

BLOCKING PROGRESS IN AUSTRIAN ECONOMICS: A REJOINDER

MARK SKOUSEN*

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Abstract: This paper shows that Block and Barnett (BnB) critique of Gross Output (GO) is wrong-headed and misguided, and is another sad example of why their limited version of Austrian economics is blocking the progress of the best that Austrian economics has to offer to the profession.

I reject BnB's assertion that GO is a «new threat to economic freedom» and «another government con.» To the contrary, the quarterly release of GO data has gone a long way to dispel falsehoods about the economy and government policies, while adding important information about how the economy works. It's a triumph in supply-side Austrian economics, and should be celebrated by free-market economists everywhere.

Keywords: Gross Output (GO), Austrian economics, structure of production, Hayek triangle, consumer spending.

JEL Classification: B53, E23, E25.

Resumen: Este trabajo muestra que la crítica de Block y Barnett (BnB) a la producción bruta (GO) es errónea y equivocada, y es otro triste ejemplo de por qué su versión limitada de la economía austriaca está bloqueando el progreso de lo mejor que la economía austriaca puede ofrecer a la profesión.

Concretamente, este trabajo rechaza la afirmación de BnB de que GO es una «nueva amenaza a la libertad económica» y «otra estafa del gobierno». Por el contrario, la publicación trimestral de datos de GO ha recorrido un largo camino para disipar falsedades sobre la economía y las políticas gubernamentales, al tiempo que proporciona información sobre cómo funciona la economía. GO representa un triunfo para la economía austriaca de la oferta, y debe ser celebrado por los economistas del mercado libre en cualquier parte.

* Presidential Fellow, Chapman University.

Palabras clave: Producto bruto (GO), economía austriaca, estructura de la producción, triángulo de Hayek, gasto del consumidor.

Clasificación JEL: B53, E23, E25.

“Gross output [GO] is the natural measure of the production sector, while net output [GDP] is appropriate as a measure of welfare. Both are required in a complete system of accounts”.

Dale W. Jorgenson, J. Stephen Landefeld,
and William D. Nordhaus (2006)

“This is a great leap forward in national accounting. Gross output, long advocated by Mark Skousen, will have a profound and manifestly positive impact on economic policy”.

Steve Forbes (2014)

Walter Block has invited me to respond to his co-authored critique of Gross Output (GO), the new measure of the economy that I have championed since writing *The Structure of Production* (1990). I am happy to do so, and will argue that GO is a breakthrough and advance in macroeconomics that can be viewed in many positive ways.

The introduction of GO is a paradigm shift in economics, and as such, debates and in-fighting in the profession are common place and will continue in our goal to find a complete and accurate model of the economy.¹ Being a new statistic, GO is a work in progress, and researchers are likely to find fertile ground with this “revolutionary transformation of vision” (Kuhn 1970, p. 112). Despite its imperfections, GO is a giant step in the right direction.

¹ GO is a scientific revolution in the Kuhn tradition. As Thomas Kuhn explains, “Led by a new paradigm, scientists adopt new instruments and...see new and different things...No part of the aim of normal science is to...invent new theories, and they are often intolerant of those invented by others...When the transition is complete, the profession will have changed its view of the field, its methods, and its goals” (Kuhn 1970 [1962], pp. 23-24, 84-85, 111-112).

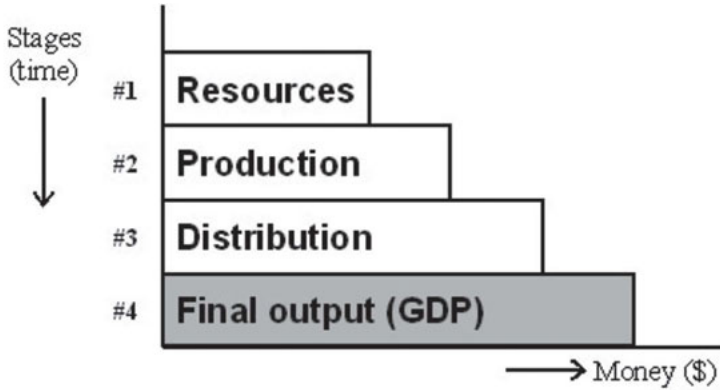
It offers the following benefits:

