

CAN DISTANCE BE DEFEATED?¹

GLENN WITHERS²

EXECUTIVE SUMMARY

Has not distance been defeated? The world's economic mass is moving more in Australia's favour, transport costs are coming down and modern communications increase Australia's ability to inter-act with the world and tap its knowledge base. In fact this is helpful but not sufficient, because as the world moves increasingly to become a global knowledge economy, much of the creative high-level knowledge needed is tacit knowledge conveyed in direct personal interaction based on co-location.

So while growth has been good, and micro-economic reform policies appropriate, these have largely produced once-only gains from "shake-up" of old inefficiencies. Australia has been in "catch-up" mode. More is now needed if the country is to continue to defy the tyranny of distance and punch above its weight, as it has during its best times in the past.

The principles for this are clear: openness and flexibility are essential; they must be supported though by guarantees of security; security must be market-compatible and not cossetting; investment in national capability in business, human and knowledge capital is also essential; and good governance must underpin the corporate and political processes. When to these are added a modern commitment to ecological sustainability an Australia that is prosperous, fair and free can result, to a degree largely unmatched elsewhere and well beyond what distance would otherwise dictate.

Distance-related policies therefore must continue to be the key to Australia's response to its location. Above all today this means:

1. A more farsighted telecommunications and transport infrastructure policy, especially for high speed broadband and for well-integrated transport corridors, to ensure best practice technological and physical linkages; and
2. Settler immigration at levels such as to produce a 1.25 per cent annual increase of Australia's population, carefully managed guest-

¹ Published in I. Marsh (ed), *Competing From A Distance*, Melbourne: CEDA, 2007.

² Particular thanks are due to Ed Leamer for the data used in figures 5 and 6, and John Bowdler for policy discussion. Naturally the views expressed remain those of the author.

worker programs and liberal student and visitor policies, to expand our person-to-person global integration.

These policies would help shrink distance if not themselves over-turn its disadvantages for Australia. Then the many other policies directed at enhancing value-adding in any production sphere irrespective of distance can then also kick in and, by encouraging or enabling us to be smarter, Australia can stand out as the nation that is the world's best long-distance competitor.

INTRODUCTION

Two well known books encapsulate much that is particular to the challenges facing Australia today: Donald Horne's *The Lucky Country* and Geoffrey Blainey's *The Tyranny of Distance*. Both titles have become part of the Australian lexicon and are keys to our sense of self as a nation.

Horne's phrase evokes in the minds of many the bounty of Australia possessing a continent rich in natural resources, some of which comprise a large share indeed of the global resource endowment.

The continent has over 20 percent and, in some cases, much more of the world's known stock of recoverable uranium, iron ore, bauxite, diamonds and mineral sands. Proven black coal resources have centuries of life at current extraction rates and millennia for brown coal. The land currently occupied by mining is 0.01 percent of the land area.

The relatively small population of the continent means that this bounty can be shared and can support a good living, thanks to the fortune provided by nature and by isolation. This is a view still found today-as in the Prime Minister's comment on dealing with climate change that "we have to make sure that we do it in a way that preserves our natural advantages because future generations will not thank us for squandering a natural advantage providence has given us"³

Isolation is Blainey's theme. The continent is geographically separated from the historic centres of major human population or, as Paul Keating once put it more colourfully, "Australia is at the arse end of the universe"-which some might say does neglect New Zealand and Tierra

³ Prime Minister, Transcript of Address, 2 November 2006

Del Fuego, but the point is clear. Isolation is not just literal physical geography but also a matter of economic mass-and the most prosperous and populous are elsewhere. Canberra is 16,500kms from Bonn and 16,000kms from Washington, and it is 6000kms from Tokyo even in our own Asia Pacific region.

