This briefing looks at the uses and limitations of Gross Domestic Product (GDP) as a measure of economic activity and as a measure of broader progress and wellbeing of society. It summarises the key findings of the ‘Stiglitz Report’, commissioned by President Sarkozy of France in 2008, and describes action to date by the UK and Scottish governments. The briefing also identifies work in this area by academic and other organisations, as well as developments around the world.

Snapshot of the OECD’s ‘Better Life Index’
CONTENTS

WHAT IS THE PROBLEM WITH GDP? 4
   Views on GDP 4
   History of GDP 5
   The Development of Measures of Wellbeing 6
   A closer look at GDP 7
   What are the specific problems with GDP? 7
   Arguments against an alternative index of wellbeing 8
   Why does it matter what we measure? 9

A GROWING DEBATE – THE STIGLITZ COMMISSION 10
   THE RECOMMENDATIONS FROM STIGLITZ 10
      Classical GDP Issues – ‘from production to well being’ 10
      Quality of life – ‘objective and subjective measures of well being are both important’ 11
      Sustainable development and the environment – ‘use a pragmatic approach towards measuring sustainability’ 12

THE UK RESPONSE 12

PROGRESS IN SCOTLAND 13
   Economic statistics and the Scottish National Accounts Project (SNAP) 14
   Scotland Performs (the National Performance Framework) 14
   The Carnegie UK Trust Report 15
   Oxfam Scotland – Humankind Index 18
   Views of stakeholders 18

ALTERNATIVES TO GDP – SOME EXAMPLES 19

SOURCES 23

RELATED BRIEFINGS 26
EXECUTIVE SUMMARY

According to a famous speech in the 1960s by US Senator Robert Kennedy the Gross National Product (GNP, along with its close relative, GDP) is a measure of everything “except that which makes life worthwhile”. Nevertheless, the measurement of GDP has played a central role in helping shape post war economic policy. The development of alternative indicators has become more widely supported in recent years, for example by the OECD, the UN, the European Parliament, the G20, the US Congress, and the French and UK Governments.

Alternative measures of progress which attempt to include a wider range of factors affecting well being (such as the Measure of Domestic Production, developed by the New Economics Foundation), show significantly less growth since the 1950s, than traditional GDP.

Some of the identified ‘problems’ with GDP are as follows:

- GDP does not adequately capture the value of unpaid services and public services
- The impact of negative external events, such as a natural disaster, may result in increased “defensive” expenditure and economic activity (and so GDP),
- GDP does not measure the impact of ‘externalities’
- GDP measures flows of activity, but not assets (or stocks/wealth/debts)
- GDP does not take account of inequalities in the distribution of income or wealth

In response to some of these issues, the Commission on the Measurement of Economic Performance and Social Progress (the Stiglitz Commission) was set up by French President Nicolas Sarkozy in 2008. The Commission made a number of specific recommendations and stated “the time has come to adapt our system of measurement of economic activity to better reflect the structural changes which have characterized the evolution of modern economies”.

At a UK level, the Office for National Statistics has now started to include a number of ‘happiness’ questions in its Integrated Household Survey.

The Scottish Government’s work has included improvements to GDP, through the Scottish National Accounts Project (SNAP), whilst the National Performance Framework ‘Scotland Performs’ is currently being refreshed.

The Carnegie UK Trust’s recent report on the subject made two main recommendations that in the short term the Scottish Government learn from its experiences with Scotland Performs and be “guided by the recommendations of the Stiglitz Report to create a new framework with new indicators; whilst in the medium term (during the current parliamentary session) “ the Scottish Government should work alongside wider civil society to host a much wider debate about the aspirations of Scotland, the relevance of wellbeing as a goal and how we can develop better measures of well-being that resonate with the wider population”.

Oxfam Scotland has been developing the Humankind Index to assess Scotland’s prosperity “not just in terms of the economy, but in terms of resilience, assets and sustainability”. There are many other examples of alternative approaches around the world, including attempts at composite indices, interactive presentations of data and dashboards of key indicators.
WHAT IS THE PROBLEM WITH GDP?

Views on GDP

Many commentaries that consider the problems with GDP (Gross Domestic Product) cite a now famous speech by Senator Robert Kennedy at the University of Kansas in 1968. They do this because it remains one the most eloquent expositions of the issues and the key passage from his speech is again reproduced below (Kennedy 1968):

“Our Gross National Product, now, is over $800 billion dollars a year, but that Gross National Product - if we judge the United States of America by that - that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armored cars for the police to fight the riots in our cities. It counts Whitman's rifle and Speck's knife, and the television programs which glorify violence in order to sell toys to our children. Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile. And it can tell us everything about America except why we are proud that we are Americans.”

However, there are many who believe that GDP remains a valuable indicator. As one example Alan Greenspan, Chairman of the US Federal Reserve 1987-2006, stated (US Department of Commerce 2000):

“we look at the gross domestic product and its predecessor, the gross national product, as a measure of output of goods and services at market prices, and it's a crucially important statistic to get a sense of where the overall economy is and where it has been”

Professor William Nordhaus of Yale University, one of those who pioneered alternative measures of economic welfare, and takes the view that since GDP was first established the accounts have been ‘incomplete and misleading’, nevertheless recognised some value in GDP and, for example, stated (2002):

“While the GDP and the rest of the National Income and Product Accounts (NIPA) may seem to be arcane concepts, they are truly among the great inventions of the twentieth century. Much as a satellite in space can survey the weather across an entire continent, so can the GDP give an overall picture of the state of the economy.”

