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ADDRESS BY

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TO

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INTERNATIONAL DEMOGRAPHIC AND ECONOMIC CHANGE, AND WHAT IT MEANS FOR AUSTRALIA

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Three years ago Australia's first Intergenerational Report provided a framework for thinking about the economic challenges Australia will face over the next 40 years.

The Report looked at domestic demographic developments and how they might impact on Australia over the long term. It highlighted the effects of declining fertility rates over the last 40 years and how that, together with increased life expectancy, will contribute to the ageing of our population. The Report detailed how an ageing population will subdue economic growth but increase fiscal pressures.

Out of that report came a framework for thinking about the components of long-term economic growth – known by shorthand as the 3 "Ps" - Population, Participation and Productivity.

An increasing population (on consistent participation and productivity) will build the size of an economy. A stable population with a declining participation rate caused by population ageing will, other things being equal, slow the growth of an economy. And, everything else being equal, an economy where productivity is increasing will generate a larger economy.

Over the long term, a country's economic prospects derive from the level of its population, the engagement of the population in the workforce and the level of their output. These factors will shape and influence Australia's future, but so too, will they shape the countries around us.

Today I want to talk about the long term, changes these factors will have on our region and the globe and think about how we should respond.

Population and Economic Development

The United Nations in its population data base lists Australia as the 53rd largest country, by population, in the world.

TABLE 1. Population by Selected Country[1]

Rank	Country	Population '000
1	China	1,315,844
2	India	1,103,371
3	United States	298,213
4	Indonesia	222,781
5	Brazil	186,105
6	Pakistan	157,935
7	Russia	143,202
8	Bangladesh	141,842
9	Nigeria	131,530
10	Japan	128,805
49	Ghana	22,113
50	Romania	21,711
51	Yemen	20,975
52	Sri Lanka	20,743
53	**Australia**	**20,155**
54	Mozambique	19,792
55	Syria	19,043
56	Madagascar	18,606
57	Cote d'Ivore	18,154
58	Cameroon	16,322

Australia's share of global population is less than one third of 1%.

But Australia has a very high per capita GDP. This is due mainly to our high productivity levels. As a result, although Australia is 53rd by population, in 2004 it was the 13th largest economy in the world at US$ market exchange rates. Our economic strength boosts our standing in global league ladders.

[1] Source: UN Population Database (2004 Revision) for 2005.

TABLE 2. Current GDP (2004, US$ billion, market exchange rates)[2]

Rank	Country	US$ billion	Per cent of world total
1	United States	11733.5	28.9
2	Japan	4668.4	11.5
3	Germany	2706.7	6.7
4	United Kingdom	2125.5	5.2
5	France	2018.1	5.0
6	Italy	1680.7	4.1
7	China	1649.4	4.1
8	Canada	995.8	2.4
9	Spain	993.0	2.4
10	Korea	681.5	1.7
11	Mexico	676.5	1.7
12	India	661.0	1.6
13	**Australia**	**617.6**	**1.5**
14	Brazil	599.7	1.5
15	Russia	582.7	1.4
16	Netherlands	578.0	1.4
17	Switzerland	358.0	0.9
18	Belgium	352.0	0.9
19	Sweden	346.5	0.9
20	Taiwan	305.2	0.8

The size of an economy at market exchange rates, however, can vary dramatically as the exchange rate fluctuates, even if the underlying volume of goods and services it produces is unchanged.

When we compare the size of economies in different countries, the process is even more fraught since different countries have prices that can diverge dramatically – especially if those prices are controlled in some countries and if exchange rates are subject to administrative control.

Accordingly, when economists compare the volumes of goods and services produced or consumed across countries they usually revert to comparisons using purchasing

[2] Source: IMF WEO database, April 2005

power parity (PPP). (See Appendix for further detail on the use of PPP exchange rates in GDP estimates).

