



## **Measuring our progress**

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**nef** (the new economics foundation) is a registered charity founded in 1986 by the leaders of The Other Economic Summit (TOES), which forced issues such as international debt onto the agenda of the G8 summit meetings. It has taken a lead in helping establish new coalitions and organisations such as the Jubilee 2000 debt campaign; the Ethical Trading Initiative; the UK Social Investment Forum; and new ways to measure social and economic well-being.



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# Executive summary

In November 2010, the Prime Minister asked the Office for National Statistics to initiate a debate on national well-being and to start to measure it. If this is done well, the result will make a real difference to people's lives. This report by **nef** (the new economics foundation) looks at what is needed.

A successful society is one in which people have high levels of well-being which is sustained over time. Accordingly, progress can be measured in terms of three key 'spheres':

- *Goals*: universally high levels of well-being.
- *Resources*: sustainable use of environmental resources.
- *Human systems*: activities that achieve intermediate objectives such as a stable and productive economy, a cohesive society, good housing, and so on.

We should also consider the relationships between these spheres. The key relationship is between resources and goals: how efficient are we at achieving the goals we seek given the resources we have? But the constituent parts of this relationship must also be considered: how efficient are our *human systems* at using *resources* sustainably, and how efficient are our *human systems* at delivering our *goals*?

## How can we measure well-being?

Our approach to measuring well-being is based on **nef's** dynamic model, developed for the Government Office for Science's 2008 Foresight project. This model draws on contemporary psychological research and ancient philosophy, and depicts well-being as a dynamic process. The model uses the idea of flourishing: people are 'flourishing' when they are functioning well in their interactions with the world and experience positive feelings as a result. A flourishing life involves good relationships, autonomy, competence and a sense of purpose, as well as feelings of happiness and satisfaction.

Measures of well-being should focus on flourishing, and this is best measured subjectively – by asking people about their experiences (their feelings and their interactions with the world) and about their judgements of those experiences. To do this effectively we recommend questions based on established techniques, shown to be robust and reliable. In the long term, flourishing should be measured through a tailor-made survey to capture the richness of well-being in the UK. In the short-term, flourishing can be measured by including a small number of questions within an existing large-scale population survey.

## How can policy-makers use well-being data?

People's well-being is already influenced by the decisions of policy-makers, and measuring well-being directly will provide new evidence to enable them to improve those decisions. Well-being data will have a number of uses in the policy process – they will allow policy-makers to:

- Reconsider existing policy priorities.
- Introduce new policy priorities.
- Provide better evidence of the likely impact of new policies.

- Evaluate after-the-event impacts and more accurately estimate value.
- Suggest new principles for detailed design of policy.
- Identify inequalities in well-being.

For instance, whilst unemployment is already a concern for governments, well-being analysis suggests that it has an even greater impact on people's lives than standard economic analysis implies, and that dealing with it should be an even higher priority. Other analyses suggest that reduced car use would improve people's well-being; this could constitute better evidence for the benefits of policies to encourage other modes of transport.

### Can well-being affect politics?

Indicators already rule our politics: the growth rate, the unemployment rate and the inflation rate are things that matter deeply to the public and thus to the politicians trying to win votes. If well-being data are to be taken seriously by policy-makers, they need to have this kind of public and political resonance. This means that a headline measure of well-being must:

- Capture something that matters to people.
- Produce results for which it is possible to blame or praise politicians.
- Reflect individual and, ideally, a shared, public experience.
- Allow comparisons to be made over time or between countries.
- Command public confidence in the neutrality of the data.

### Recommendations

The ONS and other relevant government bodies should:

- Adopt a framework for understanding progress in terms of three spheres and the relationships between them: the goal of well-being for all, sustainable use of environmental resources, and the human systems that mediate between the two.
- Use the dynamic model of well-being to underpin the development of new well-being indicators.
- Incorporate five questions that measure well-being subjectively within the Integrated Household Survey.
- Develop:
  - a headline index of human well-being based on these subjective measures, reported as the percentage of people who are flourishing;
  - an indicator of well-being inequality – a Gini co-efficient of well-being;
  - a set of objective indicators measuring the Drivers of Well-being (DoW); *and eventually*
  - a broader set of subjective well-being indicators to fully capture the lived experience of people in the UK.
- Amend the *Green Book* and other policy guidance documents so that policy appraisal and decision-making is informed by well-being data.
- Encourage officials to use well-being data – particularly to facilitate work across departments and areas, and to manage trade-offs between competing internal objectives – and undertake an associated capacity building programme.
- Make the data widely accessible and present them in engaging, interactive formats.



# Key terms

Here we set out the way in which we use key terms in this report. They are grouped alongside the other key terms with which they correspond.

**WELL-BEING (HUMAN/PERSONAL):** The extent to which people experience happiness and satisfaction, and are **functioning** well.

**NATIONAL WELL-BEING:** The overall state of the nation in terms of environmental sustainability, social and economic factors and **human well-being**.

**PROGRESS:** Achieving improvements to **national well-being**.

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**RESOURCES:** All stocks of resources upon which human activities depend; in particular the stock of finite, non-renewable environmental resources.

**GOALS:** The ultimate outcomes towards which societies work: in modern, democratic societies a high proportion of people who are **flourishing**.

**HUMAN SYSTEMS:** Human activities and social and economic processes that address intermediate objectives (e.g. peace, a stable and productive economy, pleasant surroundings, good housing, a cohesive society) which are vital for achieving the **goal** of widespread **flourishing**.

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**EXTERNAL CONDITIONS:** The material, social and economic circumstances of a person's life.

**PERSONAL RESOURCES:** Relatively stable attributes of an individual in terms of personality, outlook, character strength, intelligence, skill and so on, as well as physical endowment.

**FUNCTIONING:** Behaving in ways that satisfy universal psychological needs for autonomy, competence, relatedness and safety/security.

**FEELINGS:** People's experience of their lives in terms of: (1) day-to-day positive and negative emotions; and (2) overall evaluation of life.

**FLOURISHING:** **Functioning** well and experiencing good **feelings** day-to-day and overall – high well-being.

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**MEASURE:** A quantitative description of the properties of **resources, human systems** or **goals**.

**INDICATOR:** A **measure** that has become established for use in politics and/or in the policy-making process.

**INDEX:** A headline figure that typically combines several indicators.

**OBJECTIVE INDICATOR/MEASURE:** An **indicator** or **measure** that does not involve self-reports from individuals of their internal feelings or attitudes.

**SUBJECTIVE INDICATORS/MEASURES:** An **indicator** or **measure** that relies on self-reports from individuals of their internal **feelings** or attitudes.

# Introduction

For nearly a decade, the Centre for Well-being at **nef** has been calling for governments to measure people's well-being. We have made the case, repeatedly, that the dominant understanding of 'progress' as synonymous with economic growth is limited and damaging, and that what really matters – and therefore what should be measured and what should guide policy – is people's well-being.<sup>1,2</sup>

We have called for recognition that the economy is a means to an end; not something to be valued in itself but significant insofar as it contributes to producing good (happy, healthy, fulfilled) lives in an equitable and socially just way, without placing unsustainable pressure on the Earth's resources.<sup>3,4,5</sup> We have gone further, calling for recognition that a focus on well-being is in fact vital to sustainability – that it is only through moving away from the harmful, carbon-intensive activities inherent in the dominant model of progress that society has a hope of sustaining itself and the planet.<sup>6</sup> In particular, we have argued that what is absent from dominant understandings and measurements of progress – even those that look beyond GDP to important areas such as health and education – is a concern with how people *feel about* and *experience* their lives.<sup>7</sup>

*“We have got to recognise officially, that economic growth is a means to an end.”*

Prime Minister David Cameron,  
November 2010

In November 2010 the British Prime Minister announced his plans to measure well-being in the UK, requesting that the ONS take the lead in organising a national debate on measuring progress (what it has called 'national well-being') and in the development of appropriate measures. In response to this, the ONS has set out two distinct programmes of work. First, it has initiated the national debate concerning what matters most in people's lives, encouraging input from organisations, businesses, and central and local government as well as from individuals. This phase of the debate is set to run until April 2011 and will lead to the development of a set of measures that covers economic performance, environmental and sustainability issues and people's well-being. Secondly, it has begun technical work to develop a range of subjective well-being indicators to be included in the Integrated Household Survey (IHS), including measurements of happiness, life satisfaction and purpose in life.

At **nef** we have broadly welcomed these moves, whilst noting the importance of ensuring that the new indicators are fit for purpose, i.e. sufficiently wide-ranging to provide detailed, nuanced information that is useful for the business of policy-making and influencing political decisions.<sup>8</sup> Now that the national debate concerning well-being is under way, the related tasks of determining what should be measured in its name, how it is most usefully conceptualised and how it can best guide policy, press upon us. This report is our contribution to this debate.

## The wider debate

**nef**'s recent activities in promoting the well-being agenda are part of a wider global movement calling both for a reconceptualisation of 'progress' in terms of well-being and for the development of appropriate measurement tools. In 2004, academics in the UK and the USA called for governments to use well-being measures in policy-making,<sup>9</sup> as did **nef** in its *Well-being Manifesto for a Flourishing Society*.<sup>10</sup> In 2007, the Statistical Office of the European Communities (Eurostat) committed funding to consider options for the

measurement of well-being at EU level.<sup>11</sup> In the same year, the Organisation for Economic Co-operation and Development (OECD) hosted an international conference on *Measuring and Fostering the Progress of Societies*, which culminated in a declaration on the part of the OECD, the European Commission (EC), the United Nations (UN), the UN Development Programme and the World Bank affirming their “commitment to measuring and fostering the progress of societies in all dimensions, with the ultimate goal of improving policy making, democracy and citizens’ wellbeing”.<sup>12</sup> Again in 2007, the EC, the European Parliament, Club of Rome, OECD and the World Wildlife Fund hosted *Beyond GDP* – another international conference, with the objectives of “clarifying which indices are most appropriate to measure progress, and how these can best be integrated into the decision-making process and taken up by public debate”.<sup>13</sup> Both of these leading conferences have taken forward the well-being measurement agenda in the form of continued projects working to improve understandings and measures of progress.

Perhaps most significantly, in 2008 the French President Nicolas Sarkozy set up a high-level *Commission on the Measurement of Economic Performance and Social Progress*.<sup>14</sup> The Commission, often referred to as the ‘Stiglitz Commission’ after its most prominent figurehead, published a report with detailed recommendations on: (1) improvements to measures of economic performance; (2) fuller measurement of environmental issues; and (3) the collection of objective and subjective data on well-being. And, in 2010, the Director Generals of Europe’s National Statistical Offices, including the UK’s ONS, signed the Sofia Memorandum: this recognises the importance of “measuring progress, well-being and sustainable development” and mandates further work on the issue by Eurostat.<sup>15</sup>

Evidently, headway has been made in calling for a rethinking of progress in terms of people’s well-being and in bringing related measurement issues to the fore. But the ultimate success of this agenda will depend upon the quality of the conceptual and measurement tools employed, on the political will to integrate well-being considerations into the policy-making process, and on public perceptions of the new plans.

This report sets out the views of the Centre for Well-being at **nef** on these issues. The following two sections address both of the ONS’s initiatives in turn. In section 1, building on the work of the Stiglitz Commission, we present a framework for understanding and accounting for progress as a whole, showing how human well-being stands in relation to the economy (and other human systems) and the environment. In section 2 we focus on the more technical question of how to measure subjective well-being in a robust and policy-relevant way. In section 3 we move on to the potential role of subjective well-being data in policy-making, and in section 4 we discuss how a headline measure of subjective well-being can be made to influence the work of politicians. Each of these sections concludes with some *key points* – these provide summaries of the section’s main arguments together with specific suggestions for action. These suggestions are then pulled together to form a succinct set of recommendations at the end of the report, which we believe will help steer the national debate in the most fruitful direction.

The EU, OECD, the World Bank and the UN are all committed to rethinking how we measure progress “with the ultimate goal of improving policy making, democracy and citizens’ wellbeing”.



# 1: What should government be measuring?

*“Citizens rightly consider that the main purpose of political action is to improve their present and future well-being. Increased production is only an intermediate target.”*

**Didier Blanchet, Head of the Department of General Economic Studies at the French Statistical Office, INSEE<sup>16</sup>**

Getting the measurement of progress right is essential if we are to deal with perhaps the biggest challenge facing us in the twenty-first century – improving people’s lives in a way that is sustainable, equitable and socially just. The framework we present in this section is intended to help ensure that what is being measured is indeed what really matters.

The argument for why we need new indicators of progress has been made at length elsewhere.<sup>17,18,19,20,21,22</sup> In short, since 1948 we have allowed a single indicator, Gross Domestic Product (GDP), to assume dominance in the public mind as *the* critical measure of a nation’s progress. This has led to a bias; with GDP as their prime focus, policy-makers have found it difficult to implement policies that do anything other than support its growth. The social and environmental costs of such policies have often been underestimated, whereas alternatives that might increase well-being or reduce pollution yet decrease GDP have received relatively little consideration.

This is not to say that GDP is irrelevant. But, as the opening quote in this section highlights, what GDP measures – economic exchange – can only be properly understood as a *means* to an end. This ‘end’ is achieving a high level of well-being for all, both in the present and in the future. Given the requirement to drastically reduce carbon emissions by 2050, in order to minimise the impacts of climate change and ensure high future well-being,<sup>23</sup> we need more than ever to acknowledge the limitations of GDP and to focus on achieving the end goal within environmental limits.

