

QUESTIONS OF DEPENDENCE AND SUSTAINABILITY

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BACKGROUND

In 1997 UNESCO proclaimed a ‘Declaration on the Responsibilities of the Present Generations towards Future Generations’. This declaration sets down the core responsibilities, which the present generations should assume, including but not limited to:

- The responsibility to underpin and promote the socio-economic development of future generations through the fair and prudent use of available resources, including a nation’s economic, fiscal and budgetary resources.
- The responsibility to ensure that future generations may benefit from the richness of the Earth’s ecosystem, and to that end, the present generation should work to ensure sustainable development and the quality and integrity of the environment.

The Australian Government is one of a few countries to provide an analysis of the challenges the economy, living standards and finances are expected to face during the next 40 years. Beginning in 2001, it has released three Intergenerational Reports (IGRs), which highlight issues arising from an aging population and the country’s vulnerability to climate change. They are intended to alert political decision-makers by revealing the extent to which the choices they make today will be fundamental to the resolution of the demographic and environmental challenges of tomorrow.

In its latest report, Government proposes a number of options that it believes will meet the challenges the Report identifies¹. The Report, however, does not adequately quantify the costs to future generations of poor choices or incorrect assumptions made, say, with respect to the pressing issue of population growth. It is these costs that will need to be addressed, if the country is to carry out a serious dialogue on the issue of intergenerational justice with respect to the use of its economic, fiscal and budgetary resources. More specifically, the Report does not expound on intergenerational equity, a far more complex problem concerned with whether the present generation will be

¹ Commonwealth of Australia. 2010. Australia to 2050: Future challenges (IGR)

favoured while future generations may be disadvantaged unfairly². In the remainder of this paper the idea of intergenerational equity, and its policy implications, is explored in more detail.

THE CONCEPT OF INTERGENERATIONAL DEPENDENCE

The concept of intergenerational dependence whereby individuals during childhood and old-age are dependent on working-age adults is well understood and accepted. More specifically, in a very simple model, individuals go through several natural stages throughout a lifetime. These stages are childhood, working-age adulthood and elderly. During the childhood stage, individuals are dependent on others. As individuals become working-age adults, an age that can vary over time in the rich industrialised nations, they begin to generate sufficient income to support themselves and a new generation of children and the elderly. Following this stage, which also varies, individuals retire from work and at this point become dependent on savings, private pensions, public transfers and possibly support from adult children.

Key to the concept of intergenerational interdependence is the issue of intergenerational transfers. Three types of transfers, private market mechanisms, family supports and public transfers comprise the three legs of such a system. Public sector expenditures on, say, the elderly, should therefore be viewed as intergenerational transfers carried out within a societal-driven social compact. The question of whether, resulting from significant changes in demographic trends, there will be sufficient working-age individuals to sustain, through taxes, the amount of public sector expenditure necessary to fund future intergenerational transfers is a question that is now becoming pressing in all Western industrialised societies.

AUSTRALIA'S DEMOGRAPHIC TRENDS

Historically the principal concern with respect to demographic change has been the potential for worsening living conditions for future generations owing to very rapid population growth. The apprehension is that because of potential overpopulation, the planet's resources will be negatively affected and this situation will worsen over time.

More recently, a new concern has arisen because of very low fertility rates in some countries, particularly those in Europe, combined with rapidly aging populations. The consequence of the combination of these two trends may be to exacerbate the tax burden on working-age populations in sustaining public sector transfers, particularly to the elderly.

² Intergenerational equity is not about equity across age groups, for example, children and the elderly, but rather about equity across cohorts. Those who receive retirement benefits today are compared to those that receive them 20, 40 or 60 years from now.

In the IGR the Australian Government examines past demographic trends and attempts to understand future trends as a means of understanding what future tax burdens required to fund an aging population may look like. These demographic trends are set out below.

TOTAL FERTILITY RATE

In Australia, from a peak of 3.5 births per woman in 1961, the Total Fertility Rate (TFR) declined rapidly during the remainder of the 1960s and 1970s until it stabilised during the 1980s at 1.9 births per woman. It declined slightly further in 2000 to just over 1.7 births per woman. By 2010 it was back to being slightly over 1.9 births per woman.