Similarly, Professor Joseph Stiglitz, author of the most influential report in recent times on the measurement of economic performance, stated (Stiglitz 2009):

“Measuring production – a variable which among other things determines the level of employment – is essential for the monitoring of economic activity”

However he also made clear that:

“the time has come to adapt our system of measurement of economic activity to better reflect the structural changes which have characterized the evolution of modern economies”

4
Figure 1 below provides a visual illustration of how changes in GDP can be at variance with changes in wider definitions of progress in the second half of the last century.

**Figure 1 – Changes in UK GDP per head alongside MDP (Measure of Domestic Progress)**

MDP has been developed by the New Economics Foundation (NEF 2004) “to reflect our progress towards sustainable development by including economic progress, environmental costs, resource depletion and social factors in a single composite measure.”

The New Economics Foundation explains how MDP differs from GDP as follows:

- Spending to offset social and environmental costs (defensive expenditure) is taken out.
- Longer-term environmental damage and depreciation of natural capital are accounted for.
- A number of economic adjustments associated with ensuring prudent investment and trade balances are made.
- Changes in the distribution of income are accounted for, reflecting the fact that an additional pound in the pocket means more to the poor than to the rich.
- A value for household labour is included.

**History of GDP**

GDP was developed during the 1930s, mainly by US economists, in response to demands for better information on the economy to help tackle the Great Depression. According to economist Richard Froyen (US Department of Commerce 2000) economic policy at that time was designed “on the basis of such sketchy data as stock price indices, freight car loadings, and incomplete indices of industrial production. The fact was that comprehensive measures of national income and output did not exist at the time.” The Bretton Woods Conference of 1944 (the United Nations Monetary and Financial Conference), which shaped much of the international financial framework for the post-war period, also signalled the adoption of GDP as the international standard measure of economic activity. Furthermore, the concept of national income was central to Keynesian macro-economics which dominated post-war economic thinking and planning. Since that time, changes in GDP have played a central role in the policy choices facing governments.

For example, GDP is used as one of the key indicators by the Bank of England’s Monetary Policy Committee in setting interest rates, by the Treasury in forecasting future tax receipts, and by the EU in helping determine the budget contributions of Member countries (BBC News 2011).
The Development of Measures of Wellbeing

Concerns have been expressed as to the suitability of GDP as a measure of economic growth, progress and well-being over the decades. Nevertheless, it is only in recent years that such concerns have become mainstream. The most high profile piece of work in this area is the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz 2009, outlined later in the briefing). Other examples include the following:

- The OECD’s compendium of wellbeing indicators to produce the “better life index”
- At the 2009 Pittsburgh Summit the G20 Leaders’ statement encouraged work on measurement of the social and environmental dimensions of economic development
- The European Parliament voted, in June 2011, to support the European Commission’s Beyond GDP initiative
- The United Nations Human Development Index (and related Human Development Reports over the past 20 years), a recent UN resolution, and the Oxford Poverty and Human Development Initiative’s Multi Dimensional Poverty Index
- Work by non Government organisations such as the New Economics Foundation (Happy Planet Index, National Accounts for Wellbeing and Measures of Domestic Progress), and Oxfam
- Work by individual countries, such as on the Canadian Index of Wellbeing, Gross National Happiness in Bhutan, Australia, and in the USA the establishment by Congress of a Commission to develop a ‘key national indicator system’
- Work by the UK’s Office for National Statistics on wellbeing, and the inclusion of survey questions on ‘happiness’ in national surveys
- Examples of sub-national indicators, such as Boston, Virginia, Oregon, and Glasgow.
- The Scottish Government website Scotland Performs measures and reports on progress in Scotland, whilst improvements have been made to Scottish GDP data through the SNAP project (Scottish National Accounts Project)
- Non-government organisations such as the Scottish Council Foundation, Barnardo’s Scotland, the Centre for Confidence and Well-being, and more recently the Carnegie UK Trust and Oxfam Scotland have also all made contributions to the debate in Scotland.

What makes us happy?

There is an extensive literature on the nature, causes, effect, and even meaning of ‘happiness’. Some of the issues are identified by Action for Happiness, led by Lord Richard Layard. According to Action for Happiness, 50% of happiness is determined by genes/upbringing, 10% by income and environment and 40% by relationships and activities (see graphic right). Layard has also argued that there is a poor link between ‘happiness’ levels and GDP growth.

The Office for National Statistics (ONS 2011c) published a discussion paper in July 2011, summarising the 34,000 contributions to the debate on the measurement of wellbeing. The graphic (left) illustrates the main themes based on the frequency of their reference by participants in the debate.
A closer look at GDP

In simple terms, GDP is the aggregated added value of all the production in an economy, as reflected in market prices, and as estimated/imputed for public services. The System of National Accounts (UN 2008), running to over 700 pages, provides an “internationally agreed standard set of recommendations on how to compile measures of economic activity”. In Scotland, data from 300 separate indices are collated, and then aggregated to form a weighted quarterly index of ‘Gross Value Added” (GVA) (Scottish Government 2011). At a regional level, GVA is the output measure used and differs from GDP as it measures output at basic prices rather than market prices; i.e. GVA does not take subsidies and taxes into account.

There are three ways of calculating GDP, the income, output and expenditure methods. All three should sum to an identical amount.

Gross Domestic Product (GDP) measures something slightly different to Gross National Product (GNP). GDP measures what is produced within a country’s borders; GNP measures what is produced by enterprises owned by a country’s citizens. So a country with a high degree of overseas ownership may have a high GDP, but a relatively lower GNP as some of the profits flow overseas. Similarly, there are slightly different definitions of Net Domestic Product, and Gross National Income, though often these terms are used interchangeably.

What are the specific problems with GDP?

