# PRODUCTIVITY COMMISSION POSITION PAPER

## ECONOMIC IMPACTS OF MIGRATION AND POPULATION GROWTH

I congratulate the Commission on its report and welcome this opportunity to comment.

My main criticism of the report is that it seriously understates the impact of population growth on the **environment**. A fellow economist once said to me he wished Paul Ehrlich would learn some economics. My response was that I wished economists would learn some environmental science. They teach the importance of scarcity in week one, but when they get to growth theory they seem to assume that resources are infinite.

My specific comments are as follows.

(1) The report acknowledges the existence of economies of scale from population growth, but understates the existence of **diseconomies of scale**. These are particularly conspicuous in large cities, which account for over sixty per cent of Australia's population. There is considerable academic opinion that when an urban centre reaches optimum size, economies of scale (agglomeration economies) give way to diseconomies of scale (agglomeration diseconomies), in the form of chaotic road congestion, costly road projects (e.g. harbour tunnels and 'City Link' projects), capital destruction (e.g. demolition of historic buildings and replacement with costly high-rise construction), water shortages, the disamenities of medium and higher density living, etc.

In Melbourne, for example, the impact of population growth on residential amenity has evoked widespread opposition in recent years, as parklands are transformed into car parks and race tracks, historic mansions with

sweeping gardens are transformed into units and bitumen, creeks are transformed into freeways. Vegetation, wildlife, privacy, tranquility and natural beauty are becoming increasingly rare.

An attempt to describe, identify and quantify some of these agglomeration diseconomies for Melbourne was undertaken by myself in the early seventies (ref. 1). The situation now would be much worse. As early as 1970, Kerr analysed the growth of Sydney and Melbourne and raised the possibility "that the two largest capitals have grown to the point where the diseconomies of agglomeration are seriously affecting their comparative advantage" (ref 2). In his pioneering work on the economics of urban size, Neutze (ref. 3) tentatively suggested that optimum may be somewhere between 200,000 and one million.

Evidence that less populated regions would benefit from growth, as provided in the Northern Territory and Western Australian submissions, provide an argument for 'selective decentralisation' to divert population growth away from the larger agglomerations, but has no relevance in the broader population debate because populations naturally gravitate to the larger (overcrowded) agglomerations (ref. 4).

(2) In 1989 I analysed the factors that influence **urban population density**, and found that density was correlated positively with population size but negatively with per capita income and occupancy rates. I concluded:

> "The evidence suggests that the major impetus to higher density development comes from increasing population size and decreasing occupancy rates . . . But it must be understood that such development, at least in relation to increasing population size, can

> involve a loss of welfare in the form of less space per person. Indeed, the income effect . . . provides a powerful force for low density development. Important policy implications follow from this.
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> 1. A range of policies should be implemented to ensure that the welfare losses resulting from higher density development are minimised. In particular, attempts to slow down population growth in the larger capital cities should receive top priority." (ref. 5).

Put simply, as per capita incomes increase over time the demand for a better quality of life also increases. Affluent societies demand space – for parks and gardens, tennis courts, swimming pools, car parking, recreation, etc. But population growth works in the opposition direction. This leads to the paradoxical inference that the benefits of economic growth are achieved by positive per capita growth but lower total growth.

(3) Environmental diseconomies are not confined to cities. Examples of problems in **non-urban** areas include resource depletion, erosion, salination, green algae, deforestation, loss of biodiversity and environmental damage to coastal holiday resorts. Your report (p.109), quoting Chisholm (1999), implies that land degradation is largely determined by export demand and not closely linked to population size. Not only does this appear to understate the impact of domestic demand, which increases with population growth, but completely ignores the role of supply-side factors. Export production cannot occur without a domestic labour supply, and the larger that

supply the greater the pressure on resources to find employment and entrepreneurial opportunities. If Australia was uninhabited there would be no exports! And in the case of tourism (an 'invisible' export), it is immigration that drives export demand.

