



RESEARCH NOTE

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International Comparisons of GDP

1. Introduction

Assessing Australia's economic performance can best be done by comparing it with other countries, especially those at a similar stage of economic development. How do Australia's production levels and growth rates compare with international averages or with international "best practice"?

In recent years, there have been significant developments in the data and methodology for comparing Gross Domestic Product (GDP) and other economic indicators between countries. Previously, data for different nations were converted to a common currency (usually US dollars) using exchange rates. This method is unsatisfactory, as exchange rates often do not reflect relative prices of the transactions, and exchange rates can fluctuate by large margins. In contrast, **purchasing power parities** (PPPs) show the amount needed to purchase a fixed basket of goods and services in different countries. The method can be described as producing estimates "**at international prices,**" similar to the familiar constant price data (in Australia, currently "at 1989-90 prices").

2. Results

PPPs are most widely used with GDP (a measure of the total value of production in an economy) and GDP per capita. The OECD has just released new data for 1993, based on a new benchmark survey, and for the first time in the figures for Germany has included eastern Germany and Mexico. The data also significantly

GDP Per Capita at Current International Prices in \$US - 1993

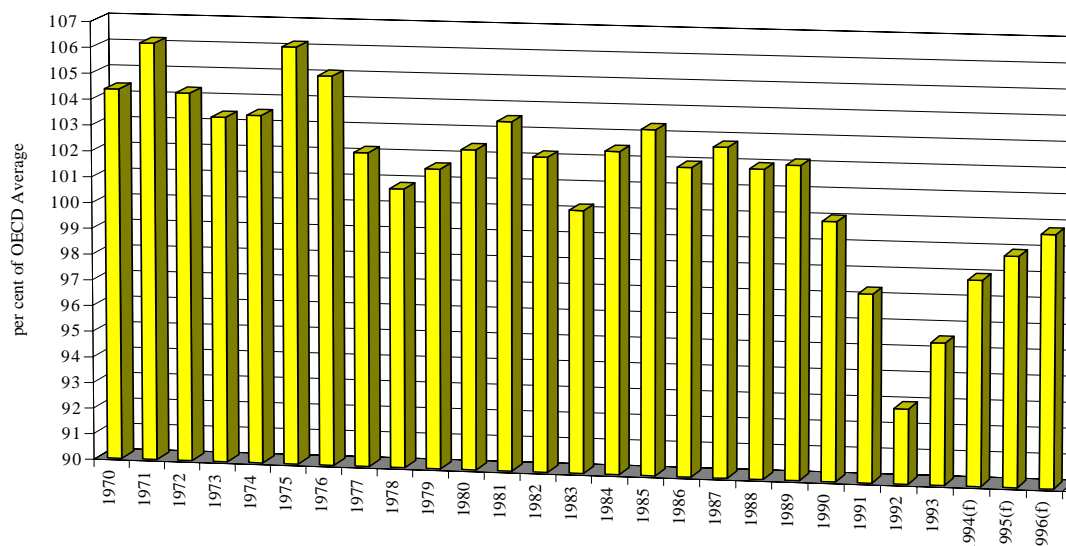
		\$US	Index Aust=100
1	Luxembourg	28,368	165.9
2	USA	24,302	142.1
3	Switzerland	23,195	135.6
4	Japan	20,523	120.0
5	Norway	19,746	115.5
6	Belgium	19,517	114.1
7	Denmark	19,335	113.1
8	Canada	19,278	112.7
9	Iceland	19,212	112.3
10	Austria	19,128	111.8
11	France	18,709	109.4
12	Germany	18,510	108.2
13	Italy	17,830	104.3
14	Netherlands	17,593	102.9
15	<u>AUSTRALIA</u>	<u>17,103</u>	<u>100.0</u>
16	United Kingdom	17,036	99.6
17	Sweden	16,831	98.4
18	Finland	15,530	90.8
19	New Zealand	15,493	90.6
20	Ireland	13,856	81.0
21	Spain	13,311	77.8
22	Portugal	11,953	69.9
23	Greece	8,797	51.4
24	Mexico	6,808	39.8
25	Turkey	5,410	31.6
	OECD Average	17,889	104.6

change the relative position of several countries, including Australia, whose relative position looks rather worse in the new estimates.

On the OECD's 1993 estimates, Australia's ranking was 15th out of its 25 members and just below the average. There is a cluster of

countries around this level -- there are four countries within about five per cent of Australia, and eight within ten per cent of the Australian figure. (Given the limitations noted below, differences of a few per cent are not significant.)

GDP Per Capita at International Prices - Australia



In the period covered by the OECD estimates, Australian GDP per capita has typically fluctuated in a range slightly above or below the OECD average. However, there has been some downward tendency. Australia's ranking in the OECD has varied from a peak of eighth (1981) to a low of 17th (1992). High and low points occurred in years when Australia's economic cycle was out of alignment with other countries, eg 1990 to 1992 were years of recession. In the 1994 and 1995 recovery, Australia's relative GDP per capita will rise several per cent, and will overtake at least one country. However, there has been a general tendency to decline, which is apparent from each peak and trough tending to be lower relative to the OECD average than the previous one.

3. Limitations

There are many practical and theoretical problems involved in international comparisons. It is important that the range of uncertainty in the results is understood.

- Selection of comparable items: However goods may differ in factors such as quality, freshness, packaging, reliability of supply, and shopping convenience. Simi-

larly, characteristics of services may vary.

- Weighting of items: Consumption and price patterns vary so much between countries that the weighting can make significant differences.
- Rankings can be misleading. With a large number of countries clustered around similar levels to Australia, very minor changes can lead to large changes in rankings.
- GDP and other statistics are subject to various kinds of measurement error, which give rise to biases and ranges of uncertainty.
- GDP is an indicator of **production**, but other concepts may be more appropriate for some uses, ie income, productivity, living standards and social and environmental factors.

4. Conclusions

PPP data have limitations, are still in an early stage of statistical development, and do not justify highly precise presentation of results, or strong conclusions based on small differences. However, with proper respect for the range of uncertainty, they do provide a sounder basis than any of the alternatives and facilitate international comparison in economic analysis.

The level of Australia's GDP per capita fluctuates in relation to the OECD average, but has been consistently in the middle group of the OECD over the past twenty years. It has shown a general tendency to decline.

Further details will be provided in a more detailed research paper, expected to be issued by the Parliamentary Library in March 1995.

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