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Measuring Economic Achievement: the role of GDP Targets

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Recent documents, produced by the National Assembly for Wales, WDA, and others have attempted to identify the causes of Welsh economic problems, and suggest strategies for improving the health of the regional, and/or sub-regional economies (see Wales European Taskforce 1999, Welsh Development Agency 1999 and 2000, National Assembly for Wales, 2001). In this era of increasing public accountability, strategies are accompanied by targets in terms of changes in key indicators. The performance of the economy relative to the targets should then enable the success or failure of policy to be evaluated. Recent economic policy debate in Wales has centred around identifying appropriate indicators and target changes, and particularly on the use of Gross Domestic Product (GDP) targets.

This paper is concerned with the frequently blurred-together ideas of evaluation and strategy, and begins with a critique of existing targets as a means of exploring, in further depth, the meaning of economic success.

GDP Targets

In broad terms, the aspirations of economic policy in Wales are to address social disadvantage; strengthen environmental quality; and result in a business stock that is more productive and competitive. For example, the sub-title of the recent National Economic Development Strategy (NEDS) Consultation Document, (National Assembly for Wales, 2001) reads "*in search of economic growth, social justice and sustainable and balanced development*". For a number of reasons, it is therefore somewhat inappropriate that the headline indicator to measure whether such objectives are being achieved is per capita GDP, at both all-Wales and sub-regional levels. The consultation document recognises some difficulties with using GDP as a key indicator, and gives mention to potential alternative 'high level' indicators (such as the Index of Sustainable Economic Welfare (ISEW), to be discussed below, and the Index of Multiple Deprivation, compiled by Oxford University, and published by the National Assembly for Wales last year). However with current data limitations, and because of structural funds regulations, which identify programme objectives in terms of improvements in GDP per capita, GDP per capita improvements (relative to the UK) remains a focus of economic policy.

GDP is a measure of economic activity. It can be calculated in three (theoretically equivalent) ways, depending on which point in the 'circular flow of income' is chosen for estimation. In practice, the income, output and expenditure methods differ, with the (relatively small) balance attributed in part to statistical errors or 'hidden economy' activities.

The GDP calculation can only include activities which fall within the market process. Hence, as an indicator of economic well-being, GDP is at best partial, with many activities which add to well-being (such as the value of leisure, a pleasant environment, or of unpaid work), or which detract from well-being (such as congestion or pollution – the external costs of growth), not measured. These, together with the fact that GDP per head measures ignore the distribution of income, provide familiar arguments against using GDP as a proxy for well-being. For example, a small fraction of the population may benefit from economic growth, leaving the majority of the population no better or possibly worse-off.

In Wales GDP growth is targeted at aggregate level, but subsidiary regional growth objectives are set for West Wales and the Valleys. These objectives might be incompatible, or at the least, a slower rise in the overall rate might enable the benefits to be more equitably distributed. This is because the dynamics of growth can, in certain circumstances, cause a rise in measures of regional GDP per capita, although a widening (at least in relative terms) of disparities between the regions. The clearest illustration comes from Ireland, often seen as an 'exemplar' in the development of an appropriate economic policy for Wales. During the rapid Irish economic growth phase between 1987 and 1995, GDP increases averaged 4.7 per cent per annum. However, incomes for the top 40 per cent of households grew twice as fast as those of the bottom 40 per cent. During this period there was an absolute decline in real incomes in the lowest decile of households (O'Hearne, 1998). The external costs of growth were noted earlier. With increasing transport congestion and atmospheric pollution in the greater Dublin area, it is easy to see why some have argued that the Irish 'economic miracle' is at best a partial phenomenon.

Alternative Indicators of Well-Being

In summary, increasing GDP rates may then be accompanied by a worsening environment, social structure and quality of life. In response to these difficulties, various attempts have been made to amend GDP measures, to better reflect a welfare measure. Nordhaus and Tobin (1972) made an early and influential contribution to this debate by adjusting GDP to account for factors such as non-market activities, leisure and the costs of unwanted effects of growth. These effects were however found to approximately counterbalance each other, hence their Measure of Economic Welfare (MEW) moved substantially in line with aggregate national income – implying that GDP *change* could be an acceptable proxy for welfare gains. This implication has however been challenged by attempts to further modify GDP measures to account for other factors, such as natural resource changes, and to correct for changes in income distribution.

