Alternative policy indicators

Book Section

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It is now often argued that society is steering with the wrong compass. Most decision-making processes are based on Gross Domestic Product (GDP), favouring economic options that generate its increase. GDP has long since been used as an indicator of economic performance, progress, and even welfare. Moreover, it is on the basis of GDP that countries are internationally 'ranked'. However, the increasing salience of environmental issues since the end of the 1960s has led to growing controversy concerning the interpretation of GDP, in particular regarding a number of shortcomings, summarised as follows:

- The traditional System of National Accounts (SNA) focuses on flows only whilst ignoring stocks (environmental or cultural) and the problems generated by their depreciation.
- Negative externalities, such as environmental pollution or crime, are not taken into account in the assessment of economic performance and progress.
- Distribution and inequality issues are not taken into account either.
- The SNA focuses on production processes that generate monetary exchanges solely; therefore, services that do not involve monetary exchange (e.g. house work) are not considered to be contributive to economic welfare.

The rationale of research in 'green accounting' has been to correct these shortcomings. Two general approaches have been developed. The first aims at constructing an 'adjusted' economic indicator by subtracting or adding what is not included in the calculation of GDP. Numerous methods have been developed to calculate a 'sustainable income', an 'aggregate adjusted indicator' or a 'Sustainable Social Net National Product'. They are all based on the idea that environmental resources can be seen as 'natural capital' since they contribute to the production of goods and services. The strength of the first approach is that the depreciation of natural capital is viewed, as is the case for human-made capital, as detrimental to wealth and welfare. Hence, it is subtracted from GDP, and so are 'Defensive Expenditures', incurred to repair or prevent damages caused by environmental degradation (to our health, for instance). Perhaps the main weakness of viewing the environment as capital, however, is that, embroiled in the economic logic and jargon, it has lost its intrinsic value and dynamic dimension in the eyes of those who calculate 'green types of GDP'. Even worse, the calculation of a green GDP is based on the idea that the newly included figures must be expressed in monetary terms in order to be included in the equation. Consequently, in this first approach of 'green accounting', research efforts became centered on developing valuation methods to measure the importance of the environment in monetary terms, viewed as the only way of communicating with policy makers. These methods animated much controversy, both from a technical and an ethical perspective and, in parallel, some countries' experience of environmental policy-making showed that policy-makers can use information that is not expressed in monetary terms. This resulted in giving more importance to the second type of research, focused on 'satellite accounts' in physical rather than monetary terms.
Satellite accounting has provided new ways of apprehending environmental valuation and policy making. It focuses on describing ecosystem functioning, hence allowing us to identify better the impact of economic activities on the environment.

This is the case for the two most famous and established systems of environmental resource accounts: i) the French Natural Patrimony Accounts and ii) the Norwegian Material Flow accounts. Satellite accounts can also focus on social information (as is the case in the Social Accounting Matrices). They are therefore expressed in physical terms, but linked to the standard SNA in order to show the interactions between the natural and the economic systems.

The System of Integrated Economic and Environmental Accounts (SEEA), developed by the United Nations uses both the physical and monetary approaches and synthesises various valuation methodologies into a flexible framework. At present, it is the only green accounting framework that carries any international authority.

The debate on green accounting forms part of the broader debate on indicators of sustainability, which is currently extremely popular since indicators are viewed as a first step towards realising sustainability. Numerous 'partial' indicators have been developed. Some indicator frameworks have also been constructed that are more informative concerning the interdependencies between fundamental environmental, economic and social themes, and that reflect the holistic and systemic dimension of sustainability. A growing number of these frameworks are being developed into systems of green accounts (e.g. the Dutch National Accounting Matrix including Environmental Accounts). The European Commission has also developed frameworks of environmental indices to help the decision-making process shift towards policy tools that are more adequate to help in the operationalisation of sustainability.