Examples of specific ‘problems’ with GDP (for example, UN 2008 and Stiglitz 2009) include:

- GDP does not capture the value of unpaid services (for example, unpaid care of relatives in the home). It is also difficult to capture the true value of public services
- The impact of external events, such as a natural disaster, may result in increased “defensive” expenditure and economic activity (and so GDP), though few people would argue in those circumstances that welfare had increased. Similarly a rise in violent crime leading to more expenditure on prisons and security surveillance, would increase GDP but not welfare
- GDP does not measure the impact of so-called externalities. One example might be the air quality and congestion impact of increases in road traffic
- GDP measures flows of activity, but not the value of a country’s assets (or stocks/wealth/debts)
- GDP does not take account of inequalities, but measures the ‘value’ of a good or service by its market price. However, as an example, an increase in consumption of food by someone in poverty is likely to lead to a much greater increase in welfare than a similar increase by someone already well-fed. However, in both cases the market price, and so contribution to GDP, may be identical

Table 1 below uses the example of alcohol, as one of the major issues affecting Scottish wellbeing, and identifies examples of how alcohol ‘issues’ are picked up in GDP statistics,

<table>
<thead>
<tr>
<th>Table 1: How is the impact of alcohol picked up in the GDP figures?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacture of alcohol</strong></td>
</tr>
<tr>
<td><strong>Distribution and sales</strong></td>
</tr>
<tr>
<td><strong>Any additional costs of</strong></td>
</tr>
</tbody>
</table>
policing as a result of alcohol related unrest and criminal behaviour this will result in an increase in GDP. (included in SIC 84.240)

Any additional health spending required to cope with alcohol related illness

Similarly if increased alcoholism results in poorer health, the additional costs of providing that healthcare will appear as an increase in GDP. (Included in various SIC 86. categories). However reduced participation in the workforce due to long term sickness may result in reduced GDP.

Caring for relatives with alcohol problems in the home

The value of caring by relatives tends not be captured in GDP, as not traded on market, and not priced. However if this care were to be provided by an external body (public or private sector) and paid for, this activity would be reflected in the GDP figures

Fear of domestic violence related to abuse of alcohol

Fear of domestic or other violence (fuelled by alcohol) would not be captured in GDP figures

The example in Table 1 indicates that the manufacture, distribution and sale of alcohol are included in the GDP figures. Additional police or health costs are also included even though these could be seen as ‘defensive’ expenditure. Caring at home is an example of a non-market activity, whilst increased domestic violence might be seen as an unwelcome by-product (or ‘externality’).

Arguments against an alternative index of wellbeing

Many economists accept that GDP is not an effective measure of wellbeing. For example the System of National Accounts (SNA) report (UN 2008) states:

“GDP is often taken as a measure of welfare, but the SNA makes no claim that this is so and indeed there are several conventions in the SNA that argue against the welfare interpretation of the accounts.”

Economists, such as Paul Ormerod (in Chinadialogue 2011) have suggested that there are problems in developing a wider measure of wellbeing:

“…the devil is not so much in the detail, as in the whole attempt to turn this into a practical measure. For all its faults, GDP has a clear theoretical underpinning that measures the value added by the various activities carried out in the economy. In contrast, happiness or well-being indices inevitably involve a large amount of arbitrary judgement on what is in and what is out”

Ormerod also points to work by Professor Angus Deaton (Economist 2010) of Princeton University which has correlated happiness and percentage changes in GDP. He also points to a lack of correlation between “measured well-being and the level of a whole range of factors that enhance human welfare”, which is “barely mentioned at all by happiness advocates”.

From a different perspective the Archbishop of Wales is another commentator to be sceptical about the measurement of happiness (BBC News 2010b):

“You cannot capture happiness on a spreadsheet any more than you can bottle it - and if anyone was trying to reduce the whole spectrum of human happiness into one snapshot statistic I would be the first to roll my eyes”
Why does it matter what we measure?

As well as providing a better understanding of the direction of the economy and society, one of the main motivations to develop alternatives to GDP is to improve the quality of decision making on public policy. According to a report by the Carnegie UK Trust (Carnegie 2011):

“Our over reliance on GDP makes it difficult for politicians to back policies that are good for society or the environment, but which might hamper an increase in GDP”

The New Economics Foundation (NEF 2011c) think-tank makes the point succinctly:

“What gets counted, counts”

NEF also point to the case for creating a “triple bottom line” in public policy decisions for example by using a ‘social return on investment’, “where returns from investment are evaluated by their longer-term social, environmental and economic returns”. NEF cite some examples of what this approach might look like (see box right).

A real life example comes from Oregon in the USA (US GAO 2011, and Remapping Debate 2011), whose indicator programme “Oregon Benchmarks” has been cited as a pre-eminent indicator system since it was adopted in the 1990s. The impact of the indicators has varied over the years in a reflection of the political complexion of the administration of the time. In the early days however, the benchmarks were tied into the budget process and, according to the Oregon Progress Board, policy in 1993 resulted in a shift in budget distribution worth an estimated $130 million towards programmes aimed at their lead benchmarks.

A recent report by the US Government Accountability Office (2011) listed a number of uses for “indicator systems”:

- To increase transparency and public awareness
- To foster civic engagement and collaboration
- To monitor progress, establish accountability for results, and aid decision making

The report also pointed to a number of insights and lessons (emphasis added):

- Consulting experts and stakeholders about purpose and design can result in a more relevant and useful system
- Relevant indicators based on reliable data help ensure the credibility of a system
- Providing disaggregated and comparable data over time can increase the usefulness of an indicator system
- Finding new ways to collect and use data can help fill gaps
- Periodic re-evaluation and revision of the indicators maintains relevance
- Stable and diversified funding helps ensure continuity of indicator systems
- Indicator systems depend on the continued interest of sponsors, advisers and champions
- Indicator systems insulated from political pressure can protect the systems from perceptions of bias

