

# It's time to dump GDP as a measure of the economy

by Richard Freeman

On Oct. 28, the U.S. Department of Commerce made a comprehensive historical revision of Gross Domestic Product, creating, out of thin air, an additional \$248.9 billion for 1998. The revision is one more instance of hocus-pocus, which resulted in a fake growth in GDP.

The latest trick is part of a strategy to maintain the threadbare myth that the United States is in the midst of an economic expansion. The reality is far different. Consider the following critical sectors of the U.S. economy: Comparing the first nine months of 1999 to the first nine months of 1998, U.S. machine-tool consumption is down 33% (and production very closely parallels consumption); sales of U.S.-produced tractors of 100 horsepower or greater are down 30.8%, sales of four-wheel-drive tractors are down 27.6%, and sales of harvesters and combines are down 45.5%; and shipments of U.S.-made steel are down 2.1%. Yet, the Commerce Department claims that real, inflation-adjusted GDP rose 4.5%.

Is GDP measuring the same economy, in which these three critical sectors, and others, are collapsing? The answer is, "No."

GDP has never been a metric to measure real, physical economic growth. From the outset, it has been a fundamentally flawed concept, a mishmash pieced together as an accounting system, and expressed in monetary terms (in the case of the United States, in dollars). In almost every instance, there is no correspondence between what it is claimed GDP is measuring, and what it actually expresses. The methodology of GDP is a sham.

During the period when GDP was developed, especially during the 1930s and 1940s, the concept had irreconcilable flaws, but the U.S. economy was more industrially and agriculturally oriented. Thus, while GDP did not measure growth, it could indicate, in broad terms, as a very rough gauge, whether the economy was headed upward or downward. Today, because the economy has become a post-industrial scrapheap, even that usage no longer functions. GDP is a system based on flawed axioms and postulates, that obscures the real economy, and thereby lies about what the economy is doing.

Another problem is that when GDP indicates that the U.S.

economy is growing and sound, when it is in fact contracting, this false picture itself becomes an element of policy. The City of London and Wall Street financier oligarchy is looting nations, to keep the speculative financial bubble afloat. And it diverts opposition to this process, by saying, "GDP shows the economy is doing fine."

We need not be condemned to GDP fakery. Lyndon LaRouche has developed the LaRouche-Riemann method, for accurately judging how an economy is functioning (which we discuss below). It is long since past time that GDP were scrapped.

In this report, we look at the Commerce Department historical revision of data which produced faked growth. We examine the fakery involved in reporting that capital formation is playing a large role in leading a U.S. economic expansion. We then look at the inability of GDP to measure real economic processes, and the fact that GDP has been reduced to measuring the degradation of the U.S. economy into a post-industrial society. Finally, we look at the LaRouche-Riemann model, a true metric of growth.

## The Commerce Department revision

On Oct. 28, the Commerce Department carried out hundreds of revisions of data, after adopting new assumptions about how these data would be counted. The principal change, which accounted for one-half to two-thirds of the new, counterfeit GDP growth, was to reclassify purchases of computer software from an "expense" to an "investment."

To understand what was done, let us start with GDP, which is one feature of a linearized mathematical accounting system, called the National Income and Product Accounts, which was developed especially during the 1930s and 1940s, under a team of economists led by Simon Kuznets. GDP is defined as the annual "output of goods and services" produced within a country, whether by that country's nationals or by foreigners living in that country.

There are two principal methods for arriving at GDP. One, called the "value-added system," begins from the production side, and the other, the "expenditures system," begins from

TABLE 1

**U.S. Gross Domestic Product, 1998**

(trillions \$)

Personal Consumption Expenditures	5.808
Gross Private Domestic Investment	1.367
Government Consumption Expenditures and Gross Investment	1.487
Net Exports of Goods and Services	-0.151
<b>Gross Domestic Product</b>	<b>8.511</b>

Sources: Commerce Department; *EIR*.

purchases. Under the expenditures method, it is assumed that all of the goods that a country produces will have to be purchased during the year. Thus, it assumes that if one determines the level of purchases/expenditures for a year, that will equal output.

