges.¹¹ The increased reliance on a value added tax is an approach that has raised the cost of consumption to the elderly as well as to the nonelderly. But these efforts remain thin ([Tajika, 2007, 2011](#)). The balance has remained tilted against the current working generation (particularly if one reflects on the important shifts in the structure of employment relations that have impacted on that generation). Pension eligibility and financing policies, benefit levels, and the tax treatment of pension benefits and contributions still remain heavily in favor of the elderly.¹² Financing of elderly medical insurance benefits substantially relies on heavy cross-subsidization from the

¹⁰ Medical insurance is based on the concept that illness strikes individuals randomly and on an acute basis, thus affecting only a small percentage of the insured population. With increased longevity, most elderly will be subject to some form of chronic illness at some point, with far less randomness in occurrence. The financial burden thus borne by social contributors in financing medical payments for the elderly is thus significantly higher than was anticipated when longevity was much lower. In effect, the sharing of the burden for medical insurance for the elderly should be treated analogously to the approach Japan adopted for its long-term care insurance program.

¹¹ Specifically, one observes ceilings set for the maximum pension contribution rate by workers; the original rationale for the macro slide policy, which was to shift some of the burden to the elderly; increased medical copayment charges for the "younger" elderly (ages 65–74); the renewed emphasis on consumption tax financing of health services for the elderly; the transition of the elderly health scheme to only those 75 and over, rather than the previous coverage to those over age 69; the approach to evaluating long-term care needs; the effort to limit medical insurance have to cover long-term care costs by using hospital beds for chronically ill elderly; charging for bed and board for much long-term care; and the nontrivial medical and long-term care insurance premiums paid by the elderly.

¹² Japan still relies on a pay-as-you-go approach for much of its pension system's finances. Academic analyses suggest significant inequities in generational accounts, particularly for younger and yet-to-be borne generations. Real pension benefits have risen throughout the deflationary period because the macro slide has not operated symmetrically. The baby boom population, now retiring, will not be affected by any deferral of the pension eligibility age.

⁹ The 2015 optimistic scenario published by the Cabinet Office assumed a significant acceleration of productivity growth (to 2.2 percent by 2020) and that Japan would outgrow the US from 2018 to 2023. ([The Economist, June 20, 2015](#)).

working age group. The general taxpayer largely bears the burden of public debt and finances much of the outlays for the basic pension, long-term care, and medical care for those aged 75 and over.

Efforts to measure the extent of intergenerational transfers have yielded little analytic transparency, with confusion as to the appropriate application of insurance vs. welfare (viz., tax funding) principles. Moreover, the role that the targeting of benefits might play in the context of other factors that contribute to large asset holdings by a significant group of the elderly remains under-examined or unaddressed in policy design.

Reforms that would shift more of the burden on to the elderly will not be easy, risking further exacerbation of existing poverty levels among them. Significant groups of the elderly are barely scraping by. Without intensified efforts at targeting and the adoption of progressive measures to tax the assets of the more wealthy elderly, the social condition will not improve. Simply achieving fiscal sustainability at the expense of an even higher share of poverty among the elderly, a reduced quality in their life, or greater degrees of ill health and disability, would not seem a “good” outcome.

Lesson 7: Exploit “political windows” for compromises that can overcome political economy resistance to pension and health insurance reform

Many view the present electoral system in Japan as biased towards the elderly. Other key constituencies have blocked reforms that could foster higher productivity in the economy (i.e., the agricultural, medical care, and services sector) (Feldman and Yamaguchi, 2013). This raises obvious questions for other soon-to-be aged countries.

- Are many of the political obstacles observed in Japan attributable to the weight of the elderly and soon-to-be elderly in the voting electorate? Or, does resistance to reform principally arise from vested economic interests profiting from existing policies and institutional structures (say, in the health services sector or agriculture)?
- Does Japan’s experience suggest that policy reforms need to be implemented *before* the aged become a large voting bloc (viz., while the “political economy window” is still open)?
- Does an aging society lose the impetus to implement significant reforms? Despite the dynamism of Prime Minister Abe, his “three arrows” strategy has confronted resistance when difficult structural reforms have been at stake.
- Will Japan prove another example of “it takes a crisis?”

