State of the Nation

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Let's start. Now I'm talking about - the topic of the speech is, The economic impact of Australia's aging population. Australia's population will age markedly over the next forty years. This is due to both increased longevity and lower fertility with the latter dating from basically forty years ago. The end of the baby boom and generation and the decline in fertility that we had then. Consequently, there is very little that can be done about the ageing of the population. There is nothing that we can do to prevent these dynamics unfolding, the only choice is that we basically have to adapt and as the treasurer is fond of saying, "demography is destiny".

The economics of the story is a little less certain than the underlying demography, and that's in part because people do have future choices that they can make about their economic behaviour and in particular they tend to have a endearing habit of changing their behaviour in ways which make themselves better off. So that means that there is inevitably some uncertainty when we look out over forty years. But the objective in thinking about the ageing population problem is not actually to make a precise economic forecast out over forty years that would be an impossible task, rather the challenge is to look at a plausible scenario, which picks up the major trends which are unfolding and which provides a sound basis for asking the right policy questions. So this is the context for the first and second inter generational reports which were released in 2002 and earlier this year. The particular focus was to show how Australia's ageing population and other factors would impact on the economic and fiscal outlook over the next forty years.

Now this chart, the first chart basically shows the bottom line. The red is the fiscal balance and projecting in IGR 1 the blue is the fiscal balance projection in IGR 2 and you can see that there's been an improvement. There is still deterioration over time because of ageing but in the last comparable year, the difference in the gap there is about two percentage points of GDP. So that's been a substantial improvement over the last five years. Even though there has been this improvement in the projected fiscal gap, it would be a mistake indeed perverse to think that the challenges of ageing are now behind us. We know that ageing will cause per capita GDP growth to slow, that a sizeable fiscal gap, as you can see in this chart, remains and that means that the overall burden of government on the economy will rise and that there will be a need for significant structural change in the economy. It will also be a challenge to hold that strong projected fiscal position which goes out there, you see the blue, we're still in the surplus on these projections out to the end of the next decade. It will be a challenge to hold that strong fiscal position over that time period across several political cycles I might note. We also make the obvious point that the deterioration in the fiscal position and after that eventually implies a substantial run up in government debt again, unless action is taken to address it.

So what I'm going to tell you is the story essentially of how we get to that chart, which is the bottom line chart in the various IGR's. So we start with the demographics. When population as a whole is analysed it behaves in a remarkably orderly way, in other words people are born, they age and they die in relative predictable ways. And this means that we can build up a relatively robust picture of the population given that we know a lot about the people who are alive now and we can make plausible assumptions about trends in fertility, longevity and net migration.

This next chart shows the base line population projections that are used in the present IGR. The total population is going to go up to a little over twenty eight million in two thousand and forty seven. And the age profile which is represented in the coloured bars there is going to change substantially. The number of children is going to stay broadly the same. That means relatively speaking the number of children is going to become a smaller number of the population and personally I find that a little sad. Children are much more interested in the treasury officer's incidentally. The population of the traditional working age, that is, fifteen to sixty four is going to grow, but it's going to grow much less quickly than the population as a whole. Currently that traditional working age population cohort, is going to fall as a percentage of the total population, in fact by about eight percentage points and the older part of that cohort in the fifty-five to six-four is going to be the fastest growing bit of that cohort. And the older you are the less you work. Then the grey bars, which you see are the people over age sixty-five and in this chart, that's the fastest growing proportion of the population. And again within that cohort the older you are the faster the cohort grows. So that proportion over sixty-five is going to be around twenty-five percent of the population by two thousand and forty-seven, basically double what it is now.

So just from looking at that chart you can see that the pattern of supply and demand in the economy is going to shift quite significantly. Just some obvious examples, in the medical profession, paediatrics is not going to be much of a growth industry, but age care and geriatrics will be. We've just had Ian Chub just talking here, it's very clear that demand for education services is not going to come from growth in the cohort of traditional student age population. And the other point to note about this and this has political implications the age of the average voter will rise.

Now we are currently experiencing a mini baby boom and the fertility rate has lifted slightly but it's still significantly below the replacement rate. The replacement rate is about two point one births per female now. The fertility rate is now lifted to about one point eight and the fact that we are below replacement rate means that this, these are the main drivers of the population. You can see that births are just not going anywhere quickly, deaths gradually rise as the population grows and the gap between the red and the blue is natural increase. You can see by the end of this projection period, basically as many people are going to be dying as they are going to be born. That means that in terms of the aggregate driver of our population it is going to be increasingly coming from net immigration, so that will have some implications for the character of our society amongst other things.

