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POLICY USES OF NATIONAL ACCOUNTS: AN OECD PERSPECTIVE

Invited Paper submitted by OECD*

This paper begins by summarising the changes in the ways that national accounts statistics have been used over the last 50 years. It then considers how national accounts are presently used in the OECD Secretariat for its regular work of monitoring economic developments in Member countries and formulating recommendations for macro-economic policy and structural adjustment. National governments carry out similar tasks so that national governments use national accounts statistics in much the same as does the OECD Secretariat.

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Background

1. There have been many changes in how national accounts statistics have been used in the 50 years or so since they became widely available. This section briefly examines some of these changes. It deals only with countries that used some version of the System of National Accounts (SNA) as opposed to the Material Product System (MPS) previously used by the Soviet Union and other centrally-planned economies.

2. Some of the earliest national accounts were developed in the United Kingdom in order to provide an empirical basis for the macro-economic theories that were being developed in the 1930s and 1940s by Maynard Keynes and other economists in Europe and America. The national accounts were used to show the relationships between consumption, investment and saving and how government manipulation of these aggregates could influence overall economic activity and, in particular, the level of employment. These early accounts were also used by Keynes in a 1940 report to the British government, *How to Pay for the War*, showing how resources could be reallocated towards government consumption by reducing business investment and household expenditure.

3. In the 1950s and 1960s, national accounts became available for a wide range of countries. They were primarily used to measure "economic growth" which had by then come to mean rising per capita GDP. In this period several influential studies were published on how GDP growth varied between countries and over time[1]. What were the causes of these differences and what government policies could make GDP grow faster? Interest in "growth accounting" – identifying the factors that contribute to rising GDP – has continued to the present time. In 2001 the OECD Development Centre published Angus Maddison's monumental growth accounting study, *The World Economy: A Millennial Perspective*.

4. In the 1960s and 1970s, several developing countries – India, Egypt and Algeria among others – experimented with central planning and some OECD countries tried a less rigid form sometimes referred to as "indicative" planning. All such plans framed their targets in terms of growth of GDP, capital formation, output, consumption and other national accounts aggregates, and they often used input-output techniques to assess the resource requirements of different plan targets.

5. At least in OECD countries, planning had become unfashionable by the 1980s. The proper economic role for governments came to be seen as the provision of stable macroeconomic conditions and of a regulatory framework favourable to private enterprise. In what follows, we consider how national accounts statistics are currently used by the OECD Secretariat, in conjunction with Member countries, to:

- devise policies to maintain stable *macro-economic* conditions; and

– create appropriate regulatory systems through what is usually referred to as *structural adjustment*.

6. Note that national accounts statistics have other important policy uses that we do not consider. For example:

– development aid policies usually include targets for aid flows as a percentage of GDP and the effectiveness of aid programmes may be measured by their impact on total or per capita GDP in recipient countries;

– industrial policies aimed at encouraging the growth of particular kinds of manufacturing or service industries often make use of input-output tables or data on value added by kind of activity;

– within the European Union, per capita GDP is used to identify countries (and regions within countries) that need development funds;

– the EU's Stability Pact prescribes targets for government deficits and debt levels that are defined by reference to national accounts aggregates;

– international programmes aimed at poverty reduction use per capita GDP to identify target countries and measure the effectiveness of poverty reduction measures; and

– most international organisations use national accounts to assess the contributions to be paid by Member States.

7. In addition, the SNA, broadly defined, includes **satellite accounts** that are specifically designed for policy purposes. These include the UN system of environmental and economic accounts, social protection accounts (Eurostat), tourism accounts (OECD and the World Tourism Organisation), health accounts (OECD) and natural resource accounts that have been developed by several countries including France, Norway and the Netherlands. To date however, few countries have made much progress in implementing satellite accounts and their use for policy purposes remains rather limited within the OECD area. France and the Netherlands may be exceptions.

8. Finally, **social accounting matrices** (SAMs) have been developed to show the relationships between aggregate flows of income and the economic situation of various socio-economic groups. Like satellite accounts they have been so far compiled by relatively few countries, but those that have done so - Botswana, Indonesia and the Netherlands for example - have found useful policy applications of SAMs, particularly in the area of income distribution and social protection policy.

