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ECONOMICS ON TRIAL

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LIES, MYTHS, AND REALITIES



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CHAPTER 4

WHAT'S MISSING IN GNP?

GNP ignores intermediate goods, or goods used up entirely in the production of final goods, because to include them would be to double count.

—Roger Leroy Miller
Economics Today (1988)

There's a lot more missing from GNP than household labor and black market transactions. In fact, according to data revealed in this chapter, the government deliberately ignores nearly 50 percent of economic activity in its GNP data!

GNP and other national income statistics have been a key element in economics textbooks since the early 1950s. Students are told that these are purely objective statistics that describe more or less what is happening in the economy. In reality, national income statistics are highly misleading and purposely leave out one of the biggest sectors of the economy.

THE KEYNESIAN BIAS IN NATIONAL STATISTICS

Economists fail to inform students of economics that the theory behind GNP is highly Keynesian. National income data were developed by Simon Kuznets and the National Bureau of Economic Research in the 1940s. Both were heavily influenced by the Keynesian theory of final aggregate demand. According to Keynes, a nation's prosperity is essentially determined by total *final* spending in the economy—by consumers, investors, and government. This notion of aggregate final demand was in sharp contrast to the classical view that productivity, technological advancement, and savings were the keys to economic

progress. Classical economists believed that the aggregate consumer demand was relatively unimportant as an economic catalyst and that a country's standard of living was determined by its productive power. Consumer spending would largely take care of itself. The production process, not consumption, was the most important aspect of economic life.¹

Under the influence of Keynes, Kuznets and other statisticians created the now-familiar figure of gross national product to represent the final purchase of all goods and services each year. The figure was obtained by using the well-known Keynesian equation,

$$Y = C + I + G$$

where

Y = Gross national product (GNP)

C = Total consumer expenditures

I = Gross investment expenditures by businesses

G = Government expenditures

GNP also includes net exports (exports minus imports), which can have a significant impact on GNP depending on the level of foreign trade.

GNP LEAVES OUT MAJOR PORTIONS OF ANNUAL PRODUCTION

The problem with this consumption approach to national output is that it does not include the total value of all the production that takes place in an economy. GNP takes into account only the production of goods and services sold to final users. It excludes all economic activity associated with the production of intermediate inputs, that is, raw materials, semimanufactured goods, wholesale goods, and other unfinished products (including inventories) that have yet to reach the final consumption stage. GNP includes, under gross private domestic investment, the purchase of all new durable capital goods, such as machines and equipment, because they are treated as final products. But these goods do not include nondurable capital goods or intermediate products such as leather or steel. In

short, GNP takes into account fixed capital but not circulating capital. Thus, GNP is not really a gross figure at all, but a net value-added approach.

Neoclassical economists justify this omission by arguing that to include all intermediate goods would be a form of double counting and would overstate total output. Dolan uses the example of a kitchen table that retails for \$100 (see Figure 4-1).

The kitchen table goes through three general stages. The timber farm company sells its logs to the sawmill for \$15. Its cost (fuel, equipment, etc.) amounts to \$5, leaving a profit (value added) of \$10. At the second stage, the sawmill company sells its lumber to the manufacturer for \$40. Its cost is \$15 (Dolan assumes no costs other than the logs), leaving it with a profit (value added) of \$25. The third and final stage is when

FIGURE 4-1
Value Added and the Use of Final Products in GNP

Final stage—manufacturing:		
Value of one table	\$100	
Less value of lumber	-40	
	<hr/>	
Equals value added in manufacturing	60	→ \$ 60
Next to final stage—sawmill:		
Value of lumber	\$ 40	
Less value of logs	-15	
	<hr/>	
Equals value added at sawmill	25	→ 25
Second to final stage—timber farming:		
Value of logs	\$ 15	
Less value of fuel, equipment, etc.	-5	
	<hr/>	
Equals value added in timber farming	10	→ 10
All previous stages:		
Value added in fuel, equipment, etc.	\$ 5	→ <hr/>
Total value added		5
		<hr/> \$100