Okay once we have population that's the first step in putting the puzzle together, building up the economics story is actually conceptually straight forward, uncertain but never the less conceptually straight forward. What we need to do is essentially to make assumptions about how much people will work and how productive they will be. This is the so called three P's framework, the population, participation and productivity framework which projects the economy from the supply side. And because we are looking at the supply side I'm not going to be talking about economic cycles, just the long term trends. Now how much people work is affected in part by how old they are, with participations rates that is whether people are involved in the labour force, declining substantially after the age of fifty-five. So an older population will work less in aggregate and that's the red line there, people aged fifteen and over the participation rate is projected to decline over that period and quite substantially.

Just to explain the blue line quickly, it is the case that we've seen participation rates of all age cohorts increasing in recent years and importantly for older age cohorts the participation rates began to lift from about 2001 onwards. But it is never the less that older workers still work less than younger workers, even though they are working a little more. And so in an economy where there are relatively more older workers and fewer younger workers the aggregate participation rate declines, even if at any particular age people are working a little more. And so we get this decline in participation which is in the red line. Because of the improvement, that we've seen in participation over the last five years or so that decline is not nearly significant as we projected in the first IGR report in 2002.

Now there is another layer of detail here to get to aggregate labour input around unemployment and hours worked but they're both second order issues. And so I'm not going to dwell on those in any detail. The next point of the puzzle is productivity. And this is a tricky area, in the last forty years on an aggregate economy wide basis productivity growth was one point eight percent per annum. That was essentially, what we projected and assumed in IGR 1 and we've done exactly the same thing in IGR 2. So productivity is projected to be at one point eight percent per annum over the next forty years.

Now if we bring that altogether we can get to GDP. The bottom line is that GDP is going to go more slowly over the next forty years than the last. In the last forty years GDP per capita that is per head grew by two point one percent per annum and we are projecting it to grow by one point six percent per annum over the next forty years. It's not a productivity story it's all a labour market participation story. The blue is the last forty years, the red is the next forty years, what's happening is first of all we are getting a smaller share of the population working, that's that first set of columns and they're also going to be working a little less hard. And so GDP slows by half a percentage point a year. Now over - now I know that doesn't sound like much but from year to year it isn't, but over a forty year period that's a very significant slowdown. Other things being equal that means that in 2047 living standards we're projecting to be twenty percent and lower than they otherwise would have been had the ageing effect not come along and slowed labour input into the economy.

Now we can look at this another way and I'm going to build this chart up. On the vertical axis is GDP for our work, so that's productivity, on the horizontal axis is average hours worked per person, that's a combination of population and participation. If you multiple those two together you get GDP and so the further you go up to the right hand top corner the higher is GDP in this chart. The blue is history, the grey is IGR 1 and the red is IGR 2. Now you can see that there is a turning point there in about 2009, 2010 that's when the great tide of baby boomers who are already beginning to retire becomes an increasing tide, that's when the turning point is in a couple of years. And you can see that the aggregate labour input that is coming is going to decline in that leftward drift over time. Now, you can see two things, one we're better off than IGR 1 and that's largely because of improved participation of older workers that we've seen in the last five years. But equally it is a very significant decline in labour input. It basically takes us back to the labour input that we saw early in the present economic expansion about 94, 95.

So question, what does that raise as policy options? Well, the question is can we improve our participation story, our input into the labour market. This compares Australia the blue with a bunch of other OECD countries, and the red, you can see that we are kind of you know in the middle I think we are ranked twelve, precisely. And there are a number of other countries in there which are significantly higher than us, one which is useful to point out in New Zealand because it's a typically similar cultural country. They have significantly higher participation rates for both men and women. So there is scope for us to lift our participation rate and if you want to look into the detail of this in the back of the IGR there is some sensitivity analysis, which looks at what might happen if our participation rate was lifted. Another way of looking at this is to look at the combination of productivity and participation. This chart is a little bit like the chart of the one before, again productivity again on the left axis, labour input

on the right on the horizontal axis. The more you go to the top right hand corner the higher is GDP and that plots the position of Australia against other countries right now. So it's a snap shot across countries and the red line there shows combinations of productivity and participation, which give the same level of GDP as Australia. And you can see that the Netherlands for example has pretty much the same level of GDP per head as us but they do it through higher productivity but lower labour force input. And on the other hand the United States has a pretty similar labour market input to us but higher productivity and hence higher GDP.