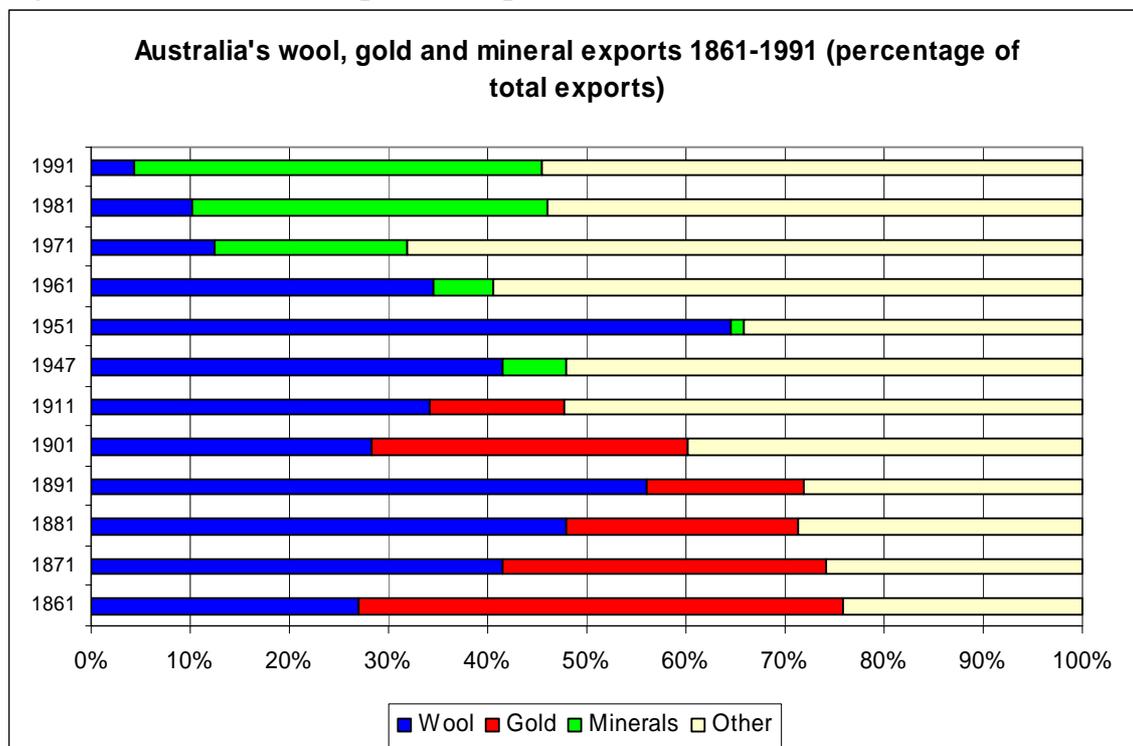
According to some historians Australia may have had a half a million aboriginal population before white settlement, and Noel Butlin (1983) suggested this was a massive under-estimate. In his view the number was more like one million. However disease (and not the frontier violence that has so occupied the culture war historians) decimated this native population, leaving only 250,000 indigenous by 1815 supplemented by 15,000 Europeans: a tiny population for a continent of 3 million square miles. Almost two hundred years later the aboriginal population has risen back to half a million and the total population has passed 20 million.

GLOBAL INTEGRATION

One consequence of nature's bounty has been a long historical reliance upon natural- resource- based exports as a major component of Australian trade. This is seen in Figure 1. Wool, gold and other minerals alone have never been less than 30% of total Australian exports, putting aside the years of war and depression⁴. The reliance has varied over time and manufacturing and service exports (including sectors such as tourism and education) have expanded. But the natural resource base has remained crucially important and, in circumstances such as the recent period of commodity price boom in response to China's fast growth, has accelerated to assume renewed prominence. And we have used our resources most efficiently, showing much higher labour productivity in these areas than comparable countries such as the USA.

⁴ Source is Mclean and Taylor (2001)

Figure 1. Australia's Export Composition: 1861-1991



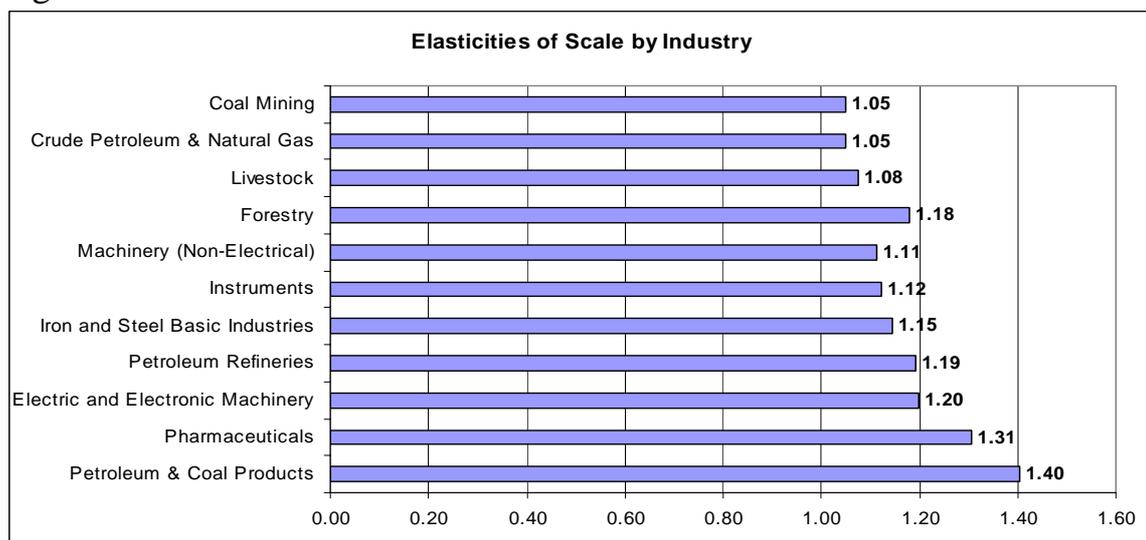
The implications of bounty and distance for Australia's growth, structure and stability are profound. How we respond to this bounty determines whether we continue as one of the group of countries to escape the "Resource Curse" (Smith 2007). So many countries rich in natural-resource-based products have not used their bounty well and have suffered restricted growth. But countries such as Canada, Australia, and Norway have developed as affluent and stable democratic societies. Whether we should have done even better is open for debate, but the need to ensure that resource wealth flows are not wasted in the manner of the Spains and Portugals of centuries ago or some of the mid-East, African and South American oil countries of modern times remains a policy priority.

