

SENATE STANDING COMMITTEE ON ECONOMICS QUESTION
(Supplementary Budget Estimates 20 October – 21 October)

Question: SBT 209

Topic: Analysis by Professor Stiglitz

Senator Cameron asked:

Senator CAMERON—In relation to your current inquiry into productivity, would you be taking any of the lessons or ideas from Stiglitz and applying them in that analysis?

Dr Gordon—If an inquiry is into productivity, measuring multifactor productivity, we are actually talking about outputs. So the concept of productivity as measured currently is very well defined. But, when we do our analysis in a cost-benefit framework, we do look at a much broader set of benefits and costs. In many ways the commission uses our inquiry process and calls for submissions to identify what those are and to ask people for evidence on those kinds of things.

Senator CAMERON—So the wellbeing of the community could be a factor in this inquiry?

Dr Gordon—In any inquiry that we do we are actually tasked with looking at the community wellbeing. Sometimes we are asked to specifically look at the economic ramifications, and other times, particularly inquiries like parental leave and aged care, we do have to look at those broader wellbeing issues.

Senator CAMERON—You might want to take this on notice, but maybe at the next estimates you will be able to advise us how you use the Stiglitz analysis in your inquiry, if you use it at all. I will be seeking some answers on that.

Answer:

Stiglitz has worked in a number of areas of economic theory, most notably on the theory of markets with asymmetric information, for which he was awarded the Nobel prize in 2001. This work in the 1970s examined how asymmetric information between and among suppliers and consumers can affect the operation of markets. Among other consequences, asymmetric information can lead to poor market outcomes through adverse selection and moral hazard. Stiglitz showed that where such information problems are severe, the usual alignment of competitive market outcomes with wellbeing can break down.

In Stiglitz's recent visit to Australia he gave presentations on the work he, along with Sen and Fitoussi and a panel of eminent economists making up the Commission on the Measurement of Economic Performance and Social Progress (CMEPSP), undertook on measurement of economic performance and social progress.

The Commission's work has been informed by both these bodies of research to which Stiglitz has made a major contribution.

Addressing asymmetric information

Stiglitz's work on the economics of information can be seen to have led into more recent developments in behavioural economics, in which insights from psychology and economic experiments have informed how consumers actually make decisions when their information is systematically deficient in some area, or they suffer various 'cognitive biases'.

An important example of influence from Stiglitz's earlier work can be seen in the Commission's 1998 Inquiry into private health insurance, which identified (among other issues) the problem of adverse selection in the operation of that market. It identified such information asymmetry phenomena as 'hit and run' behaviour by some customers who knew they would face serious medical expenses and briefly joined a health fund, and 'cream skimming' by some insurers who could identify low-risk consumers. The Commission proposed lifetime community rating as one way of addressing these problems in the operation of the market.

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In a 1994 report on the tobacco industry, the Commission recognised that individuals may be unable to incorporate information about the risks of smoking into their decisions. It also examined the effects of peer-group pressure and persuasive advertising on individuals' preference formation. It found that some of these factors may support the case for governments to influence individual decisions in relation to smoking.

Likewise, in its 1999 and 2010 reports on Australia's gambling industries, the Commission recognised that some gamblers do not act rationally; that there are systematic wrong perceptions, very prevalent among problem gamblers, of the operation of electronic gaming machines; and that the damage done by gambling addiction to addicts themselves is a policy-relevant cost. In this case, the Commission found that well-targeted intervention could help gamblers to help themselves, such as through comprehensive pre-commitment mechanisms. It has also emphasised the potential of information and counselling programs to redress some of the systematic errors in information and perception that affect problem gamblers.

The Commission's 2008 inquiry into consumer policy drew on the findings of behavioural economics. For example, some inquiry participants questioned the assumption that providing information to consumers necessarily leads them to make better choices, and argued that consumers can be confused rather than informed by lengthy disclosure statements. Other participants have suggested that the findings of behavioural economics could be used to assess the likely effectiveness of proposed regulations.

Addressing wellbeing and economic measurement

The CMEPSP was tasked with identifying the limits of GDP as an indicator of economic performance and social progress, looking at problems in its measurement, and what additional information and measurement tools might be required to produce more relevant indicators of social progress. The 2009 report discusses the well known limitations of GDP as a measure of welfare. These relate to the challenges of measuring the value of intrinsic characteristics such as quality, the extent to which GDP reflects the standard of living for the population of a country and their wellbeing more generally, and the difference between current wellbeing and sustainability – how wellbeing is sustained over time. The report provides a valuable review of the literature in each of these areas, and makes a number of suggestions for improvements in the collection of data to better inform measurement. The OECD supported the work of the CMEPSP and, having in 2008 established a 'Global Project on measuring the progress of societies', is using this to progress the recommendations made in the report. The Australian Bureau of Statistics (ABS) is the country correspondent for Australia in this project. The CMEPSP was also asked to advise on how to present the statistical information in an appropriate way. To this end the Report supports a 'dashboard of indicators' that aim to develop a consistent set of measures that can be adopted internationally to facilitate cross-country comparison and analysis.