The Index of Sustainable Economic Welfare, first developed by Daly and Cobb (1990), established that a widening gap existed between GDP and this broad measure of sustainable economic activity. Unlike many other indicators developed, the ISEW is based not on GDP, but on personal consumption expenditure. Whilst imperfect, personal consumption expenditure represents welfare derived from private goods and services. This measure is then adjusted to allow for income distribution, household production etc. In the United States, this approach suggests that sustainable economic welfare has remained static since the mid 1970s, despite an impressive rate of growth in GDP. In the UK, this idea was developed further by Jackson et al (1997) who summarise the ISEW into its main components, shown in Table 1.

Midmore *et al.* (1999) using the Jackson ISEW methodology derived ISEW estimates for Wales. At the small area level, with a reduced level of official

statistics, this task was made more difficult. In all, around 20 adjustments to consumer expenditure were made, using where possible the Welsh equivalent of Jackson's data sources. However some adjustments were partly based on pro-rata approximations, hence these results should be treated with caution. This Midmore *et al* ISEW generally indicates an inverse association between per capita GDP growth and sustainable economic welfare in Wales (see figure 1). Hence whilst levels of GDP per capita have increased, the main contributors to the decreasing ISEW over time included depletion of natural resources and increasing income inequalities. Interestingly, analysis of the Welsh and UK ISEW shows that the relative gap between Wales and the UK is less for the ISEW than for GDP (with the Welsh ISEW even outperforming UK ISEW during the 1970s). This ISEW measure is not perfect: in particular, divergent levels of housing costs may include differences in housing quality as well as property asset values. Other, wider issues of definition and measurement also need to be assessed further before a satisfactory level of consensus on alternative measures to GDP can be achieved. Nevertheless, if this issue lacks serious consideration, the fundamental aims of Welsh economic policy will always be open to criticism.

Finally, the use of a series of headline GDP targets presents some extremely vulnerable hostages to fortune. Whilst these targets are set in terms of closing the Welsh per capita national income gap with the UK, they do require Wales as a whole to outperform the UK in terms of annual GDP growth, by just over 1 percentage point. Whilst the UK as a whole has had an unprecedented "long boom" of continued economic growth throughout the past seven years, there is no guarantee (rather, a declining probability) that it will continue indefinitely. Since economic performance in Wales depends significantly on the health of UK markets, and during recession periods, growth rates may fall considerably behind those of the UK, at the very least, targets for GDP growth ought to be set within ranges that are feasible. There are a number of different possible futures, each with contingent growth possibilities, hence some flexibility would appear indispensable.

Of course, the fundamentals of an economic strategy can be sound, regardless of the fact that evaluative key objectives could reflect a polarisation where, on one hand, material improvements are blunted by rising congestion and other costs, and on the other, little of the benefit permeates to the economically and spatially disadvantaged. If the target relationships between Wales and the UK's per capita GDP are to be replaced with more appropriate indicators, a more detailed discussion of other measures of economic vitality is required.

Economic Strategies

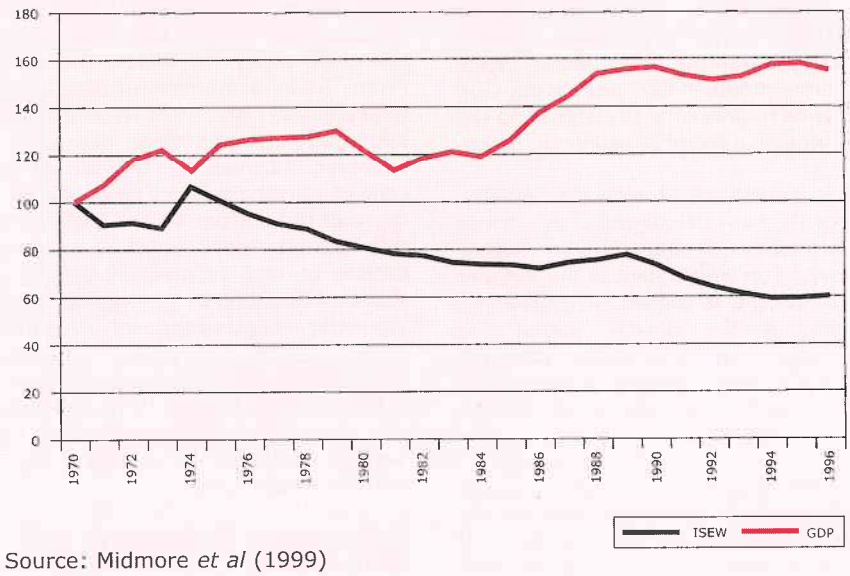
The ideas in the previous National Economic Development Strategy were based on a prescription that assumes that the reasons for poor macro-performance (low participation and productivity) can be translated into their corresponding microfoundations. The resulting generalised recipe then included, through Structural Funds programmes, massive investment in improving the human capital stock as a principal ingredient. The problem with such an approach is that it treats the regional development problem as both aspatial and ahistorical: it depends on standard perspectives related to scale economies and comparative advantage. Over the past decade, however, since Paul Krugman (1991) launched the "New Economic Geography", it has become clear that differences in economic performance depend chiefly on contextual factors such as culture, history, resources, institutions, social and cultural structures, changing demographic trends, communications and metropolitan centres; consequently, only bespoke strategies for economic regeneration can take these factors into account. A corollary of this, of course, is that measures of the success of such a strategy also need to be more conjectural and interpretative.