The next 10–15 years are Japan’s last obvious window for important policy gains from reform. The baby boomers are still the “young old” and can participate in the labor force. The prospects for reducing the public debt are still plausible and many in the business sector as well as scholars and policy makers accept the need to revitalize the economy.¹³

Can Japan’s social insurance system fully meet the challenges of an aged population?

For years, Japan has been in the forefront of social insurance policy innovation. It followed Sweden in adopting an NDC pension system, and was an innovator of long-term care insurance. Its universal national health insurance scheme delivers quality medical care at a reasonable cost to the economy (certainly much less than in the U.S.). But Japan’s system, while in principle “universal:” (i) masks significant disparities in the benefits received by different

¹³ See Keizai Doyukai (2010), Nippon Keidanren (2011), McKinsey and Company (2011), and Japan, Prime Minister and Cabinet Office (2007).

groups; (ii) has pillars whose financial sustainability, efficiency and equity could be significantly strengthened; and (iii) has features not easily transplanted to other, soon-to-be aged, societies.

Lesson 8: Don’t ignore significant disparities in the burdens borne and the benefits realized, even with universal social insurance

Three sets of disparities prevail.¹⁴ Social insurance premiums differ across workers of different firms (e.g., with regard to health insurance), across municipalities in the premiums paid by workers and the elderly for medical and long-term care insurance, and as between employed women and housewives. Compliance in contributions is problematic for some groups in the labor force, particularly by temporary workers and the unemployed. Benefits may differ across municipalities and places of employment, among spouses working part-time, full time, or as housewives, and within programs (e.g., in access to preventive health care checkups). Finally, the social insurance system effectively gives low priority to single parent households with children and low-income single elderly women.

Lesson 9: In reforming a pension system, ensure fiscal sustainability, but don’t ignore uncertain longevity, allocative distortions, and the need for intergenerational equity

Japan’s NDC system falls short in terms of the four principal objectives of a pension system (see NIPSSR, 2014a): minimizing retirement risks associated with uncertain longevity, ensuring fiscal sustainability, limiting allocative distortions in the labor market, and fostering intergenerational equity. The pension reforms that have been delayed or not initiated would have addressed these concerns and are well recognized by Japanese academics and familiar to pension scholars in industrial countries (Government of Japan, Cabinet Office, 2011a; Inagaki, 2011; Iwamoto, 2008; Kashiwase et al., 2012; Naohiro, 2014; Takayama and Kitamura, 2009, 2010). At the macro level, the 2004 NDC pension reform included several features to ensure financial sustainability, viz., adjusting for changed demographic parameters (improved longevity) and reductions in the labor force. It also used an indexation mechanism to reduce real benefits in the context of inflation. But with deflation, Japan suspended the macro slide for a decade (fearing the political consequence of reduced nominal pension benefits).^{15,16} Similarly, Japan failed to adjust the age of pension eligibility (despite the significant increase in longevity). Since the baby boomers are now beginning to retire, this ensures that any subsequent adjustment will not realize the financial savings that reduced benefits to this large demographic cohort could have produced.

In terms of equity, Japan has neither sought to address the significant differences that prevail in the implicit rate of return on pension contributions across cohorts or across individuals of different marital status, nor sought to reduce benefits received by high-income earners (see Ogawa et al., 2010).¹⁷ Adding to intergenerational inequity, pension benefits remain exempt from income taxation.¹⁸ Approaches that could address issues of elderly poverty,

¹⁴ Among many papers dealing with this issue, see Komamura and Yamada (2008), Sasaki (2010), Sato (2008), and Shibuya et al. (2011).

¹⁵ Only recently, in 2014, with the increase in the consumption tax rate, was the macro slide actually implemented.

¹⁶ An unintended consequence of the suspension of the macro slide has been an increase in the effective replacement rate for the “model” male employee—from 59 percent to 64 percent in 2014 (Takayama and Kitamura, 2015).

¹⁷ Takayama and Kitamura (2015) has noted how much the replacement rate will vary depending on an individual’s marital status not conforming to the model of a “male employee with a dependent full-time housewife.”