The “expenditure system of GDP” (with some modification) is the basis of what the U.S. government reports as official GDP on a quarterly or annual basis. **Table 1** shows U.S. GDP for 1998, as determined by the “expenditure system.” The table shows four main categories of expenditure that make up GDP. The largest category is called Personal Consumption Expenditures, which represents personal or consumer expenditures for consumer/personal goods or services. The second category, Gross Private Domestic Investment, is supposed to represent capital formation (we will see that it does not). The third category represents government expenditures, and the fourth represents net exports (i.e., the balance on exports and imports of goods and services; if a country imports more than it exports, this number will be negative).

On Nov. 8, a Commerce Department official explained to *EIR* the decision to reclassify the purchase of computer software as an investment, rather than as an expense, as it had been previously, and correctly, classified: “We will now count the purchase of computer software in the same way that we would treat a company’s purchase of a machine tool, as a new investment,” he said. That revision — treating non-productive computer software as if it were a capital good, like a productive machine tool — will make the U.S. GDP even more biased by post-industrial society assumptions.

Under the old arrangement, when computer software was classified as an expense of doing business, it did not figure into GDP. After the reclassification, however, supposedly as an element of capital formation, it was added into Gross Private Domestic Investment (GPDI), and GDP went up. **Table 2** shows U.S. GDP for 1998 after the revisions. Suddenly, GDP was \$8.760 trillion, compared to \$8.511 trillion before the revision. U.S. industrial output did not rise; this is the fake invention of GDP.

The GDP revisions were extended retroactively for at

TABLE 2

**U.S. Gross Domestic Product, 1998, after Oct. 28 revision**

(trillions \$)

Personal Consumption Expenditures	5.849
Gross Private Domestic Investment	1.532
Government Consumption Expenditures and Gross Investment	1.530
Net Exports of Goods and Services	-0.150
<b>Gross Domestic Product</b>	<b>8.760</b>

Sources: Commerce Department; *EIR*.

TABLE 3

**Gross Domestic Product growth rate**

	Old	Revised
1980-90	2.9%	3.2%
1990-98	2.6%	3.1%

Source: U.S. Department of Commerce.

least two decades. **Table 3** shows the resulting change in GDP growth rates, which for 1990-98, increased by 20%.

The revisions were also used to juggle all sorts of other numbers which are supposed to show an economy’s performance, in particular, the U.S. personal savings rate.

Without going into all the details here, the Commerce Department works from the assumption that the level of savings must equal the level of investments. In 1998, the U.S. official personal savings rate stood at 0.5%. But, because computer software purchases had been added to investments, this swelled savings. Presto change-o, the U.S. personal savings rate for 1998 was jacked up from 0.5% to 3.7%.

**The fraud of capital formation growth**

The Commerce Department’s brazen faking of GDP data, simply calls attention to the legerdemain by which the Commerce Department constructed GDP in the first place.

Let us start with the financial media’s widely trumpeted claim that there has been a spectacular growth of capital formation, i.e., spending for new plant and equipment. Capital formation has allegedly led the United States into its tenth year of economic expansion.

What is cited as evidence, is that during 1991-98, real (i.e., inflation-adjusted) GPDI, which is supposed to be the category for capital formation, grew at a compounded annual rate of 9.32%, i.e., more than double the rate of growth of real GDP as a whole.

But, much of GPDI does not represent capital formation.

TABLE 4

## Four elements of Gross Private Domestic Investment

(trillions \$)

Information Processing Equipment (includes computer hardware, computer software, etc.)	0.357
Office buildings	0.042
Hotels and motels	0.015
Other commercial structures (shopping malls, etc.)	0.054
<b>Total (of these four elements)</b>	<b>0.467</b>

Sources: U.S. Department of Commerce; *EIR*.

Let us look at four major elements that go into it: information processing equipment, which comprises computers and peripherals, computer software, and so forth; office buildings; hotels and motels; and other commercial structures, including shopping malls (**Table 4**). (As noted, computer software was added to GPDI only on Oct. 28.)

