

IS THE SIZE OF GOVERNMENT UNDERESTIMATED? ON THE TREATMENT OF MARKET IN MACROECONOMIC STATISTICS

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Abstract

Statistical measurement of government has become one of the main challenges for statisticians as the extent of government interventionism has been extending over last decades. Higgs has dealt with some aspects of how the size of government is commonly expressed (Higgs, 1991; Higgs, 2015). Aim of this paper is to add some relevant facts of the methodological nature leading to the underestimation of government in official statistics. We consider this issue essential even though rather ignored in the mainstream literature. As it is illustrated in the text, the size of government tends to be underestimated in the macroeconomic statistics due a number of issues - the immeasurability of several interventions, lacking information and the inappropriate treatment of market mechanism in the currently methodology.

Keywords: the size of government, national accounts, market mechanism

JEL Classification: E01, D40, H11

1. Introduction

Theoretical explanation of the dynamics of public sector is widely addressed mainly in the public choice and Austrian economic literature (i.e. Buchanan, Wagner, 2000; DiLorenzo, 2007; Sennholz, 1987). To analyse the public sector dynamics, it is equally important to have an appropriate method of the measurement of its size. Searching for the best statistical approach is an ongoing issue. Drawbacks in the method of the measurement currently applied have been discussed *inter alia* in Higgs (1991, 2015).

In the methodology (UN, 2009), “government” represents large part of the public sector, but not the public sector in its entirety. Public producers which are considered as units providing their product in similar way as market (private) producers can be treated as non-government units and thus they can stand outside of government sector. This is a matter of the line separating the market sphere of economy from economic activities carried out on the non-market principles, i.e. the sphere in which the financing of production goes primarily from other resources than from direct payments made by consumers. The relevant methodological treatment will be discussed below.

In the mainstream empirical literature, this question is rather ignored even though its importance for an empirical research is essential. If an inappropriate method is applied, the empirical findings on the relation between the size of government and growth or inflation might be downright misleading. This paper purports to discuss further key concepts applied in the methodology leading to an undervaluation of the actual size of government, primarily the treatment of market and market behaviour as it stands in relevant manuals.

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2. How to express the size of government

Generally, the size of government or any other economic agent is conceivable to be measured in three ways. First, it can be expressed solely in terms of flows meaning that the size of government reflects the scope of transactions carried out as a result of the government's involvement in economic activities. Second, the size can be calculated on the basis of stocks of assets owned by an agent. In other words, the size of government reflects the amount of scarce resources directly owned by government. Or, third, the size of an agent can be expressed as a mixture of both flows and stocks.

Let's begin with the first way of measuring, i.e. as aggregate of particular economic flows which is dominant approach nowadays. The actual size of government measured in terms of flows could be marked as "total costs of government operation" imposed on the society. Such a measure can capture economic transactions ranging from easily measurable flows as wages of government employees, purchases of inputs or investment expenditures, to hardly measurable or even unmeasurable costs of government operations as, among many others, transactions between two private units enforced by government regulation, higher prices paid by consumers as a consequence of import tariffs or costs of inflation.

When it comes to the second possibility, i.e. to express the size in terms of stocks of assets cby government or number of employees in the public sector, this seems inferior to the previous approach as interventions are not necessarily conditioned by the ownership of economic means which are subject of regulation. The room for maneuver for private owners can be restricted by legislation to such an extent, that the asset management is actually under control of government; the production control in war times can be put as an example. Thus, to calculate the share of public assets in total stock of assets might give an indication what the size of government is, but this will not reflect actual power of government over the society.

The second possibility seems to be in line with Hayek's view on how the public sector should be defined, i.e. as scarce resources being under the control of government institutions (Hayek, 1982, chap. 14, p. 47). Due to possible restrictions on the use of private resources, this way of delimitation of the public sector should be further extended to both flows and stock, which represents the third way outlined at the beginning of this text. The reason is that government can affect the performance of economy by both the direct possession of economic means and by regulation or redirecting flows into certain productions according to governments' preferences.