Key facts

1. £1 invested in high-quality residential care for children generates a social return of between £4 and £6.10
2. £1 invested in alternative, non-prison based sentencing for women offenders generates a social return of £14
3. The UK could save £436 billion over the next 20 years by switching to a preventative system of care for children and young people.
Continually raising the public's level of awareness of a system can help preserve its relevance

A GROWING DEBATE – THE STIGLITZ COMMISSION

The Commission on the Measurement of Economic Performance and Social Progress was set up by French President Nicolas Sarkozy in 2008, to identify the limits of GDP as an indicator of economic performance and social progress, to specify what indicators should be collected and how they should be presented (Stiglitz, Sen and Fitoussi 2009). The main recommendations cover

- classical GDP issues,
- quality of life, and
- sustainable development and the environment

THE RECOMMENDATIONS FROM STIGLITZ

Classical GDP Issues – ‘from production to well being’

1. *When evaluating material well-being, look at income and consumption rather than production*

   Material living standards are more closely associated with measures of net national income, real household income and consumption

2. *Emphasise the household perspective*

   In a number of OECD countries real household income has grown quite differently from real GDP per capita, and typically at a lower rate. The household perspective involves accounting for taxation, benefits, interest payments on loans, and the value of in-kind services provided by the government

3. *Consider income and consumption jointly with wealth*

   A household [or an economy] that spends its wealth on consumption goods increases its current well-being, but at the expense of its future well-being. To construct balance sheets, we need comprehensive accounts of assets and liabilities. The valuation of stocks - of physical, natural, human and social capital is crucial but often problematic

4. *Give more prominence to the distribution of income, consumption and wealth*

   Average income, consumption, and wealth are meaningful statistics but they do not tell the whole story about living standards. For example, average incomes could rise even though some households experience a fall in income. For many purposes it is important to know what is happening at the bottom of the income/wealth distribution, or at the top.

5. *Broaden income measures to non-market activities*

   Changes in society means that many of the services people received from other family members are now purchased in the market. Many services that households produce for themselves are not recognized in official income and production measures, so some apparent increases in living standards may reflect a shift from non-market to market
provision of services. Therefore, comparable figures are needed; along with a valuation of leisure time.

Quality of life – ‘objective and subjective measures of well being are both important’

6. Quality of Life depends on people’s objective conditions and capabilities. Steps should be taken to improve measures of people’s health, education, personal activities and environmental conditions. In particular substantial effort should be devoted to developing and implementing robust, reliable measures of social connections, political voice and insecurity that can be shown to predict life satisfaction

While the precise list of features affecting quality of life inevitably rests on value judgements, there is a consensus that quality of life depends on people’s health and education, their everyday activities (which include their right to a decent job and housing), their participation in the political process, the social and natural environment in which they live and the factors shaping their personal and economic security.

7. Quality of life indicators in all the dimensions covered should assess inequalities in a comprehensive way

Inequalities of life should be assessed across people, socio-economic groups, gender and generations, and especially recent inequalities such as those linked to immigration.

8. Surveys should be designed to assess the links between various quality of life domains for each person, and this information should be used when designing policies in various fields.

Stiglitz argues that the consequences for quality of life of having multiple disadvantages far exceed the sum of their individual effects. We therefore need information on the ‘joint distribution’ of factors affecting quality of life.

9. Statistical offices should provide the information needed to aggregate across quality-of-life dimensions, allowing the construction of different indexes

The report argues that there are strong demands to develop a single summary measure of quality of life, and that this could be delivered by national statistical systems as long as they provide the necessary investment to provide the data required. Composite indicators should include objective as well as subjective measures.

10. Measures of both objective and subjective well-being provide key information about people’s quality of life. Statistical offices should incorporate questions to capture people’s life evaluation, hedonic experiences and priorities in their own survey

Subjective well-being includes people’s own assessment of happiness, satisfaction and positive/negative emotions. While the report acknowledges the ‘persistence of many unresolved issues’ with this data, it is argued they provide important information about quality of life, and should be incorporated into large scale surveys.
Sustainable development and the environment – ‘use a pragmatic approach towards measuring sustainability’

11. **Sustainability assessment requires a well-identified dashboard of indicators. The distinctive feature of the components of this dashboard should be that they are interpretable as variations of some underlying “stocks”. A monetary index of sustainability has its place in such a dashboard but under the current state of the art, it should remain essentially focussed on the economic aspects of sustainability**

Stiglitz argues that the assessment of sustainability is complementary to the question of well-being or economic performance and should be examined separately. The analogy of driving a car is used and it is suggested that when driving a car, ‘a meter that added up in one single number the current speed of the vehicle and the remaining level of gasoline would not be of any help to the driver’.

12. **The environmental aspects of sustainability deserve a separate follow-up based on a well chosen set of indicators. In particular there is a need for a clear indicator of our proximity to dangerous levels of environmental damage (such as associated with climate change or the depletion of fishing stocks).**

Placing a monetary value on the environment is considered to be difficult, particularly so when it comes to irreversible and/or discontinuous alterations to the environment, and when we are considering global issues such as climate change. We must look to science to identify the appropriate physical indicators.

**THE UK RESPONSE**

Work on the measurement of sustainability and well-being has been underway in the UK Government for a number of years. In November 2010, at the launch of a ‘national debate’ on measuring the nation’s wellbeing, the Chief Statistician Jil Matheson set out the plans for the Office for National Statistics (ONS 2010):

“First, ONS will include subjective well-being questions in our large household surveys from April next year onwards. By supplementing existing sources of information, ONS will be able to start producing national and sub-national subjective well-being measures by summer 2012.

Secondly, and in parallel, we need a firmer and surer basis for how well-being measures as a whole should be constructed so that we can improve their relevance and reliability over time. The key is to ensure that they capture the main dimensions of our well-being and, again, that is where the national debate can help. We could provide thousands of numbers, but that is too many. The national debate will help us pick out the key areas which matter most for national well-being and good ways of showing figures which people recognise as telling a story which reflects their experiences.”

