

Gross Actual Product: Why GDP Fosters Increased Government Spending and Should Be Replaced

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Abstract

Calls for increased government spending or transfer payments under the guise that they will increase economic growth as measured by Gross Domestic Product are tautological at best. If one defines growth as more government spending, then more government spending will by default increase “growth.” By reassessing historical data in light of voluntary transactions, this paper illustrates how the use of Gross Domestic Product has influenced policy makers to engage in policies that have slowed wealth creation. The authors demonstrate how GDP itself has been used as a tool to increase the size and scope of government and propose an alternative measurement to better measure growth.

JEL Codes: H50, H10, E20, E61

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I. Introduction

The 2007–2009 recession focused the attention of economists, politicians, and the general public on national income accounting. Everyone wanted to know just “how bad” the economy was. They also wanted to know the effectiveness of government policies in turning the economy around. The agreed-upon measure of success was improvement in gross domestic product (GDP). Economists designed, and politicians implemented, policies explicitly designed to maximize current GDP, subject to few if any constraints.

The popular debate among economists became whether or not the stimulus package indeed stimulated the economy, and if so, by what magnitude. While Larry Summers, Robert Barro, and others argued over the size of the Keynesian spending multiplier, they all seemed to agree that the appropriate measure of success was a

change in real GDP. This paper illustrates that both the choice of maximizing current GDP and the choice of not imposing the correct constraints leads to a decrease in long-run wealth creation in the United States. Because current GDP is a poor measure of long-run wealth creation, we suggest that a better measure of wealth creation based upon voluntary transactions should become the standard object that economists and politicians seek to maximize, and that said maximization over time is imperiled if the appropriate constraints are not properly defined and enforced. The paper first explains how GDP is a Keynesian construct, then examines problems with the current definition of GDP, and finally proposes an improved definition based upon voluntary transactions.

II. GDP as a Keynesian Construct

According to Kuznets' (1946) GNP estimates, the 19th century American economy grew at an average pace of 4% a year. In comparison, the 20th century economy averaged just over 3% a year annual growth. That is, the 19th century economy grew at a rapid pace on its own even without bureaucratic measuring. The development of national income accounting arose hand in hand with the government's desire to intervene in the economy. According to Froyen (2005), national income accounting arose as "The Depression, and with it the growing role of government in the economy, emphasized the need for such measures and led to the development of a comprehensive set of national income accounts" (as quoted in Landefeld et al., 2008, p. 194).

National income accounting was initiated as "the lack of comprehensive economic data frustrated the efforts of Presidents Hoover and Roosevelt to design policies to combat the Great Depression...The entry of the United States into World War II led to increased demand for data that could be used for wartime planning" (BEA, 1999, p. 1). The explicit purpose of national income accounting was to advance government intervention in the economy. The commencement of national measures from Kuznets coincided with and fostered the advancement of Keynesian economics ("Simon Kuznets," 2008).

Certainly, data collection does not mandate policy intervention. However, many interventionist policy makers claim that they are turning and twisting the appropriate economic dials and knobs based on the best available data. The problem is not that data are collected

per se, but which data are focused on and how they are used or abused for partisan or ideological reasons.

III. The Problems with GDP

If the collected data does not accurately reflect the wellbeing of the economy, then policy makers may be ill advised. David Henderson (2010) refers to economists' undue comfort with GDP estimates as "GDP Fetishism." Stiglitz et al. (2010, p. 7) note that, "What we measure affects what we do; and if our measurements are flawed, decisions may be distorted." Professor Stiglitz (2011) goes on to note in an address at an international conference at the OECD that "The simple message of the report, that what you measure affects what you do is one, I think, that people all over have come to understand. The other message that GDP is not a good measure of well-being has also been understood."