¹⁸ Elderly pension benefits remain largely tax exempt. Japan’s tax treatment of pensions is effectively an EEE system whereby each potentially taxable point in the pensions process, viz., savings, accumulations, and income, is effectively exempt (E) from taxation.

such as a refundable tax credit or a guaranteed minimum pension (as observed in Sweden) have not been on the agenda.¹⁹ The latter will be important for the basic pension guarantee, particularly with the recent implementation of the macro-slide.

In terms of efficiency, employers have expressed concern that their high rate of contributions to the earnings-related pension scheme may be hindering domestic investments, shifts in the balance among different sectors of the economy, and the job creation needed to adapt to the current global economic environment. Others argue that the basic pension should be fully financed from the consumption tax rather than from taxes on labor.

These failing explain much of the increase in past pension outlays and may mean that the window has closed for implementing reforms that would limit the costs implied by the growth in new pension beneficiaries among the baby boom population. Such reforms could have been adopted when the prospective elderly could adjust their work expectations and savings behavior. Now their introduction would impose onerous cutbacks on the elderly, making it difficult to exploit the window of the coming decade when the current “younger elderly” are still healthy enough to work. Failure to implement reforms may also have crystallized perceptions by younger cohorts that they bear an excessive financial burden from the system, aggravating the noncompliance by many younger groups in the labor force in meeting their pension contribution obligations.

Two other consequences can be noted: First, any thought of a possible shift to a funded defined contribution pension system would be constrained by the so-called “double burden” problem, viz., the higher tax burden that would be needed (given existing pension outlays to the elderly) if pension contributions from workers are redirected towards their own funded pension accounts.²⁰ Second, by intensifying the policy focus on the fiscal imbalances caused by existing pension outlays, less attention is given to the structural problems of the pension system that create income risks for both current and future elderly.

Lesson 10: Recognize how uncertain are the costs associated with a long-term care insurance scheme

Japan’s scheme, while highly innovative, is still evolving. While an excellent model for other aging countries, markets and policy makers still have much to learn about this growing group of very elderly, now and in the future. Its finances will be stress-tested once the baby boomers move into their “very elderly” years. The scheme appropriately uses insurance principles to extend the risk pool to the entire population at risk, with contributions required from all workers over age 40. Equally, in the supply of long-term care services, the scheme provides an intelligent approach for determining how much support and care are needed by eligible individuals, reflecting their mental and physical status. The system has also incorporates mechanisms to promote preventive health initiatives.

Yet Japanese policy makers still lack essential data about these future very elderly cohorts and this might significantly revise current assumptions about the eventual cost and nature of required services. Such information gaps relate to:

- The likely incidence of dementia at different ages.
- Whether preventive measures can forestall dementia.

¹⁹ Though not related to the pension system, intergenerational equity would be fostered by reducing the threshold exemption for the inheritance tax and by an increase in the estate tax rate. Compliance in tax payments could also be reinforced by introducing of a taxpayer ID number and strengthened tax administration.

²⁰ Feldstein (2005) has suggested an approach to tackling the double burden problem. Australia has also successfully addressed this challenge.

- Whether a judicious combination of medical and long-term care could contribute to reduced levels of disability and care needs (thus avoiding increased unhealthy life years), particularly for those with multiple chronic health conditions. Presently, the system risks treating the acute episode but *not* the associated disability or the sources of dysfunctionality.
- Whether changes in diet, exercise, and stress among those of *working age* could change future morbidity patterns among the very elderly.²¹

Thus, the system’s viability remains to be tested, specifically once the now-retiring baby boom population turns 75–80 (roughly the ages when many physical disabilities are likely to become more significant and debilitating). The recognized weaknesses of the system are both structural and supply-driven. For the former, and as noted, the long-term care and medical care systems are not well coordinated, particularly for individuals with multiple chronic diseases. Others worry that the long-term care system receives inadequate support from medical practitioners. The system’s capacity to respond to service demands may face pressures from: the limited quantity and quality of long-term care managers; the disincentives arising from low salaries; the limited supply of non-medical long-term care beds; and the differences across municipalities in their capacity to provide long-term care services. The budgetary bias towards home-centered care will be challenged by the projected increase in single-person households (particularly widows) living apart from their children. This bias may stymie policy efforts to increase female labor force participation. Finally, it is questionable whether the system can cope if the number of individuals with dementia explodes in 10–15 years time as the baby boomers become 80 and over.