TABLE 3. Current GDP (2004, US$ billion, PPP exchange rates)[3]

Rank	Country	US$ billion	Per cent of world total
1	United States	11605.2	20.9
2	China	7334.3	13.2
3	Japan	3817.2	6.9
4	India	3290.8	5.9
5	Germany	2391.6	4.3
6	United Kingdom	1736.4	3.1
7	France	1724.6	3.1
8	Italy	1620.5	2.9
9	Brazil	1461.6	2.6
10	Russia	1449.2	2.6
11	Canada	1050.5	1.9
12	Korea	1029.8	1.9
13	Mexico	1005.0	1.8
14	Spain	971.7	1.7
15	Indonesia	801.4	1.4
16	**Australia**	**602.1**	**1.1**
17	Taiwan	589.5	1.1
18	Turkey	529.6	1.0
19	Iran	518.8	0.9
20	Thailand	512.3	0.9

You can see again in this Table that Australia, although small in population, has an economy which outperforms much more populous nations and is measured as the 16th largest economy in the world. Our share of global GDP is 4 or 5 times our share of population. Notice that on this table China is the world's 2nd largest economy with 13.2 per cent of world GDP compared to the 7th largest with 4.1 per cent as shown in Table 2.

What helps make the United States the world's superpower is that although it has only the third largest population in the world, that population is extremely productive.

[3] Source: IMF WEO database, April 2005

It is this productiveness (GDP per capita) which 'supersizes' the US economy to be far stronger than any other country.

Further, in contrast to other developed economies, the United States has high spending on defence -- around 4% of GDP. This makes its spending larger than the rest of the G7 combined and, at US exchange rates, its defence spending is greater than the next 20 countries of the world combined.

A strong economy with a strong military is also matched with a very strong sense of mission and powerful ideas which are another, perhaps the most important, reason for US influence in the world.

The rise of the US economy is, however, a comparatively recent phenomenon. An OECD study (*The World Economy* by Angus Maddison) estimates that the US share of world GDP increased from 1.8% in 1820, to 8.9% in 1870, to 19.1% in 1913 and 27.3% in 1950. This rise was due to a combination of strong population growth and rising productivity.

The next 50 years

As we look out over the next 50 years, what changes do we see to the global power balance?

First of all, let us try to extrapolate population shifts. If the global population was represented by 100 people[*] in 2005, then 5 would be in the US, 11 in Europe, 20 in China, 17 in India, 14 in Africa and, alas, less than one third of a person in Australia.

If there were 100 people in the world today, then projecting forward to 2050 there would be 140 people -- that is a 40% increase. But if we standardise back to 100 again we would see the US proportion of global population is hardly going to change.

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[*] This thought experiment was suggested by the former US Deputy Secretary of State Richard Armitage at a recent Australia – American Leadership Dialogue. The numbers used here are mine and taken from the UN Population Database.

The proportion of the world's population in Europe and China will fall. And the proportion living in Africa will increase. The big population shift in the next half century will be to Africa.

TABLE 4. Share of Global Populations[4]

	2005 Share	2050 Share	2050 (2005 plus projected growth rate of population)
World	100.0	100.0	140.4
US	4.6	4.4	6.1
Europe	11.3	7.2	10.1
China	20.4	15.3	21.5
India	17.1	17.5	24.6
Africa	14.0	21.3	30.0
ASEAN	9.1	8.3	12.4
Japan	2.1	1.2	1.8
S. Korea	0.8	0.5	0.7
Other	20.3	23.9	32.7
Australia	**0.3**	**0.3**	**0.4**

It may surprise many that China's share of the world population is going to decline, but it is a consequence of declining fertility rates. Fifty years ago, China had an estimated fertility rate of roughly 6. Today it is around 1.7 – the same as Australia. While China has a much lower aged dependency ratio than Australia today, it will be much the same as Australia's by 2050, and higher than the United States' ratio in that year. In the decades leading to the middle of this century, China's population will age, and age very fast. Between now and then, the economic rise of China will be based on productivity growth, not on population.

[4] Source: Treasury calculations based on UN Population Division projections. Due to rounding, individual country and region figures will not add up exactly to the world figure.

China's economy has been emerging from lost decades of economic underperformance. It has been opening its markets, reforming its economy, and moving its people into more productive work due to rapid industrialisation. Together, these changes are generating huge rates of economic growth. Because this is occurring in the world's most populous nation, this growth is spurring global commodity markets. In fact, China now provides the single greatest source of world economic growth.

As India continues its decade-long emergence from the dead hand of socialism and further opens itself to international markets, much the same has started to occur, although it is not as advanced yet as China.