A. Production vs. Utility

Among the problems with using government policy to maximize GDP are that GDP is a poor indicator of utility and is an imperfect indicator of wealth creation. To begin with, what is more important, an increase in production or an increase in utility? If it is the former, where is the philosophical school of "Productionarian" thought? The closest line of thinking is in Max Weber's protestant work ethic in which believers work and produce because they feel called to do so (Weber, 1930). Even so, such believers arguably still labor in such a way to maximize their utility. However, Jeremy Bentham's Utilitarian school of thought reached popular acclaim due to its focus on utility as a concept broader than just production.

Slavery in the Antebellum South produced maximum output but not maximum utility. When African Americans were freed from the bondage of slavery, they voluntarily chose to work a third fewer hours and in working conditions that did not include the gang labor system (Ransom and Sutch, 1977). Production dropped by half, but few would argue that African Americans were better off being enslaved (Hummel, 1996).

Refusing to separate voluntary from involuntary production leaves production as a poor proxy for quality of life. Like slave owners, command economies attempt to dictate production. Levy and Peart (2011) point out that at least until the 1980s, mainstream economics textbooks predicted that the Soviet Union would overtake

the United States in GNP within a few short years. Although their predictions failed to materialize, their implication was that if happiness were maximized by production, then central planning was superior to an economy built upon voluntary transactions.

The collapse of the Soviet Union not only illustrated central planning's inability to maximize production, but it more importantly showed that central planning does not maximize happiness. People did not try to escape over the Berlin Wall or ride a raft from Cuba to Florida merely for a life with more stuff. They risked their lives in an attempt to improve their happiness.

The reason that the choice of subject to be maximized is so important is that policy makers explicitly design policies to maximize that specific, narrowly defined, subject. That is, the choice of subject dictates the choice of policy and the method of monitoring whether or not the policy is a success. It is, therefore, imperative that the correct subject be chosen. Policies designed to maximize short-run production may in fact result in a decrease in social utility.

B. Production vs. Wealth Creation

GDP is also flawed in that it measures production rather than wealth creation. Which is better: an economy that produces ten pounds of food that people enjoy eating or an economy that produces fifteen pounds of food whose taste is so horrid that no person would voluntarily eat it even if it were given away for free? The unsold food would appear in GDP as increased inventory. If the government bought it up and lit it on fire, it would be counted as government spending in GDP. Either way, short-run GDP would increase, even if the economy produced things that people didn't actually want. Wealth would not increase, but production would.

GDP is an inherently flawed concept because it does not focus on voluntary transactions. Only voluntary transactions are guaranteed to be Pareto improvements for the parties involved. Maximizing GDP is not a Pareto improvement if the policies pursued to maximize it are not free from the use of force or coercion. In fact, national income accounting itself was born out of a desire to advocate in favor of forced economic action. As a result, maximizing current GDP by increasing government spending is virtually guaranteed to not be a Pareto improvement.

Most mainstream macroeconomics professors teach the expenditure approach to calculating GDP in which $GDP = C + I +$

$G + NX$, where C is consumption, I is investment, G is government spending, and NX is net exports. The implication is that increases in any of these categories create economic growth. Stated another way, the explicit claim is that spending creates growth. If increased GDP is accepted as the measure for short-run growth, then government spending is indeed a source of growth. It is tautological. The use of GDP causes policy makers to focus on policies to stimulate spending rather than policies to stimulate actual economic wealth creation.

Say's law states that supply creates its own demand (Say, 1803). Therefore, the only true source of economic wealth creation is an increase in voluntary production, not an increase in demand. Yet even the public discussion regarding the success, or lack thereof, of the most recent stimulus package revolved around economists on both sides of the argument trying to determine whether or not spending (voluntary or not) increased. Even if wealth, rather than utility, is to be maximized, attempts to maximize current GDP may reduce long-run wealth in the economy. Below, problems with each of the sub-components of GDP are addressed in turn.

C. Consumption

Although increased wealth can facilitate increased consumption, increased consumption does not lead to increased wealth. Increased consumption is the antithesis of wealth creation. Consumption, by its very nature, entails wealth destruction. The double cheeseburger that once existed no longer exists once it is consumed. A car is less valuable once it has been driven 100,000 miles. Wealth creation is best measured by people's increased ability to consume. Wealth destruction is best measured by people's actual consumption.

