



Global ageing: economic implications for Australia

The economic implications of an ageing society and its related impact on public policy are being closely studied across the globe. In Australia, various studies have determined that the combination of lower labour participation rates and the greater demand for public spending on health and aged care caused by an ageing society will result in a steadily increasing fiscal gap.¹

The majority of studies on ageing have a domestic focus. However, cross-border effects also warrant attention as these too have substantial economic and public policy implications for Australia. This Research Note looks at some of the possible economic implications for Australia of ageing in key economic partners.

Populations age at different rates dependent upon birth rate, mortality and net migration.² While Australia's major economic partners are all experiencing ageing, the speed at which each will age varies greatly (see Graph).

It is widely known that Japan is currently ageing at a much greater rate than other advanced economies and has a median age substantially above Australia's. It is less widely appreciated that China and South Korea, which currently have significantly lower median ages than Australia, will have higher median ages by 2050.

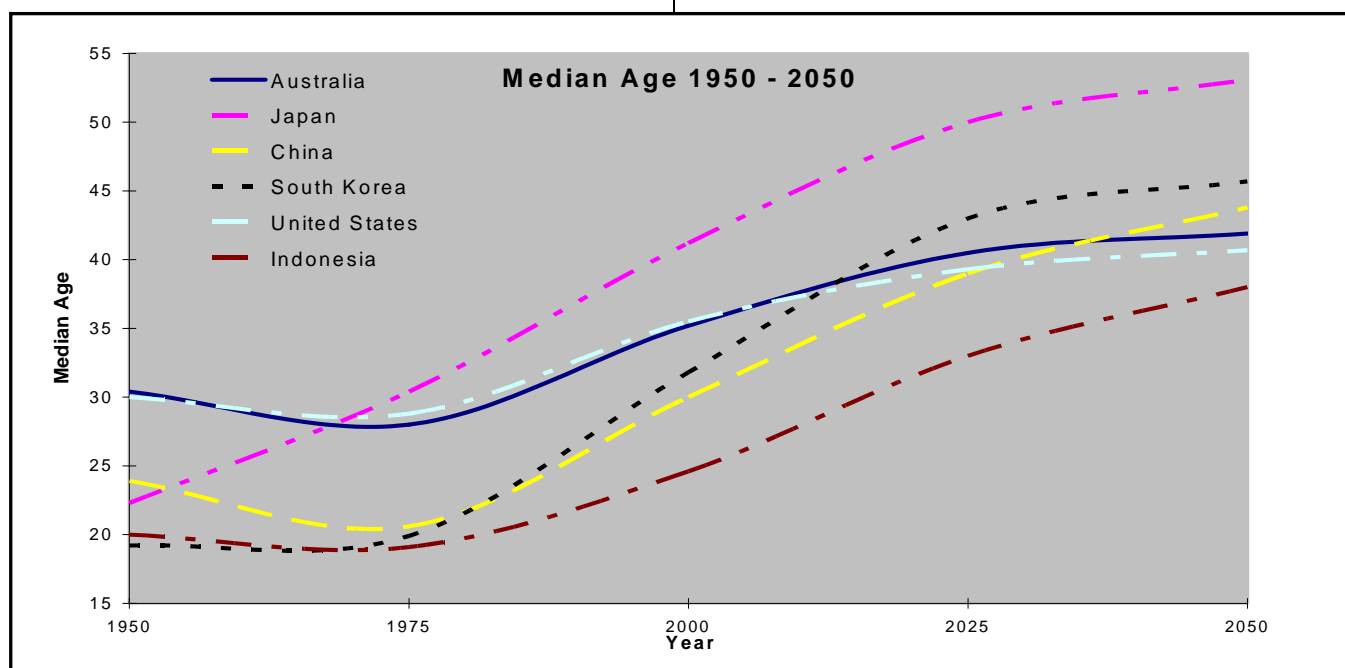
The differential rate at which the populations of its economic partners' age, relative to the Australian population, will determine how changes in labour, GDP

growth, saving and consumption and their associated cross border effects will affect the Australian economy.