Table 3 above presented the most authoritative estimates of present day GDP in PPP terms. It shows that while the US is still the world's largest economy, the gap between it and China and India is far smaller than estimates using market exchange rates.

Projections using PPP rates and drawing on OECD, IMF and UN data suggest that the share of global GDP accounted for by China and India will increase very rapidly over the period to 2050. While such projections are fraught with difficulty, plausible assumptions can generate projections of China's share of global GDP rising from around 13% now to over 20% in 2050, while India's rises from close to 6% to over 12% (See appendix for detail on these assumptions). In contrast, the shares of the US and Europe, both currently over 20%, could fall to 14% and 10% respectively.[5]

[5] When GDP figures are measured by market exchange rates, China and India's estimated share in the global economy is smaller.

TABLE 5. Share of Global GDP PPP[6]

Share of World GDP (%)	2004	2050
China	13.2	20.3
India	5.9	12.3
US	20.9	14.3
Europe	21.0	10.0
Australia	1.1	0.7

Will this happen? We cannot be too sure about the size of economies half a century away. But we can be sure that on current trends, China and India will become increasingly important parts of the global economy.

We should not be surprised by this. In PPP terms, China's economy is already nearly twice the size of Japan's economy, three times the size of Germany's, and more than four times as large as the British economy. But bear in mind that while China's economic size may rapidly approach that of the US, it will remain dramatically smaller than the US in financial and capital market terms.

What this does suggest for the world of 2050 is that China and India are likely to be completing their re-emergence as major powers. I say re-emergence because until around 1700, China and India were nearly as rich as Europe in per capita income terms. According to one estimate, in 1700 they accounted for close to half of global economic activity. Indeed, some might see the past 300 years as an historical aberration – a period where the industrial revolution transformed Europe and the West through an extraordinary productivity surge, leaving much of the East behind.

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[6] Source: IMF data and Treasury Estimates 2005

As the industrial revolution shifts to China and India, their share in the global economy may be returning to historical levels.

If Western countries account for a smaller share of the world's population and economy in 2050, it does not necessarily follow that their influence over global events will decline. Military power, technological leadership, the shape and focus of global institutions, the robustness of alliances, social cohesion, human skills, cultural influence, and financial weight also need to be taken into account.

But demography and economic growth will powerfully influence the strength of nations; they will place new pressures on global institutions; and they may lead to new sources of tension, conflict and insecurity.

A small population, but strong economy like Australia must ask how will it secure its interests in a shifting strategic landscape -- not only today, but for the next generation of Australians.

<u>Securing Australia's Interests</u>

Throughout Australia's history, we have sought to shape regional and global developments:-

- This has been true in all the wars Australia has fought, including the war on terrorism we are prosecuting now;

- Coming out of the World Wars, Australia was actively engaged in the Versailles Peace Conference; the Bretton Woods Conference establishing the IMF and

World Bank; and the San Francisco Conference which founded the United Nations 60 years ago;

- Progressively since the Second World War, Australian governments have engaged our region – through the Colombo Plan, APEC, our financial assistance to countries riven by the 1997 Asian financial crisis, and our response to the Boxing Day tsunami.

The question for us, taking into account the shifting demographics and economics, is how do we best place ourselves to look after our future?

(i) First, we should understand that medium and smaller players benefit from rules-based systems.

As a medium-size, increasingly outward-oriented economy, Australia benefits enormously from an open, rules-based multilateral trading system.
Agreed rules and dispute resolution mechanisms provide a fair and transparent basis for resolving commercial disputes between countries. If these disputes were resolved by sheer power or force it would not be in anybody's interest but especially not in the interest of the smaller players.

Trade liberalisation can and should be pursued at all levels – bilaterally, regionally and globally. But bilateral trade agreements can never replace the benefits of an open, rules-based trading system embodied in the WTO.

The United Nations was conceived as an international forum to lay down rules and arbitrate between countries on a fair and equal basis. On occasions it has done this. But its structure means it is deeply flawed. Australia should continue to support United Nations reform and other multilateral organisations which attempt to administer an international rules-based system. But being mindful of their limitations we should not place all of our future in the hands of these institutions.

(ii) Second, Australia benefits from strong alliances which reflect our values and enhance our interests.

The US alliance has underpinned Australia's security since the Second World War. It will continue to be the cornerstone of the defence of Australia against any would-be threat from a great power.