To look at an economy and determine that it is thriving because it is consuming is to mistake correlation for causation. World history is full of individuals who have spent through inherited wealth. It is also littered with countries that have done the same. For example, even after the influx of gold from the New World, Spain was unable to consume its way to wealth creation. The Greek economy of the 21st century was a high-consumption economy, yet that economy did everything but grow.

If the goal is to maximize happiness or utility, then consumption derived from voluntary actions can be utility increasing if people's preference for current consumption is greater than their enjoyment from increased future consumption. Here, though, the key is that

their actions be voluntary. Only voluntary transactions are guaranteed to be Pareto improvements. As such, forcibly redistributing money from Peter to pay for Paul's consumption is no guarantee of utility creation. In fact, the forced redistribution means it is not Pareto improving and that it destroys physical wealth.

Yet, GDP-maximizing policy makers routinely advocate income transfers from the rich to the poor based on the belief that the poor have a higher marginal propensity to consume. Their increased consumption boosts GDP figures. In reality, taking money from savers to give to spenders costs savers forgone future consumption that they valued at a higher rate than their current consumption. There is no reason to assume that this action increases net utility, but all evidence is that resources are destroyed faster, so wealth is destroyed more quickly.

Imagine if all production is placed in a common heap and all consumption is made by removing production from the same heap. If aggregate wealth is measured by the size of the heap, in what way is increasing consumption increasing wealth? The heap just gets smaller as more is consumed. Policies that stimulate consumption, rather than wealth creation, work to destroy existing wealth faster.

The same logic holds true for government transfer payments, mandates, and consumer subsidies. For example, if the government requires people to purchase health insurance, consumption figures, and therefore GDP numbers, increase. Yet because the purchase was not voluntary, utility decreased. If people buy more food than they otherwise would because it is subsidized by taxpayers, there is no guarantee that the marginal utility of the last bite of food exceeded the marginal cost of producing it. Thus, resources are misallocated and wealth is destroyed.

D. Investment

Unsold inventories are counted in national income accounting as investment. Economic growth could be mistakenly thought to increase if a firm stockpiles products that consumers do not want. Using resources to produce goods and services that no one wants is wealth destruction, not wealth creation. Some unsold inventories may indeed be desired at a future point in time, but only when they are acquired by voluntary exchange is utility or wealth created. More accurately, unsold inventories are potential wealth whereas sold goods or services are kinetic wealth.

Counting new home construction as investment rather than consumption goes against the definitions of consumption and investment. If a person lives in their own home, they are consuming housing services. Physical capital refers to goods that are used to produce other goods or services. A factory helps to build cars. What does a house help to build?

Policies designed to increase investment that do not differentiate between home construction and factory construction are prone to divert scarce capital from productive factories to unproductive housing. Home mortgage subsidies, subsidized home loans, and other pro-housing gimmicks cause people to misallocate resources to larger and more numerous homes rather than saving their money to be used in productive capital investment. Therefore, under current national income accounting, an economy can look as if it is investing in future production when in fact it is engaging in current consumption.

E. Government Spending

The inclusion of government spending in a measurement of wellbeing is flawed on numerous levels. Not only does government spending slow down private wealth creation, but it also actively destroys wealth in some cases, and any positive effects from government spending are difficult to accurately value given the fictitious nature of prices in government transactions.

Government spending is rarely, if ever, a Pareto improvement. Yet the vast majority of government fiscal policies revolve around increasing, decreasing, or changing government spending to fine-tune the economy. By including government spending in GDP, policy makers are led to believe that they can maximize production merely by increasing the government's share of the economy. In reality, the opposite is true. Countries' wealth and the share of their economies controlled by the government are inversely related (Miller et al., 2012). If more government control of goods and services slows wealth creation, how can it be good government policy to engage in fiscal stimulus spending? In *The Logic of Action Two*, Murray Rothbard (1997) correctly analyzed the fallacy of the public sector as a wealth creator.

