From a system of national accounts to a process of national wellbeing accounting

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Abstract

There are repeated calls to go "Beyond GDP", for measures of wellbeing and progress in addition to those that the System of National Accounts (SNA) is designed to provide. We identify key issues that can help build on the rigour of SNA whilst fitting the measurement of economic performance within a broader assessment of national wellbeing and progress. Such drivers are already leading to a proliferation of indicators and accounts, for example in the development of non-monetary measures of natural resources. There are significant measurement challenges, not least the question of whether a single, overall measure or index of wellbeing is valid. But the challenge of measurement, per se, is one thing: in our view, a more critical issue is whether the measures will actually be used. We propose a dynamic and multi-staged approach for developing SNA, embracing the production and use of measures. This would start by identifying user requirements for wider measures, to provide the basis for national and cross-national developments in wellbeing accounting. We envisage greater branding and marketing of national wellbeing concepts to promote measures and support their use. We call for outreach by producers, so that there is dialogue about the development and use of measures.

Key words

System of national accounts, Beyond GDP, wellbeing, progress, sustainable development, user requirements.

The issue: Beyond GDP, both in measurement and in policy terms

The case for moving from the System of National Accounts (SNA) as the measure of national wellbeing, especially the focus on headline measures such as GDP (gross domestic product) and GNI (gross national income), continues to be made widely and repeatedly. National wellbeing, or how a country is doing and what progress it is making, is increasingly seen as more than merely about the value of defined economic activity undertaken within a given period, as measured by GDP or GNI. This is often summarised as going "Beyond GDP" or, in a more conciliatory phrase, "GDP and beyond" (eg European Commission, 2009). While the SNA is considerably more than GDP, we

observe that GDP has been widely used as a totemic symbol, both by its supporters (eg Coyle, 2014) and by its opponents (eg Fioramonti, 2013). The notion that GDP is not a sufficient indicator may be because the debate interweaves a number of measurement issues with how economic, social and environmental policy and operational decisions are made using available official measures, or could be made with new measures. But it strongly suggests that user requirements for measures are not being fully met. This shortfall is of course not limited to the SNA. For example, on tackling child poverty , two British politicians recently concluded "we need to start collecting much better data so we are measuring what we really want to target instead of targeting what we happen to measure" (Duncan Smith and Osborne, 2014). Our point is that the starting point should always be the identification of user requirements, captured as widely as possible, rather than the construction of measures or accounts.

Anderson (1991) introduced his search for "a single statistic which could dethrone and replace the rate of growth of gross national product (GNP) as the principal indicator" for economic policy by noting that "One of the strengths which 'economic growth' has as an idea is that it can be measured statistically. A persuasive alternative to growth probably has to be measurable too. This turns the debate about the aims of economic policy into one about indicators". Anderson goes on to conclude, though, that what is needed is a "whole set of indicators, rather than a single one which can play all the roles which GNP is supposed to play". And, we might add, for these indicators to be used in the formulation and delivery of policies to improve current wellbeing and sustainable development. Indicators form part of the evidence base that can allow for these persectives to "be thoroughly embedded into policy and add value to the whole process" (Allin, 2014, p 450). Moreover, indicators can be used more broadly than as policy instruments, for example to help frame concepts for policy makers and citizens (eg see the BRAINPOoL project, Whitby *et al*, 2014). There is also a political dimension, such as when indicators are used to legitimize government action (Bird *et al*, 2005).

Nearly two decades after Anderson's work (and four decades after Robert Kennedy spoke about how GNP "measures everything in short, except that which makes life worthwhile", Kennedy, 1968) the Stiglitz, Sen and Fitoussi (SSF) Commission's report contained twelve broad recommendations for better measures of economic performance, social progress, sustainable development and the environment (Stiglitz *et al*, 2010, pp 11-21). In so doing the Commission confirmed an agenda for the development of measures of what we have characterised as national wellbeing and progress. The politician who commissioned the work, President Nicolas Sarcozy, wrote in the foreword to the report of his "firm belief: We will not change our behavior unless we change the ways we measure

our economic performance" (Stiglitz *et al*, 2010, p vii). Again, the emphasis is on starting with different measures, before changing behaviour, on the rational assumption that new evidence should inform different policy imperatives, business models and personal decisions. On the other hand, while Costanza *et al* (2009, p 28) say that moving forward is about adopting better measures of global progress, they also suggest that "The first step is to agree on new global goals: goals that recognize that our economic system is a tool for improving well-being and not something to grow mindlessly for its own sake". There are other, more radical views, such as that "growth must be a measure of the rate at which new solutions to human problems become available" (Beinhocker & Hanauer, 2014, p16).

People have not always waited for statistics. John Ruskin, for example, looked at what was going on around him and, in the words of William Morris, "seemed to point out a new road on which the world should travel" (Hewison, 2007, p34). Over the course of the twentieth century, however, the production of official statistics for economic, social and environmental policy became well established. Statistics now matter. They are used in business and the media, and by citizens, government and in politics (for which one definition is "the means by which people determine whose views of government will prevail", The King's College, n.d.). This often leads to calls for new, better or more apposite statistics.