Information processing, the first item, raises the question of whether computers are used for productive or non-productive purposes. While computers do play a role in the production process, such as in printing, or in some industrial machines, it is estimated that 80 to 90% of all computers are used for purely administrative functions. (Indeed, it is estimated that 15% or more of all computers are used in financial services.) Thus, the large majority of computers are used for non-productive purposes. Office buildings, hotels, shopping malls constitute overhead.

These four major elements of GPDI do not represent real capital formation. Real capital formation, that is, spending for plant and equipment, raises the physical economy to a higher level of energy-intensive, capital-intensive development, which ensures future production. These four elements do not do that; they are largely parasitical. Table 4 shows that in 1998, spending for these four elements totalled \$0.467 trillion. This constituted 30.5% of the total GPDI (i.e., alleged capital formation) of \$1.531 trillion. In fact, in 1998, these four elements alone constituted 5.3% of the entirety of U.S. GDP.

The idea that the United States economy is undergoing a capital formation-led expansion, or any other type of expansion, is a hoax. GPDI does not represent capital formation.

### The question of measurement

We now look at a deeper question: the very concept of GDP itself. This raises the question of measurement, of metric. How does one gauge how “economic activity” is performing? This depends on what one thinks economic activity is in the first place. What is growth? Is it the mere counting of

things? Or, is there an ordered process by which the economy goes from a lower level of development, to a higher order? And if so—and it is so—how does one measure that?

It is at this point that GDP is exposed as a totally bankrupt concept; it has no capability for measuring the movement from a lower order of development to a higher order (or, the reverse direction).

GDP begins from the idea that man is driven by seeking pleasure and avoiding pain, and that he buys what pleases him, to which a dollar amount is assigned. By a set of linearized mathematical equations, GDP adds up total expenditures, to arrive at an amount. If this amount grows over successive measurements, it is claimed that there has been growth in the economy.

GDP includes everything. It outlaws any attempt to make a distinction—that any sane human being would make—between cancerous speculative derivatives trading, on the one hand, and the necessary work of machine tools, on the other.

We look at three examples, which show that GDP breaks down when it tries to do real measurement. These are flaws built into the very axioms of GDP. There is no superficial adjustment that could cure GDP of this problem.

*GDP cannot assign value to different types of energy production, or, indeed, to any production.*

To comprehend the example to be presented, it is necessary to understand the GDP “value-added system.” For an industry, value-added is the difference between the revenues that an industry takes in for selling its products, and the input costs that it incurs for the intermediate goods to make its product. For example, the value-added for the steel industry is the revenue realized by selling steel, minus the input costs of the iron, lime, energy supplies, etc., required to make the steel. Another name for the value-added for an industry is the “GDP originated by” that industry. The sum of the value-added for all industries in an economy, is equal to GDP.

This example begins from the fact that in the United States, coal is the dominant form of raw material used in the production of electricity. Over the last three decades, the amount of coal that the United States has mined has increased. As a result, the value-added that coal contributes to GDP has increased, increasing GDP. Second, in 1970, coal constituted 27.3% of all freight, by tonnage, hauled by America’s railroads; by 1997, coal constituted 43.8% (on a revenue basis, coal went from 12.1% of all rail freight revenue in 1970, to 22.5% in 1997). Coal is not part of the railroads’ value-added, but the increase in haulage of coal, increased the revenues of the rail industry, and that increased its value-added.

Thus, both the direct production of coal, and the rail industry’s haulage of coal, produced an increase in value-added, and an increase in GDP. The Commerce Department considers this as growth, but it is not, as we shall see.

One can express the efficiency of an energy-system by

the concept of energy-flux density, which is the volume of the energy flow-through, per cross-section of a surface area, per unit of time. By this standard, nuclear fission power, and ultimately fusion power, have much higher energy-flux densities than coal, require only a fraction of the material to run the plant, and so forth. Thus, were the American economy genuinely advancing, nuclear power would be increasing as a share of its electricity generation, and America would be developing, ultimately, fusion and matter/anti-matter processes. It would be moving away from coal and other fossil-based fuels as a source of electricity generation. This is not happening; in fact, America last started construction of a new greenfield nuclear power plant in the late 1970s. Thus, the increased use of coal to produce electricity represents a regression, not an advance. Moreover, America is choking its rail system with coal. Rail is the most efficient means of transportation for mass transit of bulk goods, but for coal to constitute nearly half of all of the freight being carried by the rail industry, is insane.