John Maynard Keynes (1923) designed fiscal policy to be free from the constraints of long run wealth creation. His philosophy was that, "In the long run, we are all dead." This explicitly meant that his

fiscal intervention was not to be measured as a success based on long-run wealth creation. Only today's production mattered. That is why he went so far as to suggest hiring ditch diggers and hiring others to fill in the ditches. Clearly, such a policy only wastes resources and destroys wealth. Government action was not intended to be wealth or utility increasing; it merely was meant to be production increasing.

The vast majority of today's government spending is consumption oriented. Entitlement programs make up roughly two-thirds of the federal budget. Forced income transfers from the young to the old or the rich to the poor are not wealth creating. Just as consumers cannot spend their way to wealth, governments cannot either. If they could, Greece would be rich. Governments can increase wealth by reducing their debt burdens. Reducing debt lowers future interest payments and tax burdens and frees up resources to be used in the productive sectors of the economy.

Likewise, increased government spending on war could boost short-run GDP. Policy makers mistakenly believe, then, that war is good for wealth creation. It is not. Wars destroy wealth and reallocate resources from voluntary to involuntary transactions. Nationalization of wartime industries, wartime price boards, and drafts are just a few wartime economic policies that deter the economy from producing wealth or utility.

Another major problem with including government spending in GDP is that public sector prices do not necessarily measure the value of government spending to society in the way that private sector prices do. If a business builds a factory for \$1 million through voluntary contracts, then \$1 million of wealth was created. If a government builds a school for \$1 million, it may be that the value created was much less than that amount. Government regulations regarding the pay of construction workers according to unionized standards, such as the federal Davis Bacon Act or state prevailing wage laws, lead the government to pay more for construction labor than the private sector does. The federal government could increase GDP by \$1 trillion tomorrow by building five feet of road and declaring that no firm bid less than \$1 trillion for the contract. Robert Higgs (1992) noted that economists have long noted the unreliability of price data for government goods during war.

Government production that is not traded in the private market cannot have an accurate valuation (Batemarco, 1987; Rothbard,

1963). Stringham (2001) notes that prices can only give one an idea of how much a trade was valued in the past, when the transaction took place. Furthermore, prices paid in government transactions may not represent the value to society as a whole. As Stringham (2001, p. 46) notes, “It is unclear how to figure out the willingness to pay for even one person under a myriad of different circumstances, and it is even less clear how to figure this out on a society-wide level.”

When governments buy surplus wheat to burn or pay teachers to sit in rubber rooms and read newspapers, GDP numbers increase, but nothing valuable is being produced, and wealth is being destroyed. The only reason to include government spending in any subject to be maximized is if one has an ideological goal of increasing the government’s share of the economy. Economists or policy makers who want wealth creation or prefer voluntary transactions over forced ones should not be lulled into trying to maximize a GDP figure that includes involuntary or government spending.

Government’s increasing share of the US economy has gone hand in hand with the creation and expansion of national income accounting. Government spending and transfer payments have risen from less than 12% of US GDP before the birth of national income accounting to more than 40% today. Figure 1 illustrates the increase in government spending as a percentage of GDP. A desire to increase today’s GDP by increasing short-run government spending means that more government spending is always better in the minds of politicians with short time horizons. Less government spending, by Keynesian definition, means a lower level of GDP. By that measure, what responsible policy maker would ever suggest lowering government spending?

F. Net Exports

Political boundaries are more easily seen than economic ones. National income accounting assumes that production within a political unit matters more than production outside of the political unit. Which will make the life of a Montana rancher better off, an improvement in Florida tourism or an improvement in the Alberta, Canada oil sands? Montana geographically abuts Alberta, but because

