

# Wellbeing and happiness in OECD countries

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GDP per capita is the most commonly used measure of a country's economic success, yet it is frequently criticised as a guide to a nation's wellbeing. A recently released study by the OECD considers some alternatives. The OECD uses illustrative calculations to 'extend' GDP to include leisure time, the sharing of income within households and income distribution. A key result of the study is that cross-country ranking based on these indicators and GDP per capita are generally similar, giving support to the conclusion that GDP per capita can serve as a reasonable proxy of overall wellbeing. Also, the OECD researchers find that survey-based data on happiness and life satisfaction across OECD countries are only weakly related to levels of GDP per capita. This article briefly explores the findings of the OECD's study, and reflects on some of the difficulties in attempting to develop other indicators of wellbeing.

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## Introduction

In recent years, the Australian Treasury has embraced a framework to encapsulate economic aspects of Australian wellbeing as a corporate tool to improve the quality of our policy analysis and advice to Treasury Ministers and, through them, to the Government. The conceptual basis for the wellbeing framework and discussion on some policy implications in applying the framework are found in various speeches and articles on the Australian Treasury website including Australian Treasury (2004).

Many OECD member countries, including Australia, encouraged the OECD secretariat to review the adequacy of GDP per capita in measuring economic progress and identifying policy priorities. In response, the OECD released a study '*Alternative Measures of Well-being*' in the report *Economic Policy Reforms: Going for Growth 2006* and a supporting OECD working paper by Boarini, Johansson and D'Ercole (2006). This study discusses whether economic concepts other than GDP per capita may better capture notions of wellbeing and how country performance is influenced by using different concepts. GDP is 'extended' to include leisure time, the sharing of income within households and income distribution. The study also discusses the relationship between GDP per capita and subjective notions of wellbeing, based on survey-based measures of happiness and life-satisfaction.

Wider measures of social welfare have always been at the core of practical economic thought. As Sen (1999) notes, while the founders of economic analysis devised national accounts around the modern concept of income, their attention was never confined to this one concept. A move towards generalised determinants for utility, beyond income, as measures for welfare can be seen as reclaiming the original ground of welfare economics.

## GDP: the less than perfect measure

GDP per capita is not the best possible indicator of wellbeing for a range of well rehearsed reasons. These include that GDP: is a measure of production whereas wellbeing depends more on income and consumption of individuals and households; does not allow for the using-up of non-renewable resources; excludes leisure time; does not account for variations in income distribution; and rarely takes account of co-production 'externalities' such as pollution and the impact on the environment, species and habitat. In addition, as *The Economist* (2006) points out, GDP makes no allowance for the depreciation of the capital stock.

There is also a class of well-understood measurement issues concerning the use of GDP per capita, such as difficulties in valuing of the informal market, particularly in countries with binding minimum wages (for example, services often priced-out of formal markets include household work, home cooking, shoe shines, home and pool

maintenance); unreliable data (for example, nomadic populations), and incomplete measurement (for example, black economy); the services of volunteers and productivity of the government sector.

When GDP per capita rankings are used, a further problem arises. International rankings of GDP per capita are volatile and close comparisons in ranking convey little economic meaning. Rankings can change from year to year as countries move through different stages of their business cycles and are subject to changes in exchange rates, purchasing power calculations and revisions to historical data.

## There are better measures of wellbeing than GDP

The OECD finds that other national accounts indicators exist that are better measures of the economic aspects of wellbeing, notably Net National Income (NNI) and measures of household income and consumption.

Conceptually, NNI is an attractive measure for two reasons. First, it takes account of income flows across borders that contribute to the wellbeing of foreigners. This is particularly important for countries such as Ireland that have a large stock of foreign investment. Second, it takes account of the value of capital consumed in production and hence which cannot be passed onto future generations.

However, in practice, the distinction between GDP and NNI does not appear to be important to OECD country rankings. The OECD shows that both levels and growth rates in NNI are closely correlated with GDP per capita.

Another challenge is data availability. While other national accounts measures are arguably better suited as measures of wellbeing, it is difficult to get reliable non-contentious data series that are as widely available as GDP in most OECD countries. The OECD concludes that given the normal degree of uncertainty that surrounds international comparisons of economic data, for most purposes the level of GDP per capita is a good summary measure of consumption possibilities.

Of course, the national accounts framework does not provide a perfect measure of wellbeing. The OECD explains the implications of extending GDP to include a number of social indicators.