ONS subsequently revealed (ONS 2011a) that, as from April 2011, some 200,000 people were to be asked to rate their life satisfaction on a scale of 0 to 10 as part of the Integrated Household Survey.

<table>
<thead>
<tr>
<th>The new ONS life satisfaction questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall how satisfied are you with your life nowadays?</td>
</tr>
<tr>
<td>• Overall how happy did you feel yesterday?</td>
</tr>
<tr>
<td>• Overall how anxious did you feel yesterday?</td>
</tr>
<tr>
<td>• Overall to what extent do you feel the things you do in your life are worthwhile?</td>
</tr>
</tbody>
</table>
ONS currently publishes a suite of statistical indicators under many of the headings identified by Stiglitz (Evans and Thomas 2010) including income, consumption, household surveys, wealth, income distribution, social indicators and environmental accounts (ONS 2011b) providing data on the environmental impact of UK economic activity, on the use of resources from the environment in the economy, and on associated taxes and subsidies. The UK ‘equality measurement framework’ (EHRC 2011) has been developed to assess equality and human rights, using indicators in 10 domains that people say are important for them. DEFRA reports on 68 sustainable development indicators and in its recent White Paper The natural choice: securing the value of nature, (DEFRA 2011) stated it would “work with the Office for National Statistics to fully include natural capital in the UK Environmental Accounts, with early changes by 2013”.

In July 2011, ONS (2011) set out a number of milestones up to 2013, as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2011</td>
<td>Set of national well-being indicators published and start iterative consultation to test and refine indicators</td>
</tr>
<tr>
<td>November 2011</td>
<td>Publish first set of results from the Opinions Survey (April to August) and consult on the presentation of subjective well-being data</td>
</tr>
<tr>
<td>November 2011</td>
<td>Publication of European Statistical System Committee position on measuring progress, well-being and sustainable development. Start of the process to roll recommendations out across the EU.</td>
</tr>
<tr>
<td>December 2011</td>
<td>Agreed harmonised subjective well-being measures in an international framework (OECD, Eurostat)</td>
</tr>
<tr>
<td>February/March 2012</td>
<td>ESRC conference on national well-being</td>
</tr>
<tr>
<td>July 2012</td>
<td>Publication of first subjective well-being annual experimental results</td>
</tr>
<tr>
<td>Summer 2012</td>
<td>Publish guidance for using subjective well-being data and questions at local authority level</td>
</tr>
<tr>
<td>December 2012</td>
<td>Publish a roadmap for valuation of natural capital in the Environmental Accounts and delivering on environmental sustainability measures (commitment in Natural Environment White Paper)</td>
</tr>
<tr>
<td>2012 - 2013</td>
<td>Further publication of the refined version of the set of well-being indicators and continued consultation including working with key user groups (policy, local government/health and well-being boards, commerce, media, academia etc)</td>
</tr>
<tr>
<td>2013</td>
<td>Article on valuing natural capital in Environmental Accounts and first review of progress against roadmap to 2020 (commitment in Natural Environment White Paper)</td>
</tr>
<tr>
<td>2013</td>
<td>EU Survey of Income and Living Conditions (EU-SILC) module on well-being</td>
</tr>
</tbody>
</table>

In July 2011 the Treasury and the Department for Work and Pensions also published a Green Book discussion paper on the valuation of social impacts, suggesting a new approach which takes account of subjective wellbeing, to be used alongside existing measures in policy appraisal.

PROGRESS IN SCOTLAND

In response to a parliamentary question (S4W-109) from Patrick Harvie MSP (Scottish Parliament 2011) on the development of alternative economic indicators as a replacement or supplement to GDP, the Cabinet Secretary identified two aspects to the Government’s approach:

- The development of quarterly economic statistics, and more specifically, through the SNAP project, consistent income and expenditure measures of GDP alongside the existing output measures
The use of a wide range of indicators to measure progress against the Purpose and National Outcomes in the National Performance Framework, and reported on the Scotland Performs website

Further detail is provided below on each of these areas below.

**Economic statistics and the Scottish National Accounts Project (SNAP)**

Regular economic statistics from the Scottish Government include those on quarterly GDP, input-output tables, income and poverty, retail sales, exports, and the Government Expenditure and Revenue of Scotland. The Government also publishes statistics, for example on businesses, income and benefits, the labour market, and other social and economic indicators (including multiple deprivation), conducts major surveys including the Scottish Household Survey and Scottish Crime and Justice Survey, publishes a variety of data on aspects of Scottish Government activity, and collates local area statistics and indicators through its Scottish Neighbourhood Statistics website.

The SNAP project is a long term initiative to improve the quality and enhance the consistency and range of Scottish economic statistics. The Government states that as from October 2010 improvements have been made to the quarterly GDP statistics which means the figures are ‘entirely consistent with the long term composition of the Scottish economy’ and will be less susceptible to revision, and more compliant with international guidance. Experimental statistics (not yet designated as ‘National Statistics’) are currently being produced for:

- GDP using the production approach
- GDP using the income approach
- GDP using the expenditure approach
- Scottish public sector revenue
- Gross disposable household income

**Scotland Performs (the National Performance Framework)**

In June 2008, the Scottish Government launched a new website called ‘Scotland Performs’ to report on progress against targets set in the National Performance Framework (NPF, established in 2007). Scotland Performs thus tracks Scotland’s progress on a wider set of social and economic indicators than GDP.

Scotland Performs sets out the Government’s overall ‘purpose’:

“To focus Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.”