1. The introduction of a “top line” in national income accounting. In accounting and finance, the financial statement measures sales/revenues as the top line, and earnings/net income as the bottom line. Finally, in the 21st century, the economics profession has caught up with accounting and finance by adopting a similar method in national income accounting. GO is the top line, measure total revenues at all stages of production in a year; GDP is the bottom line, measuring the value of final or finished goods and services to be purchased by consumers, business and government.² Thus, GO and GDP can viewed as complementary. As Dale W. Jorgenson, J. Stephen Landefeld, and William D. Nordhaus state, “Gross output [GO] is the natural measure of the production sector, while net output [GDP] is appropriate as a measure of welfare. Both are required in a complete system of accounts” (Jorgenson et al 2006: 6).
2. A major advance in Austrian macroeconomics since GO is a measure of Hayek’s triangle. In fact, I consider GO the greatest discovery in Austrian economics since Friedrich Hayek won the Nobel Prize in 1974, and should be celebrated, not condemned or ignored. GO calculates the size of Hayek’s triangle, the value of all commodities produced in a year at all stages of production. Friedrich Hayek, the Austrian economist, introduced the diagrams known as Hayek’s triangles in his work on the business cycle called *Prices and Production* (1931). The universal 4-stage model of the economy (see figure 1) is a version of Hayek’s triangle; GO calculates the value of all four stages of production, while GDP quantifies the final stage only. The 4-stage model ties together GO and GDP. Thus, we see how the introduction of GO allows us to integrate Austrian economics into the standard textbooks.³ Another breakthrough!

² GDP is similar to gross profit in a financial statement, since GDP includes payments to income earners, rents, and other factors of production. I thank David Colander (Middlebury College) for pointing out this observation.

³ I show how GO can be integrated into introductory economics textbooks in my own textbook, *Economic Logic* (2014b). I sent a complimentary copy of my textbook to

FIGURE 1
FOUR STAGE UNIVERSAL MODEL OF THE ECONOMY



Source: Mark Skousen, *The Structure of Production*, p. xviii; *Economic Logic*, p. 58.

3. A statistic that monetarists may find useful. Go is attempt to quantify PT, the “volume of trade,” in Irving Fisher’s famous Equation of Exchange, $MV = PT$, in *The Purchasing Power of Money* (1911). Fisher is the father of monetarism and the Quantity Theory of Money, which argues that price inflation (P) is determined largely by increasing in the money supply (M).⁴
4. A supply-side measure of the economy to counterbalance the Keynesian policies drawn from a popular misinterpretation of GDP. The GDP model, by leaving out the value of the supply chain, leads to the mistaken view that “consumer spending drives the economy,” and that consumption and government stimulus the two main drivers of economic growth, since consumption represents two-thirds of GDP in the United States; government spending comes in second;

Walter Block, but I’ve received no confirmation that he or his colleague William Barnett have read it.

⁴ I thank both Vernon Smith (Chapman) and Jay Carlson (Utah State University) for pointing out how GO is an updated version of Fisher’s equation of exchange and a measure of his “volume of trade” PT.

and business investment comes in a poor third. But with the GO model, business or B2B spending (intermediate inputs plus gross private investment) jumps to 60% of the economy, while consumer spending is reduced to a third of the economy, and government spending comes in last. The GO model is more consistent with economic growth theory. Entrepreneurship, technology, saving and investment, and capital formation form the foundation of economic growth. Accordingly, business activity drives the economy much more so than consumer spending or government stimulus. Now that we have a fuller measure of economic activity, we can debunk the fiction that “consumer spending is two-thirds of the economy.” Consumer spending is the effect, not the cause of prosperity (an application of Say’s law).

5. A vindication of Say’s law of markets over Keynes’s law of aggregate demand. Steve Hanke (Johns Hopkins) states that GO is a true “counterrevolution,” adding, “Now, it’s official. With Gross Output (GO), the U.S. government will provide official data on the supply side of the economy and its structure... provide[s] a clearer, more comprehensive picture of the economy... Contrary to what the standard textbooks have taught us and what that pundits repeat ad nauseam, consumption is not the big elephant in the room. The elephant is business expenditures... Even though the always clever Keynes temporarily buried J.-B. Say, the great Say is back. With that, the relative importance of consumption and government expenditures withers away... And, yes, the alleged importance of fiscal policy withers away, too” (Hanke 2014).