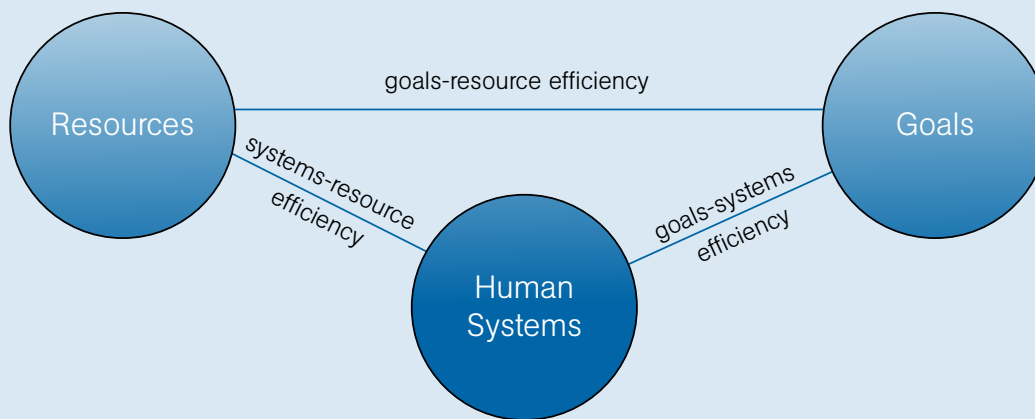
## **A framework for measuring progress**

Figure 1 presents a framework for understanding societal progress. In very broad terms, society’s *goals* are achieved through various *human systems*, which depend upon the use of *resources*. A successful, sustainable society is one that attains its goals without depleting its resources. Each of the spheres in Figure 1 can – and should – be measured in order to determine national success.

Societies depend on many *resources* to meet their goals, but the environment underpins all others and it is in this domain that the finite, non-renewable nature of resources becomes a prominent concern. Human societies can, for example, reconstruct dilapidated buildings but cannot top up the Earth’s crust with crude oil, or (easily) extract CO<sub>2</sub> from the atmosphere to assuage global warming. So, although man made and environmental resources are *sometimes* substitutable, it makes sense to focus on the latter in this sphere and to measure man made resources as part of the *human systems* sphere.

In the top right sphere – *goals* – is human well-being. There are, of course, many end goals towards which people strive because they are seen as worthwhile in themselves – equality, justice, freedom, and so on. However, with this caveat, it is clear that most people have a desire to flourish in their own lives. In a democracy, furthermore, we expect governments to support all their citizens to live the best lives they can in a fair and sustainable way. Indeed, in launching

**Figure 1: Conceptual framework for societal progress**



the ONS initiative in November 2010, Prime Minister David Cameron was explicit that his goal in politics was “to help make a better life for people”.<sup>24</sup>

In the middle sphere – *human systems* – are the processes needed to meet the intermediate objectives which are vital for achieving the goal of high well-being. Of course there are many of these intermediate objectives; peace, a stable and productive economy, good housing, a cohesive society and education, to name just a few. Measures that demonstrate success in meeting these intermediate objectives are associated with this sphere.

In considering this framework, it is important to make certain distinctions between the intermediate objectives in the middle sphere and the *goals* in the top right sphere. At the broadest level, the intermediate objectives should be understood as *means* and not ends in themselves – means towards achieving the goal of high well-being. Many of the things that people work towards on a day-to-day basis – a higher income, say, or a larger house – are best thought of as reflecting an underlying motivation to achieve a better life. Improving well-being, as the OECD put it in a recent report, is a “reason for action”;<sup>25,26,27</sup> having a big house is not.

Another important distinction between intermediate objectives and goals is that the goals are desired very broadly whereas particular intermediate objectives may not be.<sup>28</sup> Almost everyone wants to experience their life as going well. Yet, not everyone agrees on the means of achieving this. Some people prefer to live in the town rather than in the country, some prefer to work outdoors whilst others prefer to be office based, and so on. As the ONS has noted in its recent working paper, to consider these or other kinds of intermediate objectives as within the sphere of ultimate goals would be paternalistic, imposing a definition of the good life which may not be widely shared.<sup>29</sup>

A further, related distinction between intermediate objectives and goals is that in a resource-constrained world it makes sense to consider the *trade-offs* between different intermediate objectives. In a given situation it might be considered appropriate to adopt policies that advance education at the expense of good housing, or vice versa; these are policy decisions that can be debated sensibly. However, it does not make sense to consider trade-offs between means and ends; to adopt policies that would advance an intermediate objective at the expense of the *end goal* of improving well-being for all.<sup>30</sup> And any decision that enhances present well-being or one of the intermediate objectives at the cost of

depleting a finite environmental resource should be understood for what it is: a trade-off between present and future well-being.<sup>†</sup>

This framework is clearly similar to that adopted by the Stiglitz Commission, as well as to recommendations made by the UK's Sustainable Development Commission<sup>31</sup> and the Conservative Party Quality-of-Life group.<sup>32</sup> But it is different in at least two crucial respects. First, our middle sphere – *human systems* – is broader than the Stiglitz Commission's *Classic GDP Issues*, which focuses on the economic realm. Clearly the economy (particularly if defined to include public services and unpaid work) is a key driver of human well-being and is the most important system linking environmental resource use to well-being. However, as the OECD has highlighted in its framework,<sup>33</sup> there are other aspects of society (such as governance and social cohesion) that are not part of the economy but which play the same overall role in the framework. Conversely, our *goals* sphere leaves out much of what the Commission treats as *Quality of Life*, e.g. health, education, governance, because we consider these are better regarded as parts of *human systems*.

Secondly, this framework allows us to highlight the way in which the three spheres stand in relationship to one another, and to show that understanding and measuring these relationships is important. Ultimately, the key relationship is between *resources* and *goals*: How efficient are we at achieving the *goals* we seek given the *resources* we have? This is fundamental because many resources, particularly environmental ones, are heavily constrained. However, this relationship can be better understood (and relevant policies can be better conceived of), by breaking it down into its constituent elements: the efficiency with which *resources* are used by *human systems*, and the efficiency with which *human systems* help to deliver our *goals*.

### Putting numbers to progress

Figure 2 presents an example of how each of the three spheres, and the relationships between them, could be represented by a headline indicator that is easily understood and communicated. In the figure, key indicators are highlighted in white (and described in the following paragraphs), but each sphere would include a broader pool of measures, represented by the dark blue circle.

Choosing the actual indicators to populate each sphere of this framework cannot be done by one party alone; the ONS will need to draw on experts in this endeavour. In section 2 of this report we focus on the top right sphere and propose an approach for developing a headline indicator of human well-being based on the percentage of the population who are flourishing (i.e. who have high well-being across different dimensions) and a broader system of well-being accounts to support the headline measure.

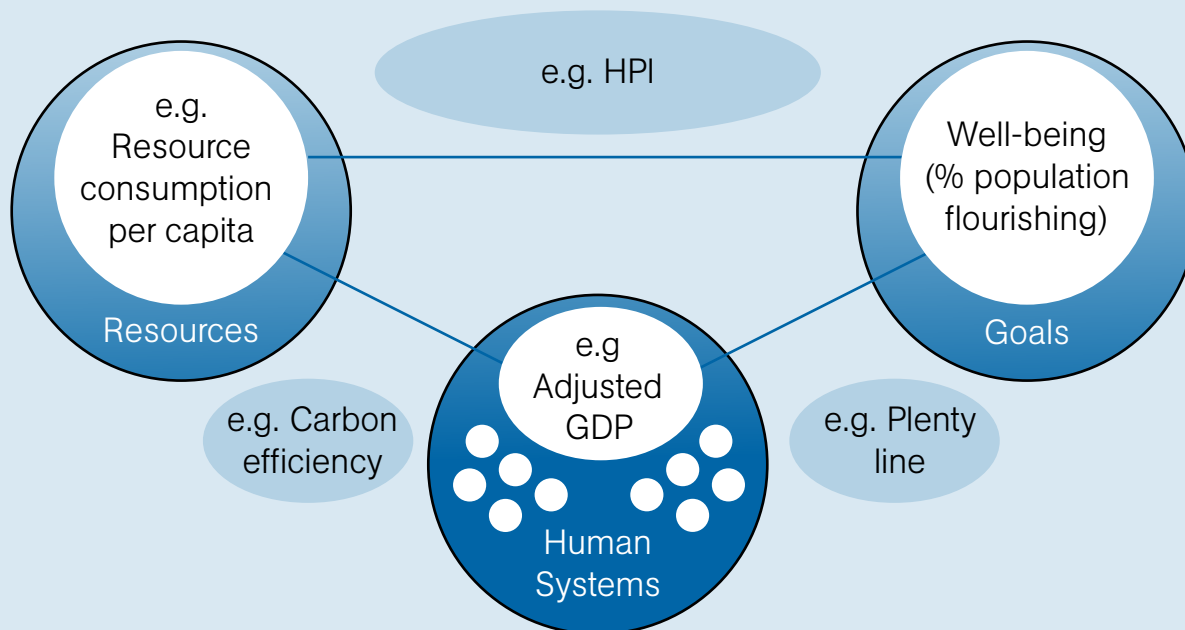
The headline indicators shown in the *resources* and *human systems* spheres of Figure 2 should be regarded as illustrative only. For resources, aside from the conceptual issue of determining what to measure, there are considerable technical challenges inherent in the measurement process itself.<sup>34</sup> Nevertheless, we suggest that a useful headline indicator would be one that describes overall net consumption per capita, with sub-indicators providing more specific information about the overall stock of resources and the condition of different environmental and climatic systems. For *human systems*, choosing indicators is also far from straightforward. Although GDP, or some kind of adjusted GDP (as proposed by the Stiglitz Commission), is an obvious candidate for the headline indicator,<sup>35</sup> the economy is only one of many human systems and thus the choice of additional indicators to comprise the human systems accounts will be especially important. We make some recommendations on how to choose a defined set of objective human systems indicators (which we refer to as

The framework allows us to consider the efficiency relationships between resources, human systems and goals.

The framework for measuring progress identifies human well-being as the key goal, environmental resources as the key resources, and the economy as one of the most important human systems.

<sup>†</sup> The framework also allows consideration of the trade-off between what one might call 'maximising' well-being, and ensuring its equitable distribution. A well-being focus does not therefore bring to a close the ideological discussion between the left and the right in terms of distributional issues.

**Figure 2. Framework for measuring societal progress**



‘Drivers of Well-being’ indicators) in section 4. However, it is worth highlighting here that we advise against creating a composite headline indicator combining very different concepts: when different coloured paints are mixed in a palette, the result is an unclear shade of brown. Experience suggests that a composite human systems indicator would be a similarly muddy affair, unhelpful for analysis and meaningless for communication.

Figure 2 also suggests three indicators that might be used to capture the relationships between the spheres, as already described. Carbon efficiency, in terms of CO<sub>2</sub> emissions per unit of GDP, is already measured across Europe and might be a suitable proxy for the relationship between *resources* and *human systems*. The indicator between *human systems* and *goals* needs to capture the efficiency of human activity in promoting well-being. One approach could be to measure the ‘plenty line’ for a nation – that point in the income spectrum at which increased income does not appear to lead to increased well-being. The lower that point the more efficient the economy is in achieving high well-being, and vice versa.

As we have noted, the most fundamental measure of efficiency relates human well-being to resource use – what we have previously called ‘sustainable well-being’. In 2006, **nef** launched the Happy Planet Index (HPI) as an attempt to capture the amount of well-being achieved per unit of resource consumption at the national level.<sup>36</sup> The HPI makes use of the best data available globally for its calculations that encapsulate this relationship – life satisfaction, life expectancy and ecological footprint. However, considered as part of the framework outlined in Figure 2, it would be possible to reconsider how both well-being and resource consumption are operationalised, especially at the level of a particular nation.

A composite indicator combining very different concepts is unhelpful. When different paints are mixed, the result is an unclear shade of brown.

In an age of resource scarcity, a measure of the efficiency with which ecological resources are used to achieve high well-being is fundamental for sustainability.

## Key points

In this section we have presented a framework for understanding and measuring national progress. With it, we have suggested three key spheres of measurement and proposed a way to understand relations between them. We have suggested illustrative headline indicators to populate each sphere, although we have noted that the task of developing appropriate indicators and sets of sub-indicators is complex, requiring input from a range of experts. In the following section we focus on the top right sphere – *goals* – which we take to include achieving high levels of well-being for all, both now and in the future. We will explore how well-being can be conceptualised, how it can be measured, and how it is related to the outputs of human systems.

The key recommendation arising from this section is that the ONS should:

- Adopt the framework we have described and use this to frame the current and ongoing debate about national well-being, or progress.



## 2: Measuring human well-being

Until recently, national statistics agencies have steered clear of measuring the goal of human well-being directly. They have measured many of the things that are believed to *determine* it, such as income, crime rates and literacy levels, but measuring the *outcomes* of these in terms of people's well-being has not been tackled.

The ONS has already recognised that measuring human well-being involves, at least in part, using subjective measurement – i.e. asking people how they feel about their lives. Many have judged this to be too difficult a task, but, as the Stiglitz Commission concluded in 2009:

*Research has shown that it is possible to collect meaningful and reliable data on subjective well-being,... [and] a better understanding of its determinants.<sup>37</sup>*

This section presents some of this research. It explains how human well-being can be conceptualised, linking human experiences to their determinants in a theoretical model. It highlights those areas of the model that need to be measured in order that well-being can be captured effectively. It gives particular emphasis to the concept of 'functioning', which we believe has not been given enough attention in recent debates about measuring well-being. Finally, it addresses some of the concerns that have been raised about the use of subjective measures.