Macroeconomic policy

9. In most OECD countries, the broad aim of macroeconomic policy is to maintain growth of real GDP and employment at rates that are consistent with low or zero rates of price inflation. Of course, within the OECD area, governments give different emphasis to employment versus price inflation and there is increasing concern with the sustainability of different growth patterns rather than with the growth of GDP as an end in itself. Nevertheless, non-inflationary growth of GDP and employment is the central aim of macroeconomic policy in most Member countries.

10. Monetary and fiscal policy instruments are available to attain the objective of non-inflationary growth. Manipulation of interest rates by central banks is the main monetary instrument, while taxation and government expenditures are the fiscal instruments available[2].

Statistics needed for macroeconomic policy

11. The exercise of macroeconomic policy requires monitoring the growth of GDP, employment, price inflation and related variables in the recent past, and forecasting likely developments in the next 6 to 12 months. The OECD Secretariat carries out a monitoring/forecasting exercise for its Member countries and the results are published twice a year in the OECD *Economic Outlook*. The econometric model that is used for the OECD forecasts is similar in most respects to the models developed by the Member countries themselves and it is used here to show the kinds of economic statistics on which macro-economic policy is generally based. They are listed in Table 1.

12. The variables in Table 1 are divided into four subject areas: employment, income and inflation, financial indicators, demand and output, and external indicators. Within each group variables drawn directly from the national accounts are printed in regular type and non-national accounting variables are in italics. Of the 30 variables in the table just under half (14) are drawn directly from the national accounts. Two points deserve attention:

- The range of national accounts variables in Table 1 is quite limited. It covers the goods and services account at constant prices, the household sector accounts up to saving, the general government accounts up to net lending (referred to as "general government financial balance" in Table 1) and the rest of the world accounts (to obtain "current account balance"). If macro-economic policy is agreed to be a principal use of national accounts, the priority parts of the SNA can be identified as the goods and services accounts and the relevant parts of the rest of the world accounts and of the sector accounts for households and general government. This was one of the main considerations that lay behind the ISWGNA's recommended Milestones for the implementation of the 1995 SNA[3].

– Several aggregates shown do not appear at all in the SNA – final domestic demand, which is the sum of private and government consumption and gross fixed investment, and total domestic demand, which also includes stockbuilding. Moreover the breakdown of gross fixed investment into public, residential and non-residential cannot be easily obtained from the standard SNA accounts. The economists' aim is to identify business investment – i.e. non-residential, non-public investment – but business investment does not appear as such in the SNA. Clearly there are differences between what economists want and what the 1995 SNA provides[4].

13. Macroeconomic models based on the kinds of statistics listed in Table 1 provide a medium-term framework for macro-policy. But central banks and finance ministries need to take decisions before many of the variables in Table 1 become available. Even in countries where quarterly national accounts are released rapidly after the quarter, the national accounts variables listed in Table 1 will usually be the last to arrive. Short-term macro-policy, therefore, and interest rate policy in particular, may not make much use of national accounts statistics. Instead, policy decisions are based on rapidly available statistics such as the consumer price index, (or an index of "core inflation"), employment and unemployment, unit labour costs and "confidence indicators" from business tendency surveys. The latter are of growing importance in several OECD countries. The Tankan survey in Japan is closely followed by the Bank of Japan, the Purchasing Managers Survey is influential in interest rate decisions by the United States Federal Reserve Board and the IFO (Munich Institute) survey is closely watched by the European Central Bank. The special value of these surveys is that their results are available rapidly, they collect information from key actors in the economy and they are forward-looking in that they ask about the intentions of business people concerning employment, production and investment in the near future.

Table 1. National accounts and other economic variables used in OECD semi-annual forecasts	
Employment, income and inflation	*Employment* *Unemployment rate* *Compensation per employee* *Unit labour cost* *Labour productivity*
Financial indicators	Household saving ratio General government financial balance Current account balance Short term interest rates Long term interest rates
Demand and output	Private consumption Government consumption Gross fixed investment Public Residential Non-residential Final domestic demand Stockbuilding Total domestic demand Exports of goods and services Imports of goods and services GDP at market prices
External indicators	*Merchandise exports* *Merchandise imports* *Invisibles, net* *Current account balance* *Merchandise export volumes* *Merchandise imports, volumes* *Export performance* *Terms of trade*

Structural adjustment policies

14. Structural adjustment policies may be aimed at any areas where governments pass laws to regulate the economic, social or environmental behaviour of households or enterprises. They are here classified into those which aim to:

- improve the efficiency of markets for labour, capital and products;
- improve efficiency of government provision of health, education and social services; and

– ensure the sustainability of economic growth for future generations.