This table shows why GNP must include only the value of final goods and services if it is to measure total production without double counting. The value of sales at each stage of production can be divided into the value added at that stage and the value of purchased inputs. The selling price of the final product (a \$100 table, in this case) equals the sum of the values added at all stages of production.

the manufacturer sells the finished table directly to the customer for \$100. (Dolan bypasses the wholesaler and retailer.) Its cost is \$40, leaving a profit (value added) of \$60. If you add up the cost of the value added at each stage, the total comes to \$100, equal to the final retail price, whereas, according to Dolan, "Adding together the \$100 value of the table, the \$40 value of the lumber, the \$15 value of the timber, and so on would far overstate the true rate of productive activity (the true value added) in the economy."

THE FLAW IN GNP FIGURES

But the neoclassical economists have overlooked two serious drawbacks of the value-added approach to measuring national output. First, GNP violates the basic principles of business accounting. On an individual company basis, value added is only the bottom line of a company's financial statement. It omits the most important part, without which the company could not even operate. Specifically, businesses must be able to raise sufficient capital (either by borrowing, issuing stock, or self-financing) to pay for the *gross* outlays, not just the value-added portion of doing business. Before it earns a value-added profit, a business must hire workers, buy or lease equipment, stock inventory and working capital, advertise, rent space, and so forth. Businesses cannot ignore the aggregate costs of doing business; therefore, why should economists do so in figuring national output? It is national folly indeed.

If the purpose of GNP is to reflect accurately a nation's economic activity during the year, it must include the total expenditures by consumers, businesses, and government. But by omitting intermediate business input, GNP greatly underestimates actual spending by firms. In sum, GNP does not reflect total spending in the economy. If business firms were asked how much they spent last year, the costs of intermediate input would represent a significant part of total business outlays.

The great drawback to the GNP figure is that it takes the heart out of economic activity. Consider for a moment the purpose of economic action (as defined in Chapter 1): to transform

unfinished goods into usable goods and services. Therefore, the heart of economic activity is intermediate input. For example, I recently visited a cannery that makes tomato juice. The ripe tomatoes are put on an assembly line. Workers cut out the stem and remove the skin. Machines crush the tomatoes into a juice. The juice is cooked and poured into cans. The cans are sealed by another machine and placed in large boilers for 30 minutes. After the cans cool, labels are attached and the cans are shipped to their destination. The point is this: all effort along the assembly line is concentrated on the tomatoes, the intermediate good. Throughout the process, it is the tomatoes that are being acted upon. The workers, the machines, the management, and the building all serve as a means to an end: to convert the tomatoes into a more convenient form for consumers, that is, tomato juice. The same approach could be applied to Dolan's kitchen table or any other production process. The intermediate input is the central focus of economic activity. As such, we see how GNP cuts out the heart of the economy by ignoring the intermediate processes and focusing solely on the end product.

GNP EXAGGERATES CONSUMPTION

This brings us to our second criticism. Because they leave out intermediate goods, GNP data grossly exaggerates the level of consumption in the economy. Take a look at GNP in the United States in 1988, stated in billions of dollars:

Personal consumption expenditures	\$3,226.0
Gross private domestic investment	765.5
Government purchases	936.3
Net exports	— 93.2
Gross national product (GNP)	\$4,861.8

Thus, according to national income statistics, consumption represented 66 percent of GNP in 1988. Other years show similar results. Naturally, this high level implies that the U.S.

economy is consumer-oriented, that changes in consumer spending—not investment or business spending—are the key to economic growth or decline. In fact, according to GNP data, government spending is more important than private investment (\$936 billion for government purchases versus \$765 for private domestic investment). The overemphasis on consumption is a common misconception found in the financial press and economic commentaries. Especially during the Christmas holidays, the media report almost daily on the outlook for retail sales, suggesting that if holiday sales are up the economy is healthy and sound. Underlying these reports is the notion that if only the Christmas season lasted year-round, the economy could expand even more.

The belief that the economy is consumption-oriented does not square with other data, however. If it were true that the economy were led by consumption, consumer spending should be a principal leading indicator of future economic activity. But according to the U.S. Department of Commerce, final consumer spending is not in the Index of Leading Indicators. (The leading indicator “new orders for consumer goods and materials” is at the manufacturing, not retail, level and emphasizes durable “consumer” goods often used in business.) Consumer spending tends to be a coincidental or lagging indicator, which is to say that consumer spending begins falling during or after a business turndown but not before.