Now we're doing pretty well in terms of productivity if you can see on that chart. But there is still room for improvement. Now we cannot completely close the gap with the US on the productivity front because our geography constrains us here because of our small scale and remoteness. Bt if we could say half that productivity gap with the US, which might be achievable over the longer run then we'd increase the size of the Australian economy by around ten percentage points. Again there is a sensitivity analysis in the IGR which can point you to what the implications of that might be.

Just too again look very quickly at the global context, this is of course not an Australian phenomenon it's a developed world phenomenon. It's also a China phenomenon because of their one child policy and as you can see there, Japan is already well into the ageing profile and that is acting as a significant constraint on their long run growth already.

What does it mean that the world is ageing? Well just very quickly I'm not going to get into the details of this. It does mean that it's going to have wide ranging impacts on global savings behaviour, on asset returns across markets, on international capital flows and the supply of labour in different regions and hence immigration.
Now working out the precise magnitude of all that as a global picture is an incredible difficult exercise and I'm not going to go into it in detail at all today. There are a vast number of studies which look at this in a global context and a global kind of macro *18:17.9 models and put in assumptions and crank the handle and results pop out at the end and not surprising the results of those are very diverse which just shows you how difficult it is. So we can't actually predict what the impact of the global story is, but there is one clear policy message which emerges from the analysis of these global trends and that is that countries which have an open and flexible economy with innovative financial markets and opportunities for migration are the ones that are best placed to handle the consequences of demographic change. And in that context Australia is very well placed compared with some other countries who we often like to compare ourselves with.

Getting close now to that first chart, I showed you the fiscal impact is built up once we have the economic story. Looking at the implications of all of that for the main expenditure categories of government expenditure and they're the main categories which are driven by ageing. That is health, age care, age pensions and in part other income support. If you add all those things together over the next forty years, we think that spending by the federal government will increase by four and three quarter percentage points of GDP, which is a very substantial amount. And as I said they come from health and age care and so forth. But it is not all a demographic story a substantial part of the health story is in fact a technology story and in fact health is a positive good and as we get healthier we will be prepared to spend more on staying healthy and on new drugs and so forth.

So if you make an assumption about the tax system which is made in the IGR of keeping tax revenue and GDP at the same level and you add all of those things together then you can get that result. So we end up at the end of that period with a fiscal gap of around about three and a half percentage points of GDP compared with the present fiscal position of around one percentage point of GDP in surplus.

Now the improvement from that is due, compared with IGR 1, is due to a slightly slower rate of spending per person and that's largely in the health area. And also higher projected nominal GDP

which is in part coming from the present terms of trade boom from high commodity prices. Then we also have high labour force, participation and higher skilled migration that we've seen in recent years, all of that leads to an improvement.

Now the importance, notwithstanding the improvement, the importance of a continuation of policies to support strong economic outcomes is highlighted by the fact that real government spending per person is going to increase as a proportion of GDP. Government is going to be a larger part of the economy on these projections. So government spending is going to increase by four point seven percentage points from twenty point eight, which is where we are now, is the bottom at the end of that blue line, it's a twenty five and a half which is the end of the red line. Let me just explain this chart. On the vertical axis there is real spending per person, on the horizontal axis is real GDP per person and those rays that you can see going up there basically are plot combinations of real spending and GDP where the size of government is the same. Now as you can see over the last - you can see the big pick up after 1972/3 in the Whitlam period it is the size that government grew very substantially there by about five percentage points with GDP quite quickly and then through the more recent period which is a gradual decline in the share of federal government in GDP. And then as ageing begins to kick in that will inevitably rise. And basically you can deconstruct that, that is because real GDP goes up by the projection period, eighty six percent, that is the arrow to the right and spending goes up by one hundred and twenty eight percent, hence the share rises. Spending goes up faster than GDP.

Now it's impossible to be definitive about the optimal size of government. I'm afraid that presses economic science just a little too far and this is a very complex and subtle area which I don't have time to get into in any depth today. But the bottom line is theory and empirical research particularly by the OECD which looked across countries, lends support to the notion that government expenditure and the taxes which are required to finance it have a negative impact on efficiency as governments become larger. And similarly it does appear that a larger government is associated with slower growth and that is on average across countries. Given that it is reasonable to think that Australia has been well served by having a general government sector that is relatively small and stable compared with other OECD countries. And we also know in a fully employed country increasing the size of government must crowd out the private sector over time. Hence all of this serves to underline the desirability of limiting the projected slow down in real GDP growth over the coming forty years by lifting both productivity from its historical average and further reducing the barriers to participation. It also underlines the need to be vigilant about pressure to increase real spending per capita and the overall share of government in the economy and this is the policy challenge sewn up by the IGR. Thank you.

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