Lesson 11: Prudent management of a health care system does not guarantee that it can meet the medical and financial challenges of an aged population

Japan’s medical care system compares very favorably with other OECD countries, with medical spending relatively low as a share of GDP and with longevity rates among the highest. The quality of medical care is high, with dedicated physicians and nurse practitioners. The system is highly accessible, affordable and acceptable to its citizens. While there are sources of dissatisfaction, this combination of accessibility and the escape valve for private care for those with financial resources, limits pressure for change. But there are many weaknesses and inefficiencies in the system that compromise health outcomes. The capacity of the system to sustain its successes with an aged population is open to question. The medical care system may thus become a pressure point for higher fiscal outlays.²² The following limitations are noteworthy:

- An excess of quantity—specifically, too many hospitals of inefficient size; an excess of beds used for long-term care (resulting in high average bed-stays); outpatient consultations of excessive brevity; a high per capita ratio of MRIs and CATSCANS; and too easy access to costly specialist resources.

²¹ An additional unanswered question is whether genetic factors that are Japanese-specific limit the value of drawing on Japan’s experience in shaping another country’s program. For more on Japan’s Long-Term Care Insurance system, see Hayashi and Kazama (2008).

²² There is a large literature on Japan’s health care system and the challenges it faces in responding to an aging population. *Inter alia*, see Campbell and Ikegami (1998), Esmail (2013), Ikegami and Campbell (2008), Ikegami (2008, 2011), McKinsey and Company (2008), and the October 2011 issue of *The Lancet* (2011), which is wholly devoted to assessing Japan’s health system development.

- The absence of any primary care “gatekeeper system.” The role of general practitioners is extremely limited (with most patients seeking primary care in specialist clinics, further compromising efficiency in resource allocation and the management of community health risks).
- Significant differentials in the quality of care across institutions; for sophisticated treatment, specialists typically confront a low volume of cases, compromising quality.
- Physician behavior and investment decisions motivated by questionable financial incentives arising from the structure of the system.
- Limited use of generic drugs.
- Inadequate efforts to address the surging cost of end-of-life care.
- Reliance on significant cross-subsidization by workers and employers for the financing of medical care for the elderly.

While some point to Japan’s high longevity as a measure of success, it is questionable how much of this outcome can be attributed to its medical care system other than its effectiveness in dealing with infectious diseases and infant mortality. Its longevity results may more reflect strong past public health measures, a legacy of good diet and exercise for the *present* elderly cohort, and the emphasis on preventive care. What is hidden by the increased longevity data are the increasing number of *unhealthy* life years among the elderly, with health status not improving at the same pace as life expectancy (Nozaki et al., 2014). Changing life styles may soon impinge on Japan’s longevity record, as one observes a high incidence of suicides and still high smoking rates.

Looking forward, with a rising number of elderly, both the structure and the financial basis of the system will be challenged. With an increasingly aged population, the system will have to face a much denser population, with multiple chronic diseases needing less acute care and more chronic care management. Second, with a large number of elderly with time to pursue medical care, demand may rise, increasing the burden of financing the system, both from taxes and social insurance. This will lead to a heavier financial burden on employers and working age groups, particularly as the size of the latter group shrinks. Third, if there is a significant increase in patient demand, the present approach to containing the growth in outlays may prove infeasible. The Ministry of Health, Labor and Welfare (MHLW) may find it difficult to limit payments to physicians or prevent an increase in drug prices.

Fourth, uncertainties exist as to the supply pressures that will emerge with increased demand. The current spatial distribution of medical supply may not match the distribution of demand as the population both ages and shrinks in size. Fifth, current restrictions on for-profit institutions may limit the capacity of the medical care system to respond to a changing pattern of demand. Finally, Japan limits access to new medical technologies by only reimbursing patients that seek treatment through the public health care system. It does not allow a patient to receive some treatment from the public system and pay for unapproved technologies from the private sector. The result is to limit access to the newest, more sophisticated technologies to only the wealthiest. Any revision of the rule to allow more access to more advanced drugs and treatment could generate further significant cost pressures on the system.