15. For several years now, the regular OECD *Economic Surveys* of its Member countries have reviewed the structural adjustments made in the recent past by Member countries, identified remaining inefficiencies and suggested policy actions to remedy them. To illustrate the range of actions covered by the term *structural adjustment*, Table 2 lists some of the issues that have been considered in recent *Economic Surveys* for Australia, Korea, Poland and the United Sates.

Table 2. Types of issues covered by structural adjustment policies in OECD countries

Areas for struct. adjustment	*Examples of actions recommended*
Labour markets	Decentralise wage-setting. Ensure minimum wages do not price out low-skilled workers. Increase working time flexibility. Improve education and training.
Capital markets	Improve functioning of government debt market. Improve banking supervision by adopting international standards for loan classification, loss provisioning and accounting. Encourage inflows of foreign direct investment. Reduce the level of government ownership of banks.
Product markets	Reduce the number of state-owned enterprises through privatisation. Ensure that health and safety regulations do not act as trade barriers. Roll back support for farmers. Reduce customs tariffs on goods with very high duties.
Government provision of health, education and welfare services	Improve health care for poor adults. Improve public efforts to provide English language training to adults. Put a ceiling on the value of owner occupied dwellings that is exempted from the wealth criteria for receiving old-age pensions. Simplify tax laws for pensioners.
Sustainability/environ-ment	Introduce a domestic cap and trade system for CO_2 emissions. Reduce use of pesticides and fertilizers that damage the environment. Consider carbon tax on all carbon-based energy products including coal and natural gas.

Statistics needed for structural adjustment policies

16. Designing policies for structural adjustment typically requires access to a wide range of specialised statistics. Very few of these are drawn from the national accounts. Instead they are

usually taken from administrative records maintained by ministries of education, health, environment, agriculture, transport and energy or from data compiled by central banks and tax authorities. But although there is little overlap between the national accounts and the subject matter of structural adjustment policies, this does not mean that national accounts are irrelevant in the area of structural adjustment.

17. First, GDP statistics are frequently used as a reference point in evaluating the relative performance of countries in a wide range of policy areas. Democratic governments are generally sensitive to claims that they are performing better or worse than their neighbors. This is particularly true for the Member states of the European Union. GDP-based indicators are commonly used to assess relative strengths and weaknesses and identify areas where remedial action may be required. For example:

- *energy intensity* and *CO_2 intensity* are important indicators in assessing the sustainability of economic growth and show, respectively, the amounts of primary energy used, and of carbon dioxide emitted, per unit of GDP;

- government expenditures on health, education and defense as a percentage of GDP are often used to identify countries which may be devoting exceptionally high or low amounts to these various services;

- *tax to GDP ratios* (taxes plus social security charges as shares of GDP) are used to assess whether taxes may be stifling enterprise or driving away investment from abroad;

- the stock of foreign direct investment as a percentage of the GDP is used to identify countries whose tax or investment regimes may be unfavorable to foreign investment.

18. Second, growth accounting techniques are commonly used to identify social and economic factors that may contribute to economic growth and, hence, to identify areas where structural adjustments may be needed. OECD Member governments recently requested the Secretariat to analyse the causes underlying differences in growth performance in OECD countries and identify factors, institutions and policies that could enhance longer term growth prospects. Various econometric techniques were used in this study but the basic approach was to first see how much of the growth of GDP could be explained by growth in labour and capital inputs and to then examine how much of the remaining growth of GDP ("multifactor productivity") could be explained by factors such as research and development expenditure, the variability and level of inflation, expenditure on education, levels of taxation, infrastructure investment, openness to foreign trade, etc.