### A dynamic model of well-being

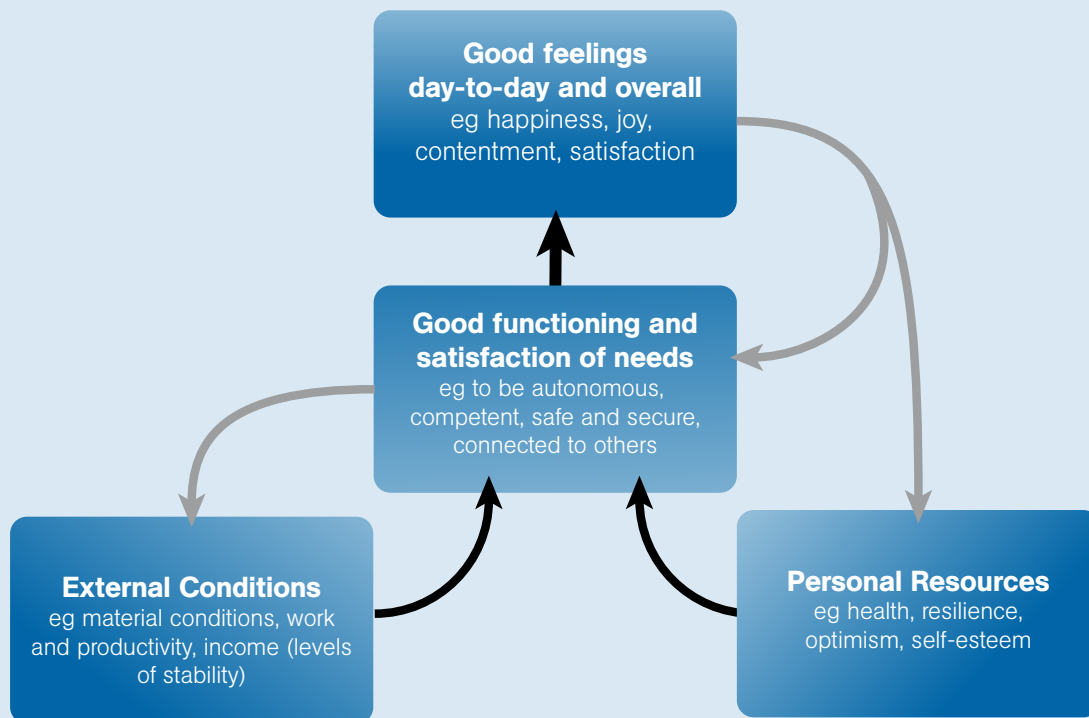
Researchers have attempted to measure well-being in many ways. In 2006, Professor Paul Dolan and colleagues produced a report for the Department of Environment, Food and Rural Affairs (Defra)<sup>†</sup> which outlined five main theoretical approaches to well-being, each of which has implications for its measurement<sup>38</sup> (note that some of the labels used have been paraphrased slightly from the original):

- 1. Preference satisfaction** – this is an economic approach which uses people's resources, i.e. their income, as a proxy for what will best enable them to satisfy their individual wants and desires (preferences). It also assumes that individuals are rational and contends that people's well-being will be highest when they have the most resources to pursue it.
- 2. Objective lists** – this type of approach defines an objective list of conditions, from which well-being is regarded as emerging (e.g. education, freedom, safety).
- 3. Functioning accounts** – this is what the Defra report refers to as flourishing. This approach focuses on a range of experiences or characteristics of life believed to be part of 'living well' (e.g. meaning, engagement, social relations).
- 4. Hedonic accounts** – these identify well-being with the balance between positive and negative emotions, typically measured over a short period of time.
- 5. Evaluative accounts** – these are based on an individual's assessment of how well their life is going – a judgement *about* feelings, for example, rather than the feelings themselves.

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<sup>†</sup> This report was commissioned following a commitment in the 2005 sustainable development strategy, *Securing the Future*, to explore approaches to measuring well-being and their implications for policy. (Defra. 2005. *Securing the Future*. London: HMSO.)

**Figure 3: Dynamic model of well-being**



When Dolan and colleagues reported on these different approaches, there was considerable debate about which was most appropriate. This was a somewhat confused debate because it was in part about *what* was being measured (what we mean by well-being) and in part about *how* to measure it. In particular there was a clash between functioning accounts and hedonic approaches.

In 2008, two years after Dolan's report, **nef** developed a conceptual model of well-being and its determinants (as part of the Government Office for Science's *Foresight Project on Mental Capital and Well-Being*).<sup>39</sup> This integrates the different approaches, and an adapted version of this model is presented in Figure 3.

The model describes how an individual's external conditions (bottom left) – such as their income, employment status, housing and social context – act together with their personal resources (bottom right) – such as their health, resilience and optimism – to allow them to function well (middle) in their interactions with the world and therefore experience positive emotions (top).

This model reconciles the aforementioned clash between functioning and hedonic approaches by showing how having good overall feelings (and a positive evaluation of those feelings) is *dependent on* functioning well. The notion of functioning well can be explained by drawing on a leading psychological theory of motivation – Self-Determination Theory (SDT).<sup>40,41</sup> This evidence-based theory (Box 1) highlights three universal psychological needs: autonomy, competence, and relatedness. Functioning well, from an SDT perspective, is about “behaving in ways that satisfy psychological needs”.<sup>42</sup> Other elements of functioning that have been highlighted include meaning and purpose, and engagement.<sup>43,44,45</sup> SDT is essentially a modernised, empirically based version of the Aristotelian theory of Eudaimonia, or fulfilment, which describes the good life in terms of an individual's interaction with the world.

Our dynamic model also contains two elements which relate to what individuals have to draw on in any given situation. First, the *external conditions* box (Figure 3) describes the social and material conditions of people's lives, and as such includes the kinds of factors that are often described in 'objective list' accounts of well-being. Second, the *personal resources* box (Figure 3) recognises that people differ

## Box 1: Self-determination theory

If government is to strive to improve people's well-being and measure how people feel, then it needs a good psychological theory of human well-being. The most promising theory appears to be SDT.<sup>46</sup> The theory emerged from empirical research into people's motivations and aspirations some 30 years ago.<sup>47</sup> People have many personal goals, but their achievement does not always lead to higher well-being. The research revealed that pursuing aspirations that lead to the satisfaction of three basic psychological needs would subsequently lead to high reported well-being, over the short-term and the long-term.<sup>48</sup> The needs are as follows:

*Autonomy* – a feeling of choice and authenticity about your thoughts and behaviours.

*Competence* – a sense of efficacy and self-esteem, and a sense that you can have a meaningful impact on the world around you.

*Relatedness* – feeling that people care about you, and feeling close to others.

More recent work has also floated a fourth psychological need – that for security.<sup>49</sup> Whilst we endorse further exploration of this need, it has yet to be integrated into the theory in a coherent fashion.

According to SDT, well-being is achieved by “behaving in ways that satisfy psychological needs”: functioning well.<sup>50</sup>

along numerous dimensions, which might variously be described as personality, outlook, character strength, intelligence, skill and so on, as well as in terms of physical endowment. These are assumed to be relatively stable characteristics of the person – though not necessarily fixed – that are likely to influence their behaviour. (It is important to note here that the model is agnostic on the 'nature/nurture' debate – i.e. it makes no claim as to how people come to acquire their personal resources.)

The top two boxes of this model fit within the *goals* sphere in Figure 2: when a person is happy, evaluates their life as going well, and is functioning positively (in terms of good relationships, autonomy, competence and other factors), they can be considered to have high well-being – to be **flourishing**. Ensuring people are best able to achieve this in a fair and sustainable way is what we take to be a fundamental societal goal. Our focus on high well-being has been strongly influenced by the work of Professor Felicia Huppert, which demonstrates the likely benefits of aiming to increase the proportion of a population which is flourishing, rather than just addressing the deficits of those who are languishing.<sup>51</sup>

The external conditions box of our dynamic model (Figure 3) fits within the *human systems* sphere of Figure 2 since it is activities in this sphere that determine an individual's conditions to a large degree. However, the model is 'dynamic' in the sense that whether people are able to function well and satisfy their needs depends on the interaction between individuals themselves and their conditions. The same conditions, in other words, might lead to one individual flourishing whilst another languishes.

Where this model goes beyond the measurement framework in Figure 2 is to highlight that many relationships between constituent parts are dynamic, with feedback from positive functioning and feelings to people's conditions and resources. First, and most obviously, someone who is, for example, functioning well, particularly in terms of feeling autonomous and having strong social relations, is better able to shape the conditions they are in. Secondly, there is growing evidence that feeling good on a frequent basis allows individuals to broaden their repertoires for action in the short term, and in the long term to build up their personal resources – as explained in Professor Barbara Frederickson's research on the 'broaden-and-build' theory.<sup>52</sup> Considered together, the feedback loops in our dynamic model help us to point towards

This model reconciles the clash between Aristotelian and hedonic approaches to well-being.

When a person is happy, evaluates their life as going well, and is able to interact positively with the people and environment around them, they can be considered to have high well-being – to be flourishing

the now considerable longitudinal evidence that happiness appears to lead to better health and longer life expectancy, as well as to better outcomes on some important socio-economic variables.<sup>53,54</sup>

### The model's implications for measurement

The key recommendation emerging from this model is that the ONS will need to include robust indicators for *all four* of these boxes in order to understand human well-being fully. It is important, in particular, that the subjective questions adopted by the ONS for use in the IHS do not focus disproportionately on the top box to the exclusion of the middle box – i.e. that they do not over-emphasise happiness and life satisfaction at the expense of functioning and needs satisfaction.

It is evident that the best way to measure whether someone feels happy or satisfied is to ask them. These are inherently subjective concepts and it would be foolhardy to attempt to rely merely on externally observable measures such as monitoring how often people smile (even if the extreme technical difficulties of such a measure could be overcome).

Deciding how to measure functioning, however, is more complex. In our model, functioning is both about whether someone does things that will fulfil their psychological needs *and* whether their psychological needs are actually fulfilled as a result. For example, we can ask whether someone's daily routine offers them *opportunities* to be autonomous *and* whether they *feel* autonomous. The former lends itself to objective measurement, the latter to subjective. However, we do not recommend objective measurement because there are many different ways that people can find opportunities to meet their psychological needs – to start defining them would be prescriptive, and a potentially endless task. Hence, as with hedonic feelings, we suggest these concepts are best measured subjectively. But we distinguish subjective measures of functioning from those of feelings because, although subjective, people's sense of their own autonomy, competence and connectedness is not necessarily something of which they are conscious on a daily basis. So subjective questions on functioning may require respondents to reflect somewhat more on their inner experiences than questions about more directly conscious feelings.

In our model, external conditions are obviously fundamental to well-being, but they are best considered as the outputs of *human systems* (the middle sphere in Figure 2) and potential drivers of well-being, not as constituting human well-being itself. This distinction mimics the approach taken by Eurostat in its feasibility study on measuring well-being.<sup>55</sup> For Eurostat, the *outcomes* are subjective well-being and life expectancy – everything else (including education, housing, employment) is considered a driver.

Gathering data on the drivers of well-being is essential. It is only by considering such data in conjunction with data on human well-being that we can begin to understand causal relationships between the two and thus, ultimately, target policy more effectively at improving well-being. As will be suggested in section 4, this will allow for the identification and refinement of a formal set of key Drivers of Well-Being (DoW) that governments could be expected to be accountable for. But it is important to remember, as noted in section 1, that the drivers should only be pursued to the extent that they can be shown to improve well-being within environmental limits.

Last, we should not ignore personal resources, such as self-esteem and optimism. They are slow to change but, as the work of the Young Foundation's Resilience programme and others have shown, it is not an impossible task, and they have a substantial effect on well-being.<sup>56</sup> As the existence of this evidence shows, such changes can and have been measured, including in our own National Accounts of Well-being,<sup>57</sup> but our understanding is that this sort of measurement is unlikely to be carried out by the ONS in the short term.

## The case for measuring functioning

Many initiatives which set out to measure well-being fall down by ignoring the things in the middle box of our dynamic model: good functioning and the satisfaction of needs. But it is only by considering these in tandem with feelings of happiness and satisfaction in the top box that we can truly claim to be describing human flourishing. This sub-section goes into the case for measuring functioning in more detail. It argues that incorporating and measuring functioning:

1. Makes *interpretation* of data more meaningful.
2. Is relevant for *long-term* well-being and *other positive outcomes*.
3. Increases the *sensitivity* of the measures to change.
4. Recognises that well-being *is more than good feeling*.

Measuring functioning helps the *interpretation* of available well-being data because, as explained by the dynamic model, it is good functioning that 'converts' external conditions into positive overall feelings. Without understanding these intermediary relations, well-being science would just be a matter of statistical games – looking for correlations between happiness and other indicators without trying to understand the mechanisms behind them.

For example, it has been demonstrated that the negative impact of unemployment on reported satisfaction with life is greater than would be predicted just by considering the loss of income.<sup>58</sup> Why should this be? Is it, for instance, the loss of a sense of purpose that a job provides, or the damage to social relations, or the stigma attached to joblessness? Without an understanding of the mechanism by which unemployment leads to dissatisfaction and unhappiness, we cannot find out. Similarly, having children has often been found to reduce reported levels of happiness and life satisfaction.<sup>59</sup> Causally, this probably has something to do with reduced autonomy and vitality. And yet, looking at other aspects of functioning, having children appears to *increase* feelings of meaning and purpose and community belonging.<sup>60</sup> If we were to only look at the top box, we would miss these contradictory effects.

Understanding the impacts of life conditions and events on different aspects of well-being will be indispensable if improving well-being is to be a goal of policy. Knowing that life satisfaction or happiness is particularly low in a given region, or for a given population group, provides few clues about what to do to improve it. Knowing which aspects of well-being are in particular need of attention will give policy-makers useful leads not just in terms of *what* policies are developed, but also in terms of *how* services are designed and run – for example, whether they should focus on autonomy, competence or allowing relationships to flourish.