Australia's TFR is higher than the fertility rate in many OECD countries for example, Canada, where the average rate is 1.68. It is slightly below the United States at 2.12 (2007 data) and New Zealand at 2.18 (2008 data).

The IGR expects the TFR to fall to exactly 1.9 by 2013 and to stay at that level through 2050. This figure is below replacement level of 2.1, which is necessary to balance out the population between the young and old.

MORTALITY RATE

Over the past century the average mortality rate has fallen significantly for both men and women. These decreases have added to population growth, particularly the proportion of older people to the overall population. By 2050 the proportion of people 65 years and over is projected to reach 22.6 percent, up from 13.5 percent in 2010. By 2050 the proportion of people 85 years and over is projected to rise from 1.8 percent in 2010 to 5.1 percent of the population. This trend towards an aging population is currently being experienced in all the Western industrialised societies.

POPULATION GROWTH AND DEPENDENCY RATIOS

Australia's projected average annual rate of population growth rate is slowing from 1.4 percent over the previous 40 years to an average of 1.2 percent during the next 40 years. At the same time Australia's total population is projected to grow (based on fertility and net migration) from its current size of 22 million people to 35.9 million people in 2050.

While there is positive growth in the size of all age groups, higher growth in the older age groups (65 – 84; 85 and over) will lead to a significantly higher proportion of old people in the projected 2050 population than in 2010.

In addition, the size of the labour force is expected to increase. The proportion of the population that is working age, however, is expected to fall. Of special concern is the fact that in 1970, there were 7.5 people of working-age to support every person aged 65 and over. In 2010 this has fallen to an estimated 5 people of working-age for every person aged 65 and over. By 2050 the number is projected to decline to 2.7 people of working-age

to support every person 65 and over. *The working-age ratios are therefore projected to fall at the same time as the aged dependency and child dependency ratios are expected to rise.*

The demographic trends that are manifesting as an aging population will result in: 1) an increase in Government spending for the aged; 2) a reduction in economic output; and 3) an increase in Government debt. If realised, these results will have negative implications for future generations.

For example, the public provision of health, aged care, and age-related pensions are projected to result in an increase in total Government spending from 22.4 percent of GDP in 2015 – 16 to 27.1 percent of GDP by 2049 – 50. Owing to this trend, public spending will more than likely exceed revenue in 40 years time.

ISSUES ARISING FROM AUSTRALIA'S DEMOGRAPHIC TRENDS

Arising from the issues highlighted by the demographic trends referred to are concerns around:

- acceptable migration policy;
- productivity of the labour force ;
- prioritising human capital expenditure;
- age bias in public sector expenditure;
- prioritising savings over consumption;
- maintaining fiscal sustainability; and
- addressing climate change.

MIGRATION POLICY

The combination of decreasing fertility and increasing aging will substantially increase the tax burden felt by future working-age generations. An aging population therefore will necessitate reliance upon substantial overseas net migration to ameliorate its effects. This is because new migrants will increase economic output and national income and therefore generate tax revenues needed to close the gaps that will open in relation to public sector transfers.

In the IGR, the Government expects to partially offset some of the problems that arise from an aging population through overseas net migration. The Government views net overseas migration as contributing positively to population growth, as it tends to reduce the rate of population aging since migrants are generally younger on average than the resident population. Moreover, most migrants who arrive in Australia have been educated in their home countries, relieving Australia of a significant financial burden.

Over the past 40 years, net overseas migration has averaged 0.6 percent per annum (1971 – 2011). This rate has included a high of around 244,000 per year from 2007 – 09. It is expected to fall relatively sharply to 180,000 per annum from 2012. Over the IGR projection period to 2050, the average rate of net overseas migration is expected to be similar to that which occurred over the last 40 years, i.e. 0.6 percent per annum.

Population growth requires increased Government expenditure for the provision of infrastructure and services. It also requires concerted action with respect to climate change which will result from additional pressures on the environment, for example, through increased carbon emissions.

In response to the call for a larger population, citizens living in certain areas of Australia have voiced unhappiness about how rapidly their regions are currently growing. They feel there is already insufficient infrastructure to service the needs of their population and they are keen to see that pressure on services does not increase. Moreover, in some cases, unhappiness is directed at particular migrants who locals feel bring social conflicts into their areas. During the last election, this concern appeared to be felt strongly, particularly in electorates in western Sydney.