However, concealed behind this is the unfortunate fact that statements of intention to measure things better do not necessarily imply using the measures. In fact, it is not unknown for politicians to call for new measures even when some suitable measures already exist. Where measures do exist, they may be used inappropriately. This applies to GDP, even though Simon Kuznets discussed the uses and limitations of GDP when he presented it to the US Congress in 1934. Kuznets listed a number of things excluded from GDP for a variety of reasons that "largely boil down to his intent that the GDP be a precise and above all a specialized tool, designed to measure only a narrow segment of society's activity. This is reflected in his fear that the simplicity of the GDP makes it prone to misuse" - for example as a measure of welfare (Costanza *et al*, 2009, p 8). Kuznet's fears were indeed correct.

Also where there are measures, as Mayer (2013, p2) observed, measurement "does not in itself automatically translate into policy". When UK Prime Minister David Cameron announced "we'll start measuring our progress as a country, not just by how our economy is growing, but by how our lives are improving; not just by our standard of living, but by our quality of life" (Cameron, 2010) this was a statement about government policy on measurement, not necessarily a commitment to use new measures to inform policy decisions. United Nations Resolution 65/309 does go further, by explicitly

calling for measures to guide policy: "*The General Assembly ... Invites* Member States to pursue the elaboration of additional measures that better capture the importance of the pursuit of happiness and well-being in development with a view to guiding their public policies".

The UN's *2030 Agenda for Sustainable Development* is "a plan for action" (UN, 2015, preamble), including new measurement initiatives. In particular, it records a commitment by all Member States to "developing broader measures of progress to complement gross domestic product" (UN, 2015, para 48). Although the plan has the ambition of eradicating poverty of every kind, it has 17 goals, known as the Sustainable Development Goals (SDGs), and 169 targets. One of the goals, for example, is to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". This goal has 12 targets, some about putting policies in place and others about achieving certain outcomes, such as a substantial reduction in the proportion of young people not in employment, education or training. The political process of adopting the 2030 Agenda (eg described in Dodds *et al,* 2017) was followed by a technical and a political process to define and agree 230 indicators to monitor progress towards the defined SDGs. This includes how progress on meeting the goals should be reported to the UN General Assembly and what needs to happen, on the ground, to collate data and compile indicators in every Member State. Much capacity building is needed to construct and publish indicators and new partnerships between national statistical agencies and organisations that already collect relevant data are envisaged.

We take it as axiomatic that the SNA as currently defined should be a central component of the wider measures of progress. There is much already in the SNA that takes us beyond the GDP headline. The SSF report starts with recommendations that can be taken forward within the existing measurement framework. However, it is popularly recorded that when Richard Stone, one of the main architects of the SNA around the middle of the twentieth century received the Nobel Prize for Economics in 1984, he is said to have remarked that SNA was a half completed project and aspects of wellbeing and social concerns still needed to be incorporated into the framework. His published Nobel Memorial Lecture more prosaically refers to "The three pillars on which an analysis of society ought to rest are studies of economic, socio-demographic and environmental phenomena. Naturally enough, accounting ideas are most developed in the economic context, and it is to this that I shall devote much of my time, but they are equally applicable in the other two fields" (Stone, 1984, p1). The SSF report helpfully covers all three pillars.

To go into accounting beyond SNA means moving into territory where monetary units are not enough, for example in assessing aspects of quality of life or the state of natural resources and the environment. We recognise that the broader system around the SNA, including satellite accounting

and the System for Environmental-Economic Accounting (SEEA), is already covering much of this ground. However, our perception is that the SNA and the development of additional or alternative measures of progress are not currently seen as integrated developments. It is telling that the SEEA website is separate from the SNA website, while noting that "The SEEA framework follows a similar accounting structure as the System of National Accounts (SNA) and uses concepts, definitions and classifications consistent with the SNA in order to facilitate the integration of environmental and economic statistics". If they are "similar" and "consistent", why not take the next step and find ways of presenting all aspects of wellbeing and progress in a coherent and holistic way? We recognise the need to continue measuring economic performance but are not convinced of Mayer's (2013, p17) conclusion that national accounts should be separate from broader measures of national wellbeing and wealth. We simply do not see why, as Mayer argues, the goal of extending national accounting to incorporate environmental considerations should be fundamentally different from the goal of creating a more inclusive measure of national and global wealth. Even though present approaches "involve quite different methodologies", we do not agree with the view that they should continue to do so. Rather, we have a vision in which the rigour currently applied to the development of the SNA would be drawn on to produce accounts of national wellbeing, both current wellbeing and to assess the sustainability of current development.

Some lessons from history?