Thus the purpose is to allow Scots to flourish, and the means of achieving this is through ‘sustainable economic growth’

There are high-level ‘purpose targets’ in seven areas:

- Economic growth (GDP)
- Productivity
- Participation
- Population
Solidarity
Cohesion
Sustainability

There are also five strategic objectives (wealthier and fairer, safer and stronger, smarter, healthier and greener), and fifteen ‘National Outcomes’. Below this, Scotland Performs consists of 45 national indicators enabling ‘us’ to track progress towards achievement of the National Outcomes, the strategic objectives and ultimately delivery of the purpose.

As at June 2011, of the 45 indicators:

- 26 showed improved performance
- 13 showed stable performance
- 5 showed performance had worsened
- and 1 did not have data

Scotland Performs acts as a live reporting tool to inform the public of progress. The Government does not produce a summary report, or aggregate the indicators into an index. Many indicators included targets which ran to 2010 or 2011. The Government is in the process of reviewing and refreshing the indicators.

**The Carnegie UK Trust Report**

A report by a Scottish Round Table of the Carnegie UK Trust, chaired by Professor Jan Bebbington of St Andrews University, *More than GDP: Measuring What Matters* (Carnegie 2011) was published in May 2011. The report questioned what is Progress and Prosperity, and argued that “GDP is an insufficient and misleading measure of whether life in Scotland is improving or not”.

The report recognised that Scotland Performs was a ‘significant development’ and that the framework could be a ‘building block to help Scotland go beyond GDP’. The report made two main recommendations:

- In the short term the Government should learn from its experiences and be “guided by the recommendations of the Stiglitz Report to create a new framework with new indicators”.
- In the medium term (during the current parliamentary session) “the Scottish Government should work alongside wider civil society to host a much wider debate about the aspirations of Scotland, the relevance of wellbeing as a goal and how we can develop better measures of wellbeing that resonate with the wider population”.

Table 2 below looks at the areas in which the Stiglitz Commission made recommendations. It includes some examples of the current collection and reporting of statistics in these areas by the Government, as well as a summary of relevant comments by the Carnegie report.
### Table 2: Applying the Stiglitz Commission recommendations in Scotland

<table>
<thead>
<tr>
<th>Stiglitz Commission recommendations</th>
<th>Examples of current collection and presentation of statistics by Scottish Government</th>
<th>Carnegie Trust Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Income and consumption, rather than just production</strong></td>
<td>GDP (i.e. production) is the primary measure of economic activity used by the Scottish Government. However the SNAP project (see above) includes (experimental) analysis of income and consumption rates.</td>
<td><strong>From production to wellbeing:</strong> “The Government has relied too heavily on GDP as an indicator of economic performance. GDP has its place in a longer list of economic measures, but greater importance should be given to measures of net national income, real household income and consumption.”</td>
</tr>
<tr>
<td><strong>2. Households</strong></td>
<td>The high level ‘Solidarity’ target in Scotland Performs is measured by analysis of household incomes.</td>
<td><strong>Household perspective:</strong> “Government has measured income and relative income through its Solidarity target. However it should consider factoring in the use of government services (eg health and care services) as part of the measurement of material living standard.”</td>
</tr>
<tr>
<td><strong>3. Wealth</strong></td>
<td>There is limited information produced or presented on wealth (though there are for example Scottish figures in the UK Wealth and Assets Survey).</td>
<td><strong>Distribution/inequalities:</strong> “The Stiglitz Report recognizes the importance of measuring relative income. The Scottish Government should undertake to measure loss of welfare triggered by inequalities in all dimensions of quality of life.”</td>
</tr>
<tr>
<td><strong>4. Distribution of income, consumption and wealth</strong></td>
<td>One of the 45 national indicators in Scotland Performs is concerned with reductions in individual living in poverty. Data sets such as Households Below Average Income support such analysis. The Scottish Neighbourhood Statistics website allows analysis of local areas across a variety of social and economic indicators (as will the 2011 Census website).</td>
<td><strong>Non-market activities:</strong> “The Purpose Targets do not measure non-market activities (eg third sector and household activity). Government has used an indicator of third sector turnover, but this misrepresents its true value, which is to deliver non-market goods.”</td>
</tr>
<tr>
<td><strong>5. Non-market activities</strong></td>
<td>There is limited information produced or presented on the valuation of non-market activities (such as carers). One of the 45 National indicators in Scotland Performs is concerned with turnover in the ‘social economy’.</td>
<td><strong>Subjective/objective measures:</strong> “The NPF has made use of subjective and objective measures. However these need to take account of a wider group of non-economic issues, including other freedoms important to Scottish life (eg participation in democracy). Government should use the WEMS [Warwick-Edinburgh Mental Well-</td>
</tr>
<tr>
<td><strong>6. Measures of health, education, personal activities, environmental conditions, and specifically social connections, political voice, insecurity</strong></td>
<td>In relation to insecurity, one of the 45 national indicators in Scotland Performs is concerned with increasing the public perception of the general crime rate in the local area. The Scottish Crime and Justice Survey collects data on public perception of crime.</td>
<td></td>
</tr>
</tbody>
</table>