Illustrative calculations to 'extend' GDP to include leisure time, the sharing of income within households and the effect of income distribution suggest that cross-country ranking based on these indicators and GDP per capita are generally similar. Furthermore, across OECD countries, levels of most measures of specific social conditions such as self-sufficiency, good health, and a feeling of belonging to a group or a community are positively related to GDP per capita.

However, in the working paper by Boarini et al (2006) supporting the OECD study, the authors raise the difficulty in attempting to rank countries by combining other data with GDP per capita or by constructing composite measures of wellbeing from social indicators. Preferences differ widely both within countries and between countries, and it seems most unlikely that objectively ranking the wellbeing of different countries will ever be possible.

One example of this problem, presented in the paper, concerns income inequality. A measure of effective equally-distributed household income is presented using a range of different aversions to inequality. However, people in different societies and cultures have very different aversions to inequality. Recent research suggests that inequality makes people unhappy in Europe but not in the United States (Alesina et al 2001). Rankings based on any fixed aversion to inequality risk giving a misleading impression of wellbeing across countries.

A second example of this problem concerns social indicators. A synthetic index of wellbeing is presented that assigns a weight to each standardised indicator. Of course, these weights need not match anybody's idea of wellbeing. From a statistical perspective, we remain completely uncertain about the appropriate weights and country rankings. Presenting aggregate indicators of wellbeing such as these create risks. A false impression could be created of the certainty with which we can measure wellbeing and rank countries accordingly.

Leisure time is very important for measuring wellbeing. For example, the different split between labour and leisure could be argued to more than fully explain the difference between GDP per capita in the United States and France. This too is a difficult area. Boarini et al (2006) consider only the leisure time available to workers on the basis that the leisure of someone who is unemployed, or has involuntarily taken early retirement, is worth far less to them than the leisure time of a worker. However, this ignores voluntary differences in the length of working lives and retirement across countries and the distribution of labour within households through part time work. A better measure of leisure should perhaps estimate time available for leisure of the whole population over their whole lives.

## Happiness and income

An alternative to the evaluation of wellbeing using objective indicators is to use subjective indicators. One way of determining whether people are happy and satisfied with their lives (or not) is to ask them, through the use of surveys.

The OECD finds that a striking feature of the survey results is that most people in most OECD countries rate themselves as being fairly to very happy and satisfied with their

lives, almost irrespective of their income levels. Reported levels of happiness are high: in around two-thirds of OECD countries, close to 90 per cent of the people sampled claim to be very or fairly happy with their lives. There is only a weak tendency for the richer OECD countries to report higher levels of life satisfaction.

The OECD findings are not unexpected. The weak link between money income and happiness appears to be explained by the combination of two aspects of human behaviour. Firstly, individuals adapt to higher income. People get used to higher income so its effect on life-satisfaction evaporates over time ('hedonic treadmill'). Second, once basic needs are satisfied, aspirations increase with higher income ('satisfaction treadmill') but also become harder to achieve as the achievement hurdle is higher, leading to unaccomplished goals and greater frustration. Evidence supporting the existence of 'adaptation' has been provided by several empirical and experimental studies (Diener and Seligman 2004; Layard 2005; Van Praag and Frijters 1999).

Secondly, individuals tend to make social comparisons. Several authors argue that subjective satisfaction is affected by an assessment of one's own situation relative to one's peers. Research also suggests that social comparisons matter more for individuals with higher income, and for those earning less than their reference group. Layard (2005) reviews evidence supporting the existence of social comparisons (for example, US studies suggesting that perceived relative income matters more for personal wellbeing than one's own income, and Swiss studies showing that personal happiness depends only on one's own income relative to that of people living in the same community). Social comparisons may, however, also increase life-satisfaction, for example when it provides information on the prospects for own improvement (Senik 2004).