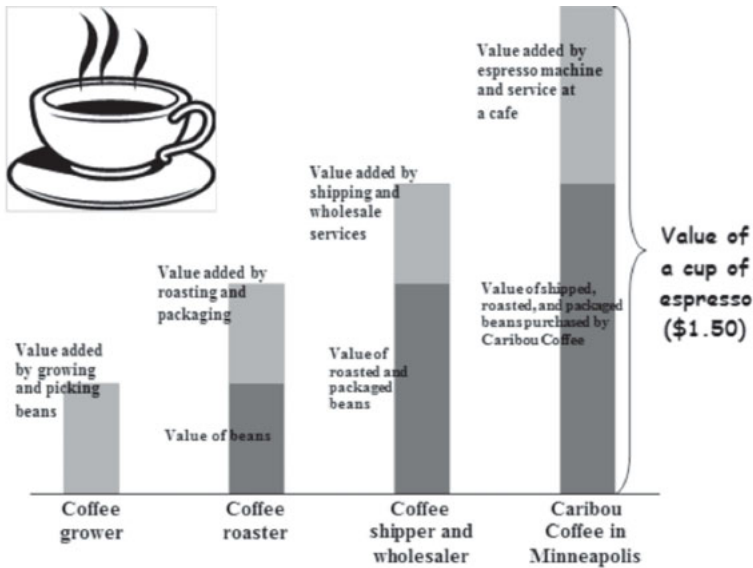
LINKING MICRO AND MACRO

6. GO also provides a vital link between microeconomics, the theory of the firm, to macroeconomics, the theory of the economy as a whole. In microeconomics, profits and losses are derived from a firm’s revenues minus expenses. The final price of the retail good or service is equivalent to the

combined profit margins or value added of all the previous stages of production.

To explain the relationship between GO and GDP, let's look at an example in microeconomics — the production of a cup of espresso sold in Caribou Coffeehouse in Minneapolis. See the diagram below, taken from Stanford Professor John Taylor's textbook *Economics*.

FIGURE 2
4-STAGE MICRO MODEL OF COFFEE MAKING



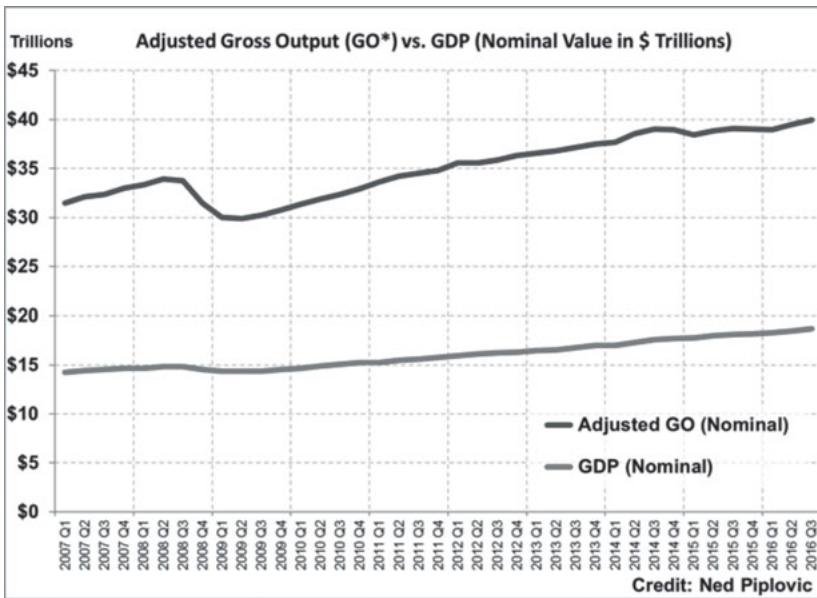
Source: John B. Taylor, *Economics* (2006), p. 147.

Figure 1 is the macroeconomic version of the microeconomic example from above. In the above diagram (figure 2), the making of coffee involved four stages: coffee grower, roaster, shipper, and final maker of espresso. The macro model (figure 1) involves the same four stages: production, distribution, and final use (consumption). Thus, we see how micro and macro come together, fulfilling the Austrian goal of making economics “holistic,” as Block and Barnett suggest.