The priority is recognized somewhat in Australia through the structural impacts associated with what local economists call the "Gregory Thesis" or, as it is called elsewhere, "The Dutch Disease". The exchange rate effects of bountiful natural exports inhibits competitive manufacturing and service exports and raises import costs, so placing pressure on urban living standards and employment.

Australia was the world's first post-industrial society. Most industrial countries went through a major period of transition from land-based production for domestic consumption, though a manufacturing revolution and the growth of urbanization, to emerge as a service society as cheaper manufactures elsewhere undercut basic domestic manufacturing, which then remained with specialized high value added niches. Australia was really born modern; a society that never possessed a landed peasantry, thoroughly urban from foundation, with well-constructed institutions of modern liberal democracy, the rule of law and efficient administration.

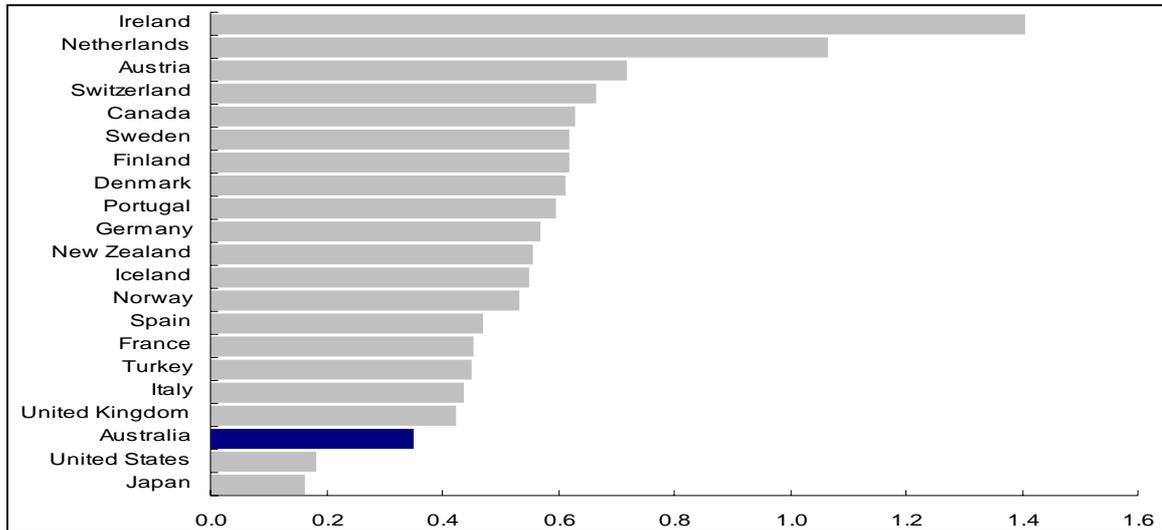
Its distance from markets meant that its natural-resource advantages dominated its global trade and not basic manufacturing, which only really grew when force-fed by artificial protection. For there is clear evidence that apart from the costs of transport, which for Australia are large, there are also considerable advantages to scale in manufacturing compared to most natural resource industries. Figure 2 shows this clearly from recent international research (Antweiler and Trefler, 2002) on scale advantages in global trade. And Blum and Leamer (2000) have further estimated that exporting a good to a country 1000 miles away is, on average, equivalent to an import tariff of between 7 and 17 percent, depending on the type of good. Or, to put the problem differently, if Australia was as close to other economies as is the UK, its trade would be 50% higher (Battersby and Ewing, 2005).

Figure 2. Economies of Scale in Global Trade



The result is a relatively low global integration for Australia. The sum of exports and imports as a ratio to GDP puts Australia at the lower end of the OECD spectrum, as seen in Figure 3.

Figure 3. Trade Intensities, 2001



But at least historically for Australia a relatively efficient domestic construction and service sector was able to flourish, and economic achievement could also embrace urban utilities and construction- as these were largely non-traded- and both could benefit from a healthy, educated and enterprising and growing population. With efficient land- and capital-intensive mining and agriculture, and with human-capital intensive service production, embedded in a rich foundation of institutional capital, Australia still could prosper and grow a high living standard. As Ed Leamer (2006) has shown, Australia and New Zealand were long the world's champions in challenging the tyranny of distance as is seen in Figures 4 and 5. These show how both thirty years ago and in 1990, Australia and New Zealand did punch above their weight, though they have now been joined by some newer success stories.