---

*Note: The content is a detailed analysis of applying Stiglitz Commission recommendations in Scotland, focusing on various aspects such as income, wealth, distribution, non-market activities, and measurements of health, education, and personal security. The Carnegie Trust comments highlight the importance of transitioning from production-centric measures to more comprehensive wellbeing indicators.*
<table>
<thead>
<tr>
<th>Stiglitz Commission - recommendations</th>
<th>Examples of current collection and presentation of statistics by Scottish Government</th>
<th>Carnegie Trust Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Inequalities in quality of life</td>
<td>The Scottish Household Survey collects data on perceptions of public services, and reports against this in one of the 45 national indicators. Data sets such as the Scottish Index of Multiple Deprivation, allows deprivation across a number of domains to be measured for small geographic areas.</td>
<td>being Scale as a headline indicator, and develop another relating to subjective wellbeing.</td>
</tr>
<tr>
<td>8. Design surveys to assess quality of life</td>
<td>The Scottish Government’s long term survey strategy (including the Scottish Household Survey and Scottish Crime and Justice Survey for example) is intended to enable better analysis of different aspects of quality of life for local areas and different groups in society.</td>
<td>Cross cutting issues: “The hierarchy of the NPF is not sufficiently clear. Government has focussed on delivery of Outcomes, but needs to make more of a Set of Purpose Targets as an overall dashboard to measure towards its Purpose.”</td>
</tr>
<tr>
<td>9. Allow construction of indexes</td>
<td>The Government does not currently aggregate statistics to construct an index or indexes. However Scotland Performs does include the 45 national indicators from a variety of domains.</td>
<td></td>
</tr>
<tr>
<td>10. Capture people’s own assessments of quality of life in surveys</td>
<td>Whilst at a UK level the ONS has started asking questions on people’s own assessments of happiness and well-being, this is not done at a Scottish level. However within the Scottish Health Survey people are asked 14 questions on their mental health, which allows an overall assessment of their point on the Warwick-Edinburgh Mental wellbeing Scale. Scotland Performs reports on these results as one of their 45 national indicators.</td>
<td></td>
</tr>
<tr>
<td>11. Include assessments of ‘stocks’ in a dashboard of sustainability indicators</td>
<td>The stocks include quantities and qualities of natural resources, and of human, social and physical capital. Some stocks are measured and reported on (for example commercial fish stocks), but generally there is limited data and reporting in this area.</td>
<td>Sustainability: “Current Sustainability Purpose Targets only consider greenhouse gas emissions, and the wider set of indicators used is insufficient. A dedicated set of sustainability indicators are required that better measure future economic, environmental and social stocks. Environmental indicators (eg on greenhouse gas emissions) need to be reframed to show distance from limits or dangerous levels.”</td>
</tr>
<tr>
<td>12. Identify proximity to dangerous levels of environmental damage (eg climate change or fish stocks)</td>
<td>The Scottish Government reports on progress towards climate change targets under its sustainability ‘purpose’ (and as indicated on fish stocks), and also as one of the 45 indicators on the overall ecological footprint. It does not appear to explicitly and systematically report on proximity to dangerous environmental damage.</td>
<td></td>
</tr>
</tbody>
</table>
Oxfam Scotland – Humankind Index

Based on their experience in development and anti-poverty work globally Oxfam utilises the ‘Sustainable Livelihoods Approach, which aims to take a holistic view of five types of assets that people and communities can draw upon, and which affect the quality of their lives. The ‘Asset Pentangle’ is illustrated (right):

Based on this approach, Oxfam Scotland has been developing the Humankind index to assess Scotland’s prosperity “not just in terms of the economy, but in terms of resilience, assets and sustainability”. The Index aims to reflect areas of life that people say are important to them. Oxfam Scotland has run a series of events and activities to gather public views on how the Index should be constructed. The events include asking ‘what are people’s priorities for their lives and for their communities’, and ‘what issues and concerns are important to living well in Scotland’. This consultation has engaged with over 2000 people. Oxfam is working with the New Economics Foundation and the Fraser of Allander Institute (amongst others) to help turn these views into an Index, which can be updated on an annual basis to track the change in Scotland’s prosperity over time. The launch is currently expected in December 2011.

Views of stakeholders

A survey by former MSP Dr Bill Wilson (Wilson and Swanepoel 2010) sought the views of ‘relevant public bodies and major welfare-related and environmental NGOs in Scotland’. The report revealed a consensus that GDP was an inadequate measure of societal progress, but a lack of consensus on what should replace it. The report urged the mainstream media to be more critical of GDP growth, and for Government to develop a wider range of indicators, and to quote these whenever reference is made to GDP.

In a recent parliamentary briefing (World Wildlife Fund 2011) the WWF suggested that the National Performance Framework be strengthened by improving the sustainability and wellbeing targets, for example adopting a high level Purpose to reduce resource use or footprint, and climate emission reductions strengthened to reflect the target commitments in the Climate Change (Scotland) Act.

A joint briefing from Friends of the Earth Scotland, WWF Scotland and Oxfam Scotland Revising Scotland’s National Performance Framework (FoE et al 2011) calls for a new headline indicator in Scotland Performs for a ‘flourishing’ Scotland (including measures of wellbeing and equality). It also calls for a headline indicator on environmental impact. The report also suggests the Government should report quarterly (alongside the GDP figures) on wellbeing, equality and environmental impact. It also recommends improvements to the policy appraisal and decision making process within government.
ALTERNATIVES TO GDP – SOME EXAMPLES

There are many examples around the world of key indicators and indices used to measure progress and wellbeing, defined in a variety of different ways. These are not always seen necessarily as ‘alternatives’ but may be complementary. The following are some examples.

**OECD Better Life Index** - an [interactive tool](https://www.oecd.org/betterlifetoindex/) that allows the user to see how countries perform according to the importance given to each of 11 topics – like education, housing, environment, and so on – that contribute to wellbeing in OECD countries.

The graphic (right) includes a selection of countries from the OECD index. Each flower represents one country. Each petal represents one of the eleven topics (based on statistical indicators). The length of the petal represents the score on the topic. The width of the petal represents the weighting attached by the user (in this case all topics are weighted equally).

**The Young Foundation** – [The Wellbeing and Resilience Measure](http://www.youngfoundation.org.uk/warm) (WARM) “a new tool that has been developed to make the most of existing data about localities, combining familiar statistics on such things as jobs and health with new ways of thinking about how happy and resilient communities are”.