Consequently, a major debate has commenced as to how large Australia's population should be. To date, the debate has been somewhat sterile in that it does not include sufficient information on what size population is required to produce the economic growth necessary to sustain current standards of living and the requisite expenditures required for the aged.

REAL GDP AND LABOUR PRODUCTIVITY

In the recently released book, *Future Justice*, Ian McDonald (Sykes ed. 2010, 39 – 42) argued that the record over the past 200 years suggests that positive economic growth has been sustained over time despite the periodic existence of adverse economic conditions. This has resulted in an upward trend in the consumption of goods and services as the Australian people have steadily improved their lifestyle. He argues that there is sound reason to believe that in the future Australians will continue to be better off because of steadily increasing economic growth.

On the one hand, based on past history, it may appear reasonable to assume that economic growth will be sufficient to deliver an upward trend in consumption of goods and services. On the other hand, it is difficult to predict with any degree of certainty the future economic growth levels a country will attain. This is because economic growth is dependent on a wide diversity of different factors, for example, the productivity levels of its population, the domestic and international demand for its goods and services, the policies adopted by its governments, global economic and environmental conditions and so on.

Nevertheless, Government has sketched out a scenario with respect to real GDP growth based on the evidence demographers and economists currently have before them. In the medium term, that is, during the next ten years, real GDP growth for Australia (2.9)

compares favourably with projections for the United States (2.4), United Kingdom (2.0), and New Zealand (2.6). Australia's labour productivity growth rate of 1.6 also compares favourably with projections for the United States (1.9), United Kingdom (1.8), and New Zealand (1.5).

In the long term, that is, during the next 40 years, real GDP growth is projected to average 2.7 percent per annum compared with 3.3 percent per annum over the past 40 years. Average annual real GDP growth per person is expected to be 1.5 percent during the next 40 years, compared with average annual real GDP growth per person of 1.9 percent over the past 40 years.

Instead of the past history of continuously higher than average real GDP growth rates there appears to be somewhat of a falling off in GDP growth by 2050. And, if Australia were to face even lower fertility rates and net overseas migration, leading to an even lower annual rate of population growth of, say, 0.8 percent, compared to the 1.2 percent per annum population growth rate that is projected, real GDP per person would be around 2 percent lower in 2049 – 50 than is currently projected.

Such a drop would impact on Government's ability to take in sufficient tax revenue to fund the increases in health care, aged care and age-related pensions that will result from the projected aging population.

The potential for gaps to arise in projected future revenue because of lower economic growth is acknowledged by the Government when it notes that its economic forecasts are a function of 3 continuously shifting variables, namely:

- population – the number of people of working age (15 and over);
- participation – the average hours worked per working person; and
- productivity – the average output per worker.

Population

Demographic trends with respect to fertility, mortality, and migration affect the number of people of working-age and the overall age of the population. Population growth could possibly be nudged slightly upward, to replacement levels, with additional pro-family policies, aimed at lowering the rising costs of producing children. Mortality, however, could move even further downward as the health care available to the aged improves.

Out of these three variables: fertility, mortality, and net migration, the latter is probably the most elastic when it comes to making the choices about how large Australia's population should be.

Participation of the workforce

Arising from a projected drop-off in the proportion of people aged 15 and over in the labour force, the total labour force participation rate is also projected to fall to less than

61 percent by 2049 – 50, compared with 65 percent today. The average number of hours worked per week is also falling, from 35.7 in 1997 – 98 to 34.1 in 2009 – 10. A continued gradual decline is projected, down to 33.6 by 2049 – 50.

Without specifically stating so, one of the options proposed for improving participation in the workforce, is to adopt pension reform. From 2017 to 2023, the age at which Australians can claim their state pension will rise gradually from 65 to 67, forcing most Australians to work longer. Such reform will also address the fiscal pressures of an aging population by increasing the qualifying age of the Age Pension.