GO OFFERS A BETTER PERSPECTIVE OF THE BUSINESS CYCLE

7. Importantly, GO is a better way to monitor the business cycle and total economic activity. Figure 3 demonstrates the size and volatility of GO in relationship with GDP.

FIGURE 3
ADJUSTED GROSS OUTPUT (GO*) VERSUS GDP, 2007-2016



Source: BEA data, plus US Census Bureau data on monthly wholesale and retail trade added to create Adjusted GO

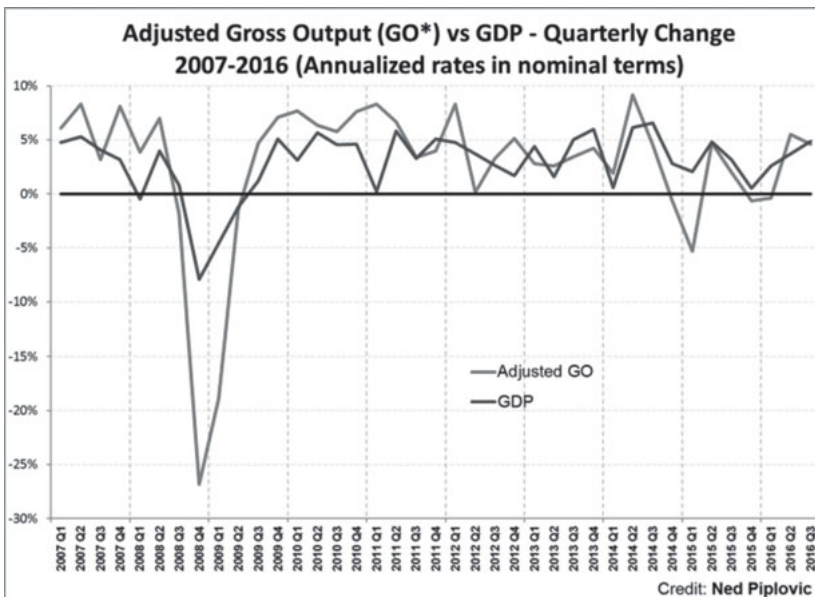
In the third quarter of 2016, Adjusted GO (GO*) in the US amounted to almost \$40 trillion, more than double GDP of \$18.7 trillion.⁵

⁵ Unfortunately, the BEA measure of GO does not include all wholesale and retail trade figures. As a BEA explains, “The output for industries that buy and sell merchandise but do not provide any additional fabrication is measured as margin. By I-O convention, this margin is measured as sales receipts less the cost of goods” (Bureau

Recently the BEA has published GO data going back to 1947 on an annual basis: http://bea.gov/industry/gdpbyind_data.htm

Figure 4 below shows changes in GO and GDP, demonstrating how GO does a better job of measuring the depth of the recession and recovery. During the 2008-09 financial crisis, nominal GDP decreased only 5%, but Adj. GO fell over 25%. Moreover, during the recovery and expansion phrase, GO tends to rise faster than GDP. See figure 4 below.

FIGURE 4
 QUARTERLY CHANGES IN ADJ. GROSS OUTPUT (GO*)
 AND GDP, 2007-2016



Source: BEA data, plus US Census Bureau data on monthly wholesale and retail trade added to create Adjusted GO.

of Economic Analysis, *Concepts and Methods of the U. S. Input-Output Accounts: Measuring the Nation's Economy*, 2nd ed. U. S. Department of Commerce, 2009, pp. 4-5). By the BEA's measure, GO reached \$32.4 trillion in 2016. When you include total wholesale and retail trade, it adds an additional \$7.6 trillion to what I now term "adjusted GO" — \$40 trillion, more than double GDP (\$18.7 trillion).

Second, GO may also be a good forecaster of the economy's condition. When GO is falling faster than GDP, a recession is imminent. When GO is moving back up faster than GDP, it suggests a recovery. David Colander (Middlebury) states: "For forecasting, the new measure [gross output] may be more helpful than the GDP measure, because it provides information of goods in process." (Colander 2014: 451) Economic analyst David Ranson adds: "GO is better correlated with financial-price movements than most of the other indicators. It tends to portray the economy as more cyclical than real GDP does, the recession of 2008-09 as deeper, and the recovery as slower. The universal use of real GDP as a measure of the economy's vitality is subject to misunderstandings, pitfalls, and criticism — especially in the short run. GDP includes only 'final' goods and services, leaving out the huge economy that consists of businesses buying and selling intermediate goods to one another." (Ranson 2015: 4).⁶

Third, GO by Industry disaggregates the economy into 402 industries and 69 commodities, allowing economists to see more clearly how the structure of the economy is shifting over time. Austrian economists who are critical of aggregate statistics will find this approach appealing and fertile ground for research on potential imbalances and asset bubbles in the economy.