While some academics call for wholesale institutional reforms that increase the role of primary care and limit the volume of private hospitals and clinics, the prospects for significant institutional change are small. There are vested interests in the system’s present structure, including hard set attitudes, sunk physical and human capital, and significant rents derived from present practices (Sieg, 2013). These factors constrain what policy reforms are feasible and how quickly they could be implemented. Pressures on the

medical system are more likely to be met by increased medical outlays than by measures that address inefficiencies.²³ Japan’s experience underscores the obstacles that significant institutional reforms can face from strong cultural and institutional factors in a country.

Whither Japan: is it a model for other soon-to-be aged countries?

The election of Prime Minister Abe energized Japan’s efforts to construct a financially sustainable, prosperous, and equitable policy framework to address the challenges of an increasingly aged and shrinking population. Many of the factors that will determine whether he is successful offer instructive lessons to other countries on the threshold of embarking on a similar task. But contemplating the current Japanese situation and seeking to judge how it will fare in its full transition to an aged economy is highly problematic. Forecasts on the financial viability of the social insurance system are highly conditional on whether Japan can rekindle its economic growth rate and take the actions needed to reduce its public debt share. This will influence how much will be needed from cutbacks in benefits and from pension claw-backs from the well-off elderly. It will shape how tight will be the spending environment for medical and long-term care and the need for higher copays and contributions.

But the Japanese experience also offers lessons as to what *not* to do, whether a country is already aged or still a decade or so from being so. It illustrates the cost of excessively focusing on programs dealing with the aged but with insufficient attention to other fiscal challenges and to the problems of non-aged groups. Among these, lessons 1–3 above are broadly applicable to other countries. They underscore the complexity of the challenges faced by all age groups in an *aged* society, how these differ from those in an *aging* society, and the diversity of issues encountered within an elderly population. Lessons 4 through 6 illustrate several overarching policy challenges confronting an aged society – achieving long-term growth with adequate fiscal space; promoting inter- and intra-generational equity; and tackling the political obstacles to needed policies. Japan’s experience also illustrates the stresses and strains, policy conflicts and political economy issues that can arise. In particular:

- Economic growth and fiscal space are critical – they constrain what is financially feasible.
- When demographic signals are clear, early and gradual adjustments need to be undertaken before stakeholders’ conflicting interests preclude difficult policy options.
- Balancing intra- and inter-generational interests requires greater efforts to understand how benefits and burdens are distributed among different cohorts, present and future.

Japan’s idiosyncratic social insurance system offers additional lessons:

- The need to address significant disparities in access and cost.
- The importance of ensuring that a pension system can respond flexibly and transparently to substantial economic and demographic change.
- The challenge of responding to prospective cost escalation and service delivery constraints when confronting the long-term care needs of the elderly.

²³ In terms of additional financial costs, the IMF estimates that the combination of aging and excess cost growth will raise health spending to GDP by 5.5–6 percentage points of GDP between 2010 and 2030 (Nozaki et al., 2014).

- The need for health delivery systems to respond effectively to the multiple challenges of economic and demographic change, the rapidly evolving environment of health technologies, and the prospect of unanticipated threats to better health.

Two final lessons are relevant. Time is one of the scarcest resources confronting countries approaching an aged society. Thinking early and frequently about potential long-term challenges facilitates gradual adjustments in policy and systems to manage conflicting policy goals. It is only too easy to postpone needed reforms in favor of other goals perceived to be more pressing.

Finally, while demography is a critically important factor influencing the nature of societal change, it does not imply a specific destiny. Countries differ in many ways as they transition to a low fertility, high longevity environment. Beyond differences in income and socioeconomic attributes, they may differ in their institutions and social insurance policy frameworks. Also, the international economic context will affect a country's capacity to respond to specific challenges. As an example, Japan confronted a financial sector meltdown in a rapidly globalizing world economy just as it began its early transition towards an aged economy. This rendered its response to the latter challenge much more complex and perhaps seemingly less urgent. Equally, while Japan may have realized "demographic dividends" from being the "lead goose" in the "demographic transition," perhaps this transition also proved costly for Japan, as it implemented a policy framework for an aging society that now appears inefficient and financially unsustainable for its now aged and shrinking population.

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