Productivity of the workforce

Over the last three decades, the rate of growth of labour productivity varies considerably from year to year and so Government is keen to implement policies that will lift productivity growth in real GDP per person as a means of ensuring sufficient growth in overall real GDP. The IGR assumes productivity growth equal to the average annual rate of growth of the previous years, on average 1.6 percent per annum.

In sum, the IGR argues that the combination of population, participation and productivity contribute to real GDP per person. Moreover, that growth in productivity is the primary determinant of growth in real GDP per person, which is critical to funding the growing tax burden. Government will therefore rely on future generations to raise their productivity level beyond that of previous generations to close fiscal gaps. One critical means towards the achievement of this end will be increased investment in education and skills development for workers who are about to enter the adult workforce.

ENSURING SUFFICIENT HUMAN CAPITAL TO SUSTAIN INCREASED TAXES

The strength and influence of a nation is not directly a function of the size of its population. What is more important is the ‘quality’ of human capital a nation possesses, which is simply defined as viewing the people of working-age in terms of their level of education. It is this ‘quality’ of human capital that economic growth depends on. That is, children must be skilled and educated to a level that ensures that when they become working-age adults they will be able to produce and sustain the revenues necessary to minimise intergenerational dependence.

While the issue of children’s dependence on older generations is self-evident, the issue of the elderly generation’s dependence on younger generations may not be as apparent. Acknowledgement of this dependence occurs through budgetary decisions taken on the types and scale of investments to be made in children, particularly in the area of public education.

More specifically, when determining how much tax expenditure to transfer to the younger generation in order to maintain sufficient spending on public education,

including early childhood, secondary and tertiary, it is important to realise that the long-term payoffs in terms of productivity will become apparent when children become working-age adults and they start to pay taxes. Societies must continually ask themselves whether they are making sufficient investments in their children, which will allow them to become economically productive at the level required to sufficiently fund the necessary intergenerational transfers.

Moreover, when analysing intergenerational transfers it is important to understand that public expenditure on the elderly is for consumption rather than investment purposes, while public expenditure on children, in the form of public education, is an investment in human capital. It therefore follows that national budgets tilted towards the elderly are also tilted more towards the support of current consumption rather than investment in the future.

The IGR describes a situation whereby some categories of spending, for example, education, decline as a proportion of GDP, from approximately 2.5 percent of GDP in 2009 – 10 to approximately 1.8 percent of GDP in 2049 – 50. In contrast, spending on health, age-related pensions and aged care increase as a proportion of GDP from approximately 7.5 percent of GDP in 2009 – 10 to approximately 13.8 percent of GDP in 2049 – 50. Over time, the national budget is therefore tilting towards the elderly, which may seem appropriate in the short term but could be immensely detrimental in the longer term.

AGE BIAS IN GOVERNMENT EXPENDITURE

In examining public expenditure on children and the elderly it is difficult to make comparisons across nations because of how expenditure is defined³. Nevertheless, OECD data reveals that Australia currently has an elderly to child expenditure ratio of 1.4. The United Kingdom's ratio is 1.5, the New Zealand ratio is 1.9, and the United States' ratio is 2.5. These, and other, figures reflect a trend of spending more on the elderly than on children in all OECD countries.

Recently analysts examining intergenerational equity issues have argued that the proper question is not whether there is an age bias in public expenditure but rather how large it is and, more importantly, whether it will grow as the population of countries continues to age.

A related question is, "What historically has driven this higher spending on the elderly?" The answer appears to be that higher spending has been a product of incremental economic and social developments rather than because of the electoral power held by the elderly acting as a special-interest group. Even so, the concern remains that children in future may not fare as well as their predecessors given scarce resources and increasingly aging populations. The problem is already acute in the United States where, for example, entitlement spending for Social Security and Medicare are consuming nearly 100 percent

³ Expenditure on education is viewed as capital expenditure, while expenditure on welfare services is viewed as consumption expenditure.

of annual federal tax revenue, forcing cuts in other programmes that earlier generations had come to expect, e.g. infrastructure provision.

In the United States, the elderly, along with the Baby Boom generation now moving into retirement, are far more politically organised than the younger generation. Tax revolts are being organised across the country to force spending cuts, but not cuts that will effect old-age entitlements. Unfortunately the younger generation of Americans, and in most OECD countries, seems only dimly aware of this situation and has not organised itself in a way that will ensure that Government's treatment of them is not short-sighted.