The US alliance gives Australia access to leading edge US technologies and intelligence; it fosters close working partnerships between US and Australian military forces; and it provides an opportunity for Australia to influence US thinking on key regional and global issues.

The US alliance is founded in common interest but especially common values. This is what gives it strength. Two countries that share language, an immigration experience, democratic political systems, and a similar rule of law are predisposed to be the kind of friends and allies that we are. But it is not inevitable. I have spoken recently about threats to this relationship. One cannot be careless about important friendships.

(iii) Third, Australia will continue to deepen and broaden our engagement with the Asian region.

While Australia's economic and security interests are global in dimension, they find their sharpest expression in our own region.

The economic rise of China – and, in coming years, of India – will be the dominant narrative of the world economy in the years ahead. And it is working in our favour.

China is a growing market for our minerals and energy. Its increasingly efficient production is putting downward price pressure on mass-manufactures and restraining global inflation. The terms of trade have moved our way.

But as China rises it will become more than a market and a producer. It is already a huge source of world capital and it is likely to want to move into foreign direct equity investment. As China extends its commercial influence through the region, this will shift power balances.

It is important that all the countries of the region feel secure about these developments. Australia has a role to play in encouraging the integration of the region into the world economy and assisting that by sharing the lessons we have learned from our own experience.

Our security interests are tied up with Asia. This is an abiding strategic reality for Australia. Whether it be financial collapse, terror, avian flu or tsunami we have a very strong interest in cooperation and assistance in our region.

(iv) The fourth policy orientation I would like to raise is the need to anticipate and respond flexibly to emerging threats to international security and prosperity.

I have spoken earlier of the advantages of multilateral institutions and their drawbacks.

In recent years, flexible, issue-focused coalitions and other groupings have come to the fore. Australia has been engaged in a number of these, including coalition operations in Afghanistan and Iraq and the Proliferation Security Initiative – a broad coalition of countries working to stop illegal flows of WMD materials and technology.

These initiatives are not confined to security questions.

In July this year, Australia – along with the US, Japan, China, India and South Korea - announced the establishment of a partnership to meet the challenges of climate change, energy security and air pollution. This partnership – the Asia-Pacific Partnership on Clean Development and Climate – brings together countries which account for 45 per cent of the world's population and close to half the world's energy consumption and greenhouse gas emissions.

Next year, Australia will hold the Chair of the Group of 20 Meeting of Finance Ministers and Central Bank Governors. Australia was very much involved in establishing this group in 1999 in the aftermath of the Asian financial crisis. It brings together the G7 and 'systemically significant' industrialised and emerging market economies, including China, Brazil, India, Indonesia and South Africa. The

G-20 has emerged as an influential forum driving debate on global economic developments and governance.

In the coming years, flexible groupings may be required to meet other challenges to international security and prosperity. Where established international mechanisms cannot do the job or cannot do them with the required range of consensus – Australia should be ready to engage with like-minded countries.

The orientations for international policy I've discussed here – support for rules-based systems; maintaining strong alliances; deepening our engagement in Asia; and participating in flexible, task-oriented groupings – provide a broad framework for securing Australia's interests in the world.

The emphasis that each of these orientations receives will differ over time – and from issue to issue. While some might say a stronger emphasis on one will necessarily detract from the others – I believe this is simplistic and mistaken.

Australia's strong alliance with the US, for example, is not inconsistent with our engagement with Asia. Our pursuit of bilateral and regional free trade agreements does not dilute our support for an open, multilateral trading system. Our participation in the G-20 does not detract from the importance we attach to the Bretton Woods institutions, the IMF and World Bank. In fact, the G-20 has emerged as a focal point for discussions on how these institutions can be reformed – and how they can better represent the emerging economic powers of our own region.

Conclusion

The world economy is rebalancing and we have an opportunity to benefit from that. The re-balancing may raise security concerns on the part of some in our region but none that cannot be handled within a strong regional framework of cooperation and strong existing alliances.

Australia does not seek to rival the great powers. It would help our economic and strategic position to have a faster growing population. We are small in population but very much stronger in economic terms. We must be at the forefront of economic growth if we want to stay there.

