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Measuring wellbeing using the Dutch National Accounts

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Remarks:
The views expressed in this paper are those of the author and do not necessarily reflect the policies of Statistics Netherlands.

MEASURING WELLBEING USING THE DUTCH NATIONAL ACCOUNTS

Summary: Policy makers, economists and the like often use GDP as an indicator of the welfare of a society. However, welfare and the broader term wellbeing depend on more aspects than economic performance alone and therefore benefits from a multidimensional approach. The System of National Accounts provides a systematic overview of not only economic performance but also of social, environmental and other factors. Satellite accounts play an important role in this. This paper gives a short summary of different extensions of the System of National Accounts that have been developed at Statistics Netherlands in the last decades to come to a more complete approach of measuring wellbeing.

1. Introduction

Gross Domestic Product (GDP) is often used by policy makers and economists as an indicator of welfare. However, welfare and the broader term wellbeing depend on more aspects than economic performance alone. Wellbeing generally refers to an individual being well, happy or prosperous (Van de Ven et al; 2000). This means that wellbeing is mainly an individual phenomenon, which complicates its' measurement significantly, because individual preferences must be taken into account. Another important aspect of wellbeing is its sustainability. Indicators should measure the success of a society in achieving progress in the short term without damaging prospects for continued progress in the long term. In this paper we acknowledge the existence of a difference in the concepts of welfare and wellbeing and find that the concept of wellbeing includes more than welfare alone, which has an economic base. We refer to the paper written by Van de Ven et al (2000) as they have paid more attention to the interpretation of these concepts.

Besides measuring economic performance, the System of National Accounts 1993 (SNA93; UN et al., 1993) and the European version of the National Accounts 'European System of Accounts 1995' (ESA95; Eurostat, 1996) facilitate the incorporation of different aspects of wellbeing within the System of National Accounts (SNA) using satellite accounts and modules. Statistics Netherlands (Kazemier et al., 1999; Van de Ven et al, 2000; De Haan et al, 2002) advocate the use of this integrated accounting system for the measurement of wellbeing instead of using a set of footloose indicators or one single indicator. The 'System of Economic and Social Accounting Matrices Including Extensions' (SESAME) (Keuning, 1996; Keuning, 1997) is a modular information system which combines the central national accounting framework with social, environmental and other modules to

supply integrated indicators on different aspects of wellbeing. The SESAME has only been partially implemented in the Netherlands (see Kazemier et al, 1999; Van de Ven et al, 2000; De Haan, 2002). This framework should be seen as a basis in which different modules are added, depending on analytical requirements.

This paper provides an overview of the work on the measurement of wellbeing which has been undertaken at Statistics Netherlands. Our approach is based on SNA and the establishment of a set of indicators to measure wellbeing (Van de Ven, 2000). This paper summarises the various steps that have been taken at Statistics Netherlands in the area of the measurement of welfare and the broader term wellbeing and the steps that will be taken in the future.

2. Regular production of the National Accounts

The central framework of the System of National Accounts (SNA) consists of the supply and use tables and institutional sector accounts. These tables and accounts address economic aspects of wellbeing like National Income, total investment, disposable income and capital formation. Labour accounts or in Dutch 'arbeidsrekeningen' are a third part which have been added to the Dutch central accounting framework. These accounts contain detailed information on various dimensions of employment. Currently, research is done to extent the labour accounts with statistics on labour market dynamics (Kee and Milot, 2005; Statistics Netherlands, 2005(a), p. 192-198, 2005(b), p 29-33)

In the Netherlands the central framework of the National Accounts has been extended with social and environmental accounts, which are both updated annually. The relationship between the environment and the national economy (De Haan, Keuning and Bosch, 1993; De Haan and Keuning, 1995; Keuning and De Haan, 1996; Keuning, Van Dalen and De Haan, 1999, De Haan, 2004; Schenau and Hoekstra, 2006) is addressed in the National Accounting Matrix including Environmental Accounts (NAMEA). The NAMEA consists of the framework of National Accounts with the supply and use of goods and services expressed in monetary units linked with completely integrated environmental accounts where the input of resources and output of emissions and pollutants are expressed in physical units. An important extension of the environmental accounts is the National Accounting Matrix including Water Accounts (NAMWA) (Brouwer et al, 2005). NAMWA is a further specification of NAMEA for water, using the same basic structure as the NAMEA. The systematic presentation of information on the environment and economy facilitates an objective analysis of economic and environmental policy issues. The sustainability of wellbeing and its progress are closely linked to the environment.