Japan

Japan is Australia's largest trade partner, accounting for approximately 14 per cent of total trade in 2003–04. The Japanese economy has experienced sluggish growth and a large fiscal deficit over the last ten years, making valid the comment that the negative economic effects of ageing are already present.³

However, Japan also has substantial flexibility in its ability to respond to the growing pressure. First, despite its much publicised economic woes, Japan maintains substantial trade surpluses and remains the world's largest net creditor. Even in the face of large fiscal deficits, it maintains a tax burden amongst the lowest in the Organization for Economic Cooperation and Development (OECD). Secondly, partially implemented workplace changes such as the revamping of the mandatory retirement age, the age seniority system and changes to part-time employment practices could provide flexibility in responses to labour demand. Similarly, loosening of the currently strict immigration policy could reduce labour scarcity in traditionally low paid sectors. While perhaps less likely given the impact of modernity, reform that focuses on the encouragement or even enforcement (such as in Malaysia and Singapore) of the traditional cultural practice of caring for elderly relatives, could also reduce



the trend of western individualism that places a greater burden on state pension systems.

Australia's predominant exports of agricultural and resource commodities are key inputs into the Japanese economy. However, during the Asian economic crisis in 1997 commodities such as cereals and processed foodstuffs fared better than energy and minerals. Given the sustained pressure of an ageing population on the Japanese economy, and an associated long-term slowdown, these sectors are likely to again face lower demand.

For Australia, a long-term slowdown in the Japanese economy could also affect tourism and education services. As could be expected during difficult domestic economic conditions, Japanese demand for long-haul markets such as Australia and Europe, has decreased in preference for short-haul destinations such as Korea, China and Taiwan. Japanese investment in tourism infrastructure in Australia could also be expected to follow this trend.

Another important aspect of an ageing Japan is that it is likely to shrink as a share of world GDP. This has political and strategic implications for the East Asian region.

The United States

The United States is Australia's second largest trade partner, accounting for approximately 13 per cent of total trade in 2003–04. The US is also a significant source of foreign investment in Australia.

The United States has a slower rate of ageing than other OECD countries through immigration (both legal and illegal) and higher fertility rates. Accordingly, the major implications of global ageing for the United States are those that affect its economic and political relationships. The United States may have to assume a larger share of international humanitarian and financial assistance as key allies in Japan and parts of Europe experience the economic effects of ageing and retreat from their current levels of participation.

However, given the size and importance of the United States economy, even minor fluctuations can have major international repercussions. The United States' social security system, the foundation of a vast majority of its workers retirement income, will face steadily growing solvency and sustainability challenges as the population ages.⁴ This will require reform of federal health programs such as Medicare and Medicaid to avoid the necessity of implementing more substantial reforms at a later date, which would be more likely to have a much greater effect on the economy.

Australia is ageing at a similar rate to the United States and the relative difference between the two will remain small. Accordingly, ageing in the United States is not expected to drastically affect its economic relationship with Australia. However, scrutiny of how ageing in the United States affects the global economy, particularly given its current high fiscal deficits, remains important.

China

China is Australia's third largest trade partner, accounting for approximately 9 per cent of total trade in 2003–04. Long-term challenges lie ahead for the Chinese economy including income distribution, regional disparities and resource security. But it is population ageing that may eventually prove to be the greatest challenge.

The Chinese population will age at a rapid pace after its working age population peaks around 2020. In addition it will face potentially socially disruptive demographic imbalances between rural and urban populations as well as between the sexes. The key question is whether economic development will outpace demographics.

China currently does not have the same mechanisms to cope with ageing as advanced economies. It is lacking in sophisticated tax structures, developed capital markets and developed health and pension plans.⁵ This means ageing of the population will prove particularly difficult.

The viability of China's pension and health plans provided by former state-owned enterprises has diminished considerably. A large section of its working population today has no form of pension or health plan. Nor may the elderly be able to rely upon traditional forms of old age support—children. The mandated one-child policy means that tomorrow's workers will be potentially burdened as the sole support of two parents and four grandparents.

Australia, and the world, is benefiting from the sustained growth of the Chinese economy. With the population projected to peak at 1.6 billion in 2040, the obvious advantages for Australia lie in its ability to supply both agricultural produce and processed foodstuffs. Assuming only basic advances in agricultural technology and land use management, basic grain production in China will need to be supplemented by imports of up to 300 million tons by 2040.⁶

If China's success can be explained by the timeliness of opening its economy at the height of its relatively youthful population, its potential demise may be connected to its rapidly ageing population in later years. This will have profound implications for the global economy and in particular for Australia's trade partners in Northeast Asia. Both South Korea and Japan count China as their primary trade partner. As all three countries progress to aged populations in mid-century, Australia will need to pay close attention.

