THE KEYNESIAN MULTIPLIER CONCEPT IGNORES CRUCIAL OPPORTUNITY COSTS

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ABSTRACT: The Keynesian multiplier is a concept embedded in macro-economic thought, policy, textbooks, and widely taught in classrooms. Apparently the only controversy is its empirical size. Is the multiplier a large positive or near zero or perhaps even negative? Most empirical studies have found an impact multiplier that is positive but near zero and a long run multiplier that is larger. From an Austrian perspective, there are several problems with the multiplier concept and the research on it. Coupled with the fact that the concept fails to fully take into account opportunity costs, the multiplier concept has no basis in logic and should not be considered in policy.

KEYWORDS: Keynesian multiplier, opportunity costs, GDP gap, Austrian business cycle theory

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INTRODUCTION

The recession and very slow growth of the past seven years has led to a resurgence in research on the impact of fiscal policy.

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The literature focuses on the Keynesian multiplier, the idea that a change in government spending will have a multiplied effect on real output or real gross domestic product (RGDP). Most of the research has been an attempt to determine the size of the multiplier. The pro-stimulus economists claim a relatively large multiplier, indicating that a government spending plan will increase RGDP far more than the incremental amount of government spending. Those opposed to this view argue that the multiplier is small, near zero, indicating that a government stimulus plan will impact RGDP, but not to the degree promoted by the Keynesian economists.

A comprehensive literature review on fiscal multipliers can be found in Baunsgaard (2012) and others who extend and update Spilimbergo, Symansky, and Schindler (2009). Studies have examined the multiplier under different economic conditions, such as Baum, et al. (2012) and Auerback and Gorodnichenko (2012b). Other studies, for example Batini, Callegari, and Melina (2012) compared multipliers in different countries. There is a remarkable disagreement among economists regarding the size of the fiscal multiplier for government spending. Barro and Redlick (2011) argued that the peacetime multiplier was essentially zero. That is, each additional dollar of government spending would displace or crowd out exactly one dollar's worth of private consumption and investment, resulting in a negligible effect on employment. In sharp contrast, Cristina Romer (2009), as Chairman of the Council of Economic Advisors, argued that a multiplier of 1.6 should be used to estimate the new jobs that would be created by the stimulus program proposed in 2009. Ethan Ilzet, Enrique G. Medoa and Carlos A. Vegh (2011) find that the impact multiplier for high-income countries is 0.37.[1] They then note that since the effects take place over time, it is the cumulative or long run multiplier that is more relevant. They find the long run multiplier to be 0.80. When countries are sorted by exchange rate regime, they find countries with flexible exchanges to have a multiplier

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[1] A selection of other studies on the multiplier is: Auerbach and Gorodnichenko (2012a, b); Batini, Callegari, and Melina (2012); Baunsgaard, Mineshima, Poplawski-Ribeiro, and Weber (2012). Christiano, Eichenbaum, and Rebelo (2011), Cimadomo (2010); Fernandez-Villaverde (2010); Gali, Lopez-Salido, and Valles (2007); Hall (2009); Monacelli and Perotti (2010); Mountford and Uhlig (2009); Ravin, Schmitt-Grohe, and Uribe (2012).

that is negative and statistically significant on impact and statistically indistinguishable from zero in the long run. In contrast, for countries with fixed exchange rates the long run multiplier is 1.5. This is just a sampling. There are many different data sets over which estimates of the multiplier have been obtained, and there is a wide range of estimated values.

Clearly the researchers attempting to determine the value of the multiplier accept the concept of a multiplier; in fact, most economists do. Only a few economists, the Austrians, question whether the multiplier makes sense.[2] The standard criticisms of the Keynesian multiplier by the Austrians are the Hayekian central planning problem, the failure to adhere to praxeology, and the strict disregard of private property rights and the non-aggression principle. In this paper a fourth criticism is raised regarding the multiplier.

CRITICISMS OF THE KEYNESIAN MULTIPLIER CONCEPT

The first criticism is part of what Hayek calls a fatal conceit. No one can incorporate all the diffuse information that exists in the economy that is necessary to design and implement correct policies. The Austrian business cycle theory literature argues that cycles are the result of the misallocation of resources or malinvestments due to interest rates being too high or low relative to a natural rate.[3] It is a fatal conceit to think a particular spending program could correct the misallocation of resources. Not only does a stimulus policy exacerbate the misallocation, but it alters opportunity costs in ways that make a recovery much more difficult.

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[2] Rothbard (1962), ch. 15, "Business Fluctuations," demonstrates that the multiplier does not come from *a priori* logic with his *reductio ad absurdum* destruction of the multiplier. Henry Hazlitt (1995 [1959]), ch. 11, "The Multiplier," also challenged the logic of the multiplier. He said, "For while Keynes's "multiplier" and other concepts assume unemployment, Keynes never correctly tells us the reasons for this unemployment. Those reasons always involve some disequilibrium, some maladjustment in the interrelationships of prices, wage-rates, interest rates, or other costs. No "multiplier" can be calculated or even discussed except in relation to these maladjustments.