Information on the relation between persons, households and the economy are included in a Social Accounting Matrix (SAM) (Timmerman and Van de Ven, 1994). A SAM is very relevant for the measurement of wellbeing as it contains detailed information on employment, distribution of income and expenditure of income presented by household and employment categories. A SAM is closely

linked to and based on SNA which places these social statistics in their macro-economic context. The central framework extended with the NAMEA and SAM form the foundation of the SESAME (Kazemier et al, 1999; Van de Ven et al, 2000; De Haan et al., 2002).

3. Other modules

Statistics Netherlands has also researched other kinds of modules which also contribute to the measurement of wellbeing. The time-use module is an extension of the Dutch National Accounts which has been compiled on two occasions (Kazemier and Exel, 1992; Van Rooijen-Horsten et al, 2004). This module gives insight in the time spent on paid labour (SNA), unpaid labour (non-SNA) and non-productive time measured (Statistics Netherlands, 2002, p. 282-287). The valuation of unpaid time has been addressed only in passing and is an interesting but controversial issue especially in view of wellbeing. A leisure hour may not have the same value or appreciation as an hour of work and thereby influencing wellbeing.

The socio-demographic module provides extensive information on the labour market, broken down by person characteristics like gender, age, level of education, and composition of the household to which the person belongs and has been compiled once for the Netherlands (Kazemier et al, 1999; Van de Ven et al, 2000). This module is closely linked to the SAM but includes more detail than the SAM.

The establishment of a module on safety/security is expected to be available at the end of 2006 (Kleingeld et al, 2006; Statistics Netherlands, 2003, p. 315-324). This module describes in detail the supply and use of goods and services in the area of safety in line with SNA93. These goods and services are not only supplied by government institutions, like the police and army, but also by private companies, like security firms, law firms and insurance companies.

Investigations into the area of Research and Development (R&D) in SNA93 are part of the module on knowledge (Statistics Netherlands, 2003, p. 295-299; De Haan and Van Rooijen-Horsten, 2004). R&D is not considered as an activity leading to the creation of intangible assets within SNA93, however this is expected to change in the forthcoming SNA update. Knowledge is closely linked to the measurement of wellbeing as it affects the future of a society in its core. Sustainability of an economy is highly dependent on the knowledge within a society and therefore making for instance the capitalisation of R&D relevant. Productivity statistics is considered a key priority at Statistics Netherlands and therefore efforts are made to develop productivity accounts (De Haan, 2005; Statistics Netherlands, 2005, p. 182-192). These productivity accounts will not be limited to labour productivity only but will also include capital.

Like in many other western European countries, the ageing of the population of the Netherlands is a growing concern. The share of the elderly in the population is expected to increase considerably the coming decades and the associated financial problems need to be addressed soon (Gebraad et al, 2001; Statistics Netherlands,

2003, p. 307-315; Statistics Netherlands, 2005, p. 166-182). Information on ageing is collected in a module which is presently being constructed at Statistics Netherlands.

Some initial research has been done to establish a module on healthcare. The project was to include a more detailed description of the healthcare suppliers and healthcare commodities (Statistics Netherlands, 2003, p. 300-306). However, due to limitations in data sources this project was postponed. A module on social protection was discontinued due to data unavailability.

These different modules and extensions often show interrelations. For obvious reasons, health is closely connected to environmental problems and ageing of the population. These interrelations might complicate analyses considerably but also make them more interesting. The advantage of this approach is that all the different aspects of wellbeing described here, can be related to each other as all are linked to SNA.

4. Final remarks

The SESAME framework provides an integrated approach for the measurement of different dimensions of wellbeing. The measurement of wellbeing is not only important for policy making purposes, but also for comparison or evaluation purposes. It is important to determine whether wellbeing has improved or deteriorated. The SESAME should not be seen as a static object that needs to be completely implemented, but should be taken as a steppingstone, a starting point. It is a framework which can be applied according to the wishes of its user. Statistics Netherlands has always put emphasis on the multidimensional aspects of wellbeing and does therefore not support capturing wellbeing in one single indicator (Van de Ven et al, 2000; De Haan et al, 2002). A set of indicators are required. Their weighing is explicitly considered a policy assignment.

The modules presented in this paper measure wellbeing taking the society as a whole instead of the individual. This means that these statistics on wellbeing concentrate on the level of household categories, employment categories or the nation thereby paying little attention to the individual person or household.

The approach of measuring wellbeing by Statistics Netherlands is founded on an integrated and consistent framework, the System of National Accounts including satellite accounts. So far, Statistics Netherlands has addressed the measurement of wellbeing on a partial basis, focussing on a range of aspects of wellbeing. The challenge for the future is to draw a complete picture of the development of wellbeing.

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