Demographic Shift and its Implications

John Piggott

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A background paper prepared for the New South Wales Ageing 2030 conference, Sydney, October 30 2007

John Piggott
University of New South Wales

October 2007

This paper was prepared for the New South Wales Department of Ageing, Disability and Home Care as background material for Ageing 2030 – Creating the Future. The views expressed in the paper are those of the author and do not necessarily reflect the policies or views of the New South Wales Department of Ageing, Disability & Home Care or the New South Wales Government. I would like to thank Henry Jin, Olivia Mitchell, Renuka Sane, Michael Sherris, and Shaun Yow for allowing me to draw on joint work. Errors are my own. © 2007 Piggott. All Rights Reserved.
Demographic Shift and its Implications

Demographic transition is the most certain global change to confront humankind over the next century. This overview paper reports the salient features of the population ageing phenomenon, highlights some pitfalls in the adjustments to come, and identifies some policy and research questions which need to be addressed. Space constraints mean that it is far too short to do any of these tasks real justice, but the discussion here may serve as a starting point for more extensive consideration of the issues raised at the Ageing 2030 Roundtable. I begin with an outline of the dynamics of demographic transition, turn to some social and economic implications, and then point to some policy and research imperatives. The perspective is national, not state-based: this partly reflects data availability, partly a perception that these issues are large enough to dwarf state differences, partly the importance of recognising that demographic transition is occurring everywhere. But perhaps most importantly, when it comes to policy, a major challenge is that all three tiers of government become involved.

The Global Demographic Shift

Three major demographic dynamics drive population ageing: people are living longer; they are having fewer children; and they are retiring earlier.

First, to focus on the purely demographic forces, it is worth noting that older cohorts of individuals are living longer than ever before in human history. An example offers a sense of the quantitative magnitude of the change in longevity. In 1975, in Australia, there was only a 38 percent chance that at least one member of a married couple age 65 and 60, respectively, would still be alive at age 90 (about the age the female member would be now). For the corresponding aged couple in 2005, that probability has risen to approximately 57 percent. Looking ahead, projections reveal that this last survivor probability is to rise again in the future, to about 65 percent in 2030. At the same time, younger cohorts are having fewer children. Australia’s fertility ratio is about 1.8 children per woman, well below the replacement fertility rate of 2.1, but well above the fertility rate in many other countries.

When these two effects interact with roughly constant retirement ages, the aged dependency ratio increases. It is important to distinguish between increasing

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1 This section draws on the first part of Piggott et al (2007).
2 Author’s estimates.
3 This has been falling over the last 30 years, although the decline may now have flattened. Participation rates for males aged 60-64 have fallen to between 10 percent and 50 percent in the G7, compared with over 70 percent in 1970. The result of these interacting demographic forces means that G7 aged dependency ratios are projected to increase from less than 25 percent today to more than 40 percent in 2030.
longevity and an increasing aged dependency ratio. The first gives a sense of the increase in aggregate size of the retired population; the second gives a sense of fiscal capacity to support the retired population.

It is also worth noting that these dynamics are occurring at different times and at different rates across countries and regions. Data on projected increases in the number of people aged over 65 by region shows the most dramatic increase in the Asian region (Chart 1). By 2050, more than 910 million Asians will be older than 65, up from 250 million today. But the largest percentage increase in the aged dependency ratio occurs in Europe, due primarily to reduced fertility and not increased longevity (Chart 2).4

Some Economic and Social Implications

Demographic shift has important implications for the way the economy and society in general will function later in the century. Here we point to 4 areas of change: the labour market, rural isolation, housing transitions, and finance and insurance markets.

Consider the labour market. The economy will employ many more older workers – a direction of change that has not been seen, outside wartime economies, for centuries. Although a natural response to increased longevity is to work longer, this will not be a straightforward adjustment in practice. Older workers are less flexible than their younger counterparts, and may be less able to adapt to technical innovation. And older workers may want different work conditions – flexible work hours to meet caring responsibilities, for example. Accommodating these needs in a workplace environment will change the way we work. The idea of “phased retirement”, where a worker moves to part time work, sounds simple enough, a kind of halfway house between full time work and retirement that appeals to policymakers. But it will in many cases entail a change in the employment contract to a casual arrangement which leaves the worker more vulnerable to changes in the employer’s demands. Stress induced by a shift to a casual employment contract may follow, and may induce negative health consequences. A related issue is the widespread perception that labour force re-entry at older ages is more difficult.