Long before the mid-twentieth century implementation of SNA, there were significant statistical accounts covering much more than economic activity (such as Sir John Sinclair's extensive inquiry "into the state of a country for the purposes of ascertaining the quantum of happiness enjoyed by its inhabitants and the means of its future improvement", Sinclair, 1791-99). We have described elsewhere (Allin and Hand, 2014, p53) how social and environmental indicators came of age in the latter half of the twentieth century. Current initiatives to go "beyond GDP" – and we counted around 200 local, national and international such around the world – are well supported by the SSF Commission recommendations. Over recent years there has also been much work to support the Millennium Development Goals and their replacement by the SDGs, introduced above, including a proposal to "Publish and use economic, social and environmental accounts in all governments and major companies" (United Nations, 2013, p48). Attempts to measure wellbeing by more than the SNA are not new and there is clearly a resurgence of demand for wider measures, now championed by the UN's 2030 Agenda.

There have of course also been developments to the SNA since it was first introduced. (The SNA website - http://unstats.un.org/unsd/nationalaccount/sna.asp - shows the timeline of developments from 1947 to the current, 2008 version). However, the SNA remains essentially a system of macro-economic accounts. This has implications. For example, while the compilers of national accounts draw on sources that also allow distributions to be analysed, because their outputs are formal accounts only aggregate measures are generated. As Stiglitz *et al* note, the distributions of income, consumption and wealth are also important (although they tend only to go as far as calling for measures of median values, rather than looking at distributions in full (Stiglitz *et al*, 2010, p44)). The "Canberra Group" handbook on household income statistics was first published in 2001 and updated in 2011, but does not appear to have resulted in a great flowering of such statistics. We note the carefully chosen words in the preface to the latest edition, that the first edition "significantly advanced the available **guidance** on the production, dissemination and analysis of household income statistics and provided a significant **reference point** for national and international statistical agencies. It was also highly influential in the development of new international **standards** for micro level household income statistics" (Canberra Group, 2012, p iii, our bold): there is no mention here of new statistical outputs, or of increased public policy interest in the distribution of household income.

We seem to have, broadly, two parallel streams here. There is the rigour of the SNA, also found in SEEA, with "version control" allowing for the bundling of developments into occasional updated releases of the standard, as well as adherence to a strict accounting framework. Alongside this are the more free-flowing developments that have resulted in many new measures of quality of life, subjective wellbeing and the state of the environment. What is less clear in both cases is how user requirements are articulated in detail and gathered. There are, in "beyond GDP", agents making the case for change (including politicians and religious leaders, as well as commissions) and a number of "beyond GDP" initiatives seeking to identify "what matters" to people.

The UN's fundamental principles for official statistics start from the aim of "meeting the test of practical utility" (United Nations, n.d.) and the importance of relevance, although most of the principles, understandably, are about good practice in the production of official statistics, for example ensuring confidentiality of data. The principles also specify national and international co-ordination and international statistical co-operation, perhaps recognising tendencies for producers to work in silos. There is an interesting and unfortunate synergy here: the absence of a clear user requirement for national wellbeing measures enables the SNA to continue to be driven by producers, intent on maintaining the economic orthodoxy and the related accounting framework,

whilst the absence also prevents "beyond GDP" developments from gaining traction. We conclude that a fuller understanding of user requirements for "beyond GDP" is needed, and we put this at the heart of our proposal below.

Measurement challenges

As we have noted, there are already many cross-national, national and sub-national initiatives to build wider measures. In various ways, and to varying extents, these address the measurement hurdles set out in the Stiglitz *et al* recommendations, including the need for distributions as well as aggregates. However, there is more to do on the measurement front. For example, there are many "future developments" listed for the UK measuring national well-being programme, including in measuring natural, human and social capital (Everett, 2015, p40-41). These are echoed elsewhere, such as in the programme of research sponsored by the OECD to supplement the Stiglitz *et al* recommendations. Also, there are a number of different, high level measurement frameworks emerging for wellbeing, such as the OECD's well-being conceptual framework (Durand, 2015, p5) and the UN high-level panel's recommendation concerning "economic, social and environmental accounts" (United Nations, 2013, p48). The new sustainable development indicators (SDIs) have been designed to support the SDGs, which were agreed through political and diplomatic processes rather than as an overall framework. While these approaches are all broadly comparable, there are still some marked differences, for example in how sustainability is included. It would seem helpful to reach agreement on a common conceptual framework. This would also assist in mapping out and prioritising further developments in building appropriate measures.

Elsewhere in the "beyond GDP" space, many indicators of aspects of national wellbeing and progress have been proposed. There are assessments of the state of the nation in terms of environmental pollution, housing conditions, social protection and the distribution of income, and these also contain many measurement challenges. For example, Warner *et al* (2014, p S283) note that "A clear definition of global or world inequality is necessary, since different studies, with varying objectives, have used a number of different concepts and measures". The measurement of some of the features described in the Stiglitz *et al* recommendations is still relatively immature. As an example, Hacker *et al* (2014) have proposed an "Economic Security Index", designed to "fill a gap in existing theoretical and empirical analyses" for research and policy analysis, but also conclude that "Ultimately, no single measure can capture all aspects of economic security", which Stiglitz *et al* saw as "fundamental to understanding people's economic wellbeing and to giving economic policy a

wider perspective than that provided by static measures of poverty and material deprivation" (Boarini and Osberg, 2014, p S1).

We have noted that the SNA is not static and that there are many challenges for its future development. Even apart from the calls for wider measures, which national accountants may see as not within their current area of responsibility, there is a demand for greater understanding of economic activity within the traditional production boundary, as van de Ven (2014) and others have identified. For example, Coyle (2014a, pp41-2) has logged a number of concerns relating to the measurement of the contribution of the financial sector to the economy, including the calculation of "financial intermediation services indirectly measured" (FISIM). Daly has argued for improvements in "how we 'account' for government—how we measure government activities and their economic value", not only for "a more balanced debate about the role of government" but also because such improvements are important "for effective policy development and decision-making in a competitive global economy, where public contributions, properly measured, can make a very big difference in our economic performance and social outcomes" (Daly, 2014, p 3). Hickson (2014) explores how to extend national accounts methodology to put a "GDP value" on health improvements in England and Wales. Damgaard and Elkjaer (2014) have highlighted the importance of valuation in the estimation of foreign direct investment and how "measurement uncertainties can lead to important misunderstandings and affect policy recommendations". These examples, which have a strong overlap with the Stiglitz *et al* research agenda, all present complex measurement issues.

Priorities will need to be assessed and resources allocated across developments and over time. We recognise that this is easy to say but much harder to achieve, especially where statistical developments are proceeding in separate silos. However, all policy decisions involve trade-offs and the point here is to ensure clarity about what is being traded-off and transparency about how the trade-offs are made across the board in developing SNA and beyond. We see the challenges illustrated above not just as improvements to the SNA, but as steps along the journey from current measures and definitions to wider measures of national wellbeing, for example by extending the production boundary to include non-paid work.

Many of the wider indicators of wellbeing and progress are non-monetary indicators, so one over-arching challenge is how to integrate non-market social and environmental stocks, costs and benefits in some way with existing national accounts data, which, all being market-related, can be expressed in monetary terms. Is there a common numeraire for market and non-market activities and resources? There is perhaps an irresistible temptation among economists to find ways of monetarising everything.

One example is the compilation of the Index of Sustainable Economic Welfare (ISEW), which is a melding of national accounts and other data, for example on domestic labour and volunteering. The starting point is consumer expenditure, anticipating the Stiglitz *et al* recommendations to focus on consumption and on the household perspective in measuring wellbeing. Adjustments are then made to exclude the "defensive" or "regrettable" expenditures that have been included in the national accounts, and to include things that are not taken account of, such as household production and the use of natural resources. Again in line with current thinking, there is a further adjustment to take account of inequality in the distribution of incomes, though national accountants may well be perplexed by an approach that jumps between expenditure and income measures (as well as parting company with a coherent set of accounts in order to produce a new aggregate measure).

We have not yet dismissed the possibility of defining a measure of national wellbeing along the lines of the ISEW but that is closer to existing national accounts concepts and which brings in non-monetary and subjective measures. The inclusion of household production seems a reasonable step, extending the long-established production boundary to cover activities that may be extensive in particular societies, or activities that may cross into or out of the current scope, depending on consumer preference and the availability of household appliances. The extension would also remove a long held concern that the SNA makes a value-judgement over unpaid work, particularly that undertaken by women. But quite how other lines in such a new wellbeing account would be defined and measured is still unclear to us. As we have noted elsewhere, there are critiques that can be made of the ISEW that would still apply, "such as over how the choice of components is made. The concept of defensive expenditures is not clear cut: some consumer expenditure on housing, food and drink could be seen as defensive, providing shelter and avoiding hunger and thirst, while some is discretionary, but how to decide this? Costs and benefits concerned with social and environmental issues not usually measured in monetary terms need to be monetised, and ways of doing this may well depend on assumptions. Is there a conceptual basis: by making adjustments to GDP, are such indices getting closer to some underlying concept of the wellbeing of a country over a given period of time - that is, is the result getting closer to a representational measurement, or is it at the hard pragmatic end of the spectrum?" (Allin and Hand, 2014, p196).

A more recent development, drawing on the availability of subjective wellbeing data, is the Wellbeing Valuation approach. This "looks at the impact of a range of factors on subjective wellbeing (SWB) ... If we also gather data on income, we can look at effect on SWB of a change in income alongside the effect of a policy intervention (or expected benefit from that intervention). In so doing, we are able to estimate the income required to bring about the same impact on SWB as

the policy intervention, thus enabling us to express the benefits of the intervention in monetary units" (Fujiwara *et al*, 2014, p7). We do not go here into the strengths and weaknesses of such an approach – which may well be obvious to the reader – but we do note that no caution was entertained by the All-Party Parliamentary Group on Wellbeing Economics (APPGWE) in the UK Parliament, which recently recommended the use of wellbeing analysis in making the case for public spending, setting priorities and evaluating impacts (APPGWE, 2014, p7).

There are two issues bound up here. First is whether or not there is a need for some kind of common currency by which coherent and integrated, national wellbeing accounts could be compiled. This does not have to be financial. The concept of quality adjusted life years (QUALYs) is a non-financial measure in health and social care, for example, and subjective wellbeing could possibly provide a non-financial, unifying metric for national wellbeing accounts. The second issue is the need, or not, for a single headline measure. This could, like GDP or ISEW, be an aggregate measure compiled from the accounts, or it could be selected to function as the headline or gateway measure, supported by a raft of indicators and accounts. As Hall *et al* (2010, p 10) conclude, "while we are arguing for using life satisfaction as a way to summarize and integrate many other measures of well-being, we do not favour singleminded focus on any one headline number, whether it be GDP or life satisfaction". We agree: moving from the single headline of GDP to the single headline of personal wellbeing does not sound like progress in our understanding of national wellbeing.

But the issue of a common currency for national wellbeing is relevant to how wellbeing and progress is to be communicated. While, in our view, a move towards measures of national wellbeing is vital, with such measures replacing proxy measures of wellbeing derived from the SNA (eg GNP per head) in public policy and public and media debate, we need to consider whether a *single*, overall measure or index of wellbeing is needed, or if we in fact need a *profile* of measures. The arrival of 230 SDIs reinforces this question. While selections of the SDIs will be used for policy and for national conversations about the progress to specific goals, such as the quality of educaiton (Goal 4) or reducing inequalities (Goal 10), will overall progress also need to be ascertained? Another point here is that, although there are various summary measures of economic performance, it is still the case that politicians and the media tend to focus only on just one (GDP, of course), which gives only a single perspective.

If more than one headline measure is desirable then we are in the territory described by Stiglitz, Sen and Fitoussi (2010, p19), and others, as "a well-identified dashboard of indicators". For example, the New Economics Foundation has consulted and produced "five headline indicators of national success", with GDP as one of a number of "supporting indicators", to present "a clearer picture of

how the UK is performing" (Jeffrey and Michaelson, 2015). The primary concerns in adding indicators to any dashboard will be about validity and relevance, to meet user needs in a reliable way. From a presentational point of view, the number of headline indicators is also important. Common sense suggests seeking parsimony, so dashboards should be readable in a single pass. George A. Miller's work of the mid-1950s, partially reprinted in the 1990s, concluded that humans "possess a finite and rather small capacity" for making uni-dimensional judgments, with "small" here meaning seven, plus or minus two, pieces of information (Miller, 1994, p345). However, in seeking parsimony, we should note that the communication of statistical measures is probably no different from communicating by writing or speaking. Charles and Ray Eames (1953) point out that English language speech or text is about one half redundant, because this provides resilience against corruption in meaning in the transmission of a message from source to receiver. The state of the economy, society and the environment are complex concepts to portray in a few headline measures. In order to avoid misunderstandings, the publication of headline measures of wellbeing and progress would need to be accompanied by more thorough analytical outputs.

Making use of new measures: proposal for a process of national wellbeing accounting

Even more critical than the challenge of constructing measures is the need for those measures to be used. Unless measures are adopted by policy makers, they have no impact. But it is not just the policy and political use, broad though that it, that matters. We also anticipate direct use of wider measures in business, civil society and by the public. Hall and Rickard (2013, p 75) have studied initiatives around the world that aim to better measure the progress of their society. They conclude that a process of developing new metrics of progress which involves all potential users "is important in its own right because it can empower people to undertake action in advancing well-being in society. A well-handled process can lead to many benefits that go beyond the creation of new measures. These benefits can strengthen the machinery of democracy, make the business of government easier, and build our capacity to foster and expand the capabilities needed for meaningful participation in society". Moreover, Hall and Rickard observed that "benefits have arisen almost serendipitously, often to the surprise of those involved". They speculate, as do we, that even more might be achieved if benefits like these were built into the aims of a metrics project at the outset, rather than just focusing on the construction of new indicators or accounts.

So, to make progress with wellbeing measures, we propose that the *system* of national *accounts* should evolve into a *process* of national wellbeing *accounting*. In what follows, we look briefly at

options relating to the future of SNA before returning to the long-term aim we propose in this paper, that statistical offices should publish a single set of national wellbeing accounts that are accepted for use, including by people with different ideologies about economic growth.

Proposals for national wellbeing accounts have been around for at least the last ten years; although the two cases using this phrase that we have examined both major on measures of subjective wellbeing and fall far short of a set of national accounts, or indeed of an accounting framework. Kahneman *et al* (2004, p433) "propose measuring national well-being by weighting the time allocated to various activities by the subjective experiences associated with those activities" and show how this could draw on a time-use survey and on a separate survey in which respondents rate their satisfaction with time spent on different activities. The New Economics Foundation (NEF) proposed a framework for national accounts of wellbeing, based on measures of subjective wellbeing in five domains of personal wellbeing, two aspects of social wellbeing and a number of specific life domains, such as wellbeing at work (Michaelson *et al,* 2009, p21). NEF's vision places the measurement of people's wellbeing, as in their framework, "within a broader framework, also concerned with social justice and environmental sustainability. Accounting frameworks which combine these elements is where this journey ultimately needs to lead us. There is a need for further work on operationalising a multilayered, broad framework of progress indicators" (Michaelson *et al,* 2009, p50). It is this bigger picture that we seek to capture in our vision for national wellbeing accounting.

Another starting point might be social accounting matrices (SAMs). These have been around for much longer (for example, promoted in the 1980s by the World Bank as "a basis for planning", see King, 1985) and they feature widely in economic literature in many fields. SAMs are typically constructed as "a comprehensive, economy-wide database that contains information about the flow of resources associated with all transactions that have taken place between economic agents in an economy during a given period of time" (Pauw, 2003). Although SAMs sound as if they could go beyond national accounts, they generally do not. The household sector features prominently but this does not appear to extend to household production or to other non-market activities, only to transactions that have taken place within the economy defined by the national accounts production boundary. The environment, natural resources, distributions and sustainability also tend not to be included, so SAMs are not the set of national wellbeing accounts that we envisage could be constructed and used in due course.

There appear to be three main strategies that could be adopted by the SNA stakeholders (who include the producers and developers of national accounts, as well as the "owners" of SNA and its regional versions) in the face of requirements for national wellbeing accounts:

(1) **The "do-nothing" option** (as far as wider measures of wellbeing go, we know that the SNA itself is regularly updated within its existing scope and coverage). This option would need to lead to wider recognition that the SNA in full adds a lot to simply looking at GDP. Under this option we have no doubt that national accounting and the measurement of national wellbeing would both continue to develop. This is exemplified by the Mayer position mentioned above, that the treatment of national capital within national economic accounts should be "distinct" from how national capital is incorporated into national wellbeing measures. We understand that there can be distinct views of some broader phenomenon, and that pragmatism (and the established ways of doing things) might suggest keeping existing developments self-contained. However, we suggest that this misses the wider value that could be gained in meeting user requirements in a more joined-up fashion. We start from the position that the measurement of national wellbeing and progress, covering the economy as traditionally defined, but also social progress, the environment and sustainability, provides an over-arching framework, within which developments can be nurtured as a whole.

(2) **Address the classical GDP recommendations of Stiglitz**, but not embrace the full remit of measuring national wellbeing in its widest sense. It should include shifting the focus from GDP to the household sector measures in the SNA, as well as facilitating the development of distributions of income, consumption and wealth, each with a clear, two-way link between macro-economic aggregates in the SNA and micro-data, for example from household surveys. This might play to the strengths of the existing arrangements, provided that SNA developments were programmed as part of the bigger picture. However, this would then require some mechanism for managing developments in different streams. The Oxford Martin Commission for Future Generations called for the creation of "Worldstat", a new organisation to work alongside existing UN statistical agencies, "to undertake quality control of global statistics, assess domestic practices, regulate misuse, and improve data collection ... Another key task for Worldstat could be to hasten the implementation of the recommendations of the 2009 Commission on the Measurement of Economic Performance and Social Progress [the Stiglitz, Sen and Fitoussi commission]", reinforcing work being done to take forward those recommendations (Lamy *et al*, 2013, p59). We are not immediately persuaded that another body is needed, especially if the procedures, management structures and governance arrangements for the SNA could be directed to the wider remit of measuring wellbeing and progress. Also, as noted above, the major focus of attention on new measures and their usage is now the UN's

203 Agenda and the SDGs. This has been described to us as “the only game in town”. This work is being strongly steered by the UN Statistics Commission (UNSC) and Division, which also oversee the SNA. The infrastructure appears to be in place, including for example the Intersecretariat Working Group on National Accounts, set up by the UNSC to enhance cooperation among international organisations working in the same field.

(3) **Full evolution from SNA into a process for national wellbeing accounting**, to address all the Stiglitz recommendations, covering subjective as well as objective measures, and non-monetary as well as monetary indicators. This is our preferred option, because we believe that measuring national wellbeing could most usefully be developed as a framework, within which measures of economic activity (and much else) would fit. We understand that such a framework would not be a full accounting framework, but it should more fully meet the needs of users for a comprehensive, coherent and trustworthy account of national wellbeing and progress. Analysts of income and wealth are not constrained by the existing scope of the SNA. Recent papers include evidence for example on “deprivation and subjective well-being” (Blázquez Cuesta and Budría, 2014). This suggests to us that it is time to move on from the production of “data about the economic, demographic, social and environmental situation” (in the words of the UN fundamental principles) in separate systems, and reap the benefits of a fully integrated approach, for example in terms of maximising use of data and meeting user requirements efficiently.

Our modification of the terminology (system to process, accounts to accounting) is intended to flag the dynamic and multi-staged approach that we envisage. The approach needs to be planned and put into action, including setting new standards for usable and trusted measures of wellbeing and progress, to raise awareness of the new measures and to encourage and support changed behaviour among policy makers and decision takers. It will be important to create momentum so that there is a paradigm shift in how wellbeing and progress are viewed.

In addition to statistical developments driven by producers, we propose that the process should embrace:

Active identification of users and potential users of national wellbeing measures in governments at all level, in businesses, civil society, the media, households and also individuals. Balanced attention needs to be given to users, not unduly prioritising say central banks or ministries of finance, but including the public interest and business use aspects of official statistics. We also envisage that the user base and examples of usage will become more precisely defined. At present discussion is often rather general, for example referring to wellbeing measures in policy, rather than identifying specific

policy clients, such as those with an interest in how the labour market is functioning (though there is discussion of the potential for wellbeing at work policy in Allin, 2014, p450). In work commissioned by the Legatum Institute, O'Donnell *et al* (2014, p57) propose some policy priorities, including mental health and character building. Everett (2015, p40) notes that most UK government policy departments "are actively engaged in well-being research in some way, particularly analyzing and using individual subjective well-being data" and that "The impact of policies is increasingly being evaluated in well-being terms".

User requirements need to be explicitly articulated, covering both the content of the new measures and how the measures are intended to be used. This is a two way process, with producers sharing their developments as well as users expressing needs. For example, if overall measures can be developed, how would they be used and in what way would they be likely to serve users better than a collection of non-aggregated indicators? We strongly recommend building on the "national roundtables" suggested by Stiglitz *et al*, to create national debates about what matters to people.

As a starting point, the following overview of the use of GDP looks likely to stand, with minor editing, as an equally valid description of the use of wider measures of wellbeing and progress: These statistics "are among the most important, high profile statistics produced by the Office for National Statistics (ONS), providing some of the earliest signals about the health and momentum of the UK economy, including consumer and business confidence. They inform decisions that affect the daily lives of everyone in the UK, such as interest rates. They are used by a wide range of organisations and people for making and monitoring economic policy, and for informing day-to-day and strategic decisions … More than most sets of statistics, this package of outputs speaks to a very wide range of audiences for a wide range of uses, from guiding business decisions to acting as a general barometer of the economy" (UK Statistics Authority, 2014a, p1).

The current description of the use made of UK subjective wellbeing data, part of the UK's set of national wellbeing measures, is even less specific. ONS report that "the statistics are used in the policy making process by Government and for the monitoring, evaluation and measurement of policy. In addition ONS has identified that the statistics are used for international comparison purposes and to provide evidence which enables a broader understanding of the nation's progress and inform decision making by individuals and groups" (UK Statistics Authority, 2014b, p5).

There are a number of levels to user requirements, with potential needs for comparisons between countries or aggregation across a number of countries, as well as national and sub-national requirements. The emerging frameworks for national wellbeing need to be checked against their

use at these various levels. Some issues are already being addressed within SNA, such as making inter-regional comparisons within a country, where for example there are long-established data problems concerning within-national trade. Comparisons of the "real size" of national economies are now available through the International Comparison Program (World Bank Group, 2014). All of this could be helped by the expression of a number of "user cases", through which user requirements for national wellbeing data can be formulated more precisely than up to now.

User requirements need to be joined up across developments already under way, to find the common core that lies at the heart of pertinent programmes, whether they are about going "beyond GDP", meeting SDGs such as eliminating poverty, enhancing environmental protection, or ensuring green growth or sustained economic growth.

Prioritisation of development work, leading to international standards, corralling appropriate development resources and aligning them to reflect user requirements as far as possible. As the UK Statistics Authority has noted, "[Subjective] Well-being is a developing field with no national or international standards to follow. ONS told us that it is working with the Organisation for Economic Cooperation and Development (OECD) and Eurostat to support the development of standards, with OECD to produce guidelines for measuring personal wellbeing and with a Eurostat taskforce to create an ad hoc module on personal well-being for EU-SILC" (UK Statistics Authority, 2014b, p5). There will be a number of dimensions to be considered as priorities are set, including timeliness, availability in different countries, time series and reliability.

Outreach by producers, to promote new measures and to support their use. As with the determination of user requirements for wellbeing data and accounts, we cannot assume that there are well formed and articulated requirements waiting for new statistical products. Dialogue during the development of new measures needs to be followed with active marketing of new measures. Related to this is the role of branding, to build knowledge of and trust in the suppliers of national wellbeing measures, with clear understanding of what the measures should be used for.

The EU-funded BRAINPOoL project was concerned with bringing alternative indicators (beyond GDP) into policy. It found a number of high level success factors for the use of such indicators: salience for decision makers (ie relevance for policy or strategy); salience for a broader audience; credibility (eg the potential for arbitrary weighting in composite indicators, and data quality); and the importance of developing indicators in partnership with the audience at whom they are targeted (Whitby *et al*. 2014, p6). These are familiar themes for official statisticians, reflecting the UN's fundamental principles, but are worth keeping as a checklist during the development of new measures of

wellbeing and progress in order to help ensure that the wider benefits identified by Hall and Rickard are realised. As they conclude, from examining initiatives in five countries, "Processes that build legitimacy and ownership will produce a better set of measures" (2013, p 75). These all seem to us to be powerful and compelling reasons for official statisticians to engage as fully and as widely as possible, and to maintain this engagement over time.

Development of a spectrum of outputs and access routes to wellbeing measures and data, tailored for different audiences. Many official statistics are now routinely disseminated on-line but the ways in which people access websites is changing all the time. Data visualisation techniques need to be adopted to help stimulate the development and discussion of different narratives about growth. We also need to be aware of how the established models of social and political engagement are evolving, so that wellbeing measures are available and used in public and political debate and dialogue.

The issue of cross-national comparability needs special attention. Whilst respecting the UN's fundamental principles of official statistics, they should not be taken to override any needs for national measures that reflect what matters to citizens of that country. Markedly different social, economic and environmental situations and cultural norms need to be taken into account. Cross-country comparability may make most sense when everyone has a common understanding not just of what the statistics say, but also what they mean, to adapt an idea of Isaiah Berlin (1958, p23).

This must not preclude the fullest cross-national cooperation and exchange of good practice in design and use of wellbeing measures. There is much to learn from existing developments in national statistical offices and in research institutes, non-profit agencies and commercial enterprises. In a UN Development Programme Office of Development Studies working paper, Romina Bandura (2008) gave a list of 178 composite indices measuring country performance, ranking or assessing countries according to some economic, political, social or environmental measure. We commented elsewhere (Allin and Hand, 2014, p191) that "A number of these were one-off reports, but many are repeated measures over time and covering large numbers of countries. Within this inventory we can see indices that tackle almost every aspect of people's lives and the environment in which they live. Only a small proportion comes from national statistical offices".

Pertinent to building good practice, Kelley and Simmons argue that for "global performance indicators" (GPIs) to be useful as "tools of social pressures on state", such indicators should be: public and freely available; inclusive (with the aim - in principle - of full inclusiveness within a region or worldwide); published regularly and on a predictable schedule; comparative, through numerical

assignments or the use of clear labels that render normative judgments; and purposive. They acknowledge that the last is "Most difficult to determine in practice, GPIs must be produced with an intention to influence policy or practices in the area at which they are aimed" (Kelley and Simmons, 2014, p4-5).

Concluding comments

There are many other aspects to the effective measurement of wellbeing and progress that we have not explored here (we cover some of these in Allin and Hand, 2017). We have also not begun to address resource implications, though these are often huge (see for example Jerven, 2013, for discussion of data availability, data quality and reducing statistical capacity in Africa) and need to be factored in. Progress to date with measurement of the SDGs suggests that there is a clear statistical picture of the present state of the world. Going forward, however, the UN (2016) warns that "The data requirements for the global indicators are almost as unprecedented as the SDGs themselves and constitute a tremendous challenge to all countries". Our intention in this paper is to make the case for a process that will facilitate the considerable discussion, research and development that needs to take place, while starting on a "new road" in a world beyond GDP.

We quoted from the UN's fundamental principles for official statistics in our "lessons from history" section above. We recognise that these principles, supported by statistical quality frameworks such as that used across the European Statistical System (2012) should lead to the kind of processes we have set out in this paper. However, it seems to us that, rather than starting from assessing relevance, many official statistical developments are driven by the dimensions of accuracy and methodology. For example, in setting out a system for managing the quality of official statistics, Biemer et al (2014, p381) consider all dimensions but "primarily focuses on Accuracy or data quality which is considered fundamental to product quality". This is a not uncommon position among the producers of official statistics, while we seek to elevate the importance of understanding why statistics are needed and how they are to be used. We believe that there is an increasingly interested public who can give new measures impetus and legitimacy.

We also recognise that, even if "total quality" processes are followed, the evolution into measuring wellbeing and progress by wider measures than GDP is not guaranteed. Neither is there any guarantee that politicians, policy makers, businesses or the public will act in light of what the wider measures show. At best, it is likely to be a long journey. However, we believe that it will be more

likely to be successful if development and use of wider measures is supported by the authority, rigour and trust that the SNA currently conveys.

Our vision, which we believe is shared by many, is that having robust, wider measures, and having widespread engagement in their development, will first enlighten political dialogue and then inform action in the public sphere, so that we can lead better lives in more sustainable ways. If not, we would appear to be trapped in a circle where the accepted economic evidence for policy and other decision-making leads round to the same problems, issues and crises, rather than allowing us to make real and sustained improvements in wellbeing.

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