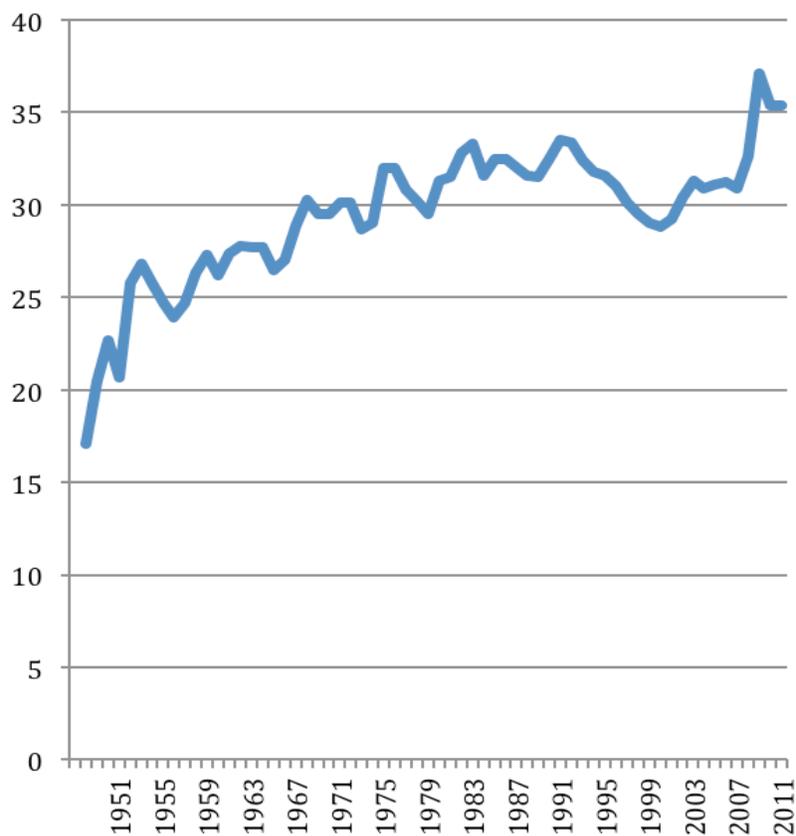


Figure 1: Total government expenditures as a percentage of GDP (data from the Office of Management and Budget. 2013. “Fiscal Year 2013 Historical Tables: Budget of the U.S Government,” Table 15.3).

it is not inside the United States, its extra production is not included in US national income accounting.

National income accounting encourages nationalist and/or xenophobic policy making. Why is stimulating the US economy more or less important than the North American economy or the Kentucky economy? National income accounting implicitly makes value judgments about who and what counts and who and what does not. Concepts such as GDP encourage mercantilist thinking. Nationalistic/mercantilist policies have been shown to slow down wealth creation over time.

By seeing GDP as a function of net exports (exports minus imports), many policy makers mistakenly think that GDP can be increased merely by restricting the flow of imports into a country. What they do not see is that every voluntary trade creates wealth. The absolute volume of trade is a better signal of wealth creation than subtracting imports from exports. Every export represents a creation of producer surplus for the domestic firm. Every import represents a creation of consumer surplus for the domestic consumer. What possible information can be gained by subtracting one good thing from another?

For those overly focused on GDP, the volume of international trade could double, but if that means that the trade deficit doubles, GDP actually falls. The claim is that the United States is made worse off by doubling the number of voluntary trades it makes. This is preposterous. Each voluntary trade creates wealth and utility, so more voluntary trades produce more wealth and utility, not less.

G. Per Capita GDP

International comparisons of country wealth are often done by comparing purchasing power parity levels of per capita GDP. Yet, the Bureau of Economic Analysis reports GDP levels and changes therein without taking population changes into account. This implies to policy makers that bigger matters more than richer. If one is interested in maximizing the economic standard of living, per capita GDP ought to be preferred to aggregate GDP. Still, focusing on per capita GDP has its problems as well. If immigrants migrate to the United States and double their income, yet they produce less than the previously existing average American, then US per capita GDP falls even though wealth and utility increased.

IV. Better Measures of Wealth or Utility Creation

Assuming that people do value knowledge about changes in aggregate national data, and substantial problems of aggregation aside, then economists and policy makers who are concerned with long-run wealth or utility maximization should turn their attention away from the current measure of GDP and toward better measures of wealth, or utility, that focus on voluntary transactions.