Predicted labour scarcity, especially within younger working cohorts, has other implications as well. Younger workers will have much greater flexibility in choosing their jobs in the future. This implies that the migration to major metropolitan centres by young people is likely to increase. In turn, more isolated communities will

4 These regional projections mask powerful individual country differences. For instance the fertility decline in China has been dramatic following the one-child policy over the past two decades; Japan, the world’s most rapidly ageing country, with low fertility and negligible immigration, now faces far heavier aged dependency than Asia in general. On the other hand, Sweden enjoys fertility close to the replacement rate, while Spain’s rate is one of the world’s lowest.
be confronted with an exodus of their young members. As the population which remains ages, delivery of health and aged care will become extremely difficult.

This issue of **regional elder isolation** is extremely important, and is destined to be a more important issue in rural Australia than in more densely populated countries such as the UK. Responses will be required from government, just as is the case now with medical care provision to such communities. This is a very important issue, but the spatial impact of population ageing on service demands will be dealt with in detail in another background paper. One issue I would like to flag in this context is the potential role of remote care and health maintenance for these communities.

In the next generation – by the 2030 watershed highlighted in the Roundtable, or perhaps a little later, by 2050 - labour scarcity will mean that the time available for informal **care for elders** will have shrunk. Aged care is a relatively understudied risk, but it is critical, materially affecting the financial circumstances of families on a routine basis.\(^5\) Over a lifetime, more than one quarter of persons over the age of 25 will use residential care at some point in their lives in the US, and those who do will spend an average of 2.4 years there (Norton 2000). Estimates in Australia are even higher. About half Australian women aged 65 are expected to spend time in residential care Estimates are much lower for men (33% at age 65), reflecting the importance of spousal care (Cullen 2006).

It seems clear that both the utilisation and costs of long term care will rise, both through an increased reliance on institutional, or at least formal, care, and higher wages for aged care workers. Against this must be set forces that may reduce residential LTC utilisation – including converging death dates for couples, and the possible compression of morbidity. New technologies, such as remote tele-care facilities, may deliver economies in the routine maintenance costs of chronic disease, both in LTC facilities and more generally. This is a major component of overall aged care costs (Celler, Lovell and Chan 1999). Finally, there is now widespread recognition that ageing in place – that is, in the home – is preferable where practical, and that policy should be directed towards emphasising this outcome (OECD 2006).

This brings us to the question of senior living and **residential transition.**\(^6\) In most industrialised countries and in Australia in particular, the owner-occupied home is a core asset among mature age cohorts. In Australia, the value of the owner-occupier home is greater on average than the value of all financial assets, including superannuation (AMP - NATSEM 2007). It seems likely that while non-economic factors often determine the timing of a move, the financial implications of the change influence its nature, and may dictate whether such an outcome is realised.

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\(^5\) This and the following paragraphs draw heavily on Jin et al (2007).

\(^6\) The following paragraphs draw on Piggott and Sane (2007)
Both Australian and international evidence indicate that housing trades among households whose head is 65 or more occur much less frequently than for younger households. Further, in Australia at least, owner-occupiers whose household head is 65 and older consume more housing services than they would ideally like. When elderly households do move, the evidence suggests strong attraction to their local area. In Australia, it appears that nearly half of all moves by 65+ households are within a radius of 10 kilometres\(^7\), indicating a strong attraction to a familiar locality, and this is backed up when interview responses are taken into account (Olsberg and Winters 2005). This is important for senior living planning: it suggests that senior living opportunities will be valued by communities in their own precincts.

There are a number of possible reasons for reluctance by older households to move. But if the data we have correctly captures reality, then it may be that appropriate housing transitions, allowing the household to remain in his or her own neighbourhood, are frequently not available. As well, there are taxation, and, especially, age pension provisions in discouraging elders from trading down their large homes. Trading down an owner-occupied home will frequently precipitate loss of the age pension. The consequent inhibition to trading down has costs not only to the individuals concerned; the housing market as a whole is unnecessarily restricted, and house prices are probably higher than they would otherwise be. The whole question of efficient allocation of the housing stock, in the face of demographic shift, is underplayed in current policy debate.