Your further argument that environmental externalities could be minimised by good regulatory practices is at odds with Australia's atrocious record of environmental management, traffic management, town planning and decentralisation, which you implicitly acknowledge by your reference to 'inappropriate government policies' (p.109). And even if regulatory practices were effective, they would be only partially successful if population growth and environmental sustainability are fundamentally incompatible. This is particularly true where the environmental effect involves resource scarcity (e.g. water rationing, deforestation, mineral exhaustion). And suggestions that environmental solutions can be found in altering consumer behaviour (p. 104) or in higher resource prices (p.105) may well be an internalised diseconomy in the form of second-best solutions.

(4) In the report, living standards are measured using real GDP or real GNP. That is, **depreciation** is ignored. Environmental degradation is of course difficult to measure and is treated in a qualitative way in the report. In my judgement, if it could be quantified population growth would have a significant negative effect on (measured) living standards. This is supported by some experimental research, using the unofficial measure G.P.I. (Gross Progress Indicator) which has estimated that recorded growth rates would be far less had environmental and other social costs been taken into

account (ref. 6). The suggestion in your report (p.105) that exploitation of our finite resources has not yet reached the level that would prevent growth is only valid while environmental depreciation is omitted from the growth calculations.

The omission of environmental impacts in your 'Key Points' summaries (pp.XV111 and 137) in favour of measurable income effects is a serious misrepresentation of the full impact of population growth on "economic growth more broadly" (Terms of reference, no.6).

(5) The report discusses the **capital diluting** effect of immigration, but does not apply it to natural population growth. The latter diverts investment away from 'capital deepening' (e.g. new technology and research) to 'capital widening' (e.g. houses and schools needed to service the growing population).

In relation to immigration, the report on p.37 argues that capital dilution does not necessarily mean that income per capita of existing residents decreases, because they reap a higher return on capital. This argument is unclear: if the return on capital increases, it represents a cost (to borrowers) as well as a benefit to lenders. So where is the net benefit?

(6) The report argues that immigration requires expanding **export** volumes which worsens the Terms of Trade (p.115). Another likely adverse effect of export expansion is higher production and distribution costs as 'diminishing returns' set in. For example, apple orchards around Melbourne are replaced by houses and apple production moves to more distant and less fertile locations. Domestic consumers would also incur these higher costs.

(7) Although the contribution of **skilled migration** to per capita incomes was found in the report to be very small, the current shortage of skilled trades does provide a constraint on economic growth (which would otherwise be possible if our current unemployment rate of 5% could be reduced to the levels prevailing in the 1960s). I suspect, however, that unemployment rates vary considerably - from very low in the skilled trades to very high in professions such as drama, music and art. This suggests a structural mismatch between supply and demand that needs to be addressed by more fundamental solutions (rather than immigration), such as more flexibility in the labour market, especially in wage fixing, and better manpower planning in tertiary education (where the absence of such planning allows students to enter professions with poor employment prospects).

(8) If I have read the report correctly, it concludes that immigrants earn higher incomes than existing residents (and therefore raise aggregate **income per capita**) but reduce labour productivity overall. If so, your 'Key Points' (p. XV111) is incomplete in that it refers only to the income efect. Of particular public interest, also, is the effect of immigration on the incomes of existing residents rather than on new migrants, and that should be highlighted.

References

(1) Braby, R.H., The Melbourne Central Business District, A Case Study of the Economics of Urban Development, (M. Com. Thesis, University of Melbourne, 1972), esp. Chs. 1,5.

(2) Kerr, A., "Urban Industrial Change in Australia, 1954

to 1966", Economic Record, Vol. 46, No. 115, September 1970.

(3) Neutze, G.M., Economic Policy and the Size of Cities, A.N.U., 1965, p.117.

(4) Braby, R.H., Introduction to Industrial Organisation, PIT Press, 1979, ch. 12.

(5) Braby, Robert, "Determinants of Urban Density", Report to the Commonwealth Department of Industry, Technology and Commerce, July, 1989. (Reprinted in Urban Policy and Research, Vol. 7, No. 4, December 1989).

(6) The Australian Institute, www.gpionline.net>