The Commission strongly supports these efforts to improve data collections as is argued in our 2009-10 Annual Report. However, while such aggregate data will improve our understanding of the broader achievements of Australia for its residents over the medium to long term, and may support more sophisticated analysis to build evidence on policy effectiveness, the value for analysis of particular policies is likely to be limited for several reasons. First, it will take time to build up the time series needed to assess policy impacts. Second, analysis of particular policies often requires specialised data rather than whole of economy measures. Third, the level of aggregation of the indicators may not allow the targeted level of analysis typically required. And finally, many of the indicators that will play a role in overall wellbeing seem

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likely to change only slowly, and in complex reactions to particular proposed policy changes of the type the Commission is often tasked to study.

Historically, the Commission has taken a case by case approach to addressing these issues with the most relevant information available, rather than relying on a dash board of routine indicators that may, or may not, capture the specific aspects of wellbeing that are affected by the policy under investigation. Examples of the Commission's approach are organised below under the three broad issues that the CMEPSP report addressed.

Improving the National Account measures

The Commission is well aware of the limitations of the National Accounts, both in some areas of their intended purpose as aggregate measures of production or consumption, and of the risks of misuse as welfare indicators (a purpose for which they were never intended). The Commission participates in a number of ABS advisory groups to provide input into proposed improvements. In addition, the Commission's work on productivity measurement is undertaken in close cooperation with the ABS. For example, the current research program in productivity analysis is examining the multi-factor productivity performance of different sectors to understand the drivers of productivity. In some situations measurement issues are highlighted as with the current work on electricity, gas and water, where volume measures of delivery are not only affected by drought, but also by the outcomes of policies aimed at improving water and energy use efficiency, raising questions about how well the measures capture productivity growth. Another area of improvement which we follow with interest is the attempt to better measure the value of output of government services such as education or health.

When GDP is not a sufficient measure of wellbeing outcomes

GDP, and the other market based measures of economic activity, were intended by their creator Simon Kuznets to track and aggregate production and consumptions flows in an economy, and were never intended to capture all of what matters for individual and community welfare or wellbeing. Despite this limitation of purpose, GDP and other national income measures have proven useful as indicators of the living standards in a country. In part this is because income underpins household consumption, and supports higher levels of taxation and hence government services; but also because a healthy and well educated population is more productive and this is reflected in higher income growth. In addition, people who have a good material standard of living are more likely to value and demand environmental services such as better air and water quality and biodiversity. Social and economic freedom and opportunities are also important to people's wellbeing, and these outcomes also tend to be correlated with higher GDP, as good governance promotes income growth. Income growth has accordingly become a major policy objective for governments seeking to maximise community wellbeing in their country. As the Commission is tasked with assessing the community-wide impact on wellbeing, the effect of policy on per capita income (accruing to Australian residents) is an important indicator for many of the Commission's studies and inquiries. However, the Commission is alert to other indicators (such as changes in income distribution or environmental outcomes as a result of a policy) that may complicate a policy's overall impact on wellbeing.

Many policies are designed to support the vulnerable or less well off in society and the focus of the Commission's analysis is often on cost-effectiveness – can the program or policy achieve better outcomes for these people, and/or at a lower cost to tax payers? For example, in the Parental Leave Inquiry (2009), as in the current inquiries on Caring for Older Australians and Disability Care and Support, a major focus is

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on the effect of the current system and the proposed reforms on the disadvantaged and vulnerable. In such cases an analysis of the economy-wide distributional effects is not needed.

Nevertheless, some broader economic policies potentially affect the distribution of income. As far as possible, the Commission highlights these impacts in its analysis. For example, the Commission generally will attempt to draw out impacts on consumers (as a group) as well as on producers and jobs. Impacts can also vary for different regions and household types. For example, protection might save jobs in one industry, but the broader effects can be regressive – the resulting higher costs for some goods and services can fall disproportionately on lower income households, and the jobs foregone could have created greater opportunities for younger and lower skilled workers.

The COAG framework report (forthcoming) will consider how the impacts on broad classes of households of the COAG reforms can be assessed. This methodology builds on the analysis the Commission undertook of the distributional effects of National Competition Policy (2006).