“Early intervention and prevention, including ageing well and maintaining independence”, surely requires financial independence. The role of the owner-occupied home as a core financial asset brings us to the final area flagged in this overview – financial independence, and well functioning financial and insurance markets. While policy innovations such as the Superannuation Guarantee have given Australia as a policy-maker, and Australians of the future, a considerable start on the path to independence, insurance markets have been lagging. Information deficits have inhibited market developments. Australian retirees have traditionally relied on the family home and the age pension, along with some limited savings and family support, to finance their retirement. Two worker families, and the introduction of the Superannuation Guarantee, have raised expectations about retirement consumption, and have re-opened the question of how retirement is financed. Super needs to be further simplified. Taxation, administration, and governance of funds and fund managers are all factors bearing on this question, which is important because of the impact on net asset returns. A related issue is the integration of the age pension and taxation with private sources of retirement financing. Strong coordination of public

\(^7\) This is based on an analysis of HILDA data undertaken by Piggott and Sane (2007).
transfers and private financial instruments will lead to benefits for the entire retired cohort. Innovations here include a focus on the role of the trustee, and measures to contain administrative cost in the system.

More generally, an older population, with a longer retirement window, means that more reliance is placed on capital to provide personal income and resource consumption, relative to labour. New products will evolve to meet this need, both for accumulation and decumulation. Because of the long timespans involved in delivering retirement income products, these products will require careful scrutiny and regulation. A fine balance will need to be struck between facilitating products on the market at a cost that will make them appealing to consumers, and doing everything possible to ensure that promises, even those where the deliverable is far into the future, will be honoured.

Examples are easy to find. Superannuation funds in Australia will almost certainly begin to offer income stream products in their own right over the next period, because so much accumulated wealth which they now manage will otherwise move into others’ hands for management during retirement. The nature of the products they offer will depend partly on the regulatory environment in which they operate, and partly on the opportunities offered for reinsurance to allow them to spread risk. Spreading risks associated with population ageing through such mechanisms as securitisation and the development of mortality based derivatives will become an important part of the finance and insurance industry. Although securitisation has become a standard technique by institutions to pool risk, there is little experience in securitising mortality and morbidity risk. Again, prudential oversight and careful monitoring will be necessary to ensure these new markets function well.

Housing provides the basis for reverse mortgage type products. Many have argued that inadequate retirement income may be supplemented by reverse mortgages by owner-occupiers (Rasmussen et al 1997, Mitchell and Piggott 2004), since in many developed economies the owner-occupation rate is very high among the retired.

Housing represents an important source of illiquid wealth for many elderly in these countries. Properly designed and administered, reverse mortgages have considerable appeal, but again, prudential oversight, not currently applied, will be required. Reverse mortgages will also no doubt be increasingly considered as an approach to financing long-term aged care. Such an innovation would require careful consideration of risks and governance, but nevertheless it stands out as an important option as the overall cost of aged care rises with population ageing.
Policy Reflections

The changes sketched above will make a vast difference to the nature of our economy and our society. This is not alarming, but it is inevitable. It will be necessary for firms and households to adjust the way they operate – firms accommodating older workers, families caring for both small children and frail elders simultaneously, constitute two examples. Households and firms are adaptable, however, and might reasonably be expected to cope with and manage these changes.

Policy institutions present a greater challenge. This matters, because if policy response is uninformed or driven by sectional interest to the detriment of broad social consideration, adjustments by private agents will be impeded, and opportunities for benefit lost. Because ageing policy responsibilities are split between the Commonwealth and the states, and sometimes even with local governments, policy co-ordination is more difficult, and policy is likely to be directed towards shifting fiscal responsibility between jurisdictions, at the expense of actually helping. It also means that communication between agencies is more difficult. Co-ordination on policy on senior living alternatives provides one example of this. Another would be determining the prudential oversight required to deal with reverse mortgage products which included aged care buy-in as part of the package. Public policy towards aged support is characterized internationally by separate bureaucratic functions focusing on social security, private pensions, and aged care. Understanding the many policy dimensions that are thrown up by these services to an ageing population will be necessary to make the best ageing policies.