PRIORITISING SAVINGS AND INVESTMENT OVER CONSUMPTION TO INCREASE AUSTRALIA'S CAPITAL STOCK

Another dimension to consider with respect to fiscal sustainability and equity is a country's level of savings. The book *Future Justice* (2010) raises the issue that central to economic thinking is the level of savings a society decides to undertake. What people save today, which affects the level of goods and services they consume, will determine how much of its output a society is able to allocate towards increasing the size of its capital stock. The greater the savings ratio, the greater the size of the capital stock, which impacts on the level of output, goods, and services, available for future generations to consume.

The IGR notes that Government's nation building infrastructure policies are directed at ensuring efficient investment in infrastructure to encourage future productivity growth in the overall economy. Many of the investments are of a technological nature, for example, the National Broadband Network, and will require investments in appropriate skills and education to ensure that the 'quality' of human capital is increased so as to be able manage this investment effectively.

MAINTAINING FISCAL SUSTAINABILITY

As previously described it is clearly the case that Australia requires higher than average real GDP growth rates to sustain itself fiscally. If the country does not meet the necessary growth levels than real GDP per person will be insufficient to sustain increasing taxes to pay for benefits for the elderly. Each year this uncovered deficit will be added to the national debt and future generations will have to pay it off with interest. The typical assumption is that debt is never entirely paid off by future generations but that enough is paid off through taxes to keep it from growing as a larger proportion of the GDP.

In the IGR, Government is committed to ensuring that public sector debt as a proportion of GDP is held fairly constant. Moreover it aims to keep the tax-to-GDP average below the 2007 – 08 level of 23.6 percent. Success on both these counts is based on maintaining a tight fiscal strategy, which in turn is highly dependent on the success of policies with respect to net migration, economic productivity, consistent economic growth, and so on. As far as possible, younger generations should be involved in the development of the relevant policies.

Germany presents an interesting example of how the younger Representatives in the German Parliament have established a 'generational project', which arose out of their concerns about the growing national debt and the ability of present generations to irresponsibly spend money while leaving the costs to future generations of taxpayers to deal with. Through their project they introduced a bill to add the principle of intergenerational justice to the German Constitution. The traditional Left-Right voting blocs are therefore being partially replaced by a Young-Old voting bloc aimed at dealing with maintaining fiscal sustainability. This is a most interesting and worthwhile development which might be constructively replicated in Australia.

CLIMATE CHANGE

The IGR notes that climate change is the largest threat to the Australian environment and represents one of the most significant challenges to its economic sustainability. If left unmitigated climate change will have a negative impact on productivity and growth. The Report describes climate change driving Australian GDP approximately 8 percent lower in 2100 than it would have been in the absence of climate change.

However, there are some real problems with how the Report portrays climate change. First, using the year 2100 as its reference point will result in consigning climate change to something that is happening way in the distance. And, because climate change appears to be so far away, people will focus on their immediate problems leaving the impacts of climate change to be dealt with by future generations. Similar to the Nimby (not in my backyard) syndrome, climate change is becoming NMP (not my problem).

Second, it fails to address the reality that people are putting their own interests and priorities above national, global, and future generation's interests. In its May 2010 poll the Lowy Institute found that 72 percent of Australians wanted to reduce climate change but were not prepared to pay to do so. The study found 24 percent were only prepared to pay less than \$10 extra on their monthly electricity account to address the issue, while a further 33 percent were not prepared to pay any amount. Highlighting the degree of selfishness and short-sightedness being exhibited by people today must become part of the climate debate.

Similar to the debate on migration, the debate on climate change is, so far, lacking in sufficient information about what the costs to future generations will be and how soon they are going to be faced with them. Governments need to be more precise about the costs to future generations and especially of not adopting policies necessary to mitigate climate change's effects. These costs must be factored into long term fiscal projections. It is to be hoped that the Government's new climate change committee will deal effectively and decisively with such questions.

Shortly after being installed Prime Minister, Julia Gillard, acknowledged that there is currently no 'community consensus' on the way forward with respect to climate change. Coming to a consensus on how best to address climate change is fundamental to protecting the quality of life of future generations, and should be treated as such. The impacts on future generations must therefore be placed at the centre of the existing debate.