This point can be stated another way: A mere scalar quantity of output is not a measure of advance. This may seem like a contradiction, because America suffers from a fall in production of critical sectors of the economy, whose output needs to increase: machine tools, farm equipment, steel mills, etc. But this contradiction points up the issue of value. The mere increased output of something does not represent value. Where is value located? It is not intrinsic, inhering in something in and of itself. Rather, the value of a product is located in its contribution to the vectored development of the economy as a whole. *From this standpoint, the continuous, increased output of coal does not contribute value, but its opposite.*

Take the example of the buggy-whip. It could be made out of a high-tensile, chromium-coated steel alloy that would last a hundred years. But, the horse and buggy era is over.

Yet, GDP, by its nature, cannot account for this, and, therefore, axiomatically, erroneously counts increased coal output as increased value and growth. Hence a related point of great importance. The modelling of GDP works from linear mathematical equations. Yet linear mathematical equations can never measure growth. Growth lies in the process of change, of scientific and technological progress. But such progress is situated in the creative mind of man, which is outside GDP's linear mathematical equations.

*GDP counts costs related to the breakdown of living standards, as constituting positive economic gains.*

As families are no longer able to manage in a single wage-earner household, but now must hold anywhere from two to four jobs to survive, they must incur many added costs, totalling sometimes many thousands of dollars per year, which are related to the additional jobs. These costs include increased expenses for child care and transportation. These additional expenditures boost GDP.

Thus, the unfortunate circumstance of families having to work more jobs, to offset the collapse in their purchasing power (often still not earning enough to survive), and thus incurring more costs, is counted by GDP as an increase in value.

*GDP does not measure the true value and costs of infrastructure.*

GDP cannot measure the infrastructure deficit in the United States. GDP includes a category, Government Gross Consumption Expenditures and Net Investment, which reports on some of the annual expenditures for infrastructure. But what it does not include are the expenditures that *should* be made each year. America has a deficit in infrastructure spending, falling short of what is needed by as much as a quarter-trillion dollars or more per year. This amount should be deducted from GDP. *EIR* estimates that the United States has an infrastructure deficit of \$7-9 trillion, comprised of obsolete infrastructure or infrastructure that is needed but hasn't been built. This is visible across America: the breakdown of water mains in major cities; the collapse of bridges and highways; the unavailability of clean water and water for irrigation; the lack of hospitals; the obsolescence of the rail grid; and so forth.

Infrastructure, along with the machine-tool-design principle, is one of the most indispensable elements of an economy. It raises productivity for factories and farms, for urban and rural living. Without infrastructure, there would be no modern human existence. The U.S. physical economy has been contracting at the rate of 1-2% per annum over the last quarter-century, and the breakdown of infrastructure is a foremost reason for that.

Yet, while GDP can account for only some of what is spent each year for infrastructure, it cannot account for the gap that exists between what is spent and what should be spent to maintain infrastructure, and also to provide infrastructure for the future. It cannot account for the \$7-9 trillion infrastructure deficit. GDP simply ignores this fundamental problem, an immense cost, which the United States experiences the effects of every day. Yet, from the standpoint of GDP, the problem does not exist.

Each of the three cited examples—the false valuation of the role of coal, the added costs incurred in a family working two to four jobs, the immense infrastructure deficit—demonstrates that GDP fails as a measure of an economy. With respect to what each of these three examples says about the downward direction of the economy, GDP gives a wildly opposite, false report. It cannot be used to measure any of the real processes of the economy.

### **GDP measures the post-industrial society**

Today, each time GDP reports an increase in U.S. economic growth, it is reporting something else entirely.