To the extent that demographic ageing requires policy response at all, it would appear sensible to co-ordinate policy approaches to workplace, financing, living arrangements, and care. For instance, integrating these various dimensions of senior living in a policy framework could logically lead to a more seamless policy profile around population ageing and retirement support, with concomitant efficiencies in resource allocation. A simple example of the interaction between these policy areas should make the point clear. A natural response to increasing life expectancy is to encourage workers to delay retirement. This is occurring in many countries, mainly through social security and pension reform. But it is exactly this group – people in the latter stages of their working life – who are most frequently called upon to provide family support to frail elders. More than 80 percent of hours spent in care for elders is provided informally, mostly by women in the family. It may well be that the reluctance of older workers to continue to participate in the full-time labour force is related to these kinds of family responsibilities – there is evidence available suggesting this is the case (Taskforce on Care Costs 2006). The relative emphasis placed on home versus institutional care should be related to the efficacy of policies directed towards encouraging workers to stay in the labour force for longer.
References:


OECD. (2005), “Long-Term Care for Old People”, OECD, Paris


Piggott, John and Renuka Sane (2007), Residential Transition among the Australian Elderly. Mimeo, UNSW.


Some Questions on Future Options for Discussion

Labour Market Issues:
There are various perceived barriers to the labour force participation of older workers.
1. The age pension is effectively earnings tested: you may earn only $66 a week before starting to lose age pension entitlements. Should the age pension regulations be amended so that it increases on an actuarially fair basis for each year a worker postpones drawdown?

2. For various reasons (we don’t know exactly why), older workers who have left the labour force find it very difficult to re-enter. This circumstance arises relatively frequently in Australia because superannuation can be taken as a lump sum, and the preservation age for superannuation is lower than the eligibility age for the age pension. Re-entry difficulties may be due to workplace discrimination against older workers, skill attrition, because older workers find it difficult to establish themselves socially in a workplace environment, or because networks are lost on initial labour force withdrawal. What should policymakers and employers do to make it easier for such people to re-enter the labour force?

3. Does the employment of older workers complicate OH&S policy implementation? If so, what can be done about this?

Elder care:
The care of elders is likely to continue to be provided by family members, although as the century progresses, this will become more of a burden on the caring generation, because labour scarcity will generate higher wages, making it more costly to substitute care for work; and because ageing in place policies are becoming more common in developed economies.
1. Given the costs of aged care facilities, should we pay carers who provide support to their elders a wage? Should we provide respite care?

2. Which level of government should be responsible for this? Are there inter-jurisdictional conflicts?

3. Will formal elder-care become much more expensive as labour becomes scarcer? What options should be considered to maximise informal care in the community?

4. There is now a substantial R&D effort into tele-care. Full implementation will be very expensive, and will probably involve some form of public-private partnership. To what extent does remote monitoring help with the elder care issue? If it does, who should pay for the infrastructure?

Residential Transition:
1. Longer retirement may lead to an additional life cycle move for owner-occupiers, probably after retirement, possibly to retirement village type accommodation, providing limited support and a changed lifestyle. What do you see as the major impediments to this behavioural change?
2. If greater residential mobility by elders led to lower house prices in major metropolitan areas, should governments encourage such moves? Which jurisdictions, and what should they do?

3. As for question 4 on elder care, is there a role for tele-care monitoring here?

**Finance and Insurance Markets:**
Australia, more than most countries, has moved to self-provision in financing retirement. This has put enormous strain on the finance and insurance sector, as well as providing major opportunities for growth.

1. Do you think workers approaching retirement and their families are adequately equipped to deal with the financial issues confronting them at retirement? If not, should governments offer education? What else could be done about this?

2. Do you think the growth in the Funds Management Industry in Australia, now in the world’s top 5 by value, and largely concentrated in Sydney, provides an opportunity for the establishment of Sydney as a regional Asian financial centre? If so, what can the state government do to support this?
Chart 1. Population Over Age 65 (millions)

![Chart 1](chart1.png)


Chart 2. Old-age Dependency Ratio (Persons age 65+ / 15-64)

![Chart 2](chart2.png)