THE GROSS NATIONAL OUTLAYS (GNO): AN ALTERNATIVE APPROACH

An alternative method of calculating the true gross national product is to use the aggregate structural approach developed in Chapter 3. I call this new figure gross national outlays (GNO).

In the simplified Dolan example at the beginning of this chapter (see Figure 4–1), the GNP is \$100, representing only the final product (the table). But to measure the total economic activity in producing the table, we must figure GNO. GNO is the value of all expenditures involved in making the table.

Therefore, we add the total value of all stages of production, as follows:

First stage (fuel, equipment, etc.)	\$ 5
Second stage (timber farming)	10
Third stage (sawmill)	25
Fourth stage (manufacturing)	60
Final stage (consumer)	100
Total gross national outlays (GNO)	\$200

Thus, we conclude that total economic activity in the making of the table is \$200, twice the price the consumer actually paid for the final product.

Actual expenditures on intermediate input in the United States can be obtained from input–output tables compiled by the U.S. Census Bureau. Unfortunately, the data is compiled only once every five years from an economic census and then estimated for each year until another census is taken. Even then input–output models are far from up to date. The latest input–output table is for 1982.

Using the latest input–output table, the traditional GNP figure for the United States amounted to \$3,166.2 billion in 1982. However, if we add up the value of intermediate input, the total level of intermediate spending comes to \$2,745.6 billion. Adding that to GNP, we have a GNO equal to \$5,911.8 billion. The breakdown is as follows:

Gross National Outlays (GNO), 1982 (in billions of dollars)

Consumption expenditures		\$2,046.4
Business expenditures		3,196.7
Intermediate input	2,745.6	
Gross private investment	451.1	
Government expenditures		641.7
Net exports		27.0
Gross National Outlays (GNO)		\$5,911.8
Gross National Product (GNP)		\$3,166.2

Source: "Annual Input–Output Accounts of the U.S. Economy, 1982," *Survey of Current Business*, April 1988, pp. 31–46.

According to the above data, GNO was almost double GNP in 1982. Furthermore, under our new definition of gross national spending, consumption represented only 34 percent of economic activity in 1982, compared to 65 percent of GNP. Gross business expenditures, which include outlays for both intermediate input and fixed capital investment, amounted to \$3,196.7 billion. Accordingly, intermediate business spending represented 54 percent of real economic activity in 1982, not 14 percent as it appears under the GNP definition. Business spending was almost double consumer spending and four times bigger than government spending.

One of the most interesting sidelights of this new measurement of annual economic output is that the size of government spending is also reduced in scope. Under the GNP definition government spending represents 20 percent of final national output, but under the new GNO definition it reflects only 11 percent of total spending in the economy. However, this figure may underestimate government spending since it does not include the intermediate goods involved in the production of government outlays.

SUMMARY

GNP is a grave distortion of economic activity because it ignores the production of intermediate goods in the business sector. It overemphasizes the role of consumption and government spending in the economy at the expense of business. To understand what is really happening in the world, economists must include the output of intermediate goods in national statistics. Input-output tables should be brought up to date as soon as possible and published annually.

NOTES

1. John Stuart Mill states, "What a country wants to make it richer is never consumption, but production. Where there is the latter, we may be sure that there is

no want of the former.” John Stuart Mill, “The Consumer Theory of Prosperity,” *Essays on Some Unsettled Questions of Political Economy* (1830). The idea that production, not consumption, is the key element of prosperity is embodied in Say’s law, “Supply creates its own demand.” Keynes, who believed his “general theory” was a wholesale attack on Say’s law, would have it the other way around, “Demand creates its own supply.” See John Maynard Keynes, *The General Theory of Employment, Interest and Money* (London: Macmillan, 1936), pp. 18–21.

RECOMMENDED READING

Skousen, Mark. *The Structure of Production*. New York: New York University Press, 1990. Chapter 6.