The Commission is unlikely ever to be in a position to identify net impacts of policies on particular households or individuals. That would require detailed unit record data about all income sources including assets as well as knowledge of their consumption preferences. Moreover, desired income distribution and redistribution generally is most effectively achieved directly via the tax and welfare system and policies that have major wellbeing enhancing impacts should not be abandoned on the basis that not everyone is better off.

The Commission has undertaken a number of studies and inquiries where the social and environmental outcomes of policy are central, such as the Review of Australia's Consumer Policy Framework (2008), Waste Management (2006), and Impacts of Native Vegetation and Biodiversity Regulations (2004). These studies draw on the available data and evidence to examine not just the economic outcomes, but also social and environmental impacts where they arise. These data can include subjective measures such as feelings of safety, perceptions about fair treatment, and satisfaction with the surrounding environment. Notwithstanding measurement issues, the Commission has long recognised the importance of accounting for material 'spillover' impacts on the environment and society more broadly. Improvements in data collection will strengthen the capacity of the Commission in the future to present more information on these types of impact.

Because of the difficulties of placing dollar equivalents on environmental and social impacts of policies, for governments ultimately have to make judgements on how they wish to trade off environmental and social outcomes against economic outcomes, where these cannot be promoted simultaneously. In such cases, the Commission typically has outlined the nature of the trade-offs involved.

The CMEPSP report recommends that Statistical Offices should provide the information needed to aggregate across quality-of-life dimensions, allowing for the construction of different indices. Such indices need judgements about the relative weights that should be given to the different outcomes that affect people's wellbeing. While such indices might be useful to track the effectiveness of policies that are targeted at a set of specific outcomes, there is a risk that such indices will be used out of context. The weights generally reflect the values of those who construct the indices, which may or may not reflect wider community values. Small and plausible differences in weights can produce appreciable differences in index levels and changes over time.

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While economists have been working for many years on ways to better measure the relative values the population place on social and environmental outcomes, the estimates remain difficult to apply in a community-wide framework. They suffer from additivity problems (everyone values 'icon' sites, but their valuation does not distinguish between one or many icon sites being preserved), context dependency (values are affected by current 'hot' issues), and are often not budget constrained (stated values can greatly exceed any capacity to pay). New measurement techniques being developed in the subjective wellbeing literature, which uses life satisfaction and happiness surveys, offer some scope to improve understanding of community wide valuations of different outcomes, but this work is still in the early stages of development. The Commission can nevertheless identify the types of social and environmental outcomes that could arise and the measures that would shed light on the extent to which these outcomes have been achieved.

Measuring sustainability

GDP is a measure of production over a single year and while it draws on depreciation information in assessing the services of capital, it does not include the effect of this depreciation on future production. As the use of natural resources is included in the measure only if they are traded in the market, GDP in one year does not provide any information about how much of these 'non-market' resources are used up in production. In recognition of this, economists have developed a number of extensions to the National Accounts that aim to reflect this use of resources and by extension provide information about the sustainability of current production. National wealth accounts, which have been compiled by the World Bank for a number of countries for selected years, take this a step further. A number of countries are progressing the data collections that will support this type of accounting. For example, the ABS is proposing establishing a System of Environmental and Economic Accounts that will track the use of natural resources used in the production of GDP. The success of such accounts depends critically on the measurement of the stocks and flows of natural resources such as water quality and pollution pressures.

The Commission welcomes this ABS initiative, as well as any other improvements in data on environmental outcomes. Such information is valuable for a range of work that the Commission undertakes, such as the current inquiry on Australia's Urban Water Sector, and the recent work on the water buy-backs. The trends in the condition of the resource base is also important for productivity measurement and modelling work. For example, the research paper on Productivity in the Mining Sector (2008) found that a significant proportion of the decline in productivity in oil and coal production arose from the depletion of the resource base. More generally, the evaluation of the COAG reforms will require explicit consideration of some sustainability issues. In the dynamic MMRF model the sustainability of the resource base, and the population's human capital are important elements in establishing the base case, and changes in these can have long term effects on economic outcomes. As with the evaluation of National Competition Policy (2005), the Commission will publish a benchmark dynamic MMRF model that other analysts can use.

More generally, like the environmental and social outcomes and distributional effects that influence community wellbeing, the Commission considers the sustainability of outcomes where these are significant aspects of a policy objective, or where there may be unintended consequences. In this case-by-case approach, the Commission must respond to its Terms of Reference as well as requirements under its legislation to consider community-wide impacts.