**Multi-dimensional Poverty Index** – produced by the Oxford Poverty and Human Development Initiative for 104 developing countries, the index measures multiple deprivations across three dimensions: education, health, and living standard, and uses 10 indicators reflecting the UN Millennium Development Goals. 1.7 billion people are identified as multi-dimensionally poor, 51% of them in South Asia, and 28% in sub-Saharan Africa.

**Happy planet Index** – developed by the New Economics Foundation, the index identifies” the ecological efficiency with which human well-being is delivered”. The index “combines environmental impact with human well-being to measure the environmental efficiency with which, country by country, people live long and happy lives”.

**National Accounts of Wellbeing** (New Economics Foundation) - NEF calls “for governments to directly and regularly measure people’s subjective well-being: their experiences, feelings and perceptions of how their lives are going, as a new way of assessing societal progress”. Includes data from subjective surveys to construct ‘national accounts of wellbeing’ for European countries. NEF has also developed the [Measure of Domestic Progress](http://www.neweconomics.org/index.cfm/MAP/0200) (as indicated in Figure 1), building on work such as the [Index of sustainable Economic Welfare](http://www.neweconomics.org/index.cfm/ISEW) and the [Genuine Progress Indicator](http://www.neweconomics.org/index.cfm/GPI).

From the private sector, investment company the Legatum Institute, has produced its own ‘prosperity index’, whilst the Economist intelligence Unit has produced a world ‘liveability survey’ of cities, which placed Vancouver at the top, and Harare at the bottom in January 2011.

**Average Happiness** - Subjective surveys have assessed how much people enjoy their life-as-a-whole, on scale 0 to 10 (taken in Figure 2 below from the World Database of happiness an ‘ongoing register of scientific research on the subjective enjoyment of life’). The UK is ranked 32nd in the world on the mean level of ‘satisfaction with life’. 
Many countries have developed their own indicators or indices of wellbeing. Some examples are provided below:

**Bhutan** – a GNH [Gross National Happiness] society has been described as meaning “the creation of an enlightened society in which happiness and well-being of all people and sentient beings is the ultimate purpose of governance”. The Centre for Bhutan Studies constructed a single number index for Gross National Happiness. Gross National Happiness is broken down into individual component indicators that are seen as useful for different sectors ‘for planning and technical purposes at the ministerial and departmental levels’. The nine components making up GNH are as follows:

1. Psychological Well-being
2. Time Use
3. Community Vitality
4. Culture
5. Health
6. Education
7. Environmental Diversity
8. Living Standard
9. Governance

**Australia** – the Australian Bureau of Statistics has created Measures of Australia’s Progress, to answer the question “Is life in Australia getting better?”. The system has 22 dimensions of progress in 3 domains (society, economy and the environment). The summary for 2010 is illustrated below:
Canada – work on the Canadian Index of Wellbeing has so far included a number of reports and tracking of data on eight different aspects of wellbeing, or ‘domains’. It is intended to produce a composite index of wellbeing (with “a single number that moves up or down like the TSX or Dow Jones Industrial, giving a quick snapshot of whether the overall quality of life of Canadians is getting better or worse”) to be published “in the fall of 2011”

Switzerland – the MONET Indicator System, Switzerland, is a national system headlined by 16 key indicators answering 4 broad questions along the following lines:

1. Meeting needs – How well do we live? (indicators on health, income, physical safety, unemployment)
2. Fairness – How well are resources distributed? (indicators on official development assistance and equality)
3. Preservation of resources – What are we leaving behind for our children? (indicators on teenage reading skills, public debt, investment, innovation and technology, biodiversity and built up areas)
4. Decoupling – How efficiently are we using our natural resources? (indicators on freight transport, passenger transport, energy consumption, consumption of raw materials)

There are a number of sub national indicators projects, including the following:

Boston Indicators Project, a local metro-area system featuring 70 goals in 10 sectors that released its first report in 2000.

King County AILMs High, a US county-wide system with more than 60 community indicators in 8 categories.

Community Indicators Victoria, Australia, a state-wide system with about 80 indicators in 5 domains.

Virginia Performs, a state system with 49 indicators in 7 categories that launched in 2007.
Understanding Glasgow – website of indicators to provide “an accessible resource that will inform a wide audience about the wellbeing of Glasgow’s population across a range of domains (e.g. health, poverty, education, environment), allow progress to be monitored and to encourage civic engagement in the cross-cutting issues that face the city”.

In addition to the work and projects within Scotland already highlighted, it may be worth also mentioning:


The Warwick-Edinburgh Mental Wellbeing scale - a 14 point scale in which individuals respond to questions about their thoughts and feelings. Researchers are then able to measure an individual’s mental wellbeing.


OECD (2011a) OECD’s *Better Life Initiative: Measuring Well-being and Progress*. OECD. Paris. Available at [http://www.oecd.org/document/0,3746,en_2649_201185_47837376_1_1_1_1,00.html](http://www.oecd.org/document/0,3746,en_2649_201185_47837376_1_1_1_1,00.html) [Accessed 8 July 2011]


RELATED BRIEFINGS

SB 11/33 Economic Indicators (May 2011)

SB 10/64 Biodiversity and Ecosystem Services (October 2010)

Scottish Parliament Information Centre (SPICe) Briefings are compiled for the benefit of the Members of the Parliament and their personal staff. Authors are available to discuss the contents of these papers with MSPs and their staff who should contact Simon Wakefield on extension 85372 or email simon.wakefield@scottish.parliament.uk. Members of the public or external organisations may comment on this briefing by emailing us at spice@scottish.parliament.uk. However, researchers are unable to enter into personal discussion in relation to SPICe Briefing Papers. If you have any general questions about the work of the Parliament you can email the Parliament’s Public Information Service at sp.info@scottish.parliament.uk.

Every effort is made to ensure that the information contained in SPICe briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

www.scottish.parliament.uk