CONCLUSION

While the 20th century was the century of population growth, with the world growing nearly fourfold; for Western industrialised nations the 21st will be the century of population aging. These nations will see an increased dependence by the elderly on working-age adults resulting in substantial growth in taxes to fund expenditure on health, aged care and old age pensions. This raises the question of whether a situation is being set up whereby some generations will start to be unfairly rewarded with high benefits while others will be burdened with higher taxes to pay for growing benefits and increasing national debt. Moreover, as spending for the elderly increases, will this situation result in a crowding out of expenditure on children and the youth?

Two options for ensuring that future generations are not saddled with an unfair burden are, first, making sure that the working age population is large enough to generate a sufficient tax base; and second, ensuring that adequate resources are provided to the younger generations so that they will be able to rise to the level of productivity required to generate the taxes needed to fund the increasing expenditure burdens. In addition, limiting the impacts of climate change must be addressed by current generations since ignoring them pushes the cost for not dealing with them to future generations. These actions require current generations to prioritise savings and investment over consumption and to make changes to their economic and environmental lives. While obvious, the achievement of such change still appears regrettably to be a distant prospect.

In consequence of this, a debate around intergenerational justice must be given priority in the national consciousness. It will need to be more fully informed by seriously highlighting potential costs to future generations that will arise from political decision-makers making political and policy decisions principally in response to short term imperatives. Instead Government's overall aim must be to work towards agreement on a set of principles which will deal equitably with the issues arising from the very real prospect of intergenerational inequity. The issues that Government will need to address include:

- seeking agreement on an acceptable migration policy;
- prioritising expenditure on human capital to ensure increasing productivity;
- aiming for equity in public sector expenditure across generations;
- maintaining fiscal sustainability; and
- addressing climate change.

FURTHER READINGS

Commonwealth of Australia. 2010. *Australia to 2050: Future challenges (IGR)*.

Hüther, Michael. 2008. "Intergenerational Justice and Economic Growth: A Challenge for Economic Policy". In *Demographic Change and Intergenerational Justice: The Implementation of Long-Term Thinking in the Political Decision-Making Process*, edited by Joerg Chet Tremmel. Berlin, Springer, 48 – 49.

Lutz, Wolfgang and Vegard Skirbekk. 2008. "Low Fertility in Europe in a Global Demographic Context." In *Demographic Change and Intergenerational Justice: The Implementation of Long-Term Thinking in the Political Decision-Making Process*, edited by Joerg Chet Tremmel. Berlin, Springer, 3 – 19.

Sykes, Helen, ed. 2010. *Future Justice*. Australia, Future Leaders.

Wanderwitz, Marco, Fredrich, Peter, Lührmann, Anna and Michael Kauch. 2008. "Changing the German Constitution in Favour of Future Generations – Four Perspectives from the Young Generation." In *Demographic Change and Intergenerational Justice: The Implementation of Long-Term Thinking in the Political Decision-Making Process*, edited by Joerg Chet Tremmel, Berlin, Springer, 163.

Isaacs, Julia B. 2009a. "A Comparative Perspective on Public Spending on Children". Washington, D.C.: Brookings Institution.
http://www.brookings.edu/~media/Files/rc/reports/2009/1105_spending_children_isaacs/2_comparative_perspective_isaacs.pdf [accessed 01/03/2010]

Isaacs, Julia B. 2009b. "Public Spending on Children and the Elderly from a Life-Cycle Perspective." Washington, D.C.: Brookings Institution.
http://www.brookings.edu/~media/Files/rc/reports/2009/1105_spending_children_isaacs/3_lifecycle_pespective_isaacs.pdf [accessed 01/03/2010]

OECD Family Data Base, undated
<http://www.oecd.org/els/social/family/database> [accessed 15/03/2010]

The 2009 Lowy Institute Poll
<http://www.lowyinstitute.org/> [accessed 14/07/2010]

United Nations Department of Economic and Social Affairs, Population Division
<http://www.un.org/esa/population/> [accessed 15/03/2010]

Wikipedia:
http://en.wikipedia.org/wiki/Intergenerational_justice [accessed 09/02/2010]