19. Third, data on GDP growth can be used to measure the benefits of structural adjustment policies. The benefits of different levels of trade liberalization are sometimes measured in terms of additional growth of GDP for the participating countries. The OECD Secretariat has developed synthetic indices measuring the extent of regulation in its Member countries[5]. These indices are regressed on GDP growth rates to demonstrate the potential gains from deregulation.

Summary

20. This short note has looked at how national accounts statistics are used by the OECD Secretariat for economic policy purposes. While it is true that OECD staff do not make policy decisions directly, there is abundant evidence that their analytic and forecasting work has a significant influence on policy making in Member country capitals. Moreover, the analytic and forecasting techniques used by the OECD Secretariat are mirrored in Member countries capitals. The use made of national accounts statistics by OECD may therefore be taken as a good guide to the uses of national accounts more widely with the OECD area.

21. Economic policy in the OECD countries has two main strands: macro-economic policy is carried out using monetary and fiscal instruments - manipulation of interest rates and changes in the levels of government taxation and spending; *structural adjustments* are carried out through changes to the regulations governing markets for labour, products and capital, through greater efficiency in the provision of government services and through measures to ensure environmental sustainability by "internalising" the externalities associated with the use of non-renewable resources and pollution of air and water.

22. National accounts are used to establish the medium-term framework for planning monetary and fiscal policies and for monitoring their effectiveness. The data concerned are drawn from a small part of the full SNA - specifically, final expenditures on the GDP at current and constant prices, the rest of the world account and the sector accounts for government and households. Producing reliable estimates of these aggregates and releasing them in a timely fashion are priority tasks for countries in developing their national accounting systems.

23. In general, there is not much overlap between the subject matter of the national accounts and structural adjustment. Structural adjustment policies are usually based on analysis of detailed, specialised statistics, many of which are drawn from administrative sources. Nevertheless the national accounts play an important role in standardising these data to make inter-country comparisons possible. In most OECD Member countries, and especially in the EU sub-group, convergence to group norms is a major concern of policy makers. Measures expressed as ratios or shares of GDP are essential for this purpose. National accounts statistics are also essential inputs into the growth accounting studies that are used to identify the institutional and social factors and economic policies that contribute to higher growth. Structural adjustment policies can then be

devised to encourage institutions and other factors favorable to growth and discourage social and institutional arrangements that are inimical to it.

24. The national accounts statistics relevant for structural adjustment are again rather limited. For standardising key statistics robust measures of GDP are required at both current and constant prices. They must be robust in the sense that both levels and growth rates are reliable. Appropriate currency converters – i.e. *purchasing power parities* - are also required. In addition, growth accounting studies often use value added by kind of activity as the dependent variable rather than total GDP although the level of detail is usually not more than the first digit of the ISIC or equivalent.

Notes and References

1. See for example Simon Kuznets. *Modern economic growth: Rate, structure and spread.* New Haven: Yale University Press, 1966 and Edward Denison, *Why Growth Rates Differ,* Brookings Institution, Washington D.C. 1967.

2. The use of both monetary and fiscal instruments is now restricted for the Euro 11countries. Interest rates are controlled by the European Central Bank (ECB) and the Stability Pact restricts government expenditures by limiting budget deficits as a percentage of GDP. In effect, macroeconomic policy for the Euro 11 is now largely the responsibility of the ECB.

3. The *Milestones* have now been replaced by a set of implementation criteria based on the new features of the 1995 SNA. While these criteria accurately measure the extent to which countries are following the 1995 SNA rather than some earlier system, they provide no guidance (as did the *Milestones*) to countries in planning the implementation of the new system.

4. The terminology used in Table 1 is taken directly from the OECD *Economic Outlook*. Non-SNA terms include *general government financial balance*, *stockbuilding, gross fixed investment* and *private consumption*. These traditional terms are still preferred by most English-speaking economists rather than the more precise - though often pedantic - terms used in the SNA.

5. The synthetic indicators are based on the OECD Regulatory Database - www.oecd.org/subject/regdatabase. The construction of the indicators is explained in *Summary Indicators of Product Market Regulation with an Extension to Employment Protection Legislation,* Giuseppe Nicoletti, Stefano Scarpetta and Olivier Boylaud, Economics Department Working Paper No. 226, OECD, Paris 2000.