Since the assassination of President John F. Kennedy on

TABLE 5

**GDP originating by industry, 1944-97**

(percent of total GDP)

	1944	1947	1970	1980	1997
Goods-producing	55.0	50.7	42.2	40.7	32.5
of which manufacturing	29.0	27.1	24.1	21.0	17.0
Non-goods producing	45.0	49.3	57.8	59.3	67.5
of which financial	9.0	9.8	14.1	15.0	19.4

Sources: U.S. Department of Commerce; *EIR*.

Nov. 22, 1963, the British financier oligarchy has imposed on the United States a post-industrial society policy. It implemented this through several policy changes. On Aug. 15, 1971, President Richard Nixon, on London and Wall Street advice, severed the U.S. dollar from the gold reserve standard, ushering in a floating-exchange-rate system. In 1973-75 and 1978-79, the British Commonwealth's Seven Sisters oil cartel carried out two oil hoaxes, which collectively raised the price of oil from \$3 per barrel to \$33 per barrel, an 11-fold increase. In October 1979, Federal Reserve Board Chairman Paul Volcker launched a policy of "controlled disintegration" of the economy—ostensibly to stem inflation—by sending interest rates into the stratosphere, which collapsed production. In October 1981, the Kemp-Roth Tax Act was signed into law; and in 1982, the Garn-St Germain Act was enacted, which deregulated the U.S. banking system, both of which fuelled speculation.

Under the post-industrial society policy, agriculture, manufacturing, and infrastructure withered, while speculation was fostered.

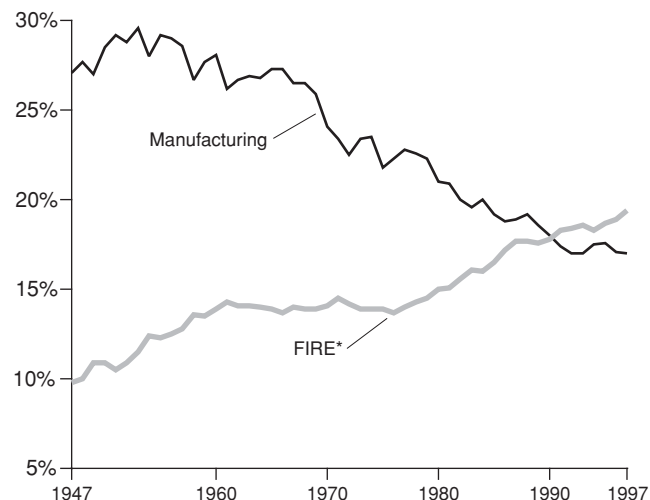
Let us look at the U.S. economy on an historical basis. Under the GDP "value-added system," the Commerce Department measures, for each industry, the amount of GDP that it "originates" or "produces." These can be expressed as a percentage share of GDP. This "value-added" method is flawed, but it shows a trend (**Table 5**). (The figures for 1944 are estimated, based on levels of U.S. production; the figures for 1947 are the first provided by the Commerce Department.) By 1997, the non-goods-producing section of the U.S. economy "produced" 67.5% of GDP, whereas the goods-producing sector accounted for less than one-third of GDP. *What GDP is measuring, as its principal function, is the breakdown of the U.S. economy, the transformation toward a post-industrial society, of collapsed production, and increased speculation.*

The change in the character of the U.S. economy can be seen in the comparison of the manufacturing sector, a sub-sector of goods production, to the financial sector, a sub-sector of non-goods production. The "value-added" of Finance, Insurance, and Real Estate (FIRE, the full name for

FIGURE 1

**Share of U.S. GDP 'originated by' manufacturing vs. FIRE**

(percent)



\*Finance, insurance, and real estate

Sources: U.S. Department of Commerce; *EIR*.

financial services) is the value of its revenues, minus its input costs. Each rent increase, each increase in bank revenues through derivatives trading, increases the value-added of FIRE. **Figure 1** shows that in 1947, the manufacturing sector contributed 27.1% of U.S. GDP; the FIRE sector only 9.8%. The manufacturing sector accounted for almost three times as much GDP as did the FIRE sector. By 1997, a dramatic change had occurred: The speculative FIRE sector now accounted for a greater share—one-fifth—of U.S. GDP than did manufacturing.