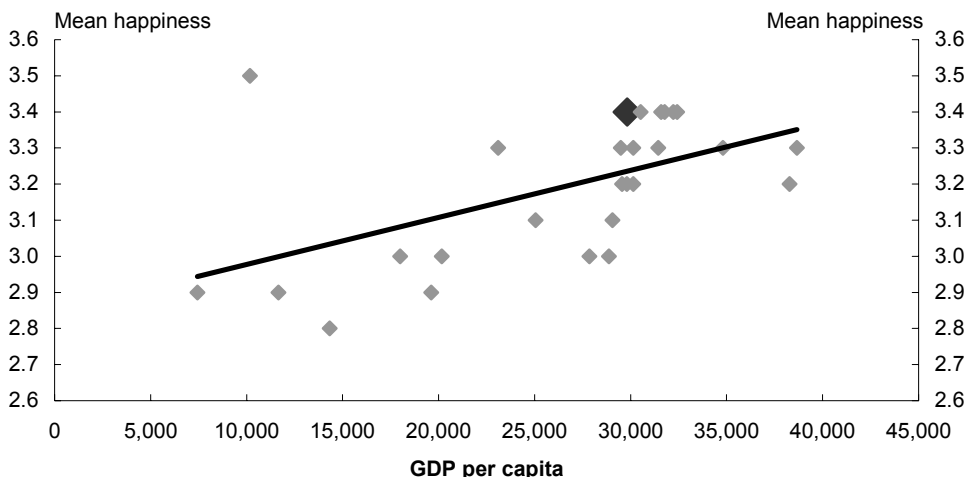
Analysis of the happiness data indicates that there appears to be, at least on the surface, a positive link between happiness and GDP per capita levels across OECD countries.

Data on mean happiness scores were derived from the World Values Survey, as published in Layard (2005) from the data collection wave closest to 2000 for each country. The survey asks the question: 'Taking all things together, would you say you are: 1 Not at all happy, 2 Not very happy, 3 Quite happy, 4 Very happy', and then averages the numbers corresponding to each response.

The scatter-plot chart below shows a positive link between average GDP per capita in 2000 and mean happiness scores. Roughly, in countries with incomes that are higher by US\$10,000 per capita, happiness scores tended to be higher by around 0.1 (and this relationship is statistically significant). This observation does not represent the outcome of a well-specified formal econometric study. More serious statistical

investigation is warranted to better understand, among other things, if the relationship holds for the high income OECD group and, if so, its functional form.

**Chart 1: Relationship between happiness and GDP per capita, OECD countries**



Notes: Chart covers 27 OECD countries excluding Luxembourg and Czech Republic. Australia is depicted by the dark shape.

Source: Mean happiness scores from World Values Survey in Layard (2005). Data on US\$ GDP per capita purchasing power parity for the year 2000 from Groningen Growth and Development Centre.

One proposition explored by the author was that if a country’s GDP per capita grew more rapidly during the 1990s than during the 1980s, so that incomes grew more rapidly than people might have expected given historical experience, then people in that country might be happier. This proposition was tested, but no statistical link between happiness and recent trends in GDP growth rates was found.

## Happiness: a concept for policy formulation?

The interpretation of data on subjective happiness remains controversial. Happiness lacks a coherent statistical, and even conceptual, framework for policy purposes.

The slippery nature of happiness is illustrated in recent papers by different authors from the US-based National Bureau of Economic Research. Blanchflower and Oswald (2005) note an Australian ‘paradox’. According to the 2004 UN Human Development Index (HDI), our homeland ranks 3rd in the world. But when Blanchflower and Oswald rank Australia using point-scale data on happiness from approximately 50,000 randomly sampled individuals from 35 nations, they conclude that we are just not that happy.

By contrast, Leigh and Wolfers (2006) see no paradox. Using a simple chart of a cross-country comparison of happiness and the HDI, Australians appear happier, not

sadder, than Australia's HDI score would predict. This analysis highlights that the ordinal rankings-based comparison by Blanchflower and Oswald is not particularly informative. There are only very fine differences in the HDI across industrialised nations, but there is a lot of noise in the measurement of happiness.

Leigh and Wolfers also highlight difficulty in interpreting happiness results. Using data from the World Values Survey, Iceland is the only industrialised country to have a significantly higher level of both life satisfaction and happiness than Australia. But how many Australians would be keen to swap? Maybe you need to be an Icelander to understand, or perhaps adaptation is everything. The interpretation of happiness means more in comparisons between individuals than in the summary scores and cross-country comparisons.

While these papers highlight certain problems with happiness data and its interpretation, the controversy runs much deeper. A number of issues that have been identified are summarised below.

#### Lack of a common unit of measure

Unlike the unit of currency which is the common thread of economic indicators, we do not have an equivalent measure for happiness: the 'happiness utile' does not exist, at least not yet. So there are problems with addition and subtraction, counting things twice or not at all and with preference mapping.