South Korea

South Korea accounted for just under five per cent of total trade in 2003–04. South Korea has one of the youngest work forces in the OECD, but will have one of the oldest by 2050. It faces significant economic challenges to address its rapidly ageing population, especially the financing of old age pensions.

Active workforce participation of the elderly in South Korea currently exceeds that of other OECD economies and, in addition, has a tradition of retiree participation in the economy (particularly the small business sector) that is not captured in workplace participation statistics. However, this may change if the National Pension Scheme proves to be a disincentive to elderly participation in the workplace. The scheme was established in 1988 and will mature in 2008 forming the prime component of public expenditure associated with ageing, which is expected to rise by 8.5 per cent of GDP by 2050 (compared to 7 per cent in Australia).⁷

The Australia–South Korea economic relationship remains based on the solid trade complementarity of Australian raw materials for South Korean manufactures despite efforts at expansion. Healthcare spending, which remains at one of the lowest levels in the OECD, and financial services to supplement inadequate pension plans, should grow as the population ages. Such changes may provide opportunities for the expansion of the economic relationship, particularly in services and investment.

In the longer term, the negative effects of a reduced labour force, including sustained fiscal pressure and low growth, may emerge. This may adversely affect the economic relationship.

In any demographic projection of the Korean peninsula, North Korea remains a ‘wild card’. According to UN projections, the North will not age as rapidly as the South, and by 2050 will have a dependency ratio⁸ of 56.9 compared to 78.1 in the South.⁹ This could potentially provide avenues for the amelioration of the adverse effects of an ageing population in South Korea, given amenable conditions such as reform and opening of the North Korean economy. However, given the paucity of data on North Korea, changes in population and overall health that have occurred since the 1994–97 famine, as well as the probability of future substantial fluctuations, demographic projections and their effect on South Korea, remain highly contestable.

Other population issues to consider

More Australians could decide to retire overseas reflecting trends in international retirement migration in Europe and North America. An increase in the number of retirees heading abroad could see retirement savings (as well as visiting friends and relatives tourism dollars) spent external to the domestic economy.¹⁰ Conversely, there could be increased pressure on the Government to increase immigration quotas for the elderly ‘last remaining relative’ overseas, as other economies age.

Will Australian retirees decide to travel overseas or domestically? The impact of offshore tourism, particularly on regional Australia, needs to be considered. Similarly, there are implications for the growth in inward and

outward bound ‘medical tourism’, as health care costs increase both domestically and in other ageing societies.¹¹

An increase in inward bound medical tourism could place further pressure on the Australian health system. Despite its late start and relatively high medical costs, its high standard of care and resources potentially make Australia an ideal destination for medical tourism. The most popular argument against promoting inbound medical tourism is that it draws limited resources away from public systems.

Outward bound medical tourism could increase as high costs and long waiting queues push patients to seek solutions elsewhere. ‘Dental tourism’ is already an option for many Australians due to the high cost of procedures and the limited cover provided by most health insurance funds.¹² However, outward bound medical tourism can also affect the public health system as post-operative care and treatment ‘bottlenecks’ emerge in the home country health system. Post-operative complications that may emerge also inevitably become the responsibility of the home country.

Various studies have also noted a correlation between political instability and populations having relatively younger populations. This has been used to explain instability in the Middle East and sub-Saharan Africa.¹³ In our immediate region nations such as Indonesia, North Korea and Papua New Guinea will continue to have substantial age disparities with countries around them in the next 50 years. This could have implications for regional security and economic conditions.

Across the developed world, immigration policies are under review with the aim of preparing states for an ageing society. ‘Guest-worker’ programs are becoming increasingly popular as a means of targeting specific skill sets while avoiding long-term commitments to the workers concerned.

Canada operates a guest worker program, the Seasonal Agricultural Workers Program (SAWP), which addresses seasonal labour shortages in the agricultural sector. The program allows for the entry of seasonal workers from Mexico and certain Latin American and Caribbean states.

Accuracy of demographic projections

Demographic projections are inherently extremely speculative, making any economic forecasting based on them that much more questionable.

