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W(H)ITHER THE SNA?

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1. Introduction

The question of whether GDP should remain the main indicator to judge how well an economy is doing has become a recurring topic in newspapers and journals and has led to the publication of a number of books suggesting alternatives. The main argument is that GDP is old-fashioned and no longer adequately represents the objectives of the 21st century where social and environmental concerns rank alongside economic ones. For some of these commentators GDP should simply be abandoned; for others major innovations are needed to make it relevant and appropriate at the present time. This sense of unease with the present *System of National Accounts* (SNA) was evident in the course of the revision to the SNA that led to 2008 version. There were a number of occasions when tensions between participants became apparent. On the one hand there were those who wished to see an extension of the system to incorporate what they saw were useful economic elaborations presently excluded. On the other hand some participants felt that it was only possible to incorporate such extensions by extensive use of modelling which they felt was inimical to the preferred option of keeping to concepts that were in principle directly observable. It is now a decade since most of the work for the 2008 revision was undertaken and the pressure to "do something" to make the national accounts more relevant to todays' concerns continues to mount. A range of options exist, from changing nothing, changing some things, changing many things through to abandoning the SNA, views that are variously displayed in the papers to this conference. The SNA is a set of recommendations agreed in the somewhat rarefied confines of international agencies rather than in academic institutions and with little role for others to influence the outcome. I believe that unless those involved in preparing national accounts engage actively with, and fairly quickly to, the criticisms being made, a sense of frustration may lead to others suggesting alternative measures that may also fail to meet all the demands being placed on GDP. Without some changes I fear that the SNA as we presently know it will wither and die. If it is to continue to exist we need to find a way to establish how it should change and so determine whither it is bound. The object of this contribution is to briefly survey how the system came into being, consider how and why it has changed over time and make some suggestions about a possible way forward in future.

2. The SNA in the Middle of the 20th Century

The SNA was born and gained acceptance in the aftermath of the two world wars at the beginning of the 20th century. At the end of the Second World War governments were concerned to rebuild their economies. One objective was simply to rebuild the fixed capital that has been destroyed in the war. Another reflected a determination that employment opportunities should be provided to people who had suffered privation during the war. The over-riding desire, however, could be expressed as a desire to build a better future. During the war governments had taken control of the economy, directing how labor and capital should be deployed and it seemed natural that this directive spirit should persist in the immediate post-war period. The aspirations for the future were captured in a number of institutions such as the United Nations and its associated agencies and in declarations. For example the Marshall plan aimed to "return to normal economic health [with] policy directed against hunger, poverty, desperation and chaos." In the U.K. the Beveridge plan was devised to address the five "giant evils" of squalor, ignorance, want, idleness and disease. Economic planning was much in favor, not just in socialist countries. Central to this was the perceived need for input-output tables that embodied the technology of different types of industry and allowed planners to estimate the consequences of the growth of one industry relative to another in terms of import requirements, job opportunities and export potential. This attitude informed the 1968 revision of the SNA where input-output analysis was the centerpiece of the system.

Ironically, it was just as this revision was being implemented that the paternalistic attitude of government was increasingly being called in question. Many developing countries achieved independence and were determined to pursue the same goals as those above but in their own way and with their own resources. A dramatic rejection of the idea that developed western economies could control the world economic order came with the rise of the oil producing exporting countries organization (OPEC) and their decision to quadruple oil prices in 1973. Virtually overnight this destroyed confidence in input-output based planning models that assumed that prices and basic industrial structures changed relatively slowly and the OPEC move led eventually to the breakdown of the Bretton Woods agreement on fixed exchange rates. Economists were being attracted to the idea of monetarism that could also be seen as rejection of the paternalistic view of government. Instead of the government directing how the economy should develop, the market should be left to operate freely. Western economists stopped thinking about targets and instruments in a planning context and devoted attention to trying to understand the workings of an unfettered economy. The fact that at about this time computers were becoming ubiquitous meant these ideas could be explored via more expansive models including those based on micro-simulation rather than ones fed by the more aggregated statistics coming from the SNA accounts.

These developments spelled the end of a "golden age" for the SNA. It was seen as tailored to policy-making based on a Keynesian system of demand management that had been found wanting in a period of stagflation. The basics of economic accounting ceased to be taught in university economics courses. As it happened this period was also the end of the golden age for the expansion of statistical offices and the collection of a wide range of not just economic but also social data. Governments wished to reduce expenditure and it was popularly believed that managerial expertise was more important at senior levels in statistical offices than technical skills and could lead to more cost-effective data better suited to the needs of government.

Why then did the SNA not die? By the 1970s, GDP in particular and its near aggregates GNP and GNI, had come to be seen as a very useful administrative tool. The idea of GNI as a basis for contributions to the European Union is high in the consciousness of European statisticians but this pervasive use was much more widespread. The United Nations committee on contributions also based their work on GDP figures and the conditions the World Bank specified for access to concessional lending was also dependent on relative levels of GDP per capita. Somewhat surprisingly, as interest in the full set of national accounts waned, interest in comparative levels of GDP per capita via the international comparisons program gained a great deal of momentum. Curiously this focusing down to a single measure with a change of emphasis from developments over time to comparisons across countries was led initially by academics and not statistical offices.

3. The 1993 Revision of the SNA

Between 1975 and 1980 the United Nations Statistical Commission had instigated a number of regional seminars to consider how best to improve economic statistics. The report that was submitted to the Commission in 1981 makes interesting reading since many of the recommendations resonate with the concerns at this conference. There is discussion about the desirability of incorporating more social concerns into the national accounts and paying attention to environmental issues, not just the depletion of natural resources but also degradation. One of the overriding concerns however was that at that time a number of different systems of economic accounts were in use and it was felt that this was unhelpful to users, especially those wanting to make inter-country comparisons as was the case for the main administrative uses. The U.S. had never implemented the 1968 version of the SNA nor indeed had the U.K. Both countries had been at the forefront of leading the developments that led to the international recommendations but then chose to maintain their own systems rather than adopt the international version. Already within the European Commission an alternative system, the European System of Economic Accounts (ESA) had been promulgated in 1970 and this was updated in 1979. The SNA had never been adopted by centrally planned economies which had their own system of material balances. In addition there were other systems in particular those developed by the IMF; the balance of payments, government finance statistics and monetary and financial statistics that were not strictly consistent with the SNA. While it was possible for so-called bridge tables to be developed showing the links between any two of these systems, these were time-consuming for the offices to compile and did not answer the question legitimately posed by users as to which of the alternative measures of similar concepts they should use.

By the 1980s, the demand for international agreements on ever-wider sets of statistics outpaced the resources of the statistical division of the UN available to develop such proposals for consideration by the Statistical Commission. One response was to establish groups of experts coming from all the international organizations and the statistical offices of individual countries to prepare the ground for new international standards. One of the first of these was created in 1986 to develop service statistics. The first meeting was hosted by the Netherlands Statistical Office in Voorburg, and the group became known as the "Voorburg group." Other similar groups were set up and also often took the name of the city where the first meeting was held as a title for the group and so collectively these groups became known and referred to as "city groups." The membership of city groups was not confined to official statisticians but could include academics and others with some involvement in the subject of interest. Subsequently, for instance, a group working on pensions benefitted considerably from the input of actuaries from accounting firms. A group working on the integration of national accounts with the standards used for government accounts helped bring both groups closer with better understanding of the concerns and constraints of each.

Not all city groups were unequivocally successful. Initial attempts to make a link between the SNA and environmental accounting hit several hurdles. Economists wanting to establish a modelling base for predicting how an economy would develop under various scenarios designed to support environmental sustainability in the future were disappointed when national accountants said they were not in the business of forecasting, only establishing ex post accounts. Environmentalists convinced of the usefulness of physical measures of the use of natural resources found the national accountants' preoccupation with monetary values unhelpful. Some progress on both has been made but it has been a very long process.

In 1983 the UN Statistical Commission recommended that the SNA be updated but was rather cautious about how far it should be changed. The mandate was to clarify and harmonize the various systems and the timetable agreed was that a new SNA should be in place by 1990. The work was to be undertaken not by the UN statistical division alone, but by an inter-secretariat working group on national accounts (ISWGNA) calling on experts from the UN, IMF, World Bank, OECD and Eurostat in association with a number of experts from individual countries. The 1993 SNA was not only later in delivery than anticipated but also incorporated much more extensive change than originally foreseen. In part this was because the 1993 SNA included not only material that had been in the 1968 SNA but also in a number of handbooks published since that date. These handbooks covered areas such as prices and quantities, balance sheets that were fully integrated with the flow accounts and the concepts of satellite accounts and social accounting matrices.

More than this, however, the experts responsible for agreeing the detail of the new system found that both clarification and harmonization inevitably often necessitated change, sometimes fairly radical change, if all parties to the discussions were to find compromises acceptable. However, the revised system did not include many of the more extensive changes espoused in the 1981 report; social and environmental concerns were to be covered in satellite accounts, not incorporated into the heart of the system.

4. The SNA in 2004

The revised version of the SNA was accepted by the Statistical Commission and, after some minor amendments, was published in 1993. (Technically, that is; the English version was printed in Canada and a snow storm meant it was not actually delivered to the UN bookshop until the first few days of 1994.) It is a common reaction that once a major exercise has been completed, those responsible pause, draw breath and turn their attention to other things. So it was for the Statistical Commission in the 1990s. Publication of a new version of the SNA and its implementation, are, of course distinct activities. In Europe, the ESA was revised in 1995 to come into line with the 1993 SNA and was implemented by member countries in 1998. A few OECD countries had implemented the 1993 SNA a year or two earlier; many other countries took longer; a few never made the transition at all.

When the Statistical Commission next considered national accounts, it was not to consider changes but to investigate why many countries had either not attempted to implement the new system at all or had tackled only limited parts of it, normally the derivation of GDP. Even now only a handful of countries have implemented the whole system through to a comprehensive set of accumulation accounts. A first reason for the delay was the availability of the text in languages other than English, a process that lasted about five years. A second was the availability of the basic data needed for the whole system. A third was training of the staff responsible for compiling the accounts. These problems persist. The French version of the 2008 SNA, for example, appeared only in 2013, taking longer to produce than the revision itself. The mobility of staff within a statistical office, to other parts of government, to other parts of the economy or to institutions in other countries means that training is never complete and in many countries with limited staff resources, in house training capacity is never established.

Nevertheless, pressure to change some parts of the system could not be ignored indefinitely. One pressing issue concerned financial derivatives. In the course of the 1993 revision, the line had been taken that these were contingent liabilities and so outside the asset boundary of the system. It became apparent quite quickly that this position was unsustainable and a proposal for incremental change to the system was agreed. Even for a change limited to the accumulation accounts, getting agreement on the right way to define and handle derivatives, and to the necessary changes in the text took time. A supplement to the SNA was issued in 2004. A description of the issue took just over three pages; the resulting changes to the text of the 1993 manual took 16 pages. This exercise demonstrated that a system of incremental changes, considered sequentially, was not viable.

In 2004 also, therefore, the Statistical Commission approved a revision to the system but circumscribed carefully the issues that could be considered. A set of 44 issues that were candidates for change were agreed; these were not to be extended though it was agreed that a further 39 issues where clarification was desirable were added shortly afterwards. Again there was a triumph of hope over experience. It was proposed that the issues would be allotted to the appropriate city group which would refine the proposed change or clarification after which the proposals would be checked by a group of national accounts experts and the revised document prepared. Some of the issues should be resolved by the end of 2004, the others by the end of 2005.

This did not happen. Some of the city groups made recommendations that had far-reaching ramifications throughout the system much wider than the extent of change mandated by the Statistical Commission. Sometimes these ramifications were deliberately proposed, often they were simply not recognized by the city group. The timing was unrealistic given the need to convene meetings of scarce and busy staff across the globe and avoid conflicting commitments. Nevertheless the first expert group meeting concerned with the revision of the SNA met in April 2004. Five further meetings of this group followed, each of which led to a global consultation conducted electronically. The first 17 chapters were submitted to the Statistical Commission in 2008 for approval, the remaining 12, which consisted largely of elaboration of the earlier chapters, were approved a year later and the complete document was published, in English, in late 2009.

5. The SNA in 2015 – Implementation Problems

The foregoing description might read as if the process of updating the SNA is arthritically slow but essentially non-contentious. Slow it may be but non-contentious it is not. Even within the world of statisticians working within government departments on national accounts there is a divide between those whose primary concern is with long-run analysis of economic developments within a single country and those more concerned with cross-country comparisons for very recent periods for mainly administrative reasons. This divide tends to coincide with another divide, between those comfortable with the idea that some series are best estimated by the use of models and those who would prefer to restrict the accounts to what can be directly measured including what is available from administrative sources. Within the EU, legislation dictates budget payments in relation to comparable GNI figures thus favoring cross-country comparisons. This preference can quickly lead to an avoidance where possible of modelling which tends to be country-specific. Ultimately, proposals to incorporate estimates of pension liabilities and of capital services into the heart of the system were rejected. Both these extensions appear only as supplementary tables, and thus beyond the limit of GNI as defined in EU legislation

To those who want root and branch reform of the SNA, this disclosure may simply underline the need to abandon the system as it presently exists. Any who are well informed about the SNA could point out that the system is itself a model and already contains at least two major elements that are not the result of direct observation. One of these is the estimate of the imputed rentals of owner-occupied dwellings. There is little doubt that owning a house provides economic benefit, but deciding how to estimate this benefit is debatable. Usually estimates are based on the assumption that observed rentals are typical of all rentals and that the decision on whether to buy or rent housing is based on purely rational economic grounds, assuming that house prices move in line with other prices including the going rate of interest. The validity of these assumptions, and the consequences for the results can alter dramatically over time. In the U.K., for example, in the 1960s the imputed rents for owner-occupiers represented about three percent of household consumption and about two percent of GDP. The proportions now are about 15 and 10 percent, respectively.

The other problematical area is where the directly reported value of depreciation is set aside to be replaced by estimates of what the SNA calls the consumption of fixed capital. Company estimates of depreciation are based on historic acquisition costs and often depend on how these are treated under prevailing tax arrangements. Consumption of fixed capital, by contrast, is consistent across time and country and is based on the current replacement cost of assets. However, it is crucially dependent on estimates of the expected life lengths of fixed assets and assumptions about how their values decline over their useful life. The distinction between gross and net measures (which is due entirely to the consumption of fixed capital) has been part of the SNA since the earliest versions, is regularly presented by countries, then largely ignored by producers and users alike. The usual excuse is that the figures are not very reliable, meaning that gross figures are used even when net figures are conceptually preferable.

In addition to these two examples it could be argued that the compilation of a supply and use table is also a modelling exercise whereby the simple economic proposition that total use of a product must equal its total supply is applied repeatedly for a large number of products. The process of applying these economic constraints is a very powerful exercise in quality control of the resulting statistics. Information from administrative sources, purpose-built surveys, ad hoc enquiries and, ultimately, common sense can be brought together in such a way as to ensure that the resulting data set is more accurate and useful than any of the individual components taken separately. But the act of balancing depends on using the underlying model to validate the results, changing some and estimating others as necessary.

These instances illustrate a common phenomenon; it is very easy to overlook the basis of something with which we are very familiar while reacting strongly to something similar which is not familiar. The lesson is that it should not be forgotten that modelling is already a part of the system and should not be used as an unthinking excuse to reject proposed extensions to the system.

The SNA is an internationally agreed set of recommendations that may be applied to any country in the world. Given the degree of variability in economic conditions, however, there is some latitude in how the recommendations are to be implemented and indeed some are deliberately ignored by some countries because the assumptions underlying the recommendations do not apply. For example the way in which pension contributions are recorded in some countries (Australia for instance) does not follow the SNA guidelines. In the limit, giving priority to the desire for comparability over conceptual correctness can lead to adopting a convention that is not quite applicable to any situation; a case of measuring the wrong thing exactly rather than the right thing approximately.

Emphasis on cross-country comparability can have another downside. All the international agencies request that information be supplied to them using a standard presentation and the SNA manual itself contains such a presentation. A presentation that can be applied to all, however, must be at a sufficiently high level of aggregation that some interesting detail is lost, though that detail may vary country by country. It is a salutary exercise, for instance, to look at the UK estimates of national income and expenditure (in the so-called *Blue Book*) for 1997, the last year before the ESA was adopted. A number of interesting tables appear that have since disappeared, for instance, separate accounts for social security funds and local government housing. The functional classification of household consumption expenditure contains some useful detail that is lost in the now standardized classification. It is understandable that when working under resource constraints and to a tight time table, it is tempting to complete the international return and think "job done" but it is regrettable if a requirement about which tables *must* be done turns into a belief that these are the only tables that *may* be done, a point returned to later.

A third consideration that concentration on cross-county work may induce is a loss of consistency over a long time period. Some economic phenomena evolve over quite a long period and can only be studied if the time series are preserved over this period. Short-term cross-county comparable data in a standardized format are important for some purposes, but so are long-run series elaborated in a way that suits the conditions of a particular country.

6. The SNA in 2015–Conceptual Criticisms

While national accountants were deliberating about whether and how to revise the SNA, a number of papers were published by academics criticizing one or another aspect of the system and suggesting how improvements might be made. However, the two sets of discussions had little point of overlap and the SNA process was barely affected by the groundswell of opinion that was building about the fact that many important aspects of life were covered either inadequately or not at all in the SNA.

In the same year that the latest version of the SNA was published, the report of the Commission on the Measurement of Economic Performance and Social Progress chaired by Stiglitz, Sen and Fitoussi was also published. This report summarized much of the academic literature about the possibilities for measuring environmental and social issues and advocated going "beyond GDP." In many ways what is remarkable about this report is not the specific content but the fact that the president of France had asked for it be written and that so many eminent economists had agreed to participate in the exercise. It brought issues that had been discussed mainly in academic journals to the general attention of economic commentators. Tellingly, one fact that emerged in the discussion provoked by the report was how little most academics understood the system they were criticizing. In 1942 Hicks published a very elegant little book entitled *The Social Framework*. It was subtitled *An Introduction to Economics* and in his introduction, Hicks suggested that "social accounting… is probably the best way to begin the study of economics." Nothing has quite replaced that book. Introductions to economic accounting have long since disappeared from standard economic texts and economics courses. The SNA manual is hardly a substitute. The English version contains 544 pages of 9 point text and a further 100 pages of annexes. It is probably true that most people who have read it all are attending this conference; it is probably also true that most people attending this conference have not read it all. Part of the reason that many economists are ignorant of what the system consists is that it is difficult to find out. Few national accountants have made an effort to fill this gap; numbers, not words, are their stock in trade but numbers without words are difficult to fully comprehend.

Not surprisingly, many national accountants tend to react negatively to criticism that amounts to saying that GDP is not a measure of welfare by saying "we are well aware of that; why do you not learn what the system is before you are so ready to criticize it." They may also go further and defend GDP as serving a number of purposes very well and assert that there are good reasons to ignore the criticisms. This position may be understandable but is it defensible and sufficient? There seems to be an increasing tendency for political commentators to try to bolster their arguments by citing official data. Unaware of the full range of what is available and, probably, with limited statistical (or maybe economic) literacy, the temptation is to reach for the series most often cited, and most easily available, GDP, whether this is appropriate or not. More literate readers of the commentaries may realize the inappropriateness of GDP and work to consider how to make it more relevant to the question at issue. This approach leads to the view that GDP should be capable of answering a very wide range of policy questions, some of which are well outside the remit of the system.

Two factors should be recognized before proceeding. The first is that the system, even as it stands, contains much more information and more aggregates than GDP. The difference between domestic product and national income, between gross and net figures and between total income and disposable income are available within the system but are seldom used as the indicator of choice to bolster popular analysis. Making these possibilities better known and publicized would be one simple step forward. The other observation is that the SNA cannot cover every social and environmental issue. A decline in the number and variety of butterflies is regrettable, but changing GDP is not likely to help in reversing the position. Recidivism of offenders may be another such example. In both cases there are factors captured in the SNA that may contribute to the outcomes but the very extensive modelling, and use of forward projections over a significant period, that would be necessary to link these items to a figure for GDP put these issues beyond what it is realistic to expect the SNA to cover in the near future.

As noted above, in the early stages of the SNA revision process, a number of city groups were involved in studying particular issues before referring their recommendations forward to the expert group on the revision of the system. Although people from outside official statistical agencies could and did participate in the city groups, the expert group itself consisted only of national accountants from government departments or the international agencies. This brings us to another legitimate criticism of the SNA, this time of process not of substance. Not only do national accountants not make it easy for users to understand the system, they make it impossible for anyone other than a person currently employed in a government department to be involved in the final discussions about revisions to the system. Regular meetings of national accountants to discuss on-going issues take place within international agencies but not only is attendance at the meetings limited to officials but little account of these meetings is available to others.

7. The SNA in 2015 – How to Move Forward?

The administrative use of national accounting aggregates is now so firmly established that it is safe to say this will not disappear in the near future. This proposition may seem to reinforce the case for doing little to change the existing system or the processes for changing it. While such an attitude may satisfy those users who are focused on the administrative uses of the accounts, it risks further alienating those users who are interested in economic analysis. If there are no deliberate and constructive steps taken to reconcile this position with the growing disquiet from outside the world of official statistics, a bifurcation may result with the SNA becoming a "heritage" statistical system while other more relevant systems are developed that may not preserve what is good in the present system.

One obvious possibility, though, would be to retain something very like the existing system as the administrative yardstick but embed this in a wider context where other issues may be explored. Alternative definitions of government debt and deficit have been established for different situations; this could be considered a precedent for extending this practice to GDP and GNI.

Some less fundamental steps could help to answer the requirements posed by economic analysts. The first step forward that national accountants can and should take without further delay is to publicize what is available within and beyond the SNA, and some positive progress has already been made in this field. A report from OECD, *National Accounts at a Glance*, now produced regularly, showed how many issues flagged in the Stiglitz-Sen-Fitoussi report could be addressed by parts of the system beyond the headline figure of GDP. Other attempts to respond to the criticisms of the SNA have led to a proliferation of work on well-being indicators, an example again from OECD being *How's life*. Most of these latter initiatives, however, result in collections of indicators that, while interesting in themselves, are not integrated with the accounting system of the SNA and so in large measure sidestep the criticism of the system per se.

A further possibility receiving more attention than previously is to consider how the standard presentations referred to above can be supplemented by tables that are more obviously directed to particular policy concerns. One of these is the possibility of sub-sectoring the corporate sectors to show multi-nationals directly. Others concern the disaggregation of households and further elaboration of the workings of financial markets within the existing accounts. The technological developments permitting the access to and processing of newly available data sets offer considerable potential in this area.

Valuable as these steps would be, they will not answer all cases where changes are proposed that would indeed lead to changes in the system. What is needed is some process that combines the best features of developing a satellite account and the work of a city group. A satellite account either takes part of the SNA and extends the detail in it or adds data from outside the system. It is an excellent way of exploring the feasibility of a new analysis and allows modifications in the light of experience. Many of the groups working on satellite accounts were either city groups or similar ones by another name. Not all were equally successful. Their composition differed from one group to another but usually consisted of some national accountants, some official statisticians with special knowledge of the topic of the group and some people from outside official offices including academics and other professional groups with a common interest. In a couple of cases, one or more of the national accountants walked away because they were not prepared to countenance the approaches being put forward. Sometimes the group could not agree exactly what the questions to be addressed were. For the most part, however, the groups were successful in articulating the issues to be addressed and making considerable progress towards finding a solution. In no case, however, did a city group manage to work through the full set of considerations necessary to adopt their proposals within the SNA. The recommendations passed to the group concerned with the SNA update which had the task of filling out the consequences of the revisions proposed and getting agreement to these. Intermediate recommendations were posted on a web site inviting comments from any interested party but almost no comments were received from other than official national accountants, possibly because there was no mechanism in place whereby the option to comment was widely known.

In order to overcome some of these problems, the suggestion made here is that a process following the pattern of that used by the International Financial Reporting Standards (IFRS) body be adopted. Their practice for making a change to one of their standards is to follow a six stage process. The first step is to set the agenda, the second to plan the project. The third step involves developing and publishing a discussion paper, a process that gives a comprehensive overview of the issue, looks at possible approaches and gives a preliminary assessment by the authors. The development of the discussion paper involves public consideration. Step four is the development of an "exposure draft." This reviews the issues and comments received on the discussion paper. It sets out a proposed standard or suggested amendment to an existing standard. The exposure draft is then open for comment again. The fifth stage is when the International Accounting Standards Board (IASB) considers the exposure draft plus comments and drafts the revised standard. The last step is after the new standard is promulgated when there is further discussion concerning any unanticipated issues about practical implementation. (Greater details of the whole process can be found on the IFRS web site www.ifrs.org)

Adopting a similar approach could bring a number of benefits. One reason why many proposals for changes to the system are so quickly discounted by national accountants is that they are not infrequently put forward by people without even rudimentary knowledge of the system. "I don't understand your system but I know what is wrong with it" is not a recipe for sympathetic consideration, however legitimate the concern being expressed. Suppose that a group involving both analysts and national accountants was assembled to get to the point of preparing the equivalent of an IFRS discussion paper on a particular proposal for change. Let us call such a group an SNA revision panel (SNARP.)

The process of developing the draft would serve to inform the analysts of some of the constraints of the system if it is to remain comprehensive, consistent and integrated; it would also expose national accountants to the legitimate needs of analysts and may allow them to suggest ways to enhance the desired analysis. Part of the process could be the completion of a check list that would ensure that all the implications for the system had been considered. An example of such a check list is attached; it covers conceptual issues, statistical feasibility, the impacts (if any) on GDP, timing considerations and asks whether a supplementary table (which could be adopted more quickly) might suffice.

Two examples might illustrate why such a checklist could be useful. Consider the suggestion that some expenditure on innovation should be treated as fixed capital rather than intermediate consumption. Does it increase GDP? Yes. Does it increase NDP? Yes, but less so. Does it change the asset boundary? Yes. Does it change the production boundary? No. Is the necessary data readily available? No, it would probably need to be modelled. Is the proposal equally applicable to all countries? It would affect industrialized countries more than most developing countries.

For the second example, consider the proposal to treat a household durable such as a washing machine as capital rather than current consumption. This sounds simple but as the answers to the following questions show, it raises quite a lot of issues. Would this change GDP? That depends on what is agreed on for the production boundary. If a washing machine is a capital asset, the services it provides are the laundering of clothes for one's own household. If the laundering of clothes for one's own household are to be included in the production boundary, it does not matter whether this service is provided by machine or by hand. In many developing countries, washing clothes by hand is still very common and so GDP would increase in those countries where hand-washing of clothes is a household service currently excluded from the production boundary. If we amend the production boundary to include these particular household services, what would the rationale be for excluding others?

Further, one proposal for treating consumer durables as capital is linked to the suggestion that all these consumer durables provide a stream of services (much as a house provides a stream of rental services) and that estimates of these services should be included in household consumption expenditure in place of the purchases of the durables. This would change the overall values of household consumption essentially by smoothing the estimates for the durables over time. If one considers a period where there is a downturn in new purchases the services rendered would decline much less, if at all. This might be desirable in terms of measuring welfare, but is it equally desirable for monitoring household saving?

This discussion is not meant to express an opinion as to whether it is desirable or not to change the treatment of consumer durables. The intent is simply to demonstrate that what looks simple may turn out to have quite far-reaching repercussions and that this cannot be established without a good knowledge of the system

Returning to the process of reaching agreement on a change, once the discussion paper was available, the SNARP should take steps to see that it is disseminated widely. The websites of international organizations are obvious candidates as repositories or links to such documents but not the most obviously eye-catching places. National statistical institute and central bank web sites could also be used as well as national and international professional associations such as the IARIW. It would be the SNARP, and not just national accountants, who considered the feedback received on discussion paper and went on to develop the equivalent of the "exposure draft" which, if further consultation finds it acceptable, would represent a draft revision to the SNA. The SNARP also would be called on to discuss further any implementation problems that arose.

It should be remembered that the SNA is a system intended for use in countries at different stages of development; what is good for developed countries may not always be so desirable for those in a less developed state. Sometimes, however, the position may change. Some time ago interest in the "hidden" economy led to the establishment of two separate groups investigating how to make estimates that could be included in the accounts. One group, in which Italy was prominent, decided that the key issue was whether economic activity was escaping statistical detection. Much of this was small scale activity often conducted by single individuals without significant capital, maybe no fixed premises and few if any employees. In addition, though, the Italian approach wished to capture deliberate misreporting by large firms and moonlighting by professionals with well-paid day jobs. The other group, the Delhi group, was interested in the phenomenon of informal activity per se, whether it was captured by statistical enquiries or not. In a country where formal employment is not the norm for the vast majority of the labor force, the extent of small scale and informal activity and how this changes over time is a key policy variable. The unrecorded section of informal activity was of interest to both groups but unrecorded formal activity was of interest in the first group and not the second; recorded informal activity for the second but not the first. The first group was more concerned with administrative uses and ensuing cross-country comparability; the second with the analytical implications of how the situation changed in a single country over time. At the present time and given the very high rates of unemployment in several southern European countries, one could argue that both concepts are useful to all countries whatever their state of economic development.

8. Conclusion

The reason for including a rather lengthy discussion about the bureaucratic processes of amending the system of national accounts was to substantiate a number of propositions:

> GDP is so firmly embedded in administrative processes that it will not go away.
>
> Although changes are made to the way it is calculated over time, the process of agreeing changes is lengthy and resource-intensive.
>
> The idea of incorporating social and environmental concerns into the system is not new but to date priority and resources have not been devoted to reaching agreement on how to do this.

This position suggests that one possible future for the SNA is that it remains the province of government statisticians and is increasingly seen as outdated and irrelevant to economists and analysts who may simply sidestep the system to develop alternative systems. Such systems run the risk of being less integrated, internally consistent and universally applied than the SNA so making long-term and cross-country analysis less robust than desirable. Such a development is possible if either the national accountants continue to refuse to engage with analysts or if, as is unfortunately common, analysts assume that national accountants have no special knowledge to contribute to the development of new analyses.

In order to avoid such a dichotomy developing, steps need to be taken to ensure both official statisticians and analysts have a better understanding and empathy for the requirements and traditional approaches of the others. National accountants need to spend more time explaining the system in ways that are accessible to non-specialists and to show how, even within the system as it presently exists, alternative presentations of the data can illuminate areas of current policy concern. The role of multi-nationals and the inequality of household income and wealth are two areas that are amenable to such elaboration.

Some analyses could be carried forward not by changing the system immediately (or possibly at all) but by juxtaposing SNA series with other sets of economic data. This is already done with labor and demographic statistics, to give indicators such as output per person employed and consumption per capita. Estimates of human capital and household services could be similarly linked to the existing system to allow an assessment of how sensitive the results were to the necessary underlying models and how analytically robust they are for long-run and international analysis.

In order to go forward towards a common end, fora need to be established where national accountants and analysts meet on equal terms with equal motivation to find common solutions to well-articulated issues. Some national accountants will need to brush up, or even learn for the first time, an appreciation of the economic thinking behind current policy analysis. Equally, analysts must recognize that compiling national accounts is a more complicated process than, say, compiling data on traffic accidents, and that national accountants have an appreciation of the availability and quality of the data, and its interrelation, that is instrumental to drawing defensible conclusions from the apparent interconnectedness of different variables.

The idea of "city groups" gives a model for such fora. Not all city groups have been successful. National accountants have walked away from some, analysts from others, but those where both types of expertise continued have proved to be quite successful. Often the work has stopped short of a full elaboration of the implications for the SNA as a whole, but with goodwill on both sides this should be possible.

Most contributions to this conference concentrate on suggesting specific changes to the SNA that the authors feel would significantly improve the usefulness of the accounts, or detailed reasons why the authors feel that the accounts should not be subject to significant change. Underlying many of them is a sense of frustration. This paper tries to address this frustration by explaining why changing the SNA has to date such a slow and resource-intensive process. Without endorsing all proposed changes, it recognizes that in response to a growing body of criticism of the SNA, at least some change is inevitable if the system is not to wither and decline. Recognizing some changes are both desirable and inevitable, a new paradigm for agreeing change is suggested, using the IFRS model for an SNA revision panel. This would allow participation from a wider group of people, would be more transparent and hopefully faster. It is my roadmap for establishing whither the SNA might be bound.

SNARP check list

Conceptual issues: Does this proposal:

Change the production boundary

Change the asset boundary

Change the definition of income

Change the classification of sectors

Change the classification hierarchy for transactions

Use a valuation method that can be used by all parties involved

Is the necessary valuation method consistent with those in the system

For changes affecting GDP

Does this change GDP or only increase its analytical depth

Does it change the growth rate

Does it change steadily over time or mainly in recent periods

Does it change NDP as much as GDP

Does it change NNI

Statistical feasibility

Does the necessary data exist

If not would minor modifications to existing data collections suffice

Does it require new data sources

If it involves deflation, do suitable price indices exist

Timing considerations

Would the proposed change impact the resources needed to produce quarterly accounts on the current schedule

Do the results actually need to be presented quarterly or would annually or even less frequently be sufficient

Global applicability

Does this change apply equally to developed and developing countries

Absolute necessity

Does your prosed extension really require total integration into the SNA or would tables that are closely associated with the national accounts and could be published in the same document be sufficient

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