#### Lost in translation

The interpretation of happiness does not universally translate from other languages to English (Duncan 2005). Happiness is a latter-day derivative of the old English word to 'hap' or 'to happen' – that is to occur by chance, and thus the word is associated with good fortune, luck and success. An alternative interpretation of happiness is 'good feelings'. But feeling good could imply being care-free; that is, being irresponsible (for example avoiding taxes) or engaging harmful pleasures. Thus happiness status may be affected by language and how societies interpret the language. Some of the interpretations of the meaning of happiness (for example luck) are not tractable for policy development.

#### Differences in underlying concepts

Studies of subjective wellbeing rarely take a comprehensive set of measures and often use generic terms such as 'all things considered, how happy are you' rather than constructing indicators that target positive and negative emotions (Diener and Seligman 2004).

### Transient influences

Subjective happiness appears to vary according to the time of day and seasons (Layard 2005), phases of an economic cycle, population age-profile and differences between expectations and outcomes. Thus the timing of information gathering on happiness status and its interpretation (permanent or transient effects) is an important complicating factor in happiness measurement.

### Social and cultural influences

Value systems and the willingness to express values are diverse across countries. This poses considerable difficulty in identifying a particular bundle of social goods that maximises happiness. For example, the Maori people of New Zealand place a spiritual value on fish caught that is not taken into account in standard economic wellbeing (Duncan 2004).

### Direction of causation

Some studies suggest that causation appears to run both ways. That is, higher incomes are associated with higher happiness, particularly if the higher income is unexpected or lifts the recipient above subsistence level. Running the other way, happier people are likely to earn higher incomes because they are better able to reach social networks important for income earning (Diener and Seligman 2004).

### Self-responsibility

There is a question over the dividing line between self-responsibility and government. As Layard (2005) states, 'happiness depends on your inner life as much as on your outer circumstances'. An implication is that relevant improvements in public policy will not necessarily result in higher ratings in happiness surveys.

### Adaptability and rivalry

Finally, and importantly, there is the question of where do the human characteristics of adaptation and rivalry take subjective happiness literature for policy purposes (Henry 2004). As mentioned in the previous section, the cited explanation for why there is only a weak tendency for richer OECD countries to report higher levels of life satisfaction is that individuals adapt to higher incomes and are driven by the rivalry of social comparisons with other individuals. Suppose that, in respect of subjective happiness, adaptation and rivalry are powerful drivers. Thus, we tend to 'get over' anything that happens to us – good or bad, endowed or acquired through the passage of life. On this basis, there is no apparent reason for policy intervention because such intervention would not lift happiness. Layard (2005) has a different view: he mounts the case for growth-suppressing policy intervention. But it seems that Layard unintentionally (obviously) provides an equally strong case for no policy at all.



This article has focused on cross-country studies of life satisfaction, but before concluding, some mention is warranted of within-country studies as these studies have the potential to provide useful context for micro policy design. These studies are based on the internal preferences of the individual in specific circumstances, in contrast with the aggregate 'all things considered' approach to the measurement of life satisfaction.

Helliwell (2005) summarises recent empirical studies on the determinants of life satisfaction, and suggests that social capital, the quality of government and non-financial workplace characteristics such as workplace trust have substantial effects on wellbeing. Another example of these studies is the *Australian Unity Wellbeing Index* developed by Deakin University, which monitors the subjective wellbeing of the Australian population based on surveys. The Index has identified the importance of several factors including personal security, feeling part of the community, sound personal relationships and health status, all of which have potentially important implications for policy. Another survey in this series (ACQOL 2005) examined wellbeing issues associated with city and country living. This survey, along with others on community connectedness, is potentially relevant to the planning and development of cities.

## Conclusions

All economic indicators have their problems. GDP per capita has the advantage of being objectively measured in a manner that is reasonably comparable across countries and time periods. It appears to do a good job of measuring one dimension of wellbeing – consumption opportunities.

Other social indicators capture many other important aspects of wellbeing and presentation of internationally comparable data in future stocktaking exercises could help policy makers to identify potential policy priority areas. However, they cannot be meaningfully combined with GDP per capita into a single indicator of wellbeing.

Nevertheless, GDP per capita seems to be broadly correlated with many of these indicators suggesting that it is a good starting point for understanding the capabilities and opportunities available to people. Moreover, the long and wide international data set available on GDP per capita makes this an appealing measure for comparisons.

Happiness as an aggregate social concept is in its embryonic stages of development. It is too early to tell if it will ever be useful to policy formulation, though there are reasons to be sceptical.

Within-country studies have identified several factors that influence individual life satisfaction. These studies provide a potentially useful context for micro policy design.

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