The current approach is dominated by the first method, i.e. it is very common to express the size of government as selected group of flows as government consumption expenditures or total government revenues or outlays. It implies that immeasurable effects of government are omitted as well as the extent of government ownership of scarce resources. It should be recalled at this stage, as Tullock clearly shows that not all costs of government intervention can be measured (Tullock, 1967). Misallocation of resources due to government regulation may lead to higher prices¹, loss in productivity as

¹ In this case, we would have to go to the level of individual transactions and to investigate which transaction price or what part of given price must have been paid by the will of government.

resources are redirected to less efficient productions, cost of inflation, ensuing frictional unemployment, whereas calculation of all these costs is practically impossible due to lack of relevant information. So the current methodology stands halfway through to capture the total costs of government operation.

3. The concept of market in the methodology

Nevertheless, even if we were in a position to quantify reliably all the effects of all the government interventions, the inappropriate treatment of market in the methodology would keep us far from capturing of government in its entirety. As Reich in his treatment on national accounts tartly notes, the statisticians ignore theory (Reich 2001, 104); then the results of their effort, i.e. macro aggregates, are divorced from reality to an unknown extent. This disregard of theories holds undoubtedly true when it comes to understanding and the delimitation of market (therefore of government too) in the methodology.

For the sake of statistical measurement, it is necessary to draw a line between the sphere dominated by the market mechanism and that under the control of government. As discussed below in greater detail, the static analysis of producer's behaviour determines whether given producer is "below" or "under the line" defining the market sphere. It is worth mentioning that the value added of both spheres is measured in different ways so that there might be an impact on the business cycle measurement. But more importantly, there might be even a huge impact on relevant figures on the size of government as it makes possible for some public units to stand outside of the government sector. The development over last decades has revealed the difficulties in this approach.

Since the Great depression in the 1920's, the economic power of government has been expanding beyond the scope of the state budget. This is not only the case of the mounting scope of government regulation giving rise to large compliance costs on the side of regulated units, but also establishing "off-budget" special purpose entities which operate as government agents, i.e. they act according to government instructions. These agents are entitled to raise their own revenues, take a loan or issue bonds, whereas these economic flows and stocks are not recognized in the state budget balance or in the state debt. This way of going beyond the budget has become very popular method how to extend the economic power of government (Sennholz, 1987; DiLorenzo, 2007). However, the current methodology does not keep up with this trend.

When assessing whether a public unit operates on the market or on the non-market basis, the current approach is working with the share of own revenues to costs of production (SNA 2009, p. 438). This could be reformulated so that "the higher prices set by producers, the more of market behaviour they show". At the same, this represents the main concept defining the line between both spheres of economy. This concept is highly misleading; the very opposite is true. On the real market, prices and profit margins show a tendency to decline as a consequence of the incentives of profit-seeking competitors. The market is a dynamic process in which currently prevailing market situation can be completely changed by newly incoming producers or by never-ending flow of innovations or technological changes. Thus, the crucial issue is the institutional environment in which the market operates whereas price or its relation to costs at given moment tells very little about the existence of true market.

Even if the methodology is very slowly going in the direction of an institutional analysis, the static approach comparing prices and costs still dominates. In other words, the methodology relies on the approach very similar to the neoclassical price theory; it does to consider the market as a dynamic wealth-creating process, so does the methodology. Market behaviour is thus assessed by analysing public institutions at a point in time rather than the dynamic (DiLorenzo, 2007). This approach leads to a paradoxical situation in which institutions operating under instructions of government whose liabilities are guaranteed by government and which actually face no competitive pressure or risk of bankruptcy are praised as “competitive” and as such they are included in the aggregates showing the size of government.

The reason for this exclusion has now become clear; instead of hardly measurable qualitative features of the market, the quantitative static analysis matters. At this stage, we thus come across the issue of measurability. According to Kirzner, market behaviour is featured by risk-taking, entrepreneurial alertness, competitive pressures (Kirzner, 1992) leading to innovations, economical progress, decrease in nominal or real prices of goods and services. But the authors of the methodology are dealing with the fact that these features of the market are hardly measurable. Thus to make the life of statisticians easier and the relevant rules more operational², it is assumed that the market behaviour is characterized by the type of ownership (public or private) and, more importantly, by the comparison of prices and costs as discussed above.