[3] For a detailed discussion of the interest rate and the corresponding relationship to the business cycle, see Mises (1998 [1948]), chs. 19–20; Rothbard (1962), ch. 6; and Skousen (1990), ch. 9.

A second criticism of the Keynesian multiplier stems from Austrian criticisms of empirical studies in general. Econometric methodology presents certain variables as parameters—variables that do not change. In reality, of course they change. So the best that can be said of such analyses is that they are a study of a particular history. According to Mises,

> Statistics is a method for the presentation of historical facts concerning prices and other relevant data of human action. It is not economics and cannot produce economic theorems and theories. The statistics of prices is economic history. The insight that, ceteris paribus, an increase in demand must result in an increase in prices is not derived from experience. Nobody was or ever will be in a position to observe a change in one of the market data, ceteris paribus. There is no such thing as quantitative economics. All economic quantities we know about are data of economic history. (Mises, 1998, pp. 247–248)

The empirical studies are based on economic history, where no *ceteris paribus* exists.

The third criticism of the multiplier concept is the disregard of private property rights. Government spending requires that resources be taken from the private sector. If the spending is financed with taxes, then those funds are unusable by the private sector. If the spending is financed with borrowing, then the private sector investment is crowded out by the government sector currently, and in the future, taxes have to be used to pay for the borrowing. If the borrowing is financed by money expansion, then the increased money supply leads to interest rates that differ from the natural rate and lead to malinvestment. In all cases, coercion is used to obtain the financing for government spending. Private property rights are not respected, the values of assets are altered. Property is taken from some and given to others, and the owners are not fully compensated. The government spending comes at the expense of private spending, and government borrowing comes at the expense of private borrowing.

Another problem with the concept of a multiplier stems from a failure to recognize the full opportunity cost of the idle resources. The typical measure of the opportunity costs of idle resources is the GDP gap. It is presented as

GDP gap = potential – actual real gross domestic product.

Potential real gross domestic product (RGDP) is the RGDP that would have been produced had the economy been operating on the boundary of the production possibilities curve, that is, the RGDP that would have been created if resources had been fully and efficiently used. It is then argued by pro-government-spending advocates that government spending would put idle resources back to work and move the economy back toward or even to the potential RGDP level, depending on how much crowding out occurs. This leaves out a crucial aspect of the economy. The RGDP gap is not a measure of opportunity costs because it is not possible to say that the potential RGDP is an efficient allocation or that the level of use at potential GDP is full use. Potential GDP is the estimated GDP that could be obtained with the current resource allocation. Nothing suggests that the current allocation measured by RGDP would move to the efficient allocation if aggregate demand were increased. What does occur is that the current misallocation of resources is exacerbated.

Suppose the economy has been distorted by a policy that has driven the rate of interest below the natural rate. Then we could define two potential GDP levels. One is a potential GDP level where resources are allocated according to relative resource prices prior to the government caused misallocation. We will call this the Austrian GDP (AGDP). This differs from the typical potential GDP, which is merely an exacerbation of misallocated resources. Then, AGDP minus potential GDP is the opportunity cost of misallocated resources. No amount of government spending could move GDP to AGDP even if it could move GDP to potential GDP.

When an intervention in the free market occurs, investments do not flow to where resources would have the highest value. Instead, they are moved into less valuable activities, those favored by the intervention. The only way for the malinvestment to be corrected is for individual resource prices to adjust and resources to again flow to their highest valued uses.

In a free market, one of the effects of resources being idle is that downward pressure is put on their relative prices to adjust. For instance, if employers observe a quantity of idle resources that could augment or replace those the employer is currently using, then a lower wage or rent or interest could be offered the resources. Higher profits, more jobs, and greater production would result.

If resources are not idle but are being used in way that is inefficient, then the downward pressure on resource prices would not be the same as if the resources were idle. Thus, the opportunity cost of having resources idle is not just the lost output of having them idle, but must include the cost of misallocated but not idle resources, that is the inability to reach AGDP. This misallocation lengthens the term of misallocation and underproduction. Once the government intervention has exacerbated the resource misallocation, an adjustment to AGDP would be much more costly than if the intervention and initial misallocation had not taken place?

Attempting to stimulate the economy via a government spending and monetary expansion program only makes the misallocation much worse. For instance, hiring unemployed to dig holes and then to fill the holes, has no effect on the creation of goods and services but does reduce the downward pressure on certain resource prices.[4] Such a stimulus program would lengthen the time the economy takes to move back toward efficient allocation. Rather than a 1920–21 downturn and quick recovery, we experience a 2008–2014/15 type of downturn and stagnation.

Resources are allocated to the many varied industries and firms in an economy and at any given time some firms or industries may have an incorrect amount of a resource given current prices. If the government chooses to increase spending in order to reduce general unemployment it will further misallocate resources. In some industries or firms, the increased spending could drive up wages without increasing employment. In others there might be some employment increase. Overall, however, the aggregate spending increase does not match the distribution of resources throughout the economy.

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[4] "If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coalmines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of laissez-faire to dig the notes up again (the right to do so being obtained, of course, by tendering for leases of the note-bearing territory), there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is. It would, indeed, be more sensible to build houses and the like; but if there are political and practical difficulties in the way of this, the above would be better than nothing." Keynes (2007 [1936]).

