What tangled webs we weave: Measuring federal public expenditure

Research Objectives
Dr Marcela Astudillo Moya and Dr Raúl Porras Rivera present this Social Accounting Model based on accounts by Institutional Sectors, which is a pioneering method to measure the Mexican economy.

Detail
**Bio**
*Marcela Astudillo Moya* has a doctorate in Public Administration from UNAM. He belongs to the National System of Researchers of the National Council of Humanities, Arts, Science and Technology (CONHACYT). His research interests are Public Finance and Documentary Research Methodology.

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References

Personal Response

*What inspired you to conduct this research?*

"The Accounts by Institutional Sectors is a little-used statistical resource, the SAM systematises its use and makes it more accessible to the researcher, the possibility of annual updating facilitates a more consistent periodic analysis."

*What other applications of the Social Accounting Model do you hope to see developed?*

"The SAM is a formal statistical and systematic ordering of cross-sectoral transactions in any economy, so it can be used in any theoretical approach."
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The Social Accounting Model (SAM) is used in social and economic analyses to explain the transfers made between institutional sectors. It quantifies these exchanges to analyse the financial and economic structure of a country, as well as the resulting social benefits. Dr Marcela Astudillo Moya and Dr Raúl Porras Rivera at the National Autonomous University of Mexico apply the recommendations of the System of National Accounts Manual (SNA) to develop the SAM for Mexico and examine a case study to evaluate the effectiveness of Mexican welfare transfers.

When economic and social analysts try to explain how institutional sectors interact with their environment, the Social Accounting Model (SAM) provides the necessary analytical framework. This model quantifies the exchanges between economic sectors, such as how outputs from the cotton industry become inputs in textile and clothing production. Through the SAM, analysts can trace the transactions that occur between institutional sectors and thereby understand the economic and financial structure of a country, through its circuits of production, distribution, and accumulation. As an example of such work, Dr Mariela Astudillo Moya and Dr Raúl Porras Rivera at the National Autonomous University of Mexico present a case study of the interaction between the general government and households through welfare transfers.

Thus far, application of the SAM that focuses on economic activity have largely derived from General Equilibrium Theory. In this perspective, interactions between supply and demand within markets will ultimately result in a balance between the two. More specifically, the theory recognises that markets are disrupted, including by the emergence of new technology, policy changes, or any number of developments. These disruptions skew supply or demand in relation to the other, raising or lowering prices and creating knock-on effects for other economic sectors. General equilibrium is the idea that once market forces adapt to all such disturbances, supply and demand will even out and prices will hypothetically stabilise across the entire economy. The key word is ‘hypothetically’ though, since proponents of the theory hold that general equilibrium is a utopia to be aimed towards rather than a concrete state that is likely to be achieved.

This application of the SAM is based on transactions carried out by institutional sectors, among themselves and with the rest of the world. It presents a wide possibility of economic and financial analysis and enables examination of the circuits of production, distribution, and accumulation within the economic system. This allows researchers to go beyond analyses defined by General Equilibrium Theory, which is based on the production stage. SAM, therefore, expands the possible analysis into a wider range of perspectives—the orthodox (based narrowly on economic and financial factors and General Equilibrium Theory) and the heterodox (adding social factors and alternative theoretical approaches). The case study by Astudillo Moya and Porras Rivera uses the heterodox orientation to examine social assistance policy. The evidence obtained indicates that social assistance has little effectiveness in improving the social wellbeing of households.

The economic crisis of the 1930s exposed the failure of market forces to harmonise supply and demand. The researchers found that social assistance has little effectiveness in improving the social wellbeing of households.

CONTROVERSY SURROUNDING GENERAL EQUILIBRIUM THEORY

Although many analyses have interpreted results generated by the SAM in relation to the goal of general equilibrium, the theory is a source of controversy. The economic crisis of the 1930s exposed the failure of market forces to harmonise supply and demand. During this period, economist John Maynard Keynes led the charge against the theory of general equilibrium and the philosophy of supply-side economics to which it relates. Indeed, his critique included criticism of supply-side policies such as cutting taxes, decreasing regulation, and allowing free trade as a means of increasing aggregate supply in the economy and thereby expanding output, boosting employment, and lowering prices.

Keynes countered the supply-side approach by arguing that households use income for purposes other than consumer spending. This establishes a floor to demand that cannot be lifted by improving the supply of goods and services. Secondly, he highlighted that the concern of businesses is to accumulate profits, and not necessarily to expand their production. Therefore, policies designed to free up money for private investment might not see a proportionate increase in productive enterprise. Keynes concluded that government intervention is required to increase aggregate demand in the economy, rather than focusing on market solutions to stimulate greater supply. For example, lowering interest rates is a demand-side tactic to enable easier debt repayment and encourage large purchases, including on cars and homes. The continuation of the crisis of the 1930s and the subsequent World War sharpened this debate among economists, and ushered in new models to investigate the dynamics by which income and wealth are generated and distributed.

MEASURING THE MEXICAN NATIONAL ECONOMY

In their recent work, Astudillo Moya and Porras Rivera apply the Social Accounting Model to a statistical set for measuring the Mexican national economy, known as the Institutional Sector Accounts of Mexico (ISA). The ISA is updated annually and allows for economic and financial analyses of public and private enterprises, households, the general government, and their interactions with the rest of the world. When applying the SAM to these statistics, the researchers followed the multiplier proposed by Keynes to interpret results from the ISA dataset. The multiplier is based on the idea that an increase in spending for private consumption, investment, or government welfare transfers raises the total Gross Domestic Product (GDP) by more than that original amount. This is due to resulting economic stimulation, such as by facilitating household consumer spending which enables businesses to employ more people and thus create more disposable income for more consumption, and so on. In their application of the SAM to ISA data, Astudillo Moya and Porras Rivera found that households in receipt of welfare payments gain some liquidity for consumer expenditures but do not achieve the economic autonomy and capacity required to make significant investments. This is due to the inability of such welfare payments to take those households beyond spending on subsistence goods and services. The multiplier effect of assistance-based federal government expenditure on wider economic activity is therefore limited, with insufficient capacity among assisted households to promote productive ventures.

By applying the Social Accounting Model in accordance with the research criteria advocated by the System of National Accounts of the United Nations, the team incorporated the theoretical and methodological guidelines of the System of National Accounts (SNA), which aligns the standards for national accounting across each country in the UN and the OECD. As such, by setting a precedent for using the SAM in line with SNA standards, Astudillo Moya and Porras Rivera put forward an approach to social accounting that has worldwide applicability.

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