We have lessons to share that can assist our neighbours and the region. We have never turned away from the world and it would be a strategic mistake to do so. Whilst understanding our limitations we should maximise our strengths. One of our strengths is our sophisticated economy. Another is our level of social cohesion. We are not divided by any great social or cultural cleavage. We should be careful to maintain that.

We bring a distinctive perspective – but a sophisticated and useful one – to initiatives on trade, energy, the response to terror, WMD proliferation and the international financial architecture.

We should work to assist real progress in these areas as a good global contributor but one that is conscious of our own strategic interest, an interest which happily coincides with those of our neighbours and the region.

APPENDIX – PURCHASING POWER PARITY AND MARKET EXCHANGE RATE COMPARISONS OF GDP

In order to compare the current or future size of individual economies, their respective GDPs need to be expressed in a common currency. This can be done using either purchasing power parity-based (PPP) or market exchange rates.

These alternative methodologies often result in markedly different GDP estimates, in particular for developing economies. These differences stem from the fact that PPP-estimates of GDP take into account divergent price levels across economies. Developing economies with low (non-traded good) prices, for example, will have PPP-derived exchange rates that are higher than their market exchange rates. When expressed in PPP -- as opposed to market exchange rate -- terms, their GDP levels will also be higher.

The 1993 United Nations System of National Accounts recommends using PPP exchange rates when comparing the volume of goods and services produced or consumed in economies (i.e. the size of economies). Market exchange rates are volatile and can be affected by short term factors that do not necessarily relate to a country's long term productive capacity.

PPP-based GDP estimates are also typically used when making long-run economic projections. As developing economy productivity rates converge toward advanced economy levels, many economists would expect their market exchange rates to converge toward their PPP-rates, although in practice the data are mixed.

While PPP measures are conceptually superior to market exchange rates for estimating the size of economies, uncertainty over the calculation of PPP exchange rates means caution should be exercised when considering fine differences between variables, such as rankings between similar sized countries.

China's economic size

When expressed in PPP terms, China's economy accounts for around 13 per cent of the world's GDP. In market exchange rate terms, China's share is only 4 per cent. The wide divergence of these results underlines the need for caution when interpreting GDP data.

Long-run economic projections should also be interpreted carefully. They are based on a wide range of assumptions -- about demographic trends, productivity rates, policy settings, institutional quality and social stability. These projections should not be seen as forecasts. At best, they provide an insight into possible future scenarios.

A range of long-run projections based on plausible assumptions suggest that China's economy will surpass the US's in GDP terms (when measured by PPP exchange rates) at some point over the coming 30 years. The assumptions underpinning Treasury's PPP-based projections referred to in the speech are set out below. Long-run projections of China's economic size based on (adjusted) market exchange rates point to a less dramatic transition.

A recent Goldman Sachs study ('Dreaming with BRICs: The Path to 2050' – Goldman Sachs, Global Economics Paper No: 99, 2003) estimates that China could overtake Germany in the next four years, Japan by 2015 and the US by 2039. It is important to note that this study factors in a gradual appreciation of China's real exchange rate over time. The assumptions underlying the Goldman Sachs projections are set out below.

Assumptions underlying country size estimates

Treasury estimates of the relative size of key economies in 2050, using PPP exchange rates, are based on:

- population projections from the UN population prospects database
- GDP per capita estimates using:
  - IMF and Treasury forecasts to 2007;
  - OECD and World Bank medium term projections to 2015;
  - Treasury estimates of potential growth from 2015 to 2050; and
  - The assumption that China will converge at a constant rate to 70 per cent of OECD GDP per capita by 2050.

Projections contained in Goldman Sachs paper are drawn from a basic GDP model incorporating labour, capital and total factor productivity.

- Labour force and population data are drawn from the US Census Bureau projections.
- The capital stock grows according to recent historical investment rates and World Bank assumptions about depreciation.
- Total factor productivity is based on a long run estimate for the US with assumptions about the speed of convergence of less developed countries – as low income countries get closer in income to developed countries, their rate of total factor productivity growth slows.

The GDP estimates produced by this model are then converted to a constant currency using market exchange rates based on a model of the real exchange rate, where higher productivity growth leads to an appreciation of the real exchange rate. This real appreciation is assumed to occur through the nominal exchange rate, and not through differences in price inflation.