Hayek made similar points about the Keynesian multiplier, but some of his arguments have not gotten widespread recognition they deserved.[5] He argued that the Keynesian multiplier analysis starts with the implicit assumption that no factors of production are scarce, that is, that the supplies of all inputs are infinitely elastic below the level of full employment.

> …the effect of making this assumption will be that we must distinguish between the effects which an increase of investments and income will have while there are unused resources of all kinds available and the effects which such an increase will have after the various resources become successively scarce and their prices begin to rise. (Hayek, 2009 [1974], p. 28)

The assumption means there are no opportunity costs to government expenditures. But, the assumption is contrary to reality. Resources are always scarce; there are always opportunity costs.

Salerno (2009, p. xvii) clearly summarizes Hayek's argument.

> In Keynes's illusory world of superabundance, an increase in total money expenditure will indeed increase employment and real income, because all the resources needed for any production process will be available in the correct proportions at current prices. However, in the real world of scarcity, as Hayek shows, unemployed resources will be of specific kinds and in specific industries, for example unionized labor in mining or steel fabrication. Under these circumstances, an increase in expenditure will increase employment, but only by raising overall prices and making it temporarily profitable to re-employ these idle resources by combining them with resources misdirected away from other industries where they were already employed. When costs of production have once again caught up with the rise in output prices, unemployment will once again appear, but this time in a more severe form because of the misallocation of additional resources.

It is impossible to know how the current resource allocation relates to potential RGDP. As Hoppe (1995, II) said:

> The non praxeologists also believe that relationships between certain events are well established empirical laws (with predictive implications) when a priori reasoning can show them to be no more than information

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[5] Hayek (2009 [1974]), pp. 27–37, 59–67.

regarding contingent historical connections between events, which does not provide us with any knowledge whatsoever regarding the future course of events.

A priori reasoning indicates that the full opportunity cost must include the cost of malinvestment and the exacerbation of that misallocation resulting from an attempt to close the GDP gap. And this cost, the difference between AGDP and potential GDP, is impossible to measure.

Consider an economy in which manipulation of the interest rate has led to malinvestments and a resulting financial crash. A stimulus package consisting of an increase in government spending financed by debt is undertaken. According to Keynesian theory, this leads to an increase in aggregate demand followed by a multiplied increase in output. But, the economy prior to the implementation of the stimulus package was not allocating resources to where they had the highest value. The malinvestment caused by manipulation of the interest rate led to the misallocation of resources. The demand for labor in specific industries or firms does not match the distribution of aggregate demand.

As Hayek noted, any increase in employment resulting from a stimulus policy is short-term and is dependent on a continual acceleration of inflation. The unemployment that exists after the breakdown of an inflationary boom is not "general" in the Keynesian sense, but instead is confined to specific firms and industries and is caused by the mismatching of the demand for labor and the pre-recession distribution of the labor supply among the various firms and industries. Increasing aggregate demand will only freeze the non-optimal pattern of relative prices and employment prevailing during the inflationary boom immediately prior to the recession.[6] So the increased government spending exacerbates the misallocation rather than ameliorates it. Output is not actually increased because the wrong goods are produced with the wrong resources at the wrong costs. Measuring the impact of the stimulus on output does not take into account the misallocation of resources. So even if some type of "multiplier" is found empirically, it has no meaning.

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[6] Hayek (2009 [1974]), pp. 59–67.

Another way of looking at the issue is through the Austrian business cycle theory. In the Austrian view, economic output is disaggregated by stages of production and time. First stage expenditures were committed to the production of second stage capital goods two periods ago and expenditures on second stage capital goods were committed to final goods last period. Without government intervention, this disaggregation, unlike in mainstream macroeconomics, means that wages do not all fall when GDP declines. Though falling profits decrease labor demand and wages in the final stage, labor demand and wages in earlier stages rise as firms redirect resources. The widening wage differential draws workers to earlier production stages. This flow of labor resources reduces final stage labor supply and raises earlier stage labor supply, resulting in the final stage wage rising up toward the wage that prevailed in earlier expanding stages. After investments have worked their way through the economy, the productive capacity of the economy has expanded, resulting in higher overall consumption.

However, this adjustment process does not work when government interferes in markets. For instance, when the central bank creates reserves, interest rates fall, investment increases, and savings decline. The investment is misallocated and results in a competition for resources, which pushes asset prices higher. The impact of the government and/or monetary expansion is not multiplied in terms of real output. It instead leads to increased misallocation of resources and a collapse of the unsustainable demand. There is no Keynesian multiplier effect.

CONCLUSIONS

Economic research indicates that most economists buy into the concept of the Keynesian multiplier. Some argue that its value is positive while others say it is near zero. But no matter what value is found, the multiplier concept itself makes no sense. It cannot be supported on *a priori* logical grounds. To argue for a Keynesian multiplier is to ignore Hayek's fatal conceit, ignore the logic of praxeology, ignore the fact that empirically found relationships are at best historical artifacts, and to ignore the opportunity cost of misallocated resources.

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