Accurate projections depend upon reliable data sets, understanding of current trends, and make assumptions about the continuation of trends. Even with accurate data sets and a reliable understanding of demographic trends, a small absolute error margin in large populations such as India and China can result in population projections being out by hundreds of thousands or even millions.¹⁴

Demographic shocks, including such events as epidemics or natural and man made disasters, can also reduce

accuracy of projections. The impact of AIDS on demographic projections demonstrates this point. The United Nations estimates that by 2025 the population of the 38 most affected African countries will be 156 million less than what it would have been without AIDS.¹⁵

United Nations demographic statistics are revised at regular intervals to account for changes in trends and demographic shocks. Similarly, the economic implications of ageing in Australia's major economic partners and the associated cross-border effects need to be revised regularly.

Cross border economic effects of ageing

The basic economic effect of an ageing population is a reduction in the available labour force relative to the total population, assuming only minor changes in participation rates. While pressure to increase migration (both legal and illegal) may be expected, labour is, and will more than likely continue to be, immobile, particularly in some of the fastest ageing countries, such as in Japan and parts of Europe.

The reduction in the available working population relative to the non-working population slows the growth in per capita gross domestic product (GDP), assuming constant productivity growth. Estimates indicate that by the mid 2020s, ageing will reduce Australia's per capita GDP growth to half its current rate (with an assumed baseline productivity growth rate of 1.75 per annum).¹⁶

There are important macroeconomic effects of ageing due to changes in saving and consumption. One approach to explain this is the 'life-cycle' hypothesis—an individual saves little in early life, saves the most during working life, and finally spends (negative saving) most during retirement. Accordingly, countries with larger populations nearing the final stage of the 'life-cycle' can be expected to have proportionally higher levels of consumption.

Macroeconomic effects can be transmitted across borders. Individuals in a country at an advanced stage of ageing (with high levels of savings) would theoretically invest in countries at a less advanced stage of ageing (with higher proportion of workers and consequently lower capital-output ratios and a higher rate of return to capital).¹⁷ Weaker growth in domestic per capita GDP, higher levels of domestic spending and a higher accumulation of claims on the assets in foreign countries can influence international trade flows.¹⁸

1. Productivity Commission (2004), 'Economic Implications of an Ageing Australia', Productivity Commission Draft Research Report, November 2004.
2. The composition of change in population is also significant. As an example, an increase in aged population resulting primarily from decreased mortality rates will have a different net effect than an increase resulting primarily from decreased fertility rates.

3. John Hawksworth, 'Seven key effects of global ageing', PriceWaterhouseCoopers, *Executive Perspectives Re: Business*, April 2002.
4. David M. Walker, 'Social security reform: Early action would be prudent', United States Government Accountability Office testimony before the Committee on Ways and Means, House of Representatives, United States Congress, 9 March 2005.
5. DCI and CIA Special Reports (2001), 'Long term global demographic trends reshaping the geopolitical landscape', July 2001.
6. OECD, 'China, a demographic time bomb', *OECD Observer*, 1999.
7. OECD, 'Ageing and Employment Policies—Korea', 2004.
8. The dependency ratio is a measurement used by the United Nations Population Division to indicate the dependency burden upon workers, defined as the number of working age persons (15–64 years) per older person (65 years plus).
9. United Nations, 'World population ageing 1950–2050', Population Division, Department of Economic and Social Affairs, 2002.
10. A.M King, R. King, A. Warnes, G. Patterson, 'Tourism and international retirement migration: new forms of an old friendship in southern Europe', *Tourism Geographies*, Vol 2, No. 1, February 2000.
11. Aaditya Mattoo, 'Impact of international trade in goods and services on public health', Video release of presentation at World Bank headquarters, 28 May 2004.
12. Stan Correy, 'Medical Tourism', *Background Briefing*, Radio National, Australian Broadcasting Corporation, 20 February 2005.
13. DCI and CIA Special Reports (2001), op. cit.
14. Ross Duncan and Chris Wilson, 'Global population projections: Is the UN getting it wrong?', *Working Papers in Australian Economics and Econometrics No 438*, Australian National University, February 2004.
15. United Nations, 'The impact of AIDS', Department of Economic and Social Affairs, Population Division 2003.
16. Productivity Commission 2004, op. cit., p. 5.1.
17. Assuming similar levels of productivity and excluding investor home-country bias.
18. S. Sayan and A.E. Uyar, 'Direction of trade flows and labor movements between high and low population growth countries: an overlapping generations general equilibrium analysis', *Department of Economics Discussion Paper No 01–08*, Bilkent University, 2001.

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