MY RESPONSE TO BLOCK'S AND BARNETT'S PAPER

Following this general introduction, let me respond to some of Professor Block's and Barnett's criticisms (hereafter referred to as BnB).

First, BnB say that GO has taken the profession by "storm," citing 20 publications supposedly highlighting GO. I wish it were so! Unfortunately, only three of the 20 articles cited by BnB actually discuss GO: mine, Steve Hanke (2014), and David Colander (2014). The 17 others are citations from a 2015 article published by President Barack Obama's Council of Economic Advisors with the

⁶ I send out a press release every quarter analyzing the latest quarter GO data. See www.mskousen.com.

misleading title, “A better measure of economic growth: gross domestic output (GDO)” (Council of Economic Advisors 2015). It turns out, if BnB had actually read the article, they would know that the CEA advisors define GDO as a combination of GDP and gross domestic income (GDI) — which has nothing to do with GO. The other 16 citations in footnote 1 of BnB’s paper come from this CEA article.

I remember reading the article myself in 2015, hoping from the title that the CEA had endorsed GO as a valuable new measure of economic growth. Imagine my disappointed when I saw they were attempting to create an entirely different set of data using a similar name. Talk about confusing and frustrating.

In sum, in footnote 1, BnB cite only three proper citations on GO. They could have mentioned a lot more.

MAJOR ENDORSEMENTS OF GO, BUT FAR FROM A POPULAR STATISTIC

GO has indeed gained a great deal of notoriety in the media since the BEA started publishing GO on a quarter basis in April 2014. My op ed, “At Last, a Better Economic Measure,” appeared in the April 23, 2014, issue of the *Wall Street Journal*. Gene Epstein endorsed GO in *Barron’s* (Epstein 2014), and Steve Forbes called GO a “big deal” in *Forbes* (2014). Rick Santelli and Larry Kudlow have spoken favorably about GO on CNBC. Jeremy Siegel (Wharton), Ken Fisher (Fisher Investments), Garrett Jones (GMU), and Richard Ebeling (Citadel), among others, have recommended GO and my work in this area. There have been a number of other endorsements and academic articles raising the profile of GO in the media, most of which BnB missed:

- Dale W. Jorgenson, (Harvard), J. Stephen Landefeld (BEA), and William D. Nordhaus (Yale) wrote in their work, *A New Architecture in US National Accounts*, “Gross output [GO] is the natural measure of the production sector, while net output [GDP] is appropriate as a measure of welfare. Both are required in a complete system of accounts” (Jorgenson et al. 2006, p. 6).

- Steve Forbes wrote that GO “is a great leap forward in national accounting, and “will have a profound and manifestly positive impact on economic policy” (Forbes 2014).
- David Ranson, chief economist, HCWE (formerly H. C. Wainwright Economics) concludes, “GO is better correlated with financial-price movements than most of the other indicators. It tends to portray the economy as more cyclical than real GDP does, the recession of 2008-09 as deeper, and the recovery as slower. The universal use of real GDP as a measure of the economy’s vitality is subject to misunderstandings, pitfalls, and criticism — especially in the short run. GDP includes only ‘final’ goods and services, leaving out the huge economy that consists of businesses buying and selling intermediate goods to one another” (Ranson 2015).
- George Gilder states in his book *Knowledge and Power*: “By pioneering the concept of Gross Output and spearheading the movement for its adoption, Mark Skousen has made a key contribution to the supply-side economics of information theory. He writes, “GO captures this central reality of economics. It is the correct figure for the theory of wealth as knowledge and economic growth as learning. The learning curves of growth are not confined to the final product. Vital learning accumulates through all the processes of production measured in GO. Although GO may seem to double count, adding the steel and plastic in the car to the final sale of the automobile, GDP arbitrarily treats human beings merely as final consumers of goods like food and fuel, clothing and transport. It inflates the importance of consumption and government spending compared to saving, learning, and creation” (Gilder 2013, pp. 71-73).