A better proxy for long-term economic wealth creation is net private domestic fixed (nonresidential) investment. It represents an increase in the productive capacity of the economy. The Solow

growth model projects long term economic growth based on capital accumulation (Solow, 1956). After all, the name of the game is capitalism. It should not be surprising that the single best proxy for future production is investment in productive capital. Such a measure is consistent with Say's Law.

Imagine if policy makers focused only on policies that tried to maximize private investment in nonresidential fixed investment. The set of policies they would advocate would involve protection of private property rights, low marginal tax rates on capital along with the income derived there from, and low and certain levels of regulation providing a regime of policy certainty. That is, by correctly choosing that which should be maximized, policy makers would actually create an environment that promotes the implementation of policies that promote long-term economic growth.

However, attempts to merely maximize private nonresidential fixed investment in the short term could lead to pressure to expand the money supply to keep short-term interest rates artificially low. Although capital accumulation may increase in the short run, that capital may represent mal-investment relative to its greatest long-term use. Furthermore, government subsidization of politically appropriate investment in governmentally approved industries could lead to a higher dollar value of less valuable capital stock.

Higgs (1999) introduced a measure of private GDP that is calculated without the inclusion of government expenditures on goods and services. Higgs's private GDP provides much better insight into the state of the real economy during and after WWII than official GDP numbers, which falsely suggest a wartime boom and post-war recession. Higgs notes that initial inclusion of government spending in GDP was controversial from the beginning, was even argued against by Kuznets, and reflected the desire of Commerce officials to inflate the importance of government spending (Higgs, 1998; O'Brien, 1994).

Similarly, Rothbard (1963) introduces alternative measurements in the form of "gross private product" (GPP) and "private product remaining with producers" (PPR). GPP is calculated by subtracting government expenditures and enterprises from GNP, whereas PPR is derived from GPP by also subtracting out government expenditures (again) or government revenues (if they are higher than government expenditures) to account for the fact that such coerced expenditures/revenues are made at the cost of private expenditures.

Although Higgs's private GDP and Rothbard's GPP and PPR are improvements upon current GDP, we suggest that the measurement would benefit from further refinement. If current utility is to be maximized instead of long-term economic production, then an aggregate measure based upon the volume of voluntary transactions should be used as a proxy for changes in utility. Such a measure would include voluntary private investment and consumption. It would exclude government spending and would exclude investment or consumption based upon government transfer payments or subsidies. It would also count both exports and imports as voluntary utility-creating transactions. We suggest such a measure called Gross Actual Product (GAP).

By accounting for the wealth-creating effects of both exports and imports while removing private sector actions derived from government subsidy, our measure of GAP differs from the measurements of Higgs (1999) and Rothbard (1963).

Gross Actual Product = voluntary consumption + voluntary investment + .5(exports) – .5(imports)

Exports from one country benefit that country by creating a consumer surplus, while the consumer surplus goes to the body receiving the export. Likewise, imports benefit the importing country by creating a consumer surplus for the body purchasing the import, while the producer surplus stays within the producing country. To capture this dynamic, we propose that only half of the value of exports should be counted in an aggregate production index. Likewise, when imports are consumed in the United States, rather than assume that no utility is created, it should be noted that domestic consumers get wealth and utility from their consumer surplus. Therefore, only part of the value of imports should be deducted from the aggregate measure of product.

In this way, when American consumers increase their consumption of imports by \$50 million, rather than assume, as does GDP accounting and the measures of Higgs and Rothbard, that no wealth was created, the consumer surplus of the transaction is noted as enriching the US economy. Because there is no way to accurately measure the average aggregate percentage of producer or consumer surpluses, we assume that producer and consumer surplus each amount to half of the sales price of the good or service.

Additionally, note that voluntary consumption is defined as the sum of retail sales and residential construction minus government transfer payments. Voluntary investment is defined as net private nonresidential investment minus government investment subsidies.