Figure 4. GDP per capita and distance to World GDP, 1960

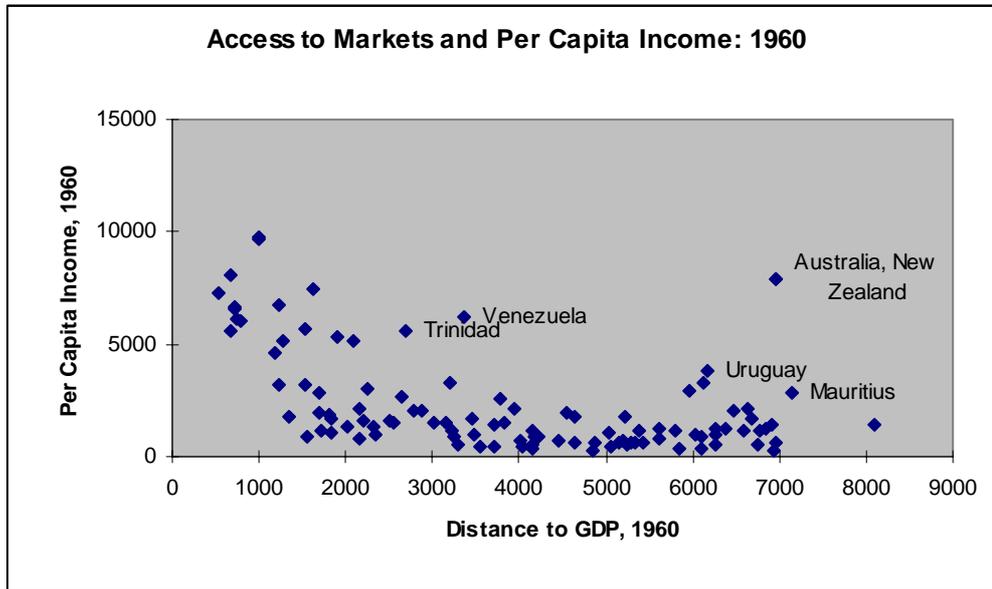
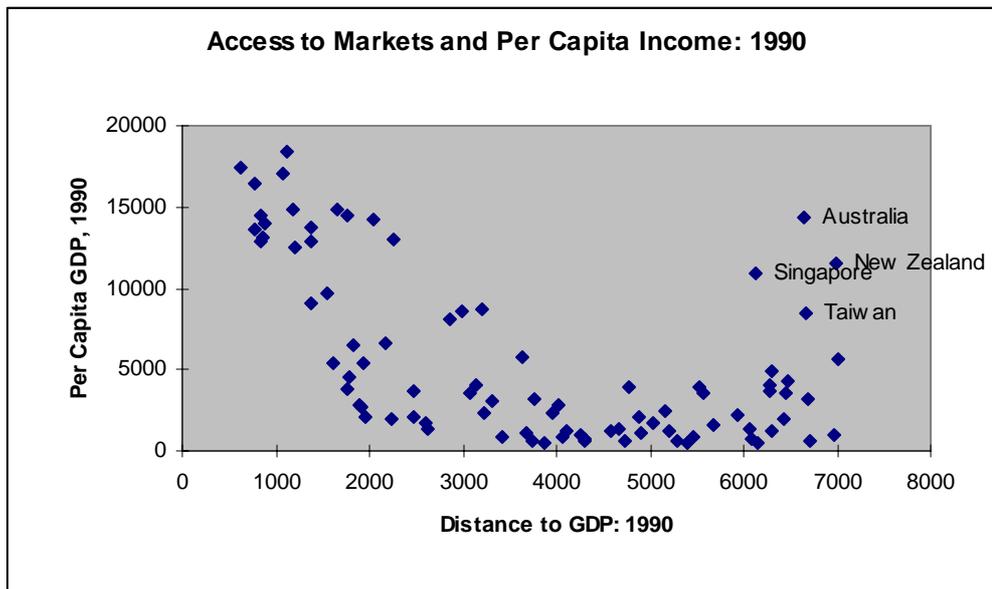


Figure 5. GDP per capita and distance to World GDP, 1990



Redding and Venables (2000) found that market and supplier access explain up to a third of variation in per capita income differences-as Figures 5 and 6 visually signals. Similarly Australian Treasury (Battersby and Ewing, 2005) has calculated that Australia’s low global trade integration is above what would be predicted given our isolation.

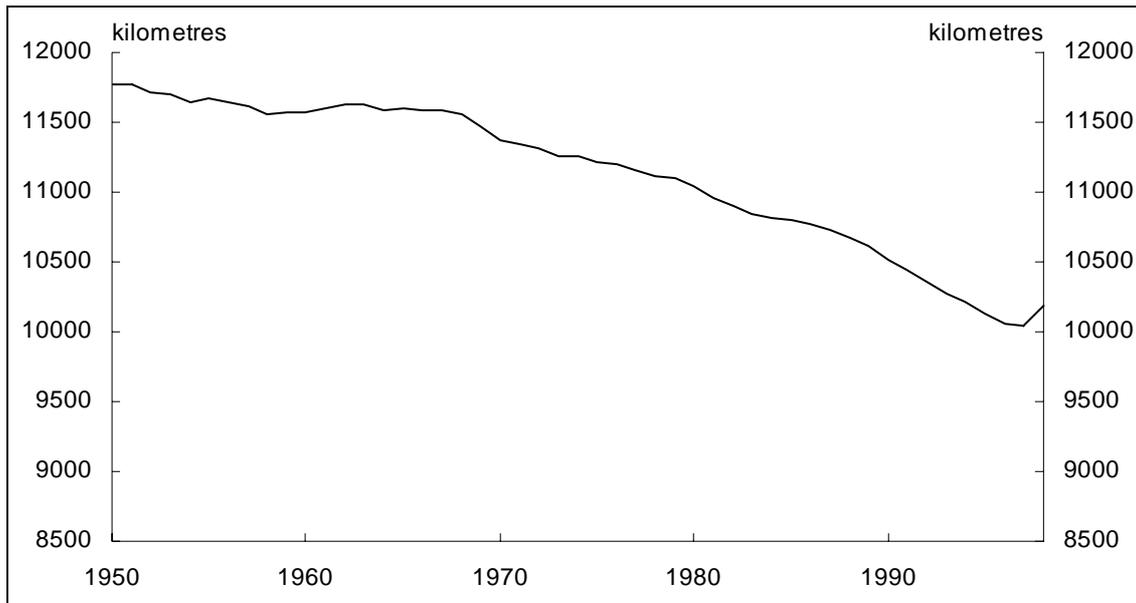
Moreover this was achieved with our own domestic market itself internally fractured by distance. The Australian pattern of settlement is a dispersed one. Its strength for economic activity is its concentration in large cities eg more than the Canadian case. This does generate a range of urban scale economies at least, plus the more recently recognized spillovers in urban density in the form of knowledge synergies and thick markets. These latter come from interactions between many people and many firms in large markets, with widespread availability of new ideas generated and with special skills and wider varieties of services being sustainable. The evidence is that the economic gains outweigh any congestion effects from such concentration.

Indeed across US cities a doubling of density increases labour productivity overall by 6 percent on average (Quigley 1998). These notions have been popularized in recent times through Richard Florida's books, especially *The Rise of the Creative Class*, which is a paen of praise to cosmopolitanism.

But Australia's cities are far apart. McLean and Taylor (2001) have pointed out that no two Australian cities with a population of over a million are within 600 kms of each other. In California 34 million people live between San Diego and Sacramento, a distance of 800kms.

But surely all this is history? Has not distance been defeated? The world's economic mass is moving more in Australia's favour, transport costs are coming down and modern communications increases Australia's ability to inter-act with the world and tap its knowledge base. This is certainly happening and can be documented. For example, in the second half of the twentieth century, the proportion of the world's GDP within 12,000kms of Sydney increased from 26 percent to almost 38 percent (Battersby and Ewing, 2005) (Figure 6).

Figure 6. Australia's Remoteness: Distance the Rest of the World's GDP



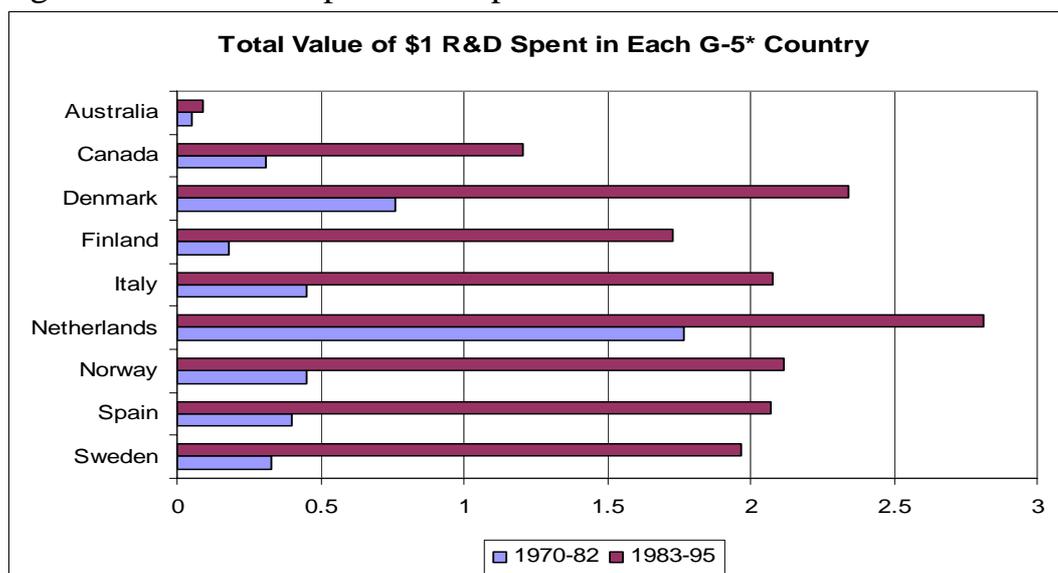
So some things have improved. But perhaps not as much as is popularly believed. In particular the common assumption that modern communications technology has eradicated distance is not at all clear cut. This is because as the world moves increasingly to become a global knowledge economy, much of the creative high level knowledge is tacit knowledge that is not codified in formal communication and where much of it is serendipitous conveyed in direct personal interaction that is a function of co-location.

Indeed there is evidence that the impact of distance is rising and not declining with time. Redding and Schott (2003) have found that comparing 1990 with 1970, a one percent distance which previously reduced bilateral exports by 1.2% in 1970 did so by 1.5% twenty years later.

In the world of ideas which underpins value-added economic activity, Keller (2002) has calculated how technology is itself substantially local in use and not global, despite the communications revolution. What he means is that the benefits from spillovers in using knowledge decline dramatically with distance. The amount of spillovers, meaning use of knowledge beyond formally-contracted parties to the technology development, declines by half on average for every 1200 kilometres.

If we use Keller's calculations to look at the average benefit to small industrial countries from the R&D in the G-5 nations of the US, UK, Japan, France and Germany, it is all too abundantly clear how proximity pays great dividends in access to technology, as is shown in Figure 7.

Figure 7. G-5 R&D Spillover Impact on Other Countries



NATIONAL POSITIONING

What does this add up to? Should Australia fear globalization and turn inwards. The historical record is that countries that do this severely limit their growth potential and performance. In the extreme case, the people of nations such as Cuba, North Korea and Myanmar are paying a heavy price for national isolation. And Australia acted out its own more modest version of this tendency in its reaction to the Depression of the 1890s and how this led to the building of a security-seeking state that was in the end incompatible with sustained achievement and prosperity. The twentieth century saw the erection of the apparatus of tariff walls, reduced skilled migration, foreign investment controls and fixed exchange rates at our border alongside a domestic system of protection through extensive minimum wage fixation, state ownership of utilities and growing high progressive personal income taxation over time to support a growing array of welfare provision (Kelly 1994).

It might have been difficult to do otherwise in times conditioned by two Great Depressions and two World Wars in a span of under sixty years. Indeed Australia's distance may have been a most welcome advantage for those times. It meant that we were a nation whose soil was not rent by wars and where the global transmission of Depression was more muted than it might have been, serious as it was.

But in a post World War Two era characterized by a long period of economic expansion without Depression and Global War, Australia was slow in re-integrating itself internationally even given its location, by being slow in turn in freeing up the internal impediments that could allow both traded productivity and internal non-traded productivity to improve. Europe, by comparison, grew strongly in the earlier post-war period, particularly pursuing aggressive tariff reduction in the run-up to greater effective and formal integration in Europe.

The country that had been world's highest per capita income in 1890 (Australia) had fallen to less august status by 1980. Only the period of liberalization that arose from the mid 1980s to the present, in response to warnings of becoming the "Poor White Trash of Asia" or a "Banana Republic", has allowed Australia to regain something of its former standing and cease its otherwise ongoing gradual decline into faded gentility.

In the process, our policy settings have improved sufficiently to have made the transition to a more liberalised and open economy while protecting the least advantaged in the population better than almost any other OECD economy. In this sense, we have shown that national policy in a globalised world can indeed make a difference. The idea that globalization totally debilitates national autonomy is shown to be false. If anything it turns a nation toward more creative directions in policy for building national capability, rather than simple adoption of self-defeating protectionism.

Australia has benefited mightily from the period of micro-economic reform, national competition policy, adoption of new global technologies and good macro-management. But more is now needed if the country is to continue to defy the tyranny of distance and punch above its weight (Davis and Rahman 2006). The reforms to date were necessary but not sufficient conditions for continued success. To them must be added the reforms that are needed for rebuilding human and knowledge capital and infrastructure not just to average OECD performance but to world's best standards. Ongoing care for natural, social and institutional capital is needed to complement this. Only if we do this across these many fronts and get the balance right can we defy distance as we did in the nineteenth century. Because of distance the policy task is even more important for Australia.

It is little known and little understood that Australia's earlier achievement as World's Best practice by 1890 was not just the luck of possession of

natural resources. It was also being the most skilled and educated and urbanized workforce in the world and the most innovative populace. We spent more on education across more of our people than any other country, we chose our migrants carefully for their skills and we had the highest per capita patents of any country (Pope and Withers 1989, 1996: Magee 2000). We were dynamic, flexible, open and free.

But there were some co-conditions for this success. One was good governance. While a democratic pioneer, our polity had degenerated into “crony capitalism” by the 1890s and the public and private investment processes had spread into increasingly unsustainable activities not subject to serious business testing. The resultant collapse was predominantly internally generated though it was precipitated by a sudden loss of confidence by foreign investors and migrants, who caused a rapid drying up of global lubrication of an economy with serious domestic structural flaws that had not been recognised in time. The resultant shocks from that Depression of the 1890s led to decades of introversion.

FUTURE POLICIES

There are lessons here. They are that: openness and flexibility are essential; they must be supported though by guarantees of security; security must be market-compatible and not cossetting; investment in national capability in business, human and knowledge capital is also essential; and good governance must underpin the corporate and political processes. When to these are added a modern commitment to ecological sustainability an Australia that is prosperous, fair and free can result, to a degree largely unmatched elsewhere and well beyond what distance would otherwise dictate.

Policies directly related to distance should be specified as the core of such a far-sighted package. Two particular requirements are for Australia to ensure it has telecommunications and transport provision at best practice and people movements correct. These are Australia’s essential links to the global community. In the nineteenth century Australia’s achievement of world leading productivity was underpinned by massive investment in steam shipping, railroads and the telegraph and in accepting overseas immigration. In the modern global knowledge economy the two contemporary equivalents are investment in the best telecommunications and transport arrangements that we can devise, and ensuring again that a dynamic immigration and visitor entry program is in place.

Telecommunications and Transport

In relation to telecommunications and transport the principal focus required is broadband. This is the defining technology of the globalised economy and crucial to reducing the disadvantage of our distance from the world's knowledge centres. Regrettably, past policy from government of both persuasions has positioned Australia poorly among industrial countries in terms of the timely introduction of, and access to, new technology. This extends back to the introduction of colour television and extends through to pay television, mobile phones and broadband today. In each case Australia has been a laggard in permitting introduction of these advances in communications. Yet, in each case once change is permitted, Australia's take-up rate of these technologies is typically very rapid and the pay-off from ICT has contributed mightily to sustaining our growth (Parham 2004). This is called "catch-up".

In the case of broadband, according to OECD *Communications Outlook 2005*, Australia ranks 23 out of the 32 OECD countries in terms of broadband access rates. At the same time Australia is the only OECD country where over half of broadband users download at 512 kilobytes a second or less. It is of course easier for geographically smaller countries to provide such infrastructure, but we also fall well behind countries similarly placed countries such as Canada in that effort. Such have been the national logjams in Australia in this area that State and Territory governments have been seeking to compensate for the national problems in policy and regulation in this sphere.⁵ And local possibilities for a decentralised policy have been promoted (Gans 2006). Commonwealth Government's initiatives and Labor policy proposals announced in March 2007 are a helpful response⁶, but more is needed.

Criticisms of national policy failure in this area include the following from leading figures in the communications industries:

- 'We have reached a situation where very few people can have access to any sort of broadband that will allow them to download a movie in less than 12 hours, so it's just not enough.' Fairfax Media Chief Executive David Kirk, *The Sydney Morning Herald*, 8 March 2007.

⁵ See, for example, New South Wales, 'People First: the NSW Government ICT Strategic Plan' (July 2006); Queensland, 'Communication and Information Strategic Plan' (2006); South Australia, 'South Australia's Broadband Strategy' (October 2006); and Victoria, 'Broadband Framework: Pathway to the Future' (April 2005).

⁶ H. Coonan, Commonwealth, Minister for Communications, Information Technology and the Arts, 'Australian Broadband Guarantee', 7 March 2007; K.Rudd, S.Conroy, and L.Tanner, *New Directions for Communications: A Broadband Future for Australia*, Australian Labor Party, March 2007.

- ‘We need faster broadband speeds in order to stay competitive to the rest of the world. Most Australians are not only on slow plans but also plans that have download caps. This is very unusual compared to other countries all over the world.’ Executive Chairman of Publishing and Broadcasting Ltd, James Packer, *The Sydney Morning Herald*, 15 November 2006.
- ‘The Government and Telstra should be spending about \$12 billion ensuring that every household has fast broadband. We’re being left behind and we’ll pay for it.’ Chairman of News Ltd, Rupert Murdoch, *The Age*, 23 May 2006.

Greater progress is also needed on rationalisation of transport infrastructure arrangements. Public transport and storage is about 4.5% of GDP and total share of GDP going to freight logistics is at least double this,⁷ and personal transport arrangements should also be added. Yet international and national transport needs are arguably under-appreciated in the policy domain. Climate change, environment and energy policies are bringing a new focus, but underlying economic dimensions in terms of personal and business costs, quality and effectiveness remain crucial for competing from a distance. Ongoing emphasis on sustained improvement is therefore essential.

The main challenges are actually domestic, especially land transport and its relationship with ports. Particular attention must be paid to upgrading infrastructure in key transport corridors, to be facilitated by new technology and improved co-ordination across governments and modes.

The major test of advance here will be the next round of AusLink funding and it is important that this proceed on a systematic basis and not be undermined by more immediate electoral opportunism, whereby projects proceed in isolation and without proper evaluation. The process should be informed by supply and logistics chain frameworks (CEDA 2004).

On the international transport front, we must continue progress in expanding international air route access and travel options for passengers in particular. Dedicated air freight is already a more open market subject only to airport capacity issues.

Immigration Movements

⁷ Industry Steering Committee, *Freight Logistics in Australia: an Agenda for Action*, Department of Transport and Regional Services, 26 March 2002 (J.Bowdler, Chair)

As regards people movements, more progress has been made than in telecommunications and transport. Indeed in many respects Australia's immigration arrangements perform well by the benchmark of the national interest. Other countries have begun to emulate the points system by which we manage the immigration inflow, and our post-arrival and support services have overall produced more successful integration of settlers than in most comparable countries.

The actual levels of immigration are close to what is required to maximise per capita income growth, and comprise a reasonable balance of economic, family and humanitarian entry. A figure of 1.25 % annual increase of population should remain a target for policy for net migration and natural increase. Much more than this runs into absorption problems and much less undermines investor certainty and confidence.

Short-term entry for business, study and tourism and visits has been liberal, though subject to essential security requirements in visa management, and cross-border flows have risen steadily. Australia offers on-shore conversion from temporary to permanent settlement for those meeting settlement standards, and the system has built in a welcome capacity to distribute settlement to regional priority areas around Australia. Attention to the "global diaspora" of Australians overseas, has also been added to the armoury of migration policy.

There have been past problems with matters of restrictions on aged parent entry, but this has evolved to strike a better if not perfect balance between family re-union entitlements and minimising taxpayer burdens. Humanitarian entry arguably lost sight of true refugees most-in-need for some time, focussing instead on Australia-linked humanitarian entry, but this too has been somewhat redressed.

Two key issues remain. One is the treatment of asylum-seekers, where harsh conditions post-arrival apply for those entering by sea-as opposed to the many more who have arrived by air or are visa over-stayers. The political imperatives that have driven such treatment further produced a considerable cultural problem in immigration management, which came to a head in the Rau and Alvarez matters. Again some improvements are in train, at least as regards administration.

But policy that denies family re-union for persons on continuing bridging visas is difficult to defend when our society proclaims the family as its bedrock institution. And, even more importantly, the "Pacific Solution" and indefinite mandatory detention in offshore contract facilities stays in

place, even though its actual deterrence effect is quite modest. Regional co-operation on inter-country movements is what has reduced most such movements. In the light of global warming effects on small Pacific islands, a “Pacific Compact” that manages a package of regional worker movement, training and economic development assistance should replace the Pacific Solution⁸.

The other issue, and one more directly relevant to business, is the recent expansion of guest-worker visas (such as section 457 visas) to help meet labour shortages. These programs have been sensible in restricting their ambit to professional, managerial and skilled workers, but they do carry big risks for individual worker exploitation and worker over-stay and removal, for creating a segmented group of workers and because of ongoing pressure to expand to less-skilled areas. These features may begin to undermine public support for broader permanent immigration. Such support is always fragile and easily led by populism.

At the same time, it is anyway a myth that this guest-worker process solves worker shortages. A small highly targetted program can help, where local training takes too long to fill the gap or the need is transitional, but a large scale program soon creates as many jobs as it fills. As such programs grow, spending by and on behalf of the guest workers merely creates new job needs and new shortages elsewhere. The policy becomes one of “a dog chasing its tail” even though individual employers think they are finding solutions to their problems and governments can claim they are assisting business in meeting its requirements. The bigger picture and much research (Castles et al 1998) says otherwise and the policy ultimately becomes self-defeating.

Reasonable quotas for high priority areas with long skill formation characteristics are a better way forward, rather than an open-ended demand-driven guest-worker program. The program should be capped at present levels until a comprehensive thorough, independent and expert review with balanced terms of reference is completed.

Third- and Fourth Wave Reform Policies.

Of course beyond the directly distance-linked priorities, many other policies directed at enhancing value-adding in any production sphere irrespective of distance can also kick in and, by encouraging or enabling

⁸ By way of precedent, special arrangements already exist for New Zealand entrants and they operate in conjunction with a wider Closer Economic Relations Agreement.

us to be smarter in all and any spheres, help Australia stand out as the nation that is most competitive from afar.

The complementary policies that are needed include especially:

- sustained progress on the so-called “Third Wave” reforms directed at human capital, business regulation and energy, and also health, but with primary focus on human capital as the source of sustainable advantage. This must cover all levels of education, but especially early childhood education, more delegation in government school systems, and reduced regulation of universities; and new initiatives in innovation with this notion being defined broadly and as much directed at business culture and practice in knowledge management as at R&D production itself (Green 2007); and
- anticipation of “Fourth Wave” reforms directed at the institutions of public governance themselves whereby we need to fix up the structures of federation and the policy capacities of the bureaucracy⁹. The highest priority will be reducing overlapping roles and responsibilities in government and improving incentives for co-operation where overlap is inevitable. This will also require reducing muting horizontal fiscal equalization and reducing vertical fiscal imbalance. Australia is well out of step with international best practice in these areas (Twomey and Withers 2007),

CONCLUSION

Currently Australia is being ranked third in the UNDP Human Development Index after Norway and Iceland. It is world number 15 in GDP and 14 in GDP per capita. But it is falling down the competitiveness scale once again, with the 2006 World Economic Forum rankings having the country slip to number 19 and especially our innovation ranking down to 24. We have a strong base in macro-economic environment with which to recover some ground, which requires both progress from government and from private companies especially in telecommunications and knowledge acquisition. And we must maintain, but carefully manage, our immigration momentum.

Progress by government on the New Reform Agenda of COAG in areas such as human capital, infrastructure and water and energy is essential, as

⁹ L. McIntosh, “Independent public policy research in partisan Times”, *Canberra Times*, 6 March 2007.

is some substantial bootstrapping by private companies in the acquisition, development, and management of knowledge and innovation.

If this is done, “smart growth” will overcome the otherwise likely prospect of gradual long-term productivity decline and the fate of being only a Quarry Economy.

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