However, these various endorsements do not constitute taking the profession by storm, as BnB claim. Despite my giving lectures on GO at Columbia, GMU, Chapman, University of Virginia, Cato Institute and Heritage Foundation, only a handful of academic journals have published papers or studies on GO (two by me, see Skousen 2015). Five introductory textbooks have small mentions of GO: McConnell Bruce Flynn, Roger LeRoy Miller, John Taylor,

Glenn Hubbard, and David Colander. The St. Louis Fed now publishes a stand-alone GO time-series chart at <https://fred.stlouisfed.org/series/GOAI#0> And the BEA, even though it now published GO on a regular basis, is still reluctant to highlight GO like they do GDP.

It's a good beginning, but GO has yet to become a household number or one quoted regularly in the media.

MUST AUSTRIAN ECONOMISTS REJECT AGGREGATE DATA?

Second, I seriously question BnB's claim that Austrian economics must reject "almost all" aggregate concepts in economics. Certainly aggregate numbers like GDP, the Consumer Price Index, and even stock indexes like the Dow Jones Industrial Average have inherent problems and limitations, but does that mean we should completely abandon them?

Not surprisingly, aggregates are used frequently by economists, including Austrians. Many Austrians use the aggregate "Total Money Supply" in their analysis of economic performance.⁷ Murray Rothbard, an American "Austrian" economist that is much beloved by Walter Block and the Mises Institute, used a variety of aggregate statistics in his book, *America's Great Depression*, such as the total money supply, the Dow Jones Industrial Average, Gross National Product (GNP), Gross Private Product (GPP), the unemployment rate, various price and wage indexes, and industrial production index (Rothbard 2000 [1962] passim).

Walter Block himself is known to have endorsed aggregate statistics when he was a co-author of 20th anniversary edition of Fraser Institute's Economic Freedom Index, which creates a single number for each country based on five sub economic indexes (Gwartney, Lawson, and Block 1996).

Nevertheless, for those Austrian purists out there, the BEA has accommodated you. As noted earlier, they publish GO by Industry, disaggregating the economy into 402 separate industries and 69

⁷ For examples of Austrian economists using aggregate statistics, see especially chapter 4 of my book, *Vienna and Chicago, Friends or Foes?* (Skousen 2007).

commodities in its Gross Output by Industry data. The BEA prefers to report changes in various sectors of the economy when it reports GO by Industry. I use an Austrian approach in analyzing GO by Industry, comparing the performance of “early stage” industries with “final use” sectors to determine what’s happening in the economy. See my latest press release on GO at www.mskousen.com.

To see the latest data on GO and GO by Industry, go to <https://www.bea.gov/iTable/iTable.cfm?ReqID=51&step=1#reqid=51&step=51&isuri=1&5114=q&5102=15>

DEBUNKING THE MYTHS SURROUNDING CONSUMER SPENDING

Third, I was glad to see BnB debunk the popular myth that consumer spending is the “driving force of the economy.” They rightly conclude that “it is the capital stock...that is the driving force in any economy.” Furthermore, “capital” should be broadly defined to include productive savings, investment capital, entrepreneurship, technology, research & development, and other aspects of the supply side.⁸

I also firmly believe that “capital” should also include the supply chain, what classical economists call “circulating capital,” or “goods in process.” For some reason, economists always focus on the fixed capital stock, i.e., plant, equipment, and other physical assets, but ignore or downplay the capital investment that capitalists need to raise to fund the supply chain — the production processes (stages 1-3 in figure 1) necessary to produce final goods and

⁸ Later in the article, BnB change their mind about economic growth. “What ‘drives’ the economy is economic freedom,” they contend, not saving and investing per se. But this is wrongheaded. Economic freedom is a necessary but not sufficient condition for economic growth. Granted, governments that artificially stimulate capital spending, like the communist countries did after World War II, did not advance long-term growth and higher standards of living. But, equally, a free but misguided community may decide to be spendthrift and going heavily into debt as the way to prosperity, but will be disappointed when they end up in the poor house. People make big mistakes all the time by choice. On the other hand, individuals who choose to save and invