

Measuring Society's Progress:

A key issue for policy making and democratic governance

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1. Introduction

“We have used GDP to determine wrongfully what is in fact the state of well-being of a country, it does not give any indication of the well-being of society, it does not measure the health of the environment, it does not measure the psychological well-being of our citizens, it does not measure the vitality of our community, and so on. What I want to say is that GDP is necessary but inadequate, and we need to develop additional indices that would tell a more comprehensive, a more holistic story about how human society is progressing. In fact, we need to know what are the ways in which we are developing the non-materialist and economic side. The human being has two needs, the needs of the body and the needs of the mind, and what we have focused on so far is mostly the body, perhaps only the body. So, it's a paradigm shift that we need to make”. This strong and clear message was given by Lyonpyo Jigmi y Thinley, the current Prime Minister of Bhutan, to the participants in the second OECD World Forum on “Statistics, Knowledge and Policy”. He also added that economists and statisticians have significantly contributed to destroy our world when they invented the Gross Domestic Product, which has become since then the main driver of policy making. “But now”, he argued, “they have the possibility to repair their mistake by developing new measures of societal progress”.

This position is not isolated to the academic world, but exists also in the political arena and especially among non-governmental organisations (NGOs). Moreover, the number of scientific papers dedicated to the measurement of well-being and happiness has grown rapidly over the last decade. The number of indicators developed around the world to measure phenomena other than GDP, or to integrate GDP and other dimensions of personal and social life, is huge. Concepts like “sustainable development”, which emphasises the trade-offs between the well-being of current generations and that of future generations, are more and more used to build policy-oriented frameworks.

Can we thus say that we already live in the “beyond GDP” world? Not at all, and the current economic crisis, as well as the huge number of people who still suffer because of hunger and the inability to meet basic needs, reminds all of us how the economic conditions of a society are fundamental for people's well-being. But at the same time, well-being and societal progress also depend on many other factors. International organisations and political leaders have recently taken interesting positions to move this agenda forward. Official statisticians are, however, still very prudent to move towards new measurement frameworks (for example, those based on subjective well-being), although a lot of work is already being done on specific aspects (such as multidimensional poverty or environmental statistics).

The aim of this paper is to argue that measuring societal progress, in all its dimensions, is a “must” for the functioning of a modern democracy and for the conduct of balanced policy making. It is also a “must” to sustain the role of national statistical offices and endure their future in a fast changing world.

2. The state of official statistics: achievements and challenges

Although some national statistical offices have more than one century of history, we have to recognise that what we call “official statistics” is a relatively recent development and that it is only after World War II, with the creation of the Bretton Woods institutions, that statistics have become a widely recognised tool to underpin public policies and a truly internationally co-ordinated effort. In spite of this relatively short history, the results achieved by official statistics are quite impressive: internationally agreed statistical standards have been developed thanks to the collaboration of national and international statisticians, including academic experts; principles and codes of conduct, including those concerning ethical aspects of the work of statisticians, have been developed and recognised in international declarations and national legislations; the amount of official statistics disseminated every year is huge and the attention paid to statistical releases by media, economists, economic analysts and policy makers is very high.

So, looking at these achievements, one should simply conclude that official statistics is in very good shape and its influence on the functioning of our economies and societies is higher than ever. But at the same time there are some worrying signals to take into account:

- the amount of resources allocated by governments to official statistics is declining in real terms in almost all OECD countries and the heads of national statistical offices (NSOs) report a growing difficulty in convincing relevant decision makers to allocate resources to official statistics. Given the need to maintain the current statistics, this difficulty is limiting the NSOs’ capacity to undertake new initiatives;
- in developing countries, where official statistics are still lacking in terms of quantity and quality, it is very difficult to convince policy makers to invest resources in this activity. Notwithstanding the efforts made by international organisations and donors, most developing countries are still trying to develop fundamental statistical tools, such as population censuses, macroeconomic statistics, labour force surveys, consumer prices indices, etc.;
- the role of private sources (i.e. research institutes who are not part of national statistical systems, market research organisations, non-governmental organisations, large companies and banks) is growing in terms both of supply of data and public recognition by media and other opinion leaders. Thanks to the development of statistical methods, computer power and the Internet, it is easier than ever to compile statistical data using administrative information (such as sales, use of credit cards, balance sheets of businesses, etc.), running opinion polls or reusing data produced by others to compile “second level” statistics (such as composite indicators);
- trust in official statistics is quite low in several countries with longstanding statistical traditions. Differences in trust in official statistics seems linked both to specific events that have affected the situation in particular cases (for example, the euro changeover in some European countries), and to cultural and political factors (for example, the influence that non-democratic political regimes has on official statistics);
- although statistical methods are widely used in several disciplines and in most professions, representing a necessary tool for all scientific and socio-economic research, university professors report a growing difficulty to make statistical courses attractive to students, beside what is strictly required to obtain degrees;
- heads of human resources management of NSOs also report a growing difficulty to attract young people, not simply because of a declining competitiveness in terms of salary relative to the private sector, but also due to the static and bureaucratic image that some NSOs project outside, especially to new generations.

Of course, all these difficulties could be explained by specific causes or country-specific events, but one could also argue that, if statistics are more popular than ever, both in terms of data and

methodology, official statistics are suffering from a more fundamental problem. In practice, they are not being recognised by society as a fundamental tool for the functioning of a democracy in the information age, and therefore are not supported by appropriate budget allocations and do not appear as an attractive choice for new generations. In other words, one could say that all these worries should be taken as early signs of a possible downturn in the cycle of official statistics, after fifty years of great development.

3. The value added of official statistics: where does it come from?

According to “business administration” textbooks, when your company is not going well you should carefully look at where your “core business” is, where the value added comes from and then focus your investments on those areas that can make your company stronger. Surprisingly enough, economic statisticians, and especially national accountants, have developed methods to estimate the value added of almost all economic activities, except for official statistics. A recent survey carried out on 28 countries¹ indicated that the most frequently used output indicators include: number of publications (or number of releases); number of publication copies sent to subscribers; number of visits to the Internet page; number of indicators accessible in the Internet databases; number of tables viewed in the Internet databases; number of presentations at conferences and seminars; number of media quotations. Many NSOs also try to measure the quality of output with quantitative indicators (punctuality of releases, number of errors discovered in published information, revisions in statistical database, etc.) or user’s satisfaction surveys.

Of course, all these measures are very important to monitor the implementation of the work programme and the usage of statistics, but can we really say that they are good measures of output and/or value added of official statistics? If we look at the statistical standards developed to measure economic activities, we find that:

- according to the International Standard Industry Classification (ISIC Rev.1), the production of official statistics is a non-market service²;
- according to the 1993 System of National Accounts, services are the result of a production activity that changes the conditions of the consuming units³;
- according to Atkinson (2005), “*the output of the government sector should in principle be measured in a way that is adjusted for quality, taking into account of the attributable incremental contribution of the service to the outcome*”.

Consequently, what should be the final outcome of official statistics, considering what the SNA says? “Knowledge” seems to be the answer: knowledge of economic, social and environmental phenomena⁴. If

¹ See <http://www.unece.org/stats/documents/ece/ces/bur/2008/25.e.pdf>.

² It is part of Section L, Division 75 “Public Administration and Defence”, Group 7511 “Administration of the State and the economic and social policy of the community”, which includes “administration and operation of overall economic and social planning and statistical services at the various levels of government”.

³ In particular: “The changes that consumers of services engage the producers to bring about can take a variety of different forms such as: (a) changes in the condition of the consumer’s goods: the producer works directly on goods owned by the consumer by transporting, cleaning, repairing or otherwise transforming them; (b) changes in the physical condition of persons: the producer transports the persons, provides them with accommodation, provides them with medical or surgical treatments, improves their appearance, etc.; (c) changes in the mental condition of persons: the producer provides education, information, advice, entertainment or similar services in a face to face manner”.

a person starts out knowing nothing about a particular issue, but then looks at the relevant statistics, should s/he not become more knowledgeable (to a certain extent) about that subject?

We could conclude, therefore, that the value added of official statistics (VAS) is linked to what the actual (not the potential) users know about the facts that are relevant to them in making their decisions. As such, from a collective point of view this value can change according to two factors: the size of the audience (i.e. the number of people who know official statistics, N); the quantity of official statistics (QS) actually included in the information sets relevant for each individual's decisions:

$$\text{VAS} = \text{N} * \text{QS} \quad [1]$$

If only a small group of people is aware of official statistics, the probability of society using them to make decisions is relatively small. On the other hand, if everybody knows about official figures, but individuals do not actually use them when making decisions, their value added will be minimal. At the same time, QS can depend on several factors, such as:

- the total amount of official statistics that reaches a generic user (QSR). This amount depends on two elements:

$$\text{QSR} = \text{QSA} * \text{MF} \quad [2]$$

where QSA represents the total statistical information produced by the official source and the role played by media (MF), which can emphasise or reduce the actual amount of information communicated to the generic user;

- the relevance of the official statistics communicated to the user (RS);
- the trust that individuals have in official statistics (TS);
- the individuals' "numeracy" (i.e. the ability to reason with numbers and other mathematical concepts, NL).

We could then write the following expression:

$$\text{VAS} = \text{N} * [(\text{QSA} * \text{MF}) * \text{RS} * \text{TS} * \text{NL}] \quad [3]$$

3. Some "megatrends"

Of course, it is extremely difficult to quantify the different elements that enter into the equation [3]. However, some sparse evidence exists. For example, as described in Giovannini (2007):

- 69% of European citizens believe that it is necessary to know key economic data (such as GDP, unemployment rate, inflation rate, etc.)⁵, but 53% of European citizens do not have even a vague idea of what the GDP growth rate is in their country and only 8% know the correct figure⁶;
- 45% of Europeans tend not to trust official statistics, while 46% tend to trust them;

⁴ As reported by Wikipedia, the Oxford English Dictionary defines "knowledge" variously as: (i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject, (ii) what is known in a particular field or in total; facts and information or (iii) awareness or familiarity gained by experience of a fact or situation.

⁵ These data were collected in 2007 by the European Commission (Eurobarometer) at the OECD's request in preparation for the second OECD World Forum on "Statistics, Knowledge and Policy" (www.oecd.org/oecdworldforum).

⁶ Similar figures have been obtained by Curtin (2007) for the United States.

- in the United States, the most common source of information on official figures is TV (78%), followed by newspapers (58%), Internet (37%), radio (34%), family/working networks (34%) and magazines (14%). The five main TV networks quite frequently report data on the unemployment rate (83% of cases on average), but much less frequently data on GDP growth (46%) or inflation rate (35%). Looking at the 27 most popular newspapers, on average they covered just 39% of the official reports on GDP, 53% of those concerning CPI and 52% of those announcing the official unemployment rate⁷;
- finally, when disseminating US economic data, Associated Press and United Press International (the most popular wire services) typically do not mention specific source agencies in their releases. This approach has a clear impact on the “brand name” of the source: 23% of Americans have never heard of official unemployment data or the source agency; the comparable figures are 34% for CPI and 40% for GDP.

How can we interpret these figures? If we believe that the role of official statisticians is just to inform policy makers, then they should not be considered relevant. Yet if we believe that the value added of statistics depend on the elements summarised in the previous section, then we should be quite worried. Of course, the role and the image of official statistics is not independent from the changes that are happening in society. In this respect, the following four “megatrends” appear particularly relevant in discussing the state and the future directions of official statistics.

3.1 Beyond materialism

Statisticians have always adapted their measurement systems to the changes observed in the economy and society. Of course, all measurement systems rely on a particular theory. What we use today to measure economic systems relies on the Keynesian theory and its translation into the neoclassical framework. Importantly, we should not forget that such a theory was developed in response to a large economic and social crisis in the 1930s, and that for several years the main users of national accounts have been economic ministries and central banks, i.e. the authorities in charge of macroeconomic management.

We have to recognise that over the last decade, both in developed and developing countries, people’s attention has been shifting from purely economic issues to other dimensions of well-being. For example, at the second OECD World Forum on “Statistics, Knowledge and Policy”, held on July 2007 in Istanbul, one of the main sessions was devoted to the question “What is progress?” and representatives from several countries, as well as from international organisations, said that in all societies the need to go “beyond GDP” as a measure of success of a community (a country, a region, etc.) is extremely clear. Without forgetting the huge number of people who still suffer because of material deprivation and the inability to satisfy their basic needs, it was recognised that the demand for non-material aspects of personal and societal well-being is emerging everywhere. The growing number of scientific papers devoted to studying and measuring well-being, multidimensional poverty, social exclusion and happiness, as well as the growing number of initiatives launched at national and sub-national levels to assess

⁷ “If we presume that the 27 papers with the largest circulations all had access to the wire reports, the lack of complete coverage would be an active decision of the newspaper to not carry the report. It was likely to reflect a judgement about the newsworthiness of the latest figures given their subscribers’ interests. There was a tendency for newspapers to more frequently report the latest official figures when it represented an unfavourable development, which may reflect the greater importance people place on the information content of ‘bad’ news” (Curtin, 2007)

economic, social and environmental trends clearly show how attentive our societies are becoming to the non-material aspects of life⁸.

3.2 Globalisation

Globalisation is fostering the demand for internationally comparable statistics, as well as for national data. This demand is focused on very timely data, with a detailed sectoral and geographical breakdown and it is mainly coming from multinationals and international investors who have to make decisions about the re-location of production processes or the investment of available funds, to decide where the most dynamic markets, the most skilled workers are, etc. National statistical systems have great difficulty in dealing with the challenges arising from globalisation. Legal constraints prevent them from exchanging data across national borders and this reduces the accuracy of some statistics, making them less meaningful. Protection of privacy also obliges national statistical offices (NSOs) to reduce the sectoral and geographical detail of data concerning businesses.

These limitations are stimulating the production of statistics using alternative sources: large databases containing data about millions of businesses' balance sheets have been built by private companies; Gallup has developed a World Poll to derive data on subjective well-being and other phenomena not measured by statistical offices; some international organisations are promoting the development of world surveys, instead of using data collected at national level; large foundations have invested huge amounts of money to establish networks aimed at collecting data that should be produced by national statistical systems.

3.3 Trust and mistrust

A declining trust (measured through surveys on people's subjective perceptions) vis-à-vis both people and institutions, including governments and media, has been registered in several countries. New generations seem to pay more attention to non-governmental organisations, bloggers and other "new" opinion leaders than they pay to the classical ones. The use of social networks to disseminate information about actual misbehaviours of multinationals, politicians and other "powers", and also to do propaganda or circulate false information, is making people more suspicious than ever about any type information, especially that labelled as "official".

The use of web 2.0 technologies should theoretically strengthen the role of "communities" in checking the quality of information disseminated on the Internet and build what has been called "the wisdom of crowds". Unfortunately the reality demonstrates that the quality control carried out by ordinary people on the information available on popular platforms is quite weak and the role of "experts" in cleaning them is still extremely important. However, web 2.0 tools enhanced people's impression that the "bottom-up" approach to the production of information is as successful as the classical "top-down" approach.

3.4 A growing number of "agents"

The size of the so called "third sector", which includes non-governmental organisations, registered a huge increase in all countries. In some countries the fragmentation of trade unions and business associations into small interest groups, fighting with each other, is a well known reality. New

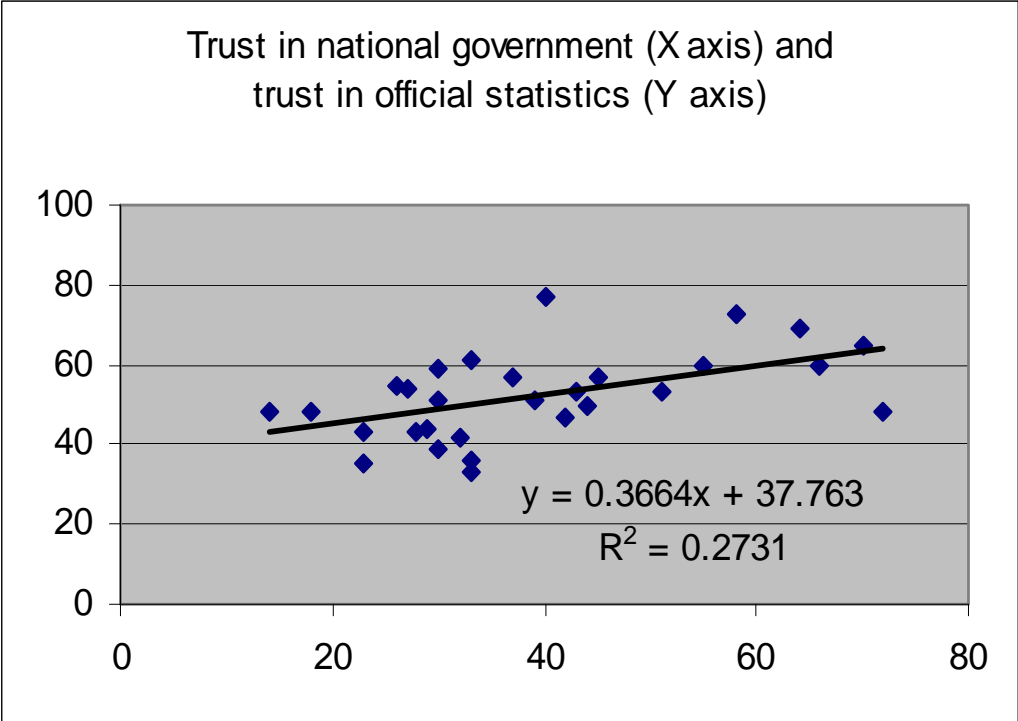
⁸ Of course, one could argue that the current economic crisis will block this process, refocusing the attention on economic issues. This is very complicated issue and we will come back on it in the final section of this paper.

technologies have given voice to an unprecedented number of people and institutions, ready to take positions on almost everything and competing for space in classical media sources (such as newspapers).

As we argued above, the success of statistics pushed several organisations to produce and disseminate their own data and indicators. In several cases reports disseminated by NGOs and other private organisations use official statistics, but in other cases they buy the services of private firms or research institutes to produce data that differ from the official ones. Particularly interesting is the proliferation of composite indicators to produce rankings of countries/regions/cities highly appreciated by media. According to a recent UNDP report, the number of composite indicators available around the world to monitor country’s performances is growing year after year (around 160 in 2007).

Media love quoting data and people are bombarded by them every day, while politicians use contradictory data just to support their positions. As citizens are not able to distinguish between high quality and low quality data they may get the impression of a “statistical cacophony” and so they tend to become sceptical about any data.

Figure 1 – Trust in official statistics and trust in national governments in European countries (April 2007)



3.5 Consequences for official statistics

The abovementioned elements should lead official statisticians to focus the production of statistics on issues relevant for people’s current and future life (and related policy making), to extend the production chain to include actions aimed at maximising the impact of statistics on public knowledge and to find new ways of collaborating with emerging “powers”. In practice, this should require:

- more investments on new measurement frameworks that better correspond to policy and people's priorities. For example, as pointed out in Lehola (2007), "*lessons from biological and. In particular, medical sciences have demonstrated that major breakthroughs and scientific applications are usually made through the robust inspection and analysis of microdata. However much of the Fundamental Principles for Official Statistics upholds the right to confidentiality of microdata. The form now required for advances runs the risk of violating, or generating a perception of violation of, confidentiality*". Statistical offices have to be able to generate synergies and collaborative efforts with other research centres, to benefit from their pioneering work and consolidate it in a better structured and internationally comparable framework;
- more investments on communication: as Prof. J. Ridgeway recently said, the difference between dissemination and communication is similar to the difference between a farmer walking on a field and distributing seeds, and making a baby. In the latter case you need some interaction, absent in the former one. Communicating statistics does not simply mean using fancy software to disseminate statistics or building a colourful web site; communication is a two-way process and statisticians have to find ways to engage people in discussing the figures disseminated, but also convince them of the relevance of the data;
- more investments on statistical literacy: very often this activity is left to statistical societies, while it should represent a key investment of national statistical offices to maximize the value added of official statistics. Especially important would be investments in the statistical literacy of new generations. Co-operations with vendors of PC-games and companies supporting social networking would be an interesting means of injecting some statistical information into the platforms used by millions of kids all over the world. Involvement of school teachers, as well as university professors, in the use of statistics to describe the world in which people live would be extremely valuable. Foundations should be approached to support these programs;
- development of new ways to feed media with statistical information. Statistical offices mainly speak to media through press releases, as it was twenty years ago when press releases were designed to mainly inform policy makers and analysts: in fact, they start by providing aggregate figures (for example the general index of industrial production) and then some breakdowns. Of course such a format does not have any attraction for the layman, while different formats could attract more attention (for example, the focus on the top five best and the five worst performer sectors of economic activity would attract more attention when the industrial production indexes are published);
- better engagement of non-governmental organisations. In several countries NGOs play a very important role in influencing public opinion and are perceived as trustful organisations. Engaging NGOs in the design of statistical surveys, as well as in the dissemination of relevant data may reinforce the relevance of statistical products and improve the image of statistical offices.

4. Statistics, citizenry and democracy

For many years, policy makers and other relevant decision makers (i.e. businessmen and representatives of NGOs, media experts, etc.) were considered "the" users of statistics, while the layman was considered to be mainly interested in "curious" data. Of course, nobody disagreed on the social function played by statistics to keep policy makers accountable, but statistics were seen as an input into the media's watchdog job and not something in which citizens were really interested. The abovementioned transformations in society are leading to a change in this approach. For example, according to a survey conducted in 2007 on the citizens of 27 European countries, almost 70% think that it is necessary to know key economic indicators. Unfortunately, when asked about the growth rate of

GDP, or unemployment and inflation rates only a very small fraction of the population are able to indicate roughly correct values for these statistics (e.g. 8% for GDP).

Should we be worried because of these results? Although a lot of economic models assume a full rationality of economic agents (including consumers = citizens), other models have been developed where the assumption of full rationality is abandoned. As noted by Curtin, *“more recent theoretical advances have emphasised two departures from the standard model. First, rather than simultaneously, information updating occurs in a staggered pattern across individuals and over time. People make decisions about whether to update information depending on the costs of acquiring, processing, and interpreting new information compared with the potential benefits of the new information. ... While there is no universal standard to judge whether the current costs and expected benefits warrant updating economic information, it is nonetheless more likely when the inflation or unemployment rate is high and variable rather than low and stable. These data were collected when unemployment, inflation, and economic growth were relatively favourable and stable, which would imply little need for updating”*.

The second modification is that the same information can be relevant for some people and not for another group, and this relevance may change over time. “Being relevant” means that a particular piece of information is needed to take a decision (looking for a job, voting, etc.). *“Indeed, rather than economy-wide information, it is more likely that local information is more appropriate. Local unemployment rates for jobs that individuals are qualified for are more important than national unemployment rates, and people that consume a greater proportion of their incomes on certain products or services would naturally view the potential benefits of information on those products or services greater than information on overall inflation. The implication of the primacy of these more specific information needs increases the importance of what economists call ‘private’ compared with ‘public’ information”* (Curtin, 2007).

This consideration is indeed true if we look at individuals as economic agents. Of course, each individual (a consumer or a producer) faces, by definition, a “local” market and therefore is more interested in the information concerning that particular market. However the situation changes if we look at the individual as a “voter”, because in this case the person should have a direct interest in knowing about the overall outcomes of policies. As discussed in Giovannini (2007a), “public choice” models based on game theory conclude that:

- a higher probability of observing the policy outcomes through reliable and independent statistics narrows welfare losses needed to give the right incentives to the incumbent politicians for examining projects and enlarges the range of examined policies. This suggests that it is in the interest of the citizens to know the economic, social and environmental conditions of their country.
- Elections are not an appropriate “stick and carrots” mechanism to enforce an effective political process. Information, instead, plays the main role. As long as indicators about concrete actions and achieved results are a correct measure of policy and are properly publicised, they may help society to achieve better goals with less resources.

In other words, knowledge about statistical indicators about policies’ outcomes allows for a shift from a game with incomplete information to one with complete (shared) information and this has a relevant impact on the way in which democratic societies work: in fact, in the Nash-Bayesian equilibrium position, a Pareto improvement would appear because of the better definition of incentive constraints and the higher ability that the voter would have to influence the politician. This means that, even for day-by-day decisions, consumers do not need to be aware of all economic and social data. Nonetheless, as participants in the democratic game they should be very much interested in them.

Notwithstanding the conclusions of these models, recent psychological research proposes a quite different way of looking at these issues, particularly regarding the behaviour of voters and politicians. For example, in his book “The Political Brain”, D. Westen concludes that the proportion of people who make their voting decisions based on facts and evidence is not only a minority, but that they suffer from a particular brain disease - like those who are not fully able to integrate and manage in a balanced way their feelings and rational considerations. Looking at the way in which the brain of a sample of American citizens reacts to images and speeches given by various politicians during electoral campaigns, Westen argues that these results confirm the view expressed by D. Hume, who said that “*reason is, and ought only to be, the slave of the passions*”.

5. About the relevance of statistics

If we believe in models based on some form of rationality⁹, statisticians should make their best effort to produce the most relevant statistics and communicate them to the maximum possible number of people (not just to policy makers). If we instead believe in the irrationality of people, the need to produce relevant data and communicate them in an appropriate way becomes even more important. In other words, if we accept that the value added of statistics comes from “knowledge” (built both on rational thinking and on less rational beliefs), official statisticians cannot look at themselves as pure “information providers”, but they have to become “knowledge builders”.

All quality frameworks for statistics developed by NSOs and international organisations recognise “relevance” as one of the fundamental dimensions of quality, but who decides about the priorities of a statistical agency (which data have to be produced, which surveys have to be conducted) and how these decisions are taken? What happens when statistical budgets are cut? Almost all statistical offices have developed tools to consult users about priorities, as well as to measure satisfaction with existing products. In developed countries an annual statistical programme of work (listing the areas of work, the surveys to be carried out or the variables to be collected) is normally endorsed by the Parliament or by the Government. During the preparation of the programme on-going and/or ad-hoc meetings are organised with main governmental and non-governmental users (i.e. representatives of national ministries, local authorities, trade unions and business associations, NGOs, media, etc.). The extent to which the requests expressed by these users are incorporated in the final programme depends on national legislations and the way in which the statistical system is organised.

The discussion about the relative importance of requests coming from government and from other parts of the society was very heated during the 1980s in the United Kingdom. A similar discussion took place in 1997, when the European Council was preparing the European Statistical Law and the article about Community Statistics in the Amsterdam Treaty. In fact, the Treaty (and therefore the Statistical Law) clearly references the needs of European policies, while failing to mention anything about citizens’ information needs or the democratic function that statistical data play in the overall democratic governance.

This approach to Community Statistics (i.e. those necessary to Community Policies) is extremely important in the orientation of overall national statistical programmes of European countries. Over the last 15 years the number of European regulations which establish statistical reporting obligations on Member

⁹ As reported by W. Shapiro (see <http://content.usatoday.com/topics/topic/Kennedy-esque>), “when the eloquent Adlai Stevenson was running for president against Dwight Eisenhower, a woman gushed to the Democratic candidate after a rally, ‘Every thinking person will be voting for you.’ Stevenson supposedly replied: ‘Madam, that is not enough. I need a majority.’”

States grew in an unprecedented way. According to some European chief statisticians, 70-80% of the work of their offices is now determined by European legislations: in a phase of declining resources provided to NSOs by national public authorities, this evolution has produced in some countries a significant cut in all those activities not required by European legislations. More limited resources available for “nationally driven” activities may also lead to less attention to emerging phenomena and to statistics for local communities, which are more costly than those aimed at measuring already well defined phenomena or designed for less detailed geographical areas.

Finally, the fact that some statistics are used for administrative purposes (for example, to distribute resources to regions or ministries, to establish penalties on those who do not reach agreed targets or exceed ceilings, etc.) obliges official statisticians to minimise changes in methods that could lead to revisions or a break in time series, often perceived as signs of inaccuracy of previously disseminated data. On the other hand, official statisticians are subject to strong pressures to deliver very timely data, but users tend to overlook the usual trade-off between timeliness and accuracy, and therefore criticise when revisions are published, forgetting that producing statistics is not about publishing “true” figures, but the “best possible” estimates at a particular point in time.

Of course, non-official statisticians are not subject to the same pressures. They can easily publish data based on small samples (media normally do not pay attention to their accuracy). They never revise their data and can easily cover new phenomena, as they do not have any obligation to disseminate consistent time series. Therefore, at least in some subject-matter domains, they appear to the public opinion more relevant and timely than official statisticians.

We should then conclude that, no matter what tools are used to identify the wide range of user’s needs, relevance of official statistics is a “must” and (together with independence from political influences) could ultimately determine the future of statistical organisations, perhaps more than other quality dimensions. This is an even more important challenge for international organisations.

6. Measuring the progress of societies

6.1 The Istanbul Declaration

From what was described above, it is quite clear that official statisticians can strengthen their role in all modern societies (no matter what level of economic development) by contributing to provide answers of fundamental questions that we, as society, seem currently unable to answer, such as: “is life getting better”? and “is our society making progress?”. In June 2007, three years after its 1st World Forum on “Statistics, Knowledge and Policy” held in Italy, the OECD, in collaboration with other international organisations, ran the 2nd World Forum in Istanbul on “Measuring and Fostering the Progress of Societies”. Some 1200 people, from over 130 countries attended. Presidents and ministers mixed with civil society leaders, captains of industry met the heads of charitable foundations and leading academics. They all shared a common interest in wanting to develop better measures of how the world is progressing.

The conference led to the *Istanbul Declaration*, signed by the European Commission, the Organisation of the Islamic Countries, the OECD, the United Nations, the Organisation of the Islamic Conference, the United Nations Development Programme, UNICEF, UNESCO, the United Nations Fund for Partnership, the World Bank, and several other organisations. The Declaration states that “*a culture of evidence-based decision making has to be promoted at all levels of government, to increase the welfare of societies*”. Moreover, the institutions who signed affirm their “*commitment to measuring and fostering the progress of societies*” in all their dimensions and to supporting initiatives at the country level and to “*urge statistical offices, public and private organisations, and academic experts to work alongside*

representatives of their communities to produce high-quality, facts-based information that can be used by all of society to form a shared view of societal well-being and its evolution over time”.

The Declaration also calls for action to identify what “progress” means in the 21st century and to stimulate international debate, based on solid statistical data and indicators, on both global issues of societal progress and how societies compare. Finally, the Declaration calls for actions to:

- Encourage communities to consider for themselves what “progress” means in the 21st century.
- Share best practices on the measurement of societal progress and increase the awareness of the need to do so using sound and reliable methodologies.
- Stimulate international debate, based on solid statistical data and indicators, on both global issues of societal progress and comparisons of such progress.
- Produce a broader, shared, public understanding of changing conditions, while highlighting areas of significant change or inadequate knowledge.
- Advocate appropriate investment in building statistical capacity, especially in developing countries, to improve the availability of data and indicators needed to guide development programs and report on progress toward international goals, such as the Millennium Development Goals.

The World Forum participants shared the view that the world needs leadership in this area and encouraged the OECD to begin a Global Project on “Measuring the progress of societies” in collaboration with others (see below).

6.2 A world movement

As the OECD World Forums, as well as the investigations recently carried out on this issue, have demonstrated, the number of initiatives launched around the world to measure progress/well-being/sustainable development of countries and local communities is simply amazing. The US-based Community Indicators Consortium, the French Forum for other indicators of wealth (FAIR), the Latin American initiative *Como Vamos*, the Italian network *Sbilanciamoci*, the UK initiative on the measurement of wellbeing of local communities, the experiences promoted by the Council of Europe for the measurement of well-being of local communities with the involvement of citizens, the reports promoted by the Australian and Irish statistical offices on measuring the progress of their societies, the *State of USA* and *Canadian Index of Well-Being* initiatives, the more recent activities carried out in South Africa, Hungary and Mexico to establish roundtables to measure progress are just few examples of a growing movement.

More recently, the French President Nicolas Sarkozy has established a Commission on the “measurement of economic performance and social progress”. Led by Prof. J. Stiglitz and participated in by four other Nobel Laureates and well-known experts from all over the world (<http://www.stiglitz-sen-fitoussi.fr>)¹⁰, the Commission is addressing the limitations of current statistical frameworks (for example,

¹⁰ Chaired by Stiglitz and with Amartya Sen as Chair Adviser and Jean-Paul Fitoussi as Coordinator, the Commission includes the following members: Bina Agarwal (India), Kenneth Arrow (USA), Anthony B. Atkinson (UK), François Bourguignon (France), Jean-Philippe Cotis (France), Angus Deaton (USA), Kemal Dervis (UNDP), Heiner Flassbeck (UNCTAD), Marc Fleurbaey (France), Nancy Folbre (USA), Jean Gadrey (France), Enrico Giovannini (OECD), Roger Guesnerie (France), Geoffrey Heal (USA), James Heckman (USA), Claude Henry (France), Daniel Kahneman (USA), Alan B. Krueger (USA), Justin Lin (World Bank), Andrew J. Oswald (UK), Robert D. Putnam (USA), Nick Stern (UK), Cass Sunstein (USA), Philippe Weil (France).

national accounts) to provide meaningful measures of societal well-being in the short and long term, and is developing research work to overcome such limitations. The Commission will present its final report in April 2009.

The main concern that led President Sarkozy to establish the Commission was the growing distance between current measures of economic performance, in particular those based on GDP figures, and people's perceptions about the quality of their life. *"This gap is so large and so universal that it cannot be explained by reference to money illusion and/or to psychological characteristics of human nature. The issue here is both analytical and political, and current statistical systems, which may have served us well in a not too distant past, are in need of serious revisions"*¹¹. To organise its work, the Commission selected three main directions of study which correspond to three of the already identified main causes of divergences between perceptions and measures:

- Classical GDP issues: limits of GDP as an indicator of socio-economic progress or economic performance can be addressed by investigating possible extensions or modifications of the current conceptual framework;
- Sustainable development and environment: one of the biggest concerns about current measures of economic performance and social progress is related to sustainability and one of the areas where sustainability is most questioned is the environment;
- Quality of life: this direction of study covers the measurement of social progress taking into account broader perspectives on well-being, including metrics derived from asking people how they themselves feel.

One outcome of the Commission's work will be suggestions for alternative indicators which may provide a better description of economic performance and social progress. Taking stock of similar work conducted in the past, the Commission will be cautious about the number of indicators proposed. Here, as elsewhere in economics, there are trade-offs: a larger number of indicators may better reflect the diversity of issues and individual situations, but an excessively large number may provide a confused picture of the overall situation. On the other hand, a single figure mixing a large number of socio-economic phenomena provides an inadequate basis for appropriate policy measures.

In June 2008, the World Economic Forum established a Global Council on "Benchmarking the progress in societies", with the participation of experts from several institutions¹². The OECD Chief Statistician is the chair of the Council. A first meeting of the Council will take place in Dubai in November, while a session on this issue will be scheduled during the January 2009 Davos Forum.

The foundational document of the Council states that *"capturing and quantifying prosperity and the related progress in economies and societies is an essential step in helping governments and civil society to prioritize actions, policies and strategies ... Although economic growth and competitiveness are key elements towards assessing societies' well-being, and tracking progress in increasing wealth, it has become increasingly clear that this prosperity does not map out one-to-one to other aspects of social progress. Yet, social and political aspects are equally important. Indeed, there is no universally accepted measure of well-being, and there are different and equally valid definitions of what this concept actually entails"*. Four dimensions will be especially considered by the Council:

¹¹ See the "Issues paper" available on the Commission's web site.

¹² N. Burnett (UNESCO), P. Cheung (United Nations), D. C. Esty (Yale University), R. N. Garcia (IMCO), D. Kauffman (World Bank Institute), J. A. Kurtzam (Kurtzam Group), R. A. Lawson (Capital University), J. Olaya (Transparency International), R. Layard (London School of Economics), H. Rosling (Karolinska Institutet), A. M. Said Aly (Al-Ahram Centre), Ruut Veenhoven (Erasmus University Rotterdam), S. Young (International Labour Office), D. Farrell (McKinsey & Company), Kemal Dervis (UNDP) and Ian Ayres (Yale Law School).

- which metrics are used by the different benchmarking tools and which are the indicators and indices most widely used as monitoring and policy instruments at the national level?
- which are the variables that could complement measures of income and build a more nuanced and accurate understanding of economic and societal progress? Can a common definition of well-being, and a common set of indicators, be agreed upon?
- what can be done to improve statistical capability, comparability and reliability of data across countries?
- how can data be made available to the general public more effectively in order to promote openness and government accountability? Can the foundations and organisations established to promote statistics literacy and dissemination to the civil society in a number of countries be replicated elsewhere? How can their actions be made more effective?

6.3 The Global Project on “Measuring the progress of societies”

In July 2008, the OECD Council officially established the Global Project on “Measuring the Progress of Societies”. The Project exists to foster the development of sets of key economic, social and environmental indicators to provide a comprehensive picture of how the well-being of a society is evolving. It also seeks to encourage the use of indicator sets to inform and promote evidence-based decision-making, within and across the public, private and citizen sectors. The Project is open to all sectors of society, building on good practice and innovative research work.

The initiative aims to assist societies to measure their progress, by assisting with:

- **What to measure?** Encouraging discussions about the *what?* To measure progress one needs to know what it looks like. Progress undoubtedly means different things to different societies, and we will encourage and assist societies to have a dialogue about what progress means to them.
- **How to measure?** Working with experts from around the world the Project will develop a better understanding of how progress can be measured – especially in emerging and complex areas not yet covered by statistical standards.
- **Ensuring that the measures are used.** When good statistics exist, they too often go unnoticed or are misunderstood by a broad audience. New ICT tools have the potential to bring dramatic improvements: the Project will foster the development of new tools and approaches to help decision makers and citizens develop a better knowledge of their society using statistical information.

The Global Project is quite ambitious, but it still in its early stages and much is yet to be decided. It has already received firm offers of support from international organisations, development banks, academic experts, NGOs and governments to help take the work forward. The OECD is now working closely with several organisations to implement a work programme and deliver specific outputs¹³. The

¹³ **Partners:** World Bank, The United Nations Development Programme, UNICEF, Inter-American Development Bank (IDB), African Development Bank (AfDB), UN Economic Commission for Africa (ECA), UN Economic Commission for West Asia (ESCWA), UN Economic and Social Commission for Asia and Pacific (ESCAP), International Association of Auditor Generals (INTOSAI), European Commission (EC), Council of Europe (CoE).

Associates and Sponsors: Korean National Statistical Office (KOR), Kessler Foundation (ITA), Unicredit Bank (ITA), Institute for Economic Studies and Analyses (ITA), International Institute for Sustainable Development (CAN), STATEC (LUX), Boston Foundation (USA), North-Eastern University (USA), Community Indicators

activities of the Project range from training courses, research activities, organisation of events, development of ICT tools, etc.¹⁴

Several meetings/conferences are already scheduled over the next 12 months covering both “old” and “new” ways of looking at these issues, such as: how to involve citizens and local communities in measuring and fostering progress (with CoE); the effective relevance of evidence-based policy making (with US academy of sciences); how to design data for decisions (with the International Institute for Information Design); how quality of life contributes to societal progress (with the International Society for Quality of Life Studies). Finally, the third World Forum will take place in Busan (South Korea) on 27-30 October 2009. 1500 participants are expected to attend the conference. 3500 people are expected to be involved in preparatory events.

In the meantime, several countries have already established initiatives to measure societal progress (Australia, USA, Canada, Mexico, Hungary, South Africa) or are going to do so in the near future (Morocco, Italy, Finland, etc.) also thanks to the OECD initiative. Others have already similar processes focused on sustainable development, poverty reduction, etc. and are interested in linking them to the Global Project.

7. Towards Wiki-Progress, a global platform to measure and assess societal progress

As already mentioned, a huge number of initiatives aimed at measuring economic, social and environmental developments, through statistical indicators, have been identified. Each of these initiatives uses its own “taxonomy” of progress (quality of life, sustainable development, etc.), as well as its own set of statistical measures. Although a complete analysis of these taxonomies has not yet been carried out, the impression is that in many cases the main dimensions of progress considered are not so different.

While the Global Project aims at creating national roundtables to identify what progress means for a given country, it cannot expand its activity to reach all sub-national initiatives, which, in turn, often provide very interesting ideas and practices on how to build, disseminate and use indicators. Therefore one of the key questions for the future work of the Project is how to link the sub-national level with the national and supranational levels. Another key challenge of the Global Project is to stimulate, on a worldwide level, an exchange of best practices on how to establish progress initiatives, to build and disseminate indicators and to engage stakeholders in such activities. Finally, given the global dimension of the Project, the “dream” of building a single repository of progress indicators, where users can compare situations for two or more countries, regions or local communities, should be accomplished.

Consortium (USA), Young Foundation (UK), Hewlett Foundation (USA), Fondation du Devenir (SWI), University of Sienna (ITA), Arab Institute of Training in Statistics (JOR), Oxfam International (UK), International Statistical Institute, Joint Research Centre of the European Commission (JRC), PARIS21, The Lisbon Council, International Society of Quality of Life Studies.

¹⁴ In particular, the following outputs are envisaged over the next 18 months: Taxonomy of societal progress dimensions linked to existing proposals for their measurement; Handbook on “Measuring Progress”; Guidelines on how to measure particular dimensions of progress; Launch the “Journal of the Progress of Societies”; Knowledge Base on initiatives to measure progress (well-being, quality of life, etc.); Training material and courses on how to measure progress and establish progress roundtables; Report on what makes a set of key indicators successful; Survey module to measure what citizens know about the progress of their society; Knowledge base on ICT tools; Guidelines on how to design websites to communicate indicators selected by progress roundtables and interact with users; Release and promotion of ICT tools to communicate data and indicators.

To address all these issues, the Global Project is working towards the establishment of a global platform to serve all people in the world to understand and debate, using statistical indicators, whether the world itself, or a particular country or region, is making progress. Given all the objectives mentioned above, as well as considering the technical and resource constraints, such a platform cannot follow the “classical” approach of web building. Fortunately, the development of Web 2.0 tools makes the problems less insurmountable. Thanks to the contact established in 2007 with several very innovative companies and government agencies active in the field of ICT, the idea of building a wiki platform, “Wiki-Progress”, emerged in June 2007 during the Istanbul Forum.

The main attribute of a Wiki is that authors contribute their knowledge to a single repository, designed to represent the synthesis of what the “collective intelligence” is able to build about that particular subject. As reported on Wikipedia, a wiki:

- “invites all users to edit any page or to create new pages within the wiki Web site, using only a Web browser without any extra add-ons;
- promotes meaningful topic associations between different pages by making page link creation almost intuitively easy and showing whether an intended target page exists or not;
- seeks to involve the visitor in an ongoing process of creation and collaboration that constantly changes the Web site landscape”.

A key characteristic of wiki technology is the ease with which pages can be created and updated. Generally, there is no review before modifications are accepted. Many wikis are open to alteration by the general public without requiring them to register, while private wikis require user authentication to edit pages, and sometimes even to read them. WikiProgress should bring data and metadata in the same environment to build a single, integrated database. Moreover, it should allow a simple use of statistical data to create charts and tables to be posted on its pages. The development of a relational database whose dimensions evolve over time following a “bottom-up” process poses immense difficulties from a technical point of view, but the Project has identified a possible solution and is working towards the development of a first pilot, to launch the platform in 2009.

As already mentioned, Wiki-Progress should be able to represent the catalyst of initiatives existing around the world on the measurement of progress, as well as their use for raising awareness amongst stakeholders, informing them on key economic, social and environmental trends and allowing them to discuss relevant issues based on solid evidence. Therefore, while Wikipedia answers questions like “Who is this person?”, “What is this?” and so on, Wiki-Progress should mainly answer the following questions:

- Who is developing initiatives on measuring progress (well-being, quality of life, etc.);
- What type of taxonomy do these initiatives use?
- Which indicators are being used to measure the different dimensions of progress?
- How is my country/region/community achieving over time and in comparison to other similar territories?

Moreover, Wiki-Progress should represent “the” place where both experts and practitioners could share their practices on indicator design, calculation and dissemination, as well as where stakeholders interested in developing initiatives in this field can find reference documents and assistance on how to establish progress initiatives, design websites, download software, etc. Finally, Wiki-Progress should represent a tool for the Global Project, to enable extraction from existing initiatives of the information necessary to identify good practices, run comparative studies, show similarities and compare the differences between various initiatives, etc.

To reach these objectives, Wiki-Progress should be a multi-purpose website, with two main parts:

1. A “Classical Wiki” (similar to the current www.wikigender.org) where users can find:
 - materials developed by the Project (proceedings of conferences, handbooks and guidelines, software, etc.), contributed by the Partners and the Associates to the Global Project;
 - information about existing or new initiatives aimed at measuring progress around the world, contributed by those who run these initiatives and/or other people.
2. A “Statistical Wiki”, where data and metadata can be shared, assessed and eventually uploaded at the end of a “quality-assurance” process. In particular, the user should be able to:
 - upload data and metadata and submit them for quality evaluation;
 - navigate the database by country (map and list) or by topic (taxonomy and list), exploring data and metadata;
 - create tables and charts and export them in various formats to populate texts, blogs, wikis, etc.

8. Conclusions

In this paper we have argued that, notwithstanding the number of challenges and risks that national statistical offices and international organisations are facing, official statistics can strengthen its fundamental role in the “information age”. To do that, statisticians have to show their ability to be relevant, innovative and communicative vis-à-vis all components of a modern society, including citizens. They also have to be able to drive a measurement agenda coherent with new economic, social and environmental paradigms and trends. In this context, providing a satisfactory answer to questions like “is life getting better?” or “is the society progressing or regressing?” is vital, especially in a context where the monopoly of statistical production has definitely gone.

It is not possible to conclude this paper without trying to evaluate how the current financial crisis could impact on what we have discussed so far. Actually there are two possible impacts of the crisis on the public opinion and individuals’ mindset: the first is to pay more attention to economic factors, pushing people to do their best to rebuild their previously achieved level of income and economic wealth. The second is to recognise that the race to maximise income in the short run does not lead to a better society or a sustainable path and that policy has to pay more attention to elements like vulnerability or insecurity in people’s life, and therefore to focus on aspects linked to social capital.

Tony Atkinson recently noted that “*in a democratic society governments have to persuade members of the society of the legitimacy of the objectives, and the argument has to be made and tested*” and that “*improvement in the macro-economic numbers cannot be assumed to imply commensurate improvements in living standards across the population*”. The financial crisis has made clear to citizens that the growth in GDP per capita observed in OECD countries over the last decade has been mirrored by a large increase in income and wealth disparities. Will this lead to the definition of new, and more legitimate, social objectives?

Before the crisis, Barack Obama said “*we measure progress [of this country] by how many people can find a job that pays the mortgage; whether you can put a little extra money away at the end of each month so you can someday watch your child receive her college diploma ... We measure the strength of our economy not by the number of billionaires we have or the profits of the Fortune 500, but by whether someone with a good idea can take a risk and start a new business, or whether the waitress who lives on*

tips can take a day off to look after a sick kid without losing her job an economy that honours the dignity of work". After the crisis political leaders are underlining how a new balance between the "State" and the "Market" has to be found. Contrary to what has happened over the last two decades, the fundamental role of the public expenditure to support economic cycles has been cited in several countries as a "must".

How will policies address the risks coming from the expected recession? Which targets and indicators will be used to measure their effectiveness? In the short run, it is likely that the usual measures will be used. Nonetheless, we should not forget that what we today call "national accounts" was developed after a similar crisis. So, why should we assume that this time will be different? For example, empirical research shows that there are very few events that affect in a permanent way people's happiness: losing a job is one of them. Will policy makers take into account this result and thus ask statisticians for a continuous monitoring of happiness, as is current practice for business and consumer confidence? Concepts like vulnerability and trust have been mentioned several times during the last weeks, but they are not measured in an appropriate way. Will economists and statisticians develop a solid way to measure them and evaluate how risks affect current well-being? And what about a quarterly measure of income distribution, like we have today for GDP?

Maybe this crisis will represent for the social dimension what global warming is representing for the environmental dimension. Maybe this will lead to better measures of what economists call "relational goods", i.e. those immaterial factors that underpin the functioning of markets and societies. Several commentators have already recalled the similarities with the current situation and the big crisis of 1929. Therefore, it could be useful to also look at the words used by F. D. Roosevelt to describe the sense and the direction of his "New Deal" policy. For example:

- *First Inaugural Address, March 4, 1933*

... In such a spirit on my part and on yours we face our common difficulties. They concern, thank God, only material things. Values have shrunken to fantastic levels; taxes have risen; our ability to pay has fallen; government of all kinds is faced by serious curtailment of income; the means of exchange are frozen in the currents of trade; the withered leaves of industrial enterprise lie on every side; farmers find no markets for their produce; the savings of many years in thousands of families are gone. More important, a host of unemployed citizens face the grim problem of existence ...

... Happiness lies not in the mere possession of money; it lies in the joy of achievement, in the thrill of creative effort. The joy and moral stimulation of work no longer must be forgotten in the mad chase of evanescent profits ...

... Recognition of the falsity of material wealth as the standard of success goes hand in hand with the abandonment of the false belief that public office and high political position are to be valued only by the standards of pride of place and personal profit; and there must be an end to a conduct in banking and in business which too often has given to a sacred trust the likeness of callous and selfish wrongdoing. Small wonder that confidence languishes, for it thrives only on honesty, on honour, on the sacredness of obligations, on faithful protection, on unselfish performance; without them it cannot live ...

... If I read the temper of our people correctly, we now realize as we have never realized before our interdependence on each other ...

- *Fireside Chat on the New Deal, 7 May 1933*

... Two months ago we were facing serious problems. The country was dying by inches. It was dying because trade and commerce had declined to dangerously low levels; prices for basic commodities were

such as to destroy the value of the assets of national institutions such as banks, savings banks, insurance companies, and others ...

... Even before I was inaugurated I came to the conclusion that such a policy was too much to ask the American people to bear. It involved not only a further loss of homes, farms, savings and wages but also a loss of spiritual values—the loss of that sense of security for the present and the future so necessary to the peace and contentment of the individual and of his family. When you destroy these things you will find it difficult to establish confidence of any sort in the future ...

... The people of this country have been erroneously encouraged to believe that they could keep on increasing the output of farm and factory indefinitely and that some magician would find ways and means for that increased output to be consumed with reasonable profit to the producer ...

... Hand in hand with the domestic situation which, of course, is our first concern, is the world situation, and I want to emphasize to you that the domestic situation is inevitably and deeply tied in with the conditions in all of the other nations of the world. In other words, we can get, in all probability, a fair measure of prosperity return in the United States, but it will not be permanent unless we get a return to prosperity all over the world ...

- *State of the Union Address, 3 January 1934*

... Without regard to party, the overwhelming majority of our people seek a greater opportunity for humanity to prosper and find happiness. They recognize that human welfare has not increased and does not increase through mere materialism and luxury, but that it does progress through integrity, unselfishness, responsibility and justice ...

All these speeches mention aspects of real life and of societal progress that are not yet properly measured. Statisticians have a great opportunity: they have to read the early signals emerging from society and policy, and react as quickly as possible to measure them, finding innovative and effective ways to join forces with economists, social scientists and other researchers. It is a matter of contributing to successfully overcome the crisis, to respond to the growing demand of accountability of policy makers and to underpin the development of new visions for our societies. Finally, it is about contributing to the improvement of people's lives.