The more that post-industrial Information Age services and the speculative category of FIRE grow, the more the U.S. GDP grows. Perversely, while GDP purports to measure "growth," it is in fact measuring decay; GDP is a *metric* of a cancerous process's eradication of the real physical economy.

**The LaRouche-Riemann method**

GDP is not crippled by one or two or five problems which could be cured with the change of a few formulas. GDP is flawed at its root, starting with the conception that man purchases that which brings him pleasure, which purchases, when added up, total GDP. It is flawed by the premise that it can be expressed by linear mathematical equations, which add up the total of purchases and "value-added."

GDP cannot express what the true value of an energy

resource is, such as coal vs. nuclear, and ignores the strategic importance of infrastructure. When GDP reports that the economy has reached the quantitative level of X, expressed in dollar terms, one is given no idea what that means with respect to the real performance of the economy.

There are devastating consequences that follow from tolerating the incompetence of GDP. The London and Wall Street financier oligarchy deploys GDP as a weapon, to run roughshod over anyone who would oppose their ruinous policies. This oligarchy has intensified the looting of the population and real economy, in order to hold up the fictitious values of its bankrupt speculative bubble, which ultimately cannot

be sustained. As this effort to sustain the bubble further destroys the economy, the oligarchy reports, "See, GDP shows the economy is doing fine."

GDP is used to distort reality and keep policies in place that are destroying the human race. Yet, as long as leaders accept GDP, and accept the thinking concerning the economy and the nature of man that underlies GDP, then there will be no changes in the policies governing nations. The world faces the biggest financial and economic disintegration in 500 years, yet leaders, self-brainwashed by GDP and its underlying premises, are not taking the necessary measures to put the financial system through bankruptcy reorganization, and to put a development-vectored New Bretton Woods monetary system in its place, which would save the economy.

Today's crisis requires the world to move away from GDP quackery, and embrace scientific method. Lyndon LaRouche developed the LaRouche-Riemann method as a metric of the real, physical economy. LaRouche begins from the perspective that man, in the image of the Creator, willfully uses the power of reason to make revolutionary new discoveries of validatable fundamental scientific principle. The application of the higher, non-deductive power of reason is energized by the passion called *agapē*. This is the starting point of economics. Man transmits these scientific discoveries into the economy through the machine-tool-design principle and infrastructure. When these discoveries are conjoined to a labor force whose powers of cognition have been developed by a Classical education, this creates not-entropic economic activity.

Man increases his power over nature. This correlates with an increase in potential relative population density. This can



be expressed as a measurement: an increase in freshwater management, energy generation, and efficient transportation, on a per-capita and per-square-kilometer basis. An increase in the provision of health care, including the physical availability of hospitals, and increased amount and quality of education, in order to develop the individual so that he can develop his power over nature, expressed on a per-capita, per-square-kilometer basis. An economy so ordered would have an increasing energy- and capital-intensive mode of development. The ratio of capital goods to consumer goods production would be rising. An economy so ordered, moves from a lower form of development, to a higher, more powerful form of development. If it is not so ordered, expressed by falling rates per capita and per square kilometer, the economy is decaying. Thus, there is a scientific basis to measure economic processes. (See works by Lyndon H. LaRouche, Jr., "The Economics I.Q. Test," *EIR*, May 14, 1999; "What Economics Must Measure," *EIR*, Nov. 28, 1997; *So, You Wish To Learn All About Economics?* [Washington, D.C.: EIR News Service, 1995].)

The principles that enable the LaRouche-Riemann method to accurately forecast an economy's performance, are the same ones that can be used to formulate competent economic policies, whether for running a country or for reconstructing the world economy.

GDP, on the other hand, is axiomatically incapable of measuring an economy; it deliberately lies about how an economy is performing. GDP should be dumped. This would create the basis to have policymaking that uses real economic science. Governments and leaders would be free to consider long-overdue policy changes.