By defining Gross Actual Product as a function of voluntary economic transactions, policy makers would no longer be able to manipulate the aggregate measure by increasing transfer payments or subsidies. Nor would any increase in trade barriers aid in stimulating GAP. The incentive would be to create policies, such as lower trade barriers and the enforcement of contracts, that promoted increased voluntary transactions.

V. Gross Domestic Product vs. Gross Actual Product and Nonresidential Fixed Investment

Figure 2 presents a comparison of GDP, GAP, and Nonresidential Fixed Investment (NRFI) from 1950 through 2010, based on calculations using data from the Bureau of Economic Analysis (BEA). GAP as illustrated from 1950 to 2010 (with the exception that transfer payments and subsidies are not accounted for) represents voluntary transactions in the economy.

Because government spending is a component of GDP, it is not surprising that changes in government spending are positively correlated with changes in that year's GDP. Note that GDP has the lowest velocity of the three measurements above, whereas NRFI has the greatest. By adopting GDP as the official output that society seeks to maximize, increasing government spending over time becomes a dominant strategy. The faster government spending grows, the faster GDP increases. Reductions in government spending, we are left to conclude, would serve to lower GDP.

To test the hypothesis that government spending replaces private spending, we regress the growth rate in GDP, GAP, and NRFI independently on the growth rate in government spending from the prior year (1951–2011). As expected, we find that a 1 percentage point increase in the rate of government spending corresponds to a decreased rate of NRFI in the subsequent year (by .31 percentage points). This finding is significant at the 10% level. Likewise, an increased rate of government spending in one year is correlated with