One approach which may prove informative for the ONS in the development of the well-being indicators is the evaluation of the Big Lottery Fund's £165 million Well-being Programme. This nationwide programme is delivered through hundreds of different organisations working with all ages and delivering a myriad of projects from cookery classes for children, to mentoring for the elderly. Using a tool which **nef** helped to develop, well-being is assessed when an individual starts a project, when they finish it and several months later. The data collected in the evaluation, which distinguishes between different aspects of functioning, will provide a wealth of information as to what types of intervention contribute to which aspects of well-being; this could be of immense value to policy-makers looking to improve well-being in the population at large.

The Big Lottery Fund data will also be helpful in understanding the *long-term* effects of good functioning. Research has shown that, whilst carrying out certain enjoyable activities might momentarily increase people's feeling of happiness, it was the extent to which those people *functioned* well that determined their average happiness over the time period of the study.<sup>62</sup>

Without measuring functioning, we would not be able to understand how external conditions lead to positive overall feelings.



Another key advantage of measuring functioning is that improved functioning can lead to *other positive outcomes*, beyond immediate happiness or satisfaction. For example, there is a wealth of evidence that increased feelings of autonomy lead to improved health outcomes.<sup>63</sup> Social relations can improve one's chances of finding a job,<sup>64</sup> and autonomy is known to be correlated with pro-environmental attitudes.<sup>65</sup> So although we have argued that well-being should generally be considered the ultimate goal of human endeavours, there may be occasions on which it may also be useful, from a policy perspective, to regard it instrumentally as the means through which other outcomes can be achieved.

A multidimensional approach assessing functioning as well as feelings may also address the concern regarding the *sensitivity* of subjective well-being measures (such as life satisfaction) that do not appear to change much over time at the national level.<sup>66</sup> In fact, this commonly heard critique is not borne out by the evidence; meaningful increases in life satisfaction have indeed been found at the national level.<sup>67</sup> But, it is fair to say that a single question on a 0–10 scale is likely to be less sensitive than a range of indicators.

Whilst some believe it right to focus on happiness as the *summum bonum* of life,<sup>68</sup> others believe *well-being is more than good feeling*; that meaning, purpose, social relations and other aspects of functioning are important in their own right.<sup>69</sup> The dynamic model of well-being does not attempt to resolve this debate, which can be traced to differences between the philosophical traditions of Epicurus and Aristotle over 2,000 years ago.<sup>70</sup> However, it does give equal space to the two positions. Furthermore, it is built on evidence that some broad categories of functioning – meeting needs for autonomy, competence and relatedness – are universally desirable, in a similar way to happiness.<sup>71</sup>

### Addressing the critiques

New ideas always face resistance, and the measurement of well-being is no different. The critiques raise objections based on: the nature of subjectivity, confounding factors, the role of expectations, cultural norms in responses to subjective questions, the existence of change at aggregate level, and relevance to policy. Here we address these in turn.

#### Subjectivity

A basic critique about using subjective well-being indicators in policy-making – made by those who protest: “well-being is too subjective!” – seems to be the result of misunderstanding. How people feel about their lives is, *by its very nature*, subjective. It is for precisely this reason that it is unwise to attempt to infer their well-being from ‘objective’ measures such as income. In some ways, this may be a linguistic confusion: ‘subjective’ is often used to mean ‘biased’ or ‘untrustworthy’, but in this context, the word simply refers to the fact that the information comes from the perspective and experience of a person – a ‘subject’.

#### Confounding factors

Concerns that subjective measures of well-being are too sensitive to spurious or confounding factors – such as, for instance, the weather on the day of the survey – can also be easily dealt with. Good surveying and sampling methodologies can ensure that these factors do not have a systematic impact on results. The fact that one person is interviewed on a sunny day whilst the next is interviewed on a rainy one will ‘come out in the wash’ when their data are combined with those from thousands of others to calculate an average for the nation, assuming that the data are handled properly.

There is a wealth of evidence that good functioning can lead to other positive outcomes such as improved health, pro-environmental attitudes and better job chances.

## Expectations

Perhaps the most fundamental concern is that raised by William James' famous formula:<sup>72</sup>

$$\text{Happiness} = \frac{\text{Accomplishment}}{\text{Expectations}}$$

The concern is that someone could be happy (or satisfied), not because life is going well for them, but simply because they have low expectations. There are two main responses to this.

While expectations clearly have an influence on subjective experiences, evidence also suggests a clear positive relationship between happiness and 'accomplishment'. Up to a point, there are strong correlations between income or GDP (measures of 'accomplishment') and life satisfaction (a measure of happiness). Those in the poorest countries *do* report being most unhappy (for example, the lowest life satisfaction ratings in **nef**'s global data-set were in Zimbabwe<sup>73</sup>). This suggests that for those in poverty, expectations have not been reduced so much that they can disregard the conditions in which they are living. Likewise, the happiest people in global surveys are typically found in Scandinavian nations and there is good reason to believe this is because of good societal conditions and not low expectations. So it appears that expectations are not as variable as one might think, at least when comparing population groups rather than individuals.

The effect of expectations on well-being outcomes can also be something worthy of policy attention, and not just a measurement error. If, for instance, advertising images promoting an unrealistic 'ideal' body image cause some young women to express lower subjective well-being, it would be a mistake to disregard this result just because it is a consequence of unduly high expectations. Rather, it suggests that some aspects of society are operating counter to the ultimate objective of improving well-being.

It should be noted that our recommended measurement approach also helps address this issue somewhat by including question forms which are not couched in terms of satisfaction, because satisfaction-based questions require respondents to deliberately compare their experiences to their expectations in order to be answered and thus exacerbate these problems.

## Cultural norms

A related concern is that certain cultures respond to questionnaires in different ways. There is a large body of evidence showing how Americans, for example, report situations more positively, whereas East Asians tend to be less positive. Different cultures have different norms about how to present oneself – in some it may be considered inappropriate to complain about one's 'bad luck', in others it may be considered inappropriate to 'boast' that one is happy. In the context of a single country, such as the UK, these effects are only likely to be a serious problem when comparing ethnic or cultural groups. Examination of the scale of these effects internationally has suggested it is likely to be relatively small. For example, one study found that 58 per cent of respondents in Japan – a country often noted for its collectivist values – chose the middle options on a response scale, a slightly larger but comparable proportion to European countries such as France and Italy where 52 per cent chose these options.<sup>74</sup>

Nevertheless, we recommend that the ONS undertakes studies to determine the size and nature of such effects. Using a range of questions may also reduce the possible effects of cultural bias, which are likely to be related to particular question styles. However, at the international level objective indicators predict most of the variation in life satisfaction, which suggests that the impact of cultural biases may be comparatively small.

### Change at aggregate level

Another charge levied at subjective well-being measurement is that it is futile since, at the aggregate, it does not change. This critique was made by the Institute of Economic Affairs (IEA) in a recent pamphlet.<sup>75</sup> To make their point, the IEA focused on a particular US survey in which a single question about subjective happiness was used with a three-point response scale – “not happy, happy, very happy”. However, this is an unusual question format – much more common are 0–7 or 0–10 scales that give respondents more room to express their feelings. In any case, as US economists Justin Wolfers and Betsey Stevenson have shown in a much-cited paper,<sup>76</sup> life satisfaction *has* changed in response to economic conditions, with considerable changes, for example, in the eastern European transition countries which have experienced major shifts in their social conditions. Another economist, Richard Easterlin, has highlighted how changes in life satisfaction measures also generally correlate with short-term fluctuations in GDP,<sup>77</sup> and many studies show a relationship between life satisfaction and the unemployment rate and sometimes inflation.<sup>78</sup> In any case, the ONS has proposed to include more than just a single well-being question in its survey, which will further increase the range of possible responses. And focusing on change in measures, rather than on absolute values, as we will go on to suggest, can help overcome the perception of proportionately small changes as a problem for subjective well-being measures.

### Relevance to policy

The final critique we consider runs as follows. If we have seen that subjective well-being correlates with a range of objective indicators, such as unemployment, income and inequality, and it is these objective indicators that government can influence more directly, then why don't we just measure them instead? This suggests that if unemployment goes up, we do not need additional measurements to confirm that well-being has gone down. This approach assumes that we have a perfect model of what determines well-being. Of course, this is not true. For all the evidence we have, human beings are too complex for us ever to reach a point where we could precisely predict someone's well-being based on their objective conditions. Subjective measures of well-being do add new information which can be used by policy-makers. This will be demonstrated in detail in section 3.

### Well-being indicators for today and for the future

So how should the ONS be measuring people's well-being? **nef** has worked on this theme for a decade and has some clear recommendations for how this should be done in the long term. In our view, it would involve developing a tailor-made survey to fully capture the richness of well-being in the UK. This would include a broad set of questions (perhaps around 50) addressed to a substantial sample of the population – not necessarily on the scale of the IHS which will sample 200,000 households per quarter – but enough to do some robust analyses. Our 2009 report *National Accounts of Well-Being* provides a detailed illustration of how this might look.<sup>79</sup> It includes headline subjective well-being indicators, built up from sets of questions organised into components. It also includes measures of the distribution of, and hence inequalities in, levels of well-being within a country.

Hence the current work being undertaken by the ONS on subjective well-being measurement should be seen as the first step in a programme of work that will go on to develop a broader set of subjective well-being indicators that can fully capture the lived experience of people in the UK.

Of course, we do not expect the ONS to reach this point immediately. Its plan to include four questions on subjective well-being in the IHS is a bold step in itself. At the time of writing, the ONS was testing one evaluative question (on life satisfaction), one hedonic question (on happiness)<sup>†</sup> and two options for a functioning question related to meaning and feeling valuable. With minor

Life satisfaction at the national level is sensitive to macroeconomic effects such as unemployment rates.

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<sup>†</sup> Shortly before publication we became aware that it is now considering a second hedonic question on negative emotion.

adjustments, we agree on the life satisfaction and happiness question, but recommend measuring functioning with *three* psychological concepts based on the psychological needs in SDT (Box 1): meaning (which is closely related to competence\*), relationships (the question chosen can also be used as a proxy for negative emotions) and autonomy.<sup>f</sup> Thus, we suggest the following five questions:

- *Satisfaction* question: “Overall on a scale of 0–10, how satisfied are you with your life nowadays?”
- *Positive emotion* question: “How much of the time yesterday did you feel happy?” (scale includes ‘none of the time’, ‘some of the time’, ‘most of the time’ or ‘all of the time’).
- *Relationships/negative emotion* question: “How much of the time yesterday did you feel lonely?” (same scale).
- *Meaning* question: “I generally feel that what I do in my life is valuable and worthwhile” (on a 5-point scale from strongly agree to strongly disagree).
- *Autonomy* question: “I feel I have little control over important things in my life” (same scale).

These questions emerged out of analysis we conducted on data from the well-being module of the European Social Survey, 2006.<sup>80</sup> The following points should be borne in mind regarding these recommendations:

- We recognise the ONS’s sensible intention to keep the number of questions down for such a large sample survey, and believe the optimal approach is to attempt to capture as many distinct aspects of well-being as possible with a few questions. While the concepts chosen correlate with one another to some extent, they relate to drivers of well-being in distinct ways. For example, the question chosen on competence is one of few measures to correlate positively with having children. Meanwhile questions on autonomy are particularly influenced by working hours and having free time, but also disability.
- The relationships question we recommend (based on loneliness) is particularly important as it will also capture negative emotions – a factor that many well-being experts have been advocating the IHS covers. Given space considerations, we recommend this approach rather than including separate questions for the two concepts. Loneliness is considered to be a central symptom in depression. The key issue is value for money in terms of policy analysis. Whilst including a more general negative emotions question would improve one’s measure of hedonic well-being in general, it is unlikely to lead to different policy recommendations. For example, it is difficult to think how resulting policy action would be different if one were to find that a certain region of the country had high levels of negative emotion, rather than low levels of positive emotion. Data from the three functioning questions we propose has the potential to inform policy-makers in quite distinct ways, as we highlighted earlier.
- All the questions recommended have either been used in large cross-national surveys or are very similar to questions which have. This is very important – designing survey questions is not like asking a friend how

The five questions recommended will allow us to assess the evaluative, hedonic and functioning elements of well-being.

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\* Our analysis of data from the European Social Survey reveals that meaning (measured with the question proposed here) and competence load onto a single factor, demonstrating that the two psychological concepts are co-related. In other words, feeling valuable and worthwhile tends to come with feeling that you are capable and able to make a difference in the world. Abdallah, S. (2011) Well-being item recommendations for the ONS. **nef** working paper. London: **nef**.

<sup>f</sup> A fourth area, security, has also been mentioned, but this has not been fully integrated into the theory, and no single question has been developed to cover this need. In any case, data already collected on financial security and fear of crime may be sufficient.

they feel in everyday conversation. Subtle changes of wording can affect responses and as such it is important that the ONS does not stray too far from standard, pre-existing tools.

As we suggest in section 4, these questions could be combined together to form a single headline measure of well-being that is easily communicable and sensitive to change. We set out one possible methodology for doing this in our *National Accounts of Well-being* report.<sup>81</sup>

The ONS is also planning to include a broader set of questions on well-being in its smaller Opinions Survey, which reaches 1,500 people per month. We recommend including the same questions as in the IHS, to allow the data to be cross-referenced, supplemented by a broader range of functioning and hedonic questions. This would allow changes seen in the larger survey to be unpacked in more detail in the smaller one.

### Key points

In this section we have introduced our dynamic model for understanding well-being, argued the case for including measures of feeling *and functioning* in national measures of people's well-being, clarified the distinction between the drivers of well-being and well-being itself, and responded to some of the concerns raised about subjective well-being measurement. In the next section we will focus on the role of well-being data for policy.