As a result of such an approach, there are number of public units implementing the government social and economic policy which can be considered as market producers even if not operating on the real market and they are, as such, excluded from figures in question. More precisely, the approach mentioned in the previous paragraphs allows to treat number of institutions providing especially semi-public goods as non-government corporate units³. It implies that only transactions of government with those institutions are counted in the size of government (Stiglitz, 1989). Other than that, the figures on government do not cover, by convention, the central bank either even though this institution undoubtedly conducts government policy in the field of monetary policy.

4. A choice of denominator

So far, we have discussed reasons why the size of government is underestimated in absolute terms. When measuring the size of government in relative term, an undervaluation is getting even larger as a chosen aggregate representing the size of government (mostly government consumption or total government expenditures) is expressed as a percentage of GDP. Over last decades, GDP has been deviating from its original purpose to measure the taxable capacity of economy for the needs of public finance managers especially in war times. The use of GDP for this purpose has thus become highly questionable. GDP has been getting more abstract concept containing wide range of imputed values as imputed rents, value added of research and development,

²As Lachmann notes, the need to make the statistical rules operational drives the methodology from both theory and reality (Lachmann 1973, p. 21)

³E.g. public financial institutions, public hospitals, public transport companies, public schools, etc.

consumption of fixed capital or the estimation of the size of shadow economy. GDP simply covers economic values which cannot be redistributed at all making the measuring the size of government imperfect⁴.

In other words, GDP does not cover only the values which can be redistributed by government so the relative size of government is further underestimated when compared to GDP. It also implies that GDP has nothing to do with the ability of government to repay its debt, so even the comparison of debt to GDP has its large limitation. More likely than meaningful economic tool, GDP has become popular for political marketing aiming to show government as small as possible. It is also worth mentioning that the list of imperfections mentioned above on which the calculation of GDP stands is obviously not exhaustive⁵.

To illustrate this point, we can offer different set of figures than officially presented. Using the most recent national account's data for the Czech Republic, we come to the conclusion that the size of government is 20 % (final consumption expenditures/GDP) or 40 % (total revenues/GDP) or 42 % (total expenditures/GDP) of GDP. According to the stock figures, the public sector owns 52 % of non-financial assets and employs 21 % of workers. It has become apparent that the number of government employees itself does not adequately represent the size of government and its actual economic influence over flows and resources in society.

When recalculating the nominal GDP as covering a part of economy which is actually a subject to government regulations and redistribution mechanism, i.e. consumption of fixed assets, imputed rents and shadow economy, the share of government consumption in GDP rose to 23 %, the share of total revenues reached 62 % and the highest value was achieved in the case of total expenditures - more than 65 % of GDP. This can be interpreted so that almost two thirds of values generated in taxable part of economy are going through the public finance budget. This picture shows a much less pleasant but a more truthful reality.

5. Conclusion

It can be concluded that the current methodological approach in national accounts leads to an undervaluation of the size of government. The fundamental problem with the methodology is a lacking solid definition of market and the way of separating the market sphere of economy from the rest which is mostly controlled by government. This is done on the base of a static analysis relying on the neoclassical approach to the market behaviour analysis. It makes the statistical rules operational but it drives the methodology from both theory and reality.

Analysing the behaviour of producers by comparing revenues and expenditures at a certain point in time implies that number of units actually controlled by government can be treated as non-government units. As such, they are excluded from government sector and treated as a part of the sphere where the provision of goods and services is

⁴ Obviously, GDP capture also the government sector; in this respect, the comparison would only be meaningful if government were able to raise additional (!) funds by taxing itself.

⁵ Among others we can further mention the method of calculation of government output (Holcombe, 2004) and its relation to measurement of economic growth (Rao, 1989).

orchestrated by market forces. From the perspective of market theories, this approach is highly questionable. The issues that statisticians will have to deal with are how to make institutional analysis operational or whether any public unit can be treated as true market producer at all.

Moreover, the size of government is further underestimated when expressed in relative terms as percentage of GDP. As mentioned above, the link between GDP and the public finance has been weakening throughout last decades by wide range of additional imputed values. Following this trend, the relation between GDP and tax base or government's ability to service its debt has become weaker. And it is worth recalling that an undervalued size of government or of the public sector can also change empirical findings on the relation between the size of government, economic growth, inflation or unemployment.

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