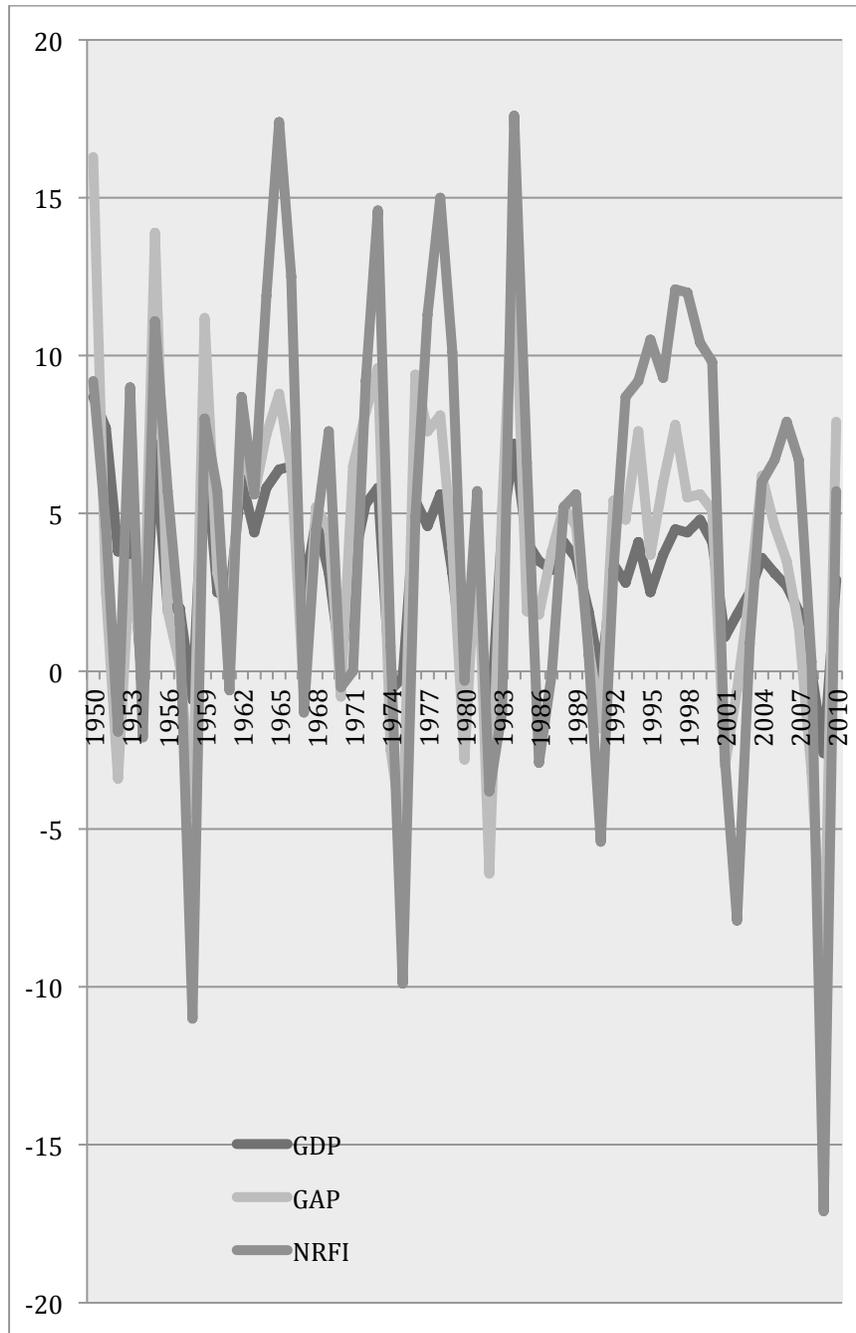


Figure 2: Gross Domestic Product (GDP), Gross Actual Product (GAP), and Nonresidential Fixed Investment (NRFI) from 1950 through 2010, based on calculations using data from the BEA.

a decreased rate of GAP by one quarter of a percentage point (significant at the 5% level) for the following year. The result is that an increase in government spending, rather than stimulating economic growth, actually slows down future economic growth.

Contrary to claims of many politicians, an increased rate of government spending is not significantly related to the subsequent year's growth rate in GDP. Although government spending increases the present year's GDP by definition, it has no statistically significant impact on GDP in the following year. Increases in government spending do not stimulate voluntary economic transactions; they replace them. For this reason, we conclude that GDP is not the best measurement for gauging the wellbeing of the economy. Although GAP and NRFI are not perfect either, we suggest that either of these measurements would be a substantial improvement over our present reliance on GDP. They both rid policy makers of their harmful pro-government spending bias.

Economists and policy makers concerned with wealth/production maximization engage in counterproductive policies if they believe that expanding government increases wealth. By trying to maximize GDP rather than GAP, policy makers destroy wealth. It is therefore imperative that economists who take seriously the desire to improve wealth/production adopt a new measure of economic success. GAP offers a good proxy for voluntary wealth-creating transactions and should replace GDP as the main macroeconomic policy target.

VI. Conclusion

The choice to use and maximize current GDP as defined by current national income accounting represents a concentrated effort on the part of policy makers to focus on short-term government production over wealth creation or utility maximization. Although numerous economists have commented on the fallacies of GDP including government spending, to date GDP is still the go-to measurement for economic growth, even for free-market economists. We suggest that those interested in maximizing wealth creation or production should use metrics consistent with those ends.

The decision to use and refer to GDP and changes therein as proxies for a better or worse economy has led to a dramatic lowering of long-term wealth and production via an increased reliance on government spending, transfer payments, and central planning. By

encouraging government spending or transfer payments to continually increase, blind allegiance to maximizing current GDP without the necessary constraints imposed by voluntary action has impeded wealth creation and dramatically increased the size and scope of leviathan.

Although the alternative measure we have proposed does not fix all of the problems of GDP as a measurement of wellbeing, we suggest that it is a vast improvement upon the currently used measurement. A large and interventionist government is the natural product of national income accounting, as it was set up along Keynesian guidelines. Failure to displace GDP as the officially targeted social goal ensures that policy makers have little short-term incentive to roll back the size of the state. GAP is a preferred alternative to GDP because it is based on voluntary wealth-creating transactions. The negative correlation between government spending and GAP would help policy makers understand the true cost of increasing the size of government.

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