To illustrate this, two contrasting potential economic strategies might be explored. The first could be labelled "resilience", denoting an attempt to

Table 1: Index of Sustainable Economic Welfare: Summary of Components

	Plus	Minus
ISEW = Personal consumption	• Domestic labour • Non-defensive public expenditure	• Losses from income inequality • Defensive private expenditures • Costs of environmental degradation • Depreciation of natural capital

Figure 1:Index of the Wales pilot ISEW and GDP per capita 1970-1996 (1970=100)



Source: Midmore *et al* (1999)

nurture linkages between industries and resource bases within the regional economy, rather than to optimise growth of economic activity. One possible strand of such an approach (discussed, for example, by Midmore, 2000) would be to manage environmental, cultural and ethical features to develop a competitive advantage in environmental quality: in essence, to market Wales' sustainability by grouping value-added activities around a base which of its nature is difficult to transport or relocate. Potential indicators of the effectiveness of such a strategy could be measures of network density; also, since the focus is on linking industries together, input-output linkage indicators or the recently developed extension, multi-sectoral qualitative analysis (MSQA: Roberts and Stimson, 1998).

The second strategy, which is more closely comparable to the existing strategy, might be labelled "opportunism", as an attempt to get ahead in the post-industrial game. A knowledge-based economy depends on being able to create and defend knowledge faster than competitor regions, and is linked, by inference, to the existence of wide uptake of Information and Communication Technologies to enhance localized capabilities, directly in terms of specific skills and infrastructure, and indirectly through collective attitudes and values. The payoff matrix for this strategy implies a higher degree of risk and potential reward than the previous strategy, although since it may be argued (Maskell and Malmberg, 1999) that such learning processes arise from firms' close interaction with suppliers, customers and rivals, network density measures (although of a different kind) would also be important for assessing the effectiveness of this strategy.

The fact that such different approaches can have imprecise overlaps, to the degree that one could easily become a variant of the other (on the one hand, see Leadbetter, 1999; on the other, see Hawken *et al*., 1999), suggests that in a spectrum of possible appropriate strategic approaches, each will require a flexible range of objectives and targets organised into an indicator set, rather than a hierarchy. Such complexity may be unpalatable to policymakers, who might wish that the world had a less challenging structure. However, for a small region in an increasingly globalised world, development strategies and evaluation systems to ensure continued success will increasingly need to be established on subtle and creative economic analysis.

Conclusions

This paper has set out the arguments against the use of GDP as an indicator of well-being. Whilst the recent NEDS Consultation Document has taken a broader view, considering a range of subsidiary indicators, the focus, in terms of an overall target, remains GDP per capita growth.

Yale University, together with Columbia University and The World Economic Forum, recently released their Environmental Sustainability Index (ESI). Over 120 countries were ranked, using an index compiled from around 20 variables that influence the environmental well-being of countries (for a summary see The Economist, Jan 27 2001 p.106 and 109). Whilst a number of data gaps and methodological issues remain, hopefully one of the main achievements of the work, and of this paper, is to stimulate thought and debate. The ESI author argues "*the chief virtue of this index is that it begins the process of shifting environmental debates on to firmer foundations, underpinned by data and a degree of analytical rigour*" (Ibid p.109). Development of alternative key indicators to measure policy success and to compensate for the shortcomings of GDP is not an easy task, and would require resources devoted to data gathering and methodological development. However this would be a small price to pay for an effective economic policy that could be monitored through more appropriate performance indicators.

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