The key recommendations arising from this section are that the ONS should:

- Adopt the dynamic model of well-being as the conceptual framework underpinning development of a new subjective well-being indicator.
- In the short term, incorporate into the IHS the five questions we have presented, with further questions tested in the Opinions Survey.
- In the longer term, work towards developing a tailor-made survey to fully capture the richness of well-being in the UK.



### 3: Subjective well-being indicators and the policy-making process

*“Next time we have a comprehensive spending review, let’s not just guess what effect various policies will have on people’s well-being. Let’s actually know.”*

**UK government source, commenting on plans to measure national well-being, November 2010<sup>82</sup>**

To affect policy in a meaningful way, subjective well-being measures will need to become an integral part of the policy-making process. In this section we show how this can be achieved. We argue first that decisions made across a range of policy areas are likely to have a measurable impact on levels of well-being. We then demonstrate a number of ways in which well-being evidence can be used to shape decisions throughout the policy cycle. Finally, we discuss the sorts of research and analysis required to support this process.

#### **Can policy-makers affect human well-being?**

Our answer, in short, is ‘Yes’. In the words of the Treasury: “[g]overnments already factor well-being considerations into the overall balance of economic, social and environmental policy.”<sup>83</sup> The benefit system, cigarette taxes and compulsory schooling are examples of policies motivated by a concern to promote better lives for people. Few people doubt government’s ability to improve these sorts of intermediate objectives within human systems.

What is more, the dynamic model presented in section 2 (Figure 3) shows that human well-being is driven by factors very much in the ambit of policy. First, the material conditions of people’s lives are shaped by a host of macro- and micro-economic variables over which policy has considerable influence. Second, people’s personal resources are not simply pre-determined by their genes but result from interactions with the world during early development and education, both key areas of interest for policy. Third, detailed design work considerably affects the degree to which policy initiatives provide meaningful, autonomy-enhancing, relationship-building opportunities – through, for example, volunteering schemes. As Prime Minister David Cameron noted in his November speech:

*...it’s interesting that the people who most often rail against the negative impact that government can have on people’s wellbeing, who campaigned, for instance, against the closure of Post Offices for the loneliness it could cause for elderly people in rural areas...are [often] the ones who don’t accept it can work the other way round.<sup>84</sup>*

Indeed, given the role of policy in shaping a myriad of factors in people’s day-to-day lives – the quality of their homes, their access to open space, how they are educated and their options for travel, to name just a few – it would be extremely difficult for policy-makers to *avoid* having an impact on how people function and how they feel. Because of this, policy-makers should have a default concern that their decisions impact positively on well-being; this concern should inform every step of the policy process.

The population-wide subjective measurement of well-being means that this default concern can be backed up by rigorous analysis. Academic research has already uncovered many of the key drivers of high well-being, helpfully gathered together in a number of recent reviews.<sup>85,86</sup> Analysis of the new subjective

The factors that affect well-being are very much in the ambit of policy.

well-being measures being developed by the ONS will allow the distribution of flourishing, as well as the likely causal links between flourishing and other factors, to be examined in much greater detail for the UK population.

Once these techniques have been developed, it is important that the *Green Book* and other official guidance include strong direction on the various ways in which they should be used in policy appraisal and decision-making. The rest of this section explains what some of these ways could be.

### Providing additional information

As we noted in section 2, subjective measures of well-being generally correlate with the economic indicators which have become conventional proxies for welfare;<sup>87</sup> this is part of the evidence that establishes confidence in the robustness and validity of the measures. But, as we also noted, the correlation is far from perfect.<sup>88</sup> Research suggests that there are a number of instances where subjective measures of well-being are likely to add new, useful information over and above what can be gleaned from existing indicators.

This does not necessarily mean that subjective well-being evidence will always suggest new policy directions – although it will do so in some cases. As a recent book on the implications of well-being research for policy notes, well-being indicators are most valuable “when they behave in ways that often match our intuition, but also provide novel insights about the relative importance of distinct life circumstances”.<sup>89</sup> In effect, subjective well-being indicators capture what have previously been regarded as unmeasurable externalities.

Novel insights from these indicators can inform action at different stages of the policy cycle (Figure 4). The following sub-sections discuss examples of different uses of subjective well-being evidence which could apply at each stage of this cycle:<sup>†</sup>

- Understanding the population.
- Developing policy proposals.
- Detailed design and implementation.
- Policy review and evaluation.

### Understanding the population: identifying policy aims

Before they can formulate policies, policy-makers need to understand the population they serve, identifying both its assets and its needs. They particularly need to understand what drives the overall outcomes they intend to promote. This understanding drives the identification of specific policy aims.

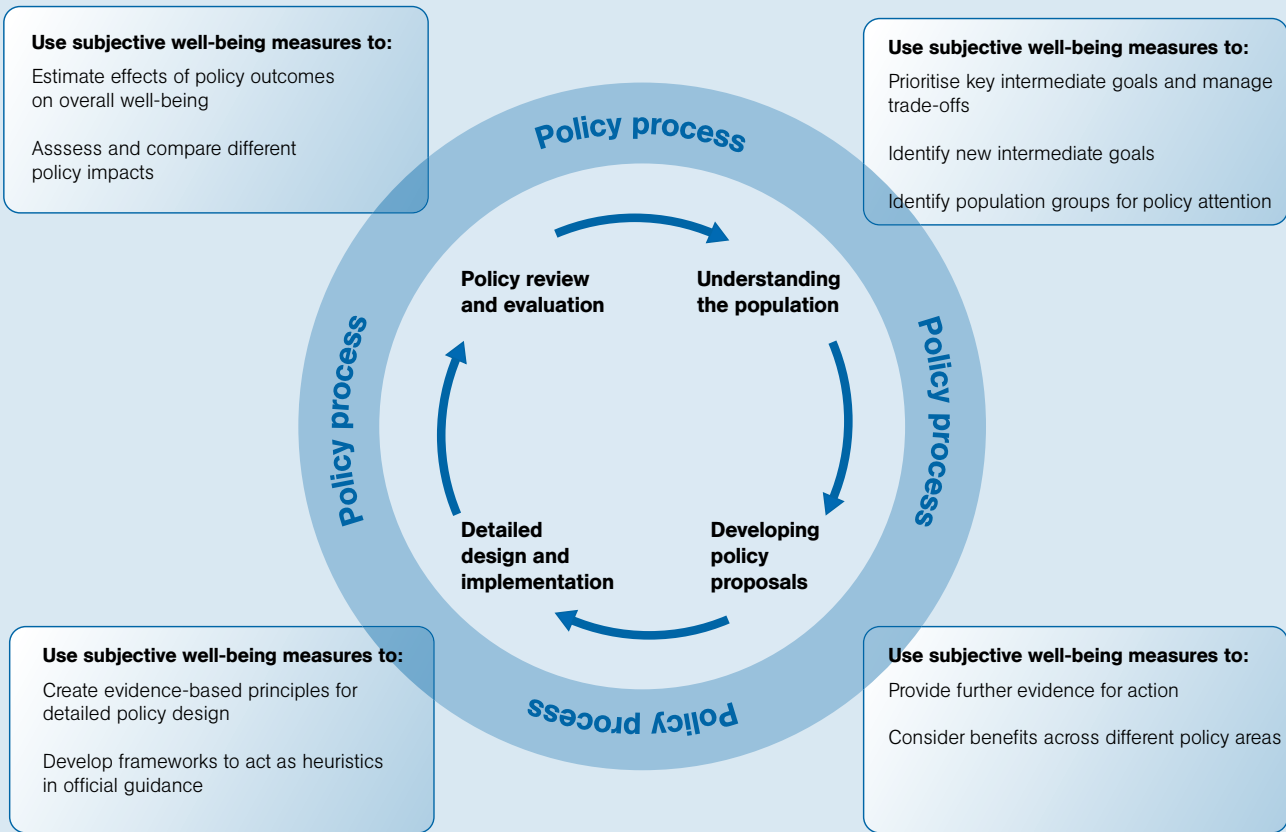
Some of these can be regarded as ‘key intermediate aims’, because they set priorities at the highest level of government and often affect the way that the work of the civil service is structured. Used in analysis at an early stage of the policy cycle, subjective well-being measures will allow the major drivers of flourishing to be identified. These can then be prioritised as key intermediate aims. This is especially important where there are trade-offs with competing intermediate outcomes.

This early-stage analysis can also help identify new policy aims and allow the variations in well-being between different groups within the population to be examined.

Subjective well-being indicators capture additional information to objective indicators – what have previously been regarded as unmeasurable externalities.

<sup>†</sup> A particular way of using subjective well-being evidence may apply at more than one stage of the policy cycle, however for simplicity we have presented each use at one stage only.

**Figure 4. The role of subjective well-being indicators in the policy cycle<sup>90</sup>**



**Prioritising key intermediate goals and managing trade-offs**

There are often trade-offs between key intermediate policy aims, which standard indicators struggle to resolve. Evidence from subjective well-being measures can help in these situations.

Unemployment provides a clear example where subjective well-being indicators reveal information about trade-offs that is not revealed by standard indicators, as was noted in the previous section. Unemployment is already seen as an undesirable policy outcome, because it hurts individuals economically and requires extra government spending on welfare. Nevertheless, most governments tolerate a certain amount of unemployment because of its trade-offs with inflation and productivity.<sup>91</sup> But subjective well-being measurements show that unemployed people report considerably lower subjective well-being scores, substantially *over and above* what might be expected from the loss of income.<sup>92</sup> Moreover, longitudinal research shows that unemployment has a ‘scarring’ effect, whereby a life satisfaction deficit remains even after people have become re-employed.<sup>93, 94</sup>

There is also evidence that the overall impact of inflation on subjective well-being measures is significantly less than the impact of unemployment<sup>95</sup> and that high levels of unemployment are associated with loss of well-being among people in work (because, it is suggested, they create fear of unemployment).<sup>96</sup> Taken together, these pieces of evidence could indicate that, in order to promote high well-being, minimising unemployment should be made even more of a priority than it already is.

### Identifying new intermediate aims

Subjective well-being measures can also reveal costs and benefits that conventional indicators miss entirely. This can lead decision-makers to identify aims that have not previously been given policy attention.

An example of this comes from the use of the Day Reconstruction Method (DRM), which is an approach to measuring well-being that focuses on how people spend their time. Research using the DRM has identified that poor sleep quality, already known to be a widespread problem,<sup>†</sup> is associated with a large difference in people's reported enjoyment of the time they spend at home.<sup>97</sup> Poor sleep quality is unlikely to be identified as a policy problem by conventional indicators. But it could be given attention if promoting high well-being were treated as the ultimate goal of policy. While sleep quality seems a textbook case of a problem that can only be addressed in the private realm, former Harvard President Derek Bok has argued that the subjective well-being evidence means that it should be treated as a policy priority. He suggests actions to address it across the spheres of public education, medical training, and research funding.<sup>98</sup> Other research suggests that actions to address noise pollution<sup>99</sup> and promoting the sleep-related benefits of exercise (e.g. through public health campaigns)<sup>100</sup> would also result in improvements.

### Identifying inequalities and population groups for policy attention

Subjective well-being data also has huge potential for offering new evidence through disaggregation, allowing policy-makers to identify inequalities in human well-being and thus direct attention and resources to particular demographic groups and geographical locations. Some commentators, such as The Young Foundation, go as far as arguing that "The most useful data – from the point of view of the development of public policy and resource allocations – is that which [allows] comparison of small geographic areas or the experience of different groups."<sup>101</sup>

As one example of this approach, **nef's** *National Accounts of Well-being* revealed that 16–24 year-olds in the UK had the lowest levels of trust and belonging of any age group in Europe.<sup>102</sup> At a regional level, another example is the recent survey of well-being in the north west of England,<sup>103</sup> which identified lower-than-expected well-being in a particular rural area. The survey evidence suggests that this was driven not by income but by financial uncertainty – money worries – among people living there.<sup>104</sup> In these, and many other examples, the differences in well-being between population groups suggest the need for targeted policies formulated to tackle the demonstrated inequalities in human well-being.

### Developing policy proposals: providing further evidence for action

In the next stage of the policy cycle, ideas are formulated for specific policies intended to address the problems and to reach the goals identified at the initial stage. Often, these ideas will flow straightforwardly from the preceding analysis of the evidence. But in some cases, despite an evidence base suggesting that certain policies would produce long-term benefits, other concerns mean that they are not taken up. These concerns may be that the identified benefits are not considered important to some people, or that there appear to be unappealing costs to individuals in the short term. By helping to more fully establish the likely impact of such policies, subjective well-being evidence can re-balance the overall accounting of costs and benefits away from a bias towards the purely economic; they can thus help bolster the case for taking action.

For example, evidence suggests that transport policy which successfully shifted people away from using personal cars would be beneficial to the UK in the long-term. A recent study, carried out by Cycling England (a body funded by the Department of Transport), has shown that replacing car trips with cycling trips would reduce congestion, improve health outcomes and cut greenhouse

Subjective well-being evidence may help us re-prioritise economic policy goals, such as reducing unemployment and inflation.

**nef's** *National Accounts of Well-being* revealed that 16–24 year-olds in the UK had the lowest levels of trust and belonging of any age group in Europe.

<sup>†</sup> The well-being data from the European Social Survey used to produce **nef's** *National Accounts of Well-being* suggests that over one-fifth (21 per cent) of people in the UK report having restless sleep all or most of the time.

gas emissions.<sup>105</sup> However, people's strong preferences for travelling by car over using public transport or cycling create concern that a reduction in car use would lead to a related reduction in individuals' well-being. There are also risks to the economy if a lack of acceptable transport options prevented people from reaching their places of work. The need to avoid these sorts of well-being and economic disadvantages is likely to have motivated the recent announcement of the policy shift to 'end the war on motorists'.

However, analysis of the available subjective well-being evidence suggests that there may in fact be advantages of a shift away from car use. The DRM study cited earlier shows that people experience the lowest level of positive emotions while commuting than during any other activity category studied. As the study was carried out in the heavily car-dependent US state of Texas, it is fair to assume that the vast majority of this time was spent in cars.<sup>106</sup> A wealth of literature from researchers studying stress and related effects reveals "persistent and significant costs associated with a long commute through heavy traffic".<sup>107</sup> By contrast, studies comparing the experiences of commuting by bicycle and car report that cyclists find their mode of transport at least as flexible and convenient as those who use cars, with lower stress and greater feelings of freedom, relaxation and excitement.<sup>108</sup>

Merely presenting this evidence is unlikely to change car drivers' current preferences.<sup>109</sup> However, it may provide policy-makers with further confidence that, in taking steps to reduce personal car use, people will in time come to view the change as positive, when well-being benefits are experienced. A well-being lens can also allow officials working across the different policy areas of transport, environment and the built environment to jointly consider the likely benefits in overall terms of well-being, rather than considering them separately. So although it is unlikely to be the 'silver bullet' solution to a difficult policy dilemma with strong points on both sides, subjective well-being evidence can certainly help to make the case for a particular course of policy action.

### **Detailed design and implementation: evidence-based principles**

In this 'middle' stage of the policy cycle, when the fine detail of policy solutions is being developed and then implemented, subjective data on well-being becomes useful in another way. Well-being research has produced a considerable and rapidly growing body of evidence which can be distilled into a set of principles to guide this detailed process. This can help policy-makers consider not just *what* is delivered, but *how* it is done.

Traditionally, policy makers have used a few basic principles such as 'people are motivated by incentives' to inform policy design. More recently, these have been expanded by findings from behavioural economics and other branches of psychology. As in the Cabinet Office's MINDSPACE report, these findings have been used to devise policy-relevant frameworks which emphasise the effect of influences such as social norms, defaults, salience and priming on people's behaviour.<sup>110</sup>

In a similar way, well-being frameworks – such as the dynamic model of well-being presented in section 1 – can offer a set of principles to help policy design and implementation. By synthesising a large amount of existing evidence, they can help produce policies which are fine-tuned to lead to well-being outcomes. For example, in the design of an intervention which works directly with service users, the dynamic model could be used to ensure that it will enhance as far as possible, and detract as little as possible, from the important elements of good functioning – strong relationships, autonomy, a sense of meaning and purpose and so on. A co-production approach to public services, in which there has been much recent interest, provides one example of a perspective which explicitly seeks to build in these elements to policy design. And while originally designed to promote well-being enhancing behaviours undertaken by individuals, the *Five Ways to Well-being* actions (developed from evidence gathered by the government's Foresight Programme) – *Connect, Be Active, Take Notice, Keep Learning* and *Give* – could be the basis for a rule-of-thumb checklist for policy design.<sup>111</sup>

Frameworks such as the dynamic model of well-being can synthesise evidence into principles to help fine-tune policy design.



In this way, a well-being framework can act as a heuristic – a cognitive shortcut for busy policy-makers wading through the complexities of difficult policy areas. Such a framework could helpfully be incorporated into official guidance documents such as the *Green Book*, departmental guides and impact assessment tools. This would help decision-makers work towards flourishing outcomes even when they do not engage with detailed analysis of subjective well-being measures.

### Policy review and evaluation: an alternative approach to policy evaluation

The review and evaluation stage of the policy cycle aims to assess properly the value created (or lost) by a particular policy. This allows success to be judged and decisions about future policy actions to be made. What makes this task difficult is comparing the different kinds of impacts which a policy can have across the 'triple bottom line': economic, social and environmental. Subjective measures of well-being help provide a new way of doing this.

**nef** has been at the forefront of the development and refinement of tools and techniques that allow these different types of impacts to be captured. One such methodology, Social Return on Investment (SROI), uses a measurement framework that values different types of triple bottom line costs and benefits, which often involves assigning a monetary value or proxy.<sup>112</sup> Subjective well-being indicators now offer the possibility of also weighing out costs and benefits in well-being units. This can be advantageous to make sure each of the different types of benefits is put on a level playing field. For example, volunteering time is sometimes monetised at the minimum wage, but its benefits can also now be valued in well-being terms, capturing, for example, the value of establishing meaningful, lasting relationships.

One technique that has been used to produce alternative estimates of value is to look at the effects of different outcomes on an overall subjective well-being measure. For example, air pollution levels in a country have been shown to be linked to life satisfaction, even when other variables are controlled for. One cross-national analysis suggested that a shift upwards in levels of nitrogen dioxide in Germany to the levels found in Japan would lead to 8.25 per cent of the population reporting life satisfaction one category lower, on a four-point scale.<sup>113</sup> In another example, Frey *et al.* estimated that the impact of terrorism in France on life satisfaction was around one-seventh the size of being unemployed. They point out the potential advantages of their approach over techniques which ask people to estimate their 'willingness-to-pay' for specific public goods, which are often hypothetical in nature, in contrast to the empirical basis of the well-being estimation approach (where estimates are not mediated by market prices).<sup>114</sup>

While these sorts of techniques have not yet been widely applied, and are likely to need further development and fine-tuning, they demonstrate that well-being indicators could have an important role to play in creating a new 'common currency' for policy. They could help to value well-being outcomes in the short-to-medium term, and (of particular relevance to sustainability issues) by predicting impacts on future well-being, could help make decisions for the long term too.

### Putting it into practice

To fully capitalise on the new opportunities that the forthcoming subjective data on well-being will offer them, policy-makers will first need to familiarise themselves with the existing evidence base on the drivers of human well-being. This has been summarised in a number of government reviews – for example, by Professor Paul Dolan *et al.* for Defra<sup>115</sup> and by the topic reports of the 2008 Foresight Project,<sup>116</sup> as well as in schematic frameworks such as our dynamic model of well-being. Existing tools – such as the Mental Well-being Impact Assessment toolkit<sup>117</sup> – will also be useful in helping policy-makers begin to think in terms of how to maximise the well-being benefits from particular programmes.

Building this understanding will prepare the ground for detailed analysis of the IHS data (currently scheduled for release in 2012) so that new evidence can

One cross-national analysis revealed that an increase in nitrogen dioxide levels in Germany to those found in Japan would lead to a substantial decrease in life satisfaction.



be gathered about the drivers of flourishing in the UK population. Statistical associations uncovered by this analysis can then be explored through further qualitative work, in order to uncover the mechanisms involved in these relationships. In addition, it will be useful to do further methodological work to develop frameworks for policy design and tools for policy evaluation, to fully realise the vision of policy that is truly well-being led.

### **Key points**

This section has argued that subjective measures of well-being can have a role to play at each stage of the policy cycle: by helping to identify policy aims, by providing further evidence for policy action, by producing synthesised evidence-based principles for detailed policy design and by helping to evaluate policy outcomes. It asks policy makers to recognise flourishing not just as a distant overall goal of policy, but something which can inform every step of the policy process, and be prepared to shift their aims accordingly. The availability of new population-wide subjective well-being data from the IHS will provide an important new resource to allow policy-makers to put these ideas into practice.

The key recommendations arising from this section are that the ONS and other relevant government bodies should:

- Amend the *Green Book* and other guidance so that policy appraisal and decision-making is informed, as far as possible, by the available well-being evidence.
- Undertake a capacity building programme to help familiarise policy-makers with existing well-being evidence and principles, and to help them gain the skills required for analysis of subjective well-being data.
- Ask their senior officials to encourage the use of well-being evidence, particularly to facilitate work across silos and departments, and to manage trade-offs with competing internal objectives.

## 4. The political role of a headline well-being measure

In section 3 we explored a number of ways in which well-being measures could be used to guide policy-making. But they will only do this effectively if they also influence politicians – if they are ‘political’. And they will only influence politicians if they draw in the public, the media and other opinion formers.

There are a handful of public measures that already work like this: for example, the inflation rate, the unemployment rate and the growth rate. They help tell a story about what is going on in the country – and voters and the media use them to hold governments to account. As a result they help influence the politicians who set the overall direction of government policy.

In this section we discuss how a measure of national well-being can become ‘political’ in this sense. We start by examining what it is about existing measures that enable them to work in this way. We then set out our proposal for a set of well-being measures, and finally explain why we believe it will work effectively.

### Characteristics of a good political indicator

What is it about existing measures that make them work as *political* measures? We suggest there are five main requirements:-

1. The most fundamental characteristic of a good political indicator is that it captures *something that matters* to people. Some things are more easily counted than others, but substantive importance should take precedence over ease of measurement. The thing that matters may be captured directly by the indicator – in the way that rising prices are – or indirectly – in the way that future job security or pay rises are, when suggested by growth figures.
2. It must be possible to *blame or praise politicians* for the movements in the figures – to hold them to account. Statistics about the weather, for example, would satisfy the previous condition, but not this one.<sup>†</sup> The question, incidentally, is not whether politicians really are to blame – or at least are the primary culprits – but whether people believe them to be. Arguably, they have less control over some of the main economic variables than some of us might like to believe, but that is beside the point.
3. When an indicator is really working well, this will be felt, not just thought: the indicator will echo an individual's experience, and best of all a *shared experience*. It will seem to be about a social reality that the individual is part of – the kind of thing that becomes a topic of conversation. So, for instance, the inflation rate echoes the experience of going to the shops and finding prices that seem high (or not); the unemployment rate echoes the experience of insecurity that may be shared by employed and unemployed alike. (One note of caution here is that the public learn about statistics through the media, which also strongly influences perceptions of wider social and economic conditions, hence the shared experience may not always be an accurate reflection of the social or economic reality. Arguably, for instance, this accounts for the way in which fear of crime is often disproportionate to actual experiences of crime and crime figures.)

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<sup>†</sup> Although in early mediaeval Ireland, poor climatic conditions were blamed on poor kingship. Perhaps we are coming round to this position again, this time with rather better reasons given the evidence on man-made climate change.

4. The fourth feature of a good political indicator is that it *allows comparisons* to be made relatively easily, and this helps to give meaning to the statistic in question. Comparisons can be with last year or the year before, or with other countries, or between different parts of the country. So inflation goes up or down, as do the unemployment rate and the growth rate, and all these measures can be compared with equivalent figures overseas to make them meaningful. Is two per cent a good growth rate? Yes, if everyone else's is one per cent; no, if everyone else's is three per cent. A statistic that does not move year on year (or moves only at the third decimal place), which is unique to the UK and therefore cannot be used in international comparisons, or which cannot be disaggregated for different areas or socio-economic groups, will be less effective.
5. Finally, there must be *public confidence* in the neutrality of the data – people must not feel that they are simply being manipulated by the government as part of its propaganda efforts.

### Our recommendations

Achieving all this will not be easy. Given the parameters of the ONS project, we believe the best chance of doing so will be with the following combination of measures:

- A headline index of human well-being based on the *subjective* questions that will be included in the IHS (as described in section 2), reported as the percentage of people flourishing.
- A headline measure of the distribution of well-being – a kind of Gini coefficient of well-being.\*
- A Drivers of Well-being (DoW) indicator set: a well-publicised and branded set of perhaps ten *objective* indicators which can be shown to have an impact on the subjective index – i.e. shown to explain a certain percentage of variations in the index.

The aim would be to increase the explanatory power of the DoW set over time by adjusting its composition as we learn more about the statistical relationships between objective and subjective variables. The composition would be determined by the National Statistician, primarily on the basis of explanatory power, rather than by politicians. Statistical relationships, however, only get you so far and the views of the public about what is important should also be taken into account: hence the relevance of the national debate which the ONS has initiated. This will be particularly important in the early years, before the relative explanatory power of different indicators has been established.

### Our reasons for proposing this approach

How does this approach fare in light of the desired characteristics already described?

Our first point was that for an indicator set to influence politicians, it must capture *something that matters* to people. Clearly human well-being matters – high, or increased well-being is a widely shared goal, and is increasingly recognised as such politically. This chimes with public opinion: in a survey conducted in 2008, 81 per cent of UK residents polled supported the idea that the government's prime objective should be “the greatest happiness” rather than “the greatest wealth”.<sup>118</sup> In addition, as we argued in section 2, human well-being is best measured using subjective questions, and these will form the basis of the index we propose.

We propose a headline index of human well-being based on subjective measures, a measure of the distribution of well-being, and a set of Drivers of Well-being (DoW) indicators.

\* The Gini coefficient is a measure of the inequality of a distribution, a value of 0 expressing total equality and a value of 1 maximal inequality. It is commonly used as a measure of inequality of income or wealth.

As already noted, we doubt if an index based on objective measures – or even on some weighted mix of objective and subjective measures – will mean much to people, or will meet the requirement expressed by the Minister of State for Universities and Science, David Willets MP, for “measurements that rival GDP” in importance.<sup>119</sup> At least in the past, composite indicators have not met these challenges. In any case, composite indicators created from large numbers of different measures are always susceptible to the charge of arbitrariness, however carefully they are constructed.

There are, however, potential problems with a headline index *on its own*. First, most people feel that *fairness* as well as well-being matters. There is a danger that a headline index based on an average figure, masking an unfair distribution of well-being, would struggle to achieve legitimacy; it would not *on its own* measure what matters. Hence our recommendation for a headline distribution measure.

Our second point was that it must be possible to *blame or praise politicians* and this also suggests that, at least to start with, there could be problems with a headline subjective index on its own: a link between subjective measures and the kind of things people already see as the natural responsibility of politicians will be important. The DoW set will help to make this link explicit. Perhaps over time, as the index and the link become well-established, the need for an objective measure set will become less important – the scaffolding can, as it were, be taken down. However to begin with we think it will be important to communicate the links; that is, make explicit how it is that politicians can influence well-being.

Our third point was somewhat similar. We noted that an effective measure is one that echoes some *shared experience* or reflects some social reality, and can thereby become a topic of conversation and something the media can readily pick up and address in a serious way. There is a risk, at least initially, that for many people a purely subjective index will appear to relate to something mainly personal as opposed to social. After all, it is about personal experience and for any individual there will be important personal drivers of well-being – in a way that there are not, for example, for the inflation rate. This may make the link with social reality more difficult to achieve if it is presented on its own. Hence our recommendation to publish information on the collective drivers of well-being alongside a subjective index.

In time we think the perception of well-being as purely personal will change. Consider divorce rates, for example: what could be more personal? But despite being personal, these are considered to reflect a shared social reality – signs of the times – and are not only talked about as such, but are sometimes suggested as the focus of policy initiatives. What is ‘social’ and ‘shared’ is not a given but depends upon perceptions. Nonetheless, to start with, a subjective index will benefit from support from objective measures about society, in order to anchor it to the public realm.

Our fourth point was that ‘political’ indicators *allow comparisons* to be made, meaning the headline index needs to reflect real movement from year to year. This has implications for the way in which the indicator is presented and reported. There are a number of options for achieving comparability, such as publishing a change measure rather than an absolute state (comparable to GDP growth). But the most transparent approach will be to publish the proportion of people who reported at least a certain threshold level of well-being – the percentage who are flourishing – and to monitor changes in this figure. The variations in this percentage are likely to be larger than in a figure based on average well-being. It is also arguable that more people feel that politicians should be accountable for a threshold than for an average, and to some extent this approach also addresses the fairness issue. (If this approach is adopted, it may make sense to design the questions so that the threshold does not appear arbitrary, i.e. having clearly labelled response options which signal the threshold, rather than simply relying on respondents picking a number between 0 and 10).

81 per cent of UK residents polled supported the idea that the government’s prime objective should be “the greatest happiness” rather than “the greatest wealth”.

The DoW indicators will make the link between subjective measures and the kind of things people already see as the natural responsibility of politicians.

For international comparisons to be possible, international measurement standards will need to be agreed. It is important that differences arising from what questions are asked, and how they are asked, are minimised. (Of course identical wording cannot be used given different languages.) The OECD, Eurostat and the EC have all taken this requirement very seriously and work has begun to attempt to harmonise subjective well-being measurement across different countries. As a pioneer in the field, the UK can play an important role in influencing these processes.

The final characteristic we listed was *public confidence* in the neutrality of the data. At one level this is relatively easy to satisfy. The ONS is already independent of the government and operates very transparently: raw data are typically made available to the public, and the methodologies used are documented clearly.

However, the ONS may have to make a special effort in demonstrating transparency with high profile survey data such as this, as there will be those who believe that such data is particularly prone to manipulation. In addition, the ONS will need to ensure that the data is accessible to a wide range of audiences. This in the end will determine the success of the indicators. The government may well pick out those statistics that shine a favourable light on their performance – that is what governments do – but if that is the only use to which they are put then the initiative will be a failure.

It will be incumbent on the opposition, and other groups, to highlight those statistics that tell a different story. And people will be better drawn in to explore the data if these are presented in an accessible, interactive format (of which our National Accounts of Well-being website [www.nationalaccountsofwellbeing.org](http://www.nationalaccountsofwellbeing.org) provides an example). Using the new data, politicians will need to argue for policies based on their predicted impact on well-being. Pressure groups will need to highlight discrepancies and inequalities adversely affecting the groups they represent. Charities, businesses, and public service providers will need to know how to demonstrate their impact in improving well-being. Planning and assessment will need to be done with an eye to enhancing well-being. Journalists will need to write articles highlighting quarterly changes in well-being. When all this happens, it will be clear that this exercise is not frivolous, and does not divert attention from the 'real business' of government. It will indeed be the business of government.

### Key points

This section has discussed the characteristics of a good political indicator: that it captures something that matters to people; shows changes for which politicians can be held to account; echoes people's personal, and ideally, shared experiences; facilitates comparisons with other countries or over time and commands public confidence in its neutrality. It has demonstrated how we have selected our recommended headline measures and supporting indicator set to best meet these criteria.

In particular, we recommended that to have the best chance of meeting these criteria, the ONS should implement:

- A headline index of human well-being based on the subjective measures in the IHS, reported as the percentage of people who are flourishing.
- A headline measure of the distribution of well-being – a 'Gini' coefficient of well-being.
- A DoW indicator set: *objective* indicators which can be shown to explain a certain percentage of variations in the headline index.

And in order to encourage widespread use of the data, beyond government, the ONS should:

- Make the data widely accessible and present it in engaging, interactive formats.

When the opposition, pressure groups and citizens all use well-being data to make their points, it will be clear that well-being is the real business of government.

# Recommendations

In this report we have presented a framework for understanding national well-being, or progress, and a model for understanding *people's well-being*, which we take to be one of the central goals of policy. We have made the case for measuring people's well-being in terms of flourishing – not just their feelings of happiness or satisfaction, but also how they interact with the world.

We have argued that this will necessarily require the use of subjective indicators, responded to some of the concerns raised regarding subjective measurement, and laid out a number of uses for such measures in shaping policy. We have considered some of the political implications of measuring subjective well-being and explored how measures should be presented to ensure they begin to carry political weight.

Throughout the report we have made a number of specific recommendations in response to the national debate on well-being. We summarise them here.

## Headline recommendations

The ONS and other relevant government bodies should:

- Adopt a framework for understanding progress in terms of three spheres and the relationships between them: the goal of well-being for all, sustainable use of environmental resources, and the human systems that mediate between the two.
- Use the dynamic model of well-being to underpin the development of new well-being indicators.
- Incorporate five questions that measure well-being subjectively within the Integrated Household Survey.
- Develop:
  - a headline index of human well-being based on these subjective measures, reported as the percentage of people who are flourishing;
  - an indicator of well-being inequality – a Gini co-efficient of well-being;
  - a set of objective indicators measuring the Drivers of Well-being (DoW); *and eventually*
  - a broader set of subjective well-being indicators to fully capture the lived experience of people in the UK.
- Amend the *Green Book* and other policy guidance documents so that policy appraisal and decision-making is informed by well-being data.
- Encourage officials to use well-being data – particularly to facilitate work across departments and areas, and to manage trade-offs between competing internal objectives – and undertake an associated capacity building programme.
- Make the data widely accessible and present them in engaging, interactive formats.



# Endnotes

- 1 Shah, H., & Marks, N. (2004). *A Well-being Manifesto for a Flourishing Society*. London: **nef**.
- 2 Thompson, S., & Marks, N. (2008). *Measuring well-being in policy: issues and applications*. Report commissioned by the Foresight Project on Mental Capital and Well-being, Government Office for Science.
- 3 Marks, N., Abdallah, S., Simms, A., & Thompson, S. (2006). *The (un)Happy Planet Index: An index of human well-being and environmental impact*. London: **nef**.
- 4 Thompson, S., Abdallah, S., Marks, N., Simms, A., & Johnson, V. (2007). *The European (un)Happy Planet Index: An index of well-being and carbon efficiency in the EU*. London: **nef**.
- 5 Abdallah, S., Thompson, S., Michaelson, J., Marks, N., & Steuer, N. (2009). *The (un)Happy Planet Index 2.0: Why good lives don't have to cost the Earth*. London: **nef**.
- 6 Marks, N., Thompson, S., Eckersley, R., Jackson, T., & Kasser, T. (2006). *Sustainable development and well-being: relationships, challenges and policy implications*. London: Defra.
- 7 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 8 S Thompson. (2010, November 15). David Cameron's plans for national measurement of well-being are a step in the right direction [blog]. Retrieved from <http://www.neweconomics.org/blog/2010/11/15/david-camersons-plans-for-national-measurement-of-well-being-is-a-step-in-the-right-d>
- 9 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 10 Shah, H., & Marks, N. (2004). *A Well-being Manifesto for a Flourishing Society*. London: **nef**.
- 11 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**
- 12 OECD. (2007). People and organisations who signed the Istanbul Declaration. Retrieved from [http://www.oecd.org/document/23/0,3343,en\\_21571361\\_31938349\\_39161687\\_1\\_1\\_1\\_1,00&en-USS\\_01DBC.html](http://www.oecd.org/document/23/0,3343,en_21571361_31938349_39161687_1_1_1_1,00&en-USS_01DBC.html)
- 13 Beyond GDP. (2011). About Beyond GDP. Retrieved from <http://www.beyond-gdp.eu/>
- 14 Stiglitz, J.E., Sen, A. and Fitoussi, J.P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. OECD. Retrieved from <http://www.stiglitz-sen-fitoussi.fr/>
- 15 DGINS ESSC. (2010). Sofia Memorandum. Measuring progress, well-being and sustainable development. Retrieved from [http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp\\_and\\_beyond/documents/Sofia\\_memorandum\\_Final.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp_and_beyond/documents/Sofia_memorandum_Final.pdf)
- 16 Eurostat. (2010). *Sigma – The Bulletin of European Statistics*, 2, p.4.
- 17 Jackson, T. (2004). *Chasing Progress? Beyond measuring economic growth*. London: **nef**.
- 18 Quality of Life Policy Group. (2007). *Blueprint for a Green Economy: Submission to the Shadow Cabinet*. Retrieved from <http://www.conservatives.com>
- 19 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 20 Abdallah, S., Thompson, S., Michaelson, J., Marks, N., & Steuer, N. (2009). *The (un)Happy Planet Index 2.0: Why good lives don't have to cost the Earth*. London: **nef**.
- 21 Hall, J., Giovannini, E., Morrone, A., & Rannuzi, G. (2010). *A framework to measure the progress of societies*. Working paper No. 34. Retrieved from [http://www.oecd.org/officialdocuments/displaydocumentpdfv2/?cote=STD/DOC\(2010\)5&docLanguage=En](http://www.oecd.org/officialdocuments/displaydocumentpdfv2/?cote=STD/DOC(2010)5&docLanguage=En)
- 22 Commission of the European Communities (2009) *GDP and beyond: Measuring progress in a changing world*. Communication from the Commission to the Council and the European Parliament. Most recently, the Directors General of the European National Statistical Institutes signed the Sofia Memorandum ([http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp\\_and\\_beyond/documents/Sofia\\_memorandum\\_Final.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp_and_beyond/documents/Sofia_memorandum_Final.pdf)), committing themselves to developing alternative measures of progress.
- 23 Baer, P. (2008). *Exploring the 2010 global emissions mitigation gap: analysis for the Global Climate Network*. Palo Alto, CA: Stanford University Press.
- 24 "If your goal in politics is to help make a better life for people – which mine is...", David Cameron (2010, November 25). Transcript retrieved from <http://www.number10.gov.uk/news/speeches-and-transcripts/2010/11/pm-speech-on-well-being-57569>
- 25 Alkire, S. (2002). Dimensions of Human Development. *World Development*, 30, 181–205.
- 26 For a similar example, see: Layard, R. (2011). *Happiness: Lessons from a new science* (2nd edition). London: Penguin.

- 27 Also Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies*, 9, 139–170.
- 28 Forgeard, M., Jayawickreme, E., Kern, M. & Seligman, M. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1, 79–106.
- 29 Waldron, S. (2010). *Measuring subjective well-being in the UK*. ONS Working Paper, September 2010.
- 30 David Cameron's speech in November 2010 gives a number of examples of how he believes exactly this kind of trade-off has been made in the past. Transcript retrieved from <http://www.number10.gov.uk/news/speeches-and-transcripts/2010/11/pm-speech-on-well-being-57569>
- 31 Sustainable Development Commission. (2007). *Living Well Within Limits*. Draft discussion paper, May, p.56.
- 32 Quality of Life Policy Group. (2007). *Blueprint for a Green Economy: Submission to the Shadow Cabinet*. p. 56. Retrieved from <http://www.conservatives.com>.
- 33 Hall, J., Giovannini, E., Morrone, A., & Rannuzi, G. (2010). *A framework to measure the progress of societies*. Working paper No. 34. Retrieved from [http://www.oecd.org/officialdocuments/displaydocumentpdfv2/?cote=STD/DOC\(2010\)5&docLanguage=En](http://www.oecd.org/officialdocuments/displaydocumentpdfv2/?cote=STD/DOC(2010)5&docLanguage=En).
- 34 Giljum, S., Hinterberger, F., Lutter, S., & Polzin, C. (2009). *How to measure Europe's resource use: An analysis for Friends of the Earth Europe*. Retrieved from [www.foeeurope.org](http://www.foeeurope.org).
- 35 A starting point might be the Index of Sustainable Economic Welfare (ISEW), which **nef** has been working on in the UK since 1997. The most recent publicly available report is: Jackson, T., McBride, N., Abdallah, S., & Marks, N. (2008). *Measuring regional progress: regional index of sustainable economic welfare (R-ISEW) for all the English regions*. London: **nef**.
- 36 Marks, N., Abdallah, S., Simms, A., & Thompson, S. (2006). *The (un)Happy Planet Index: An index of human well-being and environmental impact*. London: **nef**.
- 37 Stiglitz, J., Sen, A., & Fitoussi, J. (2009). *Report by the commission on the Measurement of Economic Performance and Social Progress*. p.58. Retrieved from [www.stiglitz-sen-fitoussi.fr](http://www.stiglitz-sen-fitoussi.fr).
- 38 Dolan, P., Peasgood, T., & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making*. London: Defra.
- 39 Thompson, S., & Marks, N. (2008). *Measuring well-being in policy: issues and applications*. Report commissioned by the Foresight Project on Mental Capital and Well-being, Government Office for Science.
- 40 Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- 41 Ryan, R., & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology* 52,141–166.
- 42 Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory perspective on eudaimonia *Journal of Happiness Studies*, 9,139–170.
- 43 Huppert, F., & So, T. (2009) 'What percentage of people in Europe are flourishing and what characterises them?' Working paper prepared for the OECD/ISQOLS meeting 'Measuring subjective well-being: an opportunity for NSOs?', Florence, July 23/242009.
- 44 Forgeard, M., Jayawickreme, E., Kern, M. & Seligman, M. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1, 79–106. p.97.
- 45 Ryff, C. (1989) Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology* 75, 1069–1081.
- 46 Much of this research is summarized in Deci, E. L. & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry* 11, 227–268.
- 47 Deci, E., & Ryan, R. (1980). Self-determination theory: When mind mediates behavior. *Journal of Mind and Behavior* 1, 33–43.
- 48 Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies*, 9, 139–170.
- 49 Kasser, T. (2006) 'Psychological need satisfaction, personal well-being, and ecological sustainability'. A report for the new economics foundation.
- 50 Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory perspective on eudaimonia *Journal of Happiness Studies*, 9,139–170.
- 51 Huppert, F. (2009). A new approach to reducing disorder and improving well-being. *Perspectives on Psychological Science*, 4, 108–111.
- 52 Frederickson, B. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.
- 53 Lyubomirsky, S., King, L. & Diener, E. (2004). The benefits of frequent positive affect: does happiness lead to success? *Psychological Bulletin*, 131.

- 54 Howell, R. T., Kern, M. L. & Lyubomirsky, S. (2007). Health benefits: Meta-analytically determining the impact of well-being on objective health outcomes. *Health Psychology Review*, 1(1), 83–136.
- 55 Eurostat (2010) *Feasibility study for well-being indicators: Critical review*. Retrieved from [http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp\\_and\\_beyond/achievements](http://epp.eurostat.ec.europa.eu/portal/page/portal/gdp_and_beyond/achievements)
- 56 Bacon, N., Brophy, M., Mguni, N., Mulgan, G. & Shandro, A. (2010). *The state of happiness: Can public policy shape people's wellbeing and resilience*. London: The Young Foundation.
- 57 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 58 Frey, B. & Stutzer, A. (2002). *Happiness & economics*. Princeton, NJ: Princeton University Press.
- 59 Di Tella, R., MacCulloch, R., & Oswald, A.J. (2003). The macroeconomics of happiness. *Review of Economics and Statistics*, 85(4), 809–827.
- 60 Abdallah, S. (2011) Well-being item recommendations for the ONS. **nef** working paper, Jan 2011.. London: **nef**.
- 61 The Big Lottery Fund. (no date). Evaluating Well-being. Retrieved from [http://www.biglotteryfund.org.uk/index/evaluationandresearch-uk/programme\\_evaluation/eval\\_health/evaluation\\_well-being.htm](http://www.biglotteryfund.org.uk/index/evaluationandresearch-uk/programme_evaluation/eval_health/evaluation_well-being.htm)
- 62 Huta, V. & Ryan, R. (2006). Pursuing pleasure versus virtue: Links with different aspects of well-being. University of Rochester, unpublished manuscript.
- 63 Coggins, T., Cooke, A., Friedli, L., Nicholls, J., Scott-Samuel, A. & Stansfield, J. (2007). *The Mental Well-being Impact Assessment Toolkit*. North West: Care Services Improvement Partnership.
- 64 Stoneman, P. & Anderson, B. (2006). Social Capital, Quality of Life, Employment and ICTs. Chimera Working Paper 2006-04. Ipswich: University of Essex.
- 65 Villacorta, M., Koestner, R. & Lekes, N. (2003). Further validation of the motivation toward the environment scale. *Environment and Behavior*, 35, 486–505.
- 66 Johns, H. & Ormerod, P. (2007). *Happiness, economics and public policy*. London: Institute of Economic Affairs.
- 67 Stevenson, B. & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin Paradox. Brookings Papers on Economic Activity, Spring 2008.
- 68 Diener, E. & Scollon, C. (2003). *Subjective well-being is desirable, but not the summum bonum*. University of Minnesota, Workshop on Well-Being.
- 69 Forgeard, M., Jayawickreme, E., Kern, M. & Seligman, M. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1, 79–106. p.97.
- 70 Bok, S. (2010). *Exploring Happiness: From Aristotle to Brain Science*. New Haven, CT: Yale University Press
- 71 Ryan, R., & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166.
- 72 James, W. (1890). *The principles of psychology, volume 1*. Mineola, NY: Dover Publications.
- 73 Abdallah, S., Thompson, S., & Marks, N. (2008). Estimating worldwide life satisfaction. *Ecological Economics*, 65, 35–47
- 74 Veenhoven, R. (1993). Happiness in nations: subjective appreciation of life in 56 nations 1946–1992 .RISBO, Erasmus University Rotterdam.
- 75 Johns, H. & Ormerod, P. (2007). *Happiness, economics and public policy*. London: Institute of Economic Affairs.
- 76 Stevenson, B. & Wolfers, J. (2008). *Economic growth and subjective well-being: Reassessing the Easterlin Paradox*. Brookings Papers on Economic Activity, Spring 2008.
- 77 Easterlin, R., McVey, L., Switek, M., Sawangfa, O. & Smith, Z. J. (2010). The happiness-income paradox revisited. *Proceedings of the National Academy of Sciences*, 107, 22457–22462
- 78 Di Tella, R., MacCulloch, R., & Oswald, A. (2003). The Macroeconomics of Happiness' Review of Economics and Statistics, 85, 809–827; Welsch, H. (2007). Macroeconomics and life satisfaction: Revisiting the "misery index". *Journal of Applied Economics* 10, 237–251.
- 79 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 80 Abdallah, S. (2011). Well-being item recommendations for the ONS. **nef** working paper, Jan 2011.. London: **nef**.
- 81 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.
- 82 Stratton, A. (2010, November 15). UK happiness index to gauge national mood. *The Guardian*, p1.
- 83 Lepper J. & McAndrew S. (2008). *Developments in the economics of well-being. Treasury Economic Working Paper No. 4*. London: HM Treasury.

- 84 Cameron D. (2010, November 25). *PM Speech on Well-being*. Retrieved from <http://www.number10.gov.uk/news/speeches-and-transcripts/2010/11/pm-speech-on-well-being-57569>
- 85 Dolan, P., Peasgood, T. & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making. Final report for Defra*. London: Defra.
- 86 Bok, D. (2010). *The Politics of Happiness: what government can learn from the new research on well-being*. Princeton: Princeton University Press.
- 87 Dolan, P., Peasgood, T. & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making. Final report for Defra*. London: Defra.
- 88 Diener, E. & Seligman, M.E.P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5, 1–31.
- 89 Diener E, Lucas R, Schimmack U and Helliwell J (2009) *Well-being for Public Policy*. New York: OUP. p.97.
- 90 The diagram is an adapted from one published in our *National Accounts of Well-being report* (Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**) and is based on sources including: Cabinet Office. (1999). *Professional Policy Making for the Twenty First Century*. Report by Strategic Policy Making Team, Cabinet Office.
- 91 Diener, E., Lucas, R., Schimmack, U. & Helliwell, J. (2009). *Well-being for Public Policy*. New York: OUP. p.161.
- 92 Clark, A. (2010). 'Work, Jobs and Well-being across the Millennium' in E. Diener, J. Helliwell, D. Kahneman (Eds). *International Differences in Well-Being* (436–464) New York: OUP.
- 93 Dolan, P., Peasgood, T. & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making. Final report for Defra*. London: Defra.
- 94 Diener, E., Lucas, R., Schimmack, U. & Helliwell, J. (2009). *Well-being for Public Policy*. New York: OUP. pp. 97, 161–162.
- 95 Dolan, P., Peasgood, T. & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making. Final report for Defra*. London: Defra. p.60.
- 96 Clark, A. (2010). 'Work, Jobs and Well-being across the Millennium' in E. Diener, J. Helliwell & D. Kahneman *International Differences in Well-Being* (436–464). New York: OUP.
- 97 Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N. & Stone, A. A. (2004). A survey method for characterizing daily life experience: The Day Reconstruction Method. *Science*, 306,1776–1780.
- 98 Bok, D. (2010). *The Politics of Happiness: what government can learn from the new research on well-being*. Princeton: Princeton University Press. pp.129–133.
- 99 Clark, C. & Stansfield, S.A. (2007). The effect of transportation noise on health and cognitive development: A review of recent evidence. *International Journal of Comparative Psychology*, 20, 145–158
- 100 Buman, M.P. & King, A.C. (2010). Exercise as a treatment to enhance sleep. *American Journal of Lifestyle Medicine*, 4, 500–514.
- 101 Bacon, N., Brophy, M., Mguni, N., Mulgan, G. & Shandro, A. (2010). *The State of Happiness: Can public policy shape people's wellbeing and resilience?* London: Young Foundation. p.38.
- 102 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009) *National Accounts of Well-being: bringing real wealth onto the balance sheet*. London: **nef**. p.36.
- 103 Deacon, L., Carlin, H., Spalding, J., Giles, S., Stansfield, J., Hughes, S., Perkins, C. & Bellis M. A. (2010). *North West Mental Wellbeing Survey 2009: Summary*. Liverpool: North West Public Health Observatory.
- 104 Tom Hennell, unpublished analysis.
- 105 SQW. (2007). *Valuing the Benefits of Cycling: A Report to Cycling England*. Retrieved from <http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2008/08/valuing-the-benefits-of-cycling-full.pdf>
- 106 Kahneman, D., Krueger, A.B., Schkade, D.A., Schwarz, N. & Stone, A.A. (2004). A survey method for characterizing daily life experience: The Day Reconstruction Method. *Science*, 306, 1776–1780.
- 107 Frank, R. H. (2005). 'Does money buy happiness?' in F. A. Huppert N. Baylis, & B. Keverne (Eds.). *The science of well-being* (461–473). New York: OUP.
- 108 Anable, J. & Gatersleben, B. (2005). All work and no play? The role of instrumental and affective factors in work and leisure journeys by different travel modes. *Transportation Research Part A* 39, 163–181.
- 109 Abdallah, S. & Johnson, V. (2009) Sustainability and Well-being Connects and Disconnects. In M. Higgitt (Ed.) *Proceedings from National Transport Conference 2008, Transport Policy in Transition*, CICC Publications.
- 110 Dolan, P., Hallsworth, M., Halpern, D., King, D. & Vlaev, I. (2010). *MINDSPACE Influencing behaviour through public policy*. London: Institute for Government and Cabinet Office.

- 111 Commissioned by the government's Foresight Programme to communicate the evidence from its major review of mental capital and well-being, **nef** developed the Five Ways to Well-being: messaging around five action types which the review showed to promote well-being. They are: *Connect, Be Active, Take Notice, Keep Learning, and Give*. Aked, J., Marks, N., Cordon, C. & Thompson, S. (2008). *Five Ways to Well-being: the evidence*. London: **nef**.
- 112 Office of the Third Sector. (2009). *A Guide to Social Return on Investment*. London: Cabinet Office.
- 113 Welsch, H. (2002). Preferences over prosperity and pollution: environmental valuation based on happiness surveys. *Kyklos*, 55, 473–495.
- 114 Frey, B.S., Leuchinger, S., & Stutzer, A. (2004). Valuing public goods: The life satisfaction approach. Institute for Empirical research in Economics, University of Zurich, Working Paper No. 184
- 115 Dolan, P., Peasgood, T. & White, M. (2006). *Review of research on the influences on personal well-being and application to policy making. Final report for Defra*. London: Defra.
- 116 The *Foresight Project on Mental Capital and Wellbeing* produced a number of topic reports on five areas: mental capital through life, learning through life, mental health, wellbeing and work and learning difficulties. They were summarized in: Foresight Mental Capital and Wellbeing Project. (2008). *Final Project Report*. London: The Government Office for Science.
- 117 Cooke, A., Friedli, L., Coggins, T., Edmonds, N., O'Hara, K., Snowden, L., Stansfield, J., Steuer, N. and Scott-Samuel, A. (2010). *The mental well-being impact assessment toolkit*. 2nd ed., London: National Mental Health Development Unit.
- 118 Data from a poll carried out by GfK NOP in 2006 on behalf of the BBC, reported at [http://news.bbc.co.uk/1/hi/programmes/happiness\\_formula/4771908.stm](http://news.bbc.co.uk/1/hi/programmes/happiness_formula/4771908.stm)
- 119 David Willets MP (2011, February 2), at 'Beyond GDP; towards a better measurement of national well-being', organised by Franco-British Council, Somerset House, London.
- 120 Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National Accounts of Well-being: Bringing real wealth onto the balance sheet*. London: **nef**.





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Well-being is one of most important aspect of our lives, as individuals and as societies. But despite unprecedented economic prosperity in the last 35 years we do not necessarily feel better individually or as communities.

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**Authors:** The Centre for Well-being, **nef** (Saamah Abdallah, Sorcha Mahony, Nic Marks, Juliet Michaelson, Charles Seaford, Laura Stoll and Sam Thompson)

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**new economics foundation**

3 Jonathan Street  
London SE11 5NH  
United Kingdom

Telephone: +44 (0)20 7820 6300

Facsimile: +44 (0)20 7820 6301

E-mail: [info@neweconomics.org](mailto:info@neweconomics.org)

Website: [www.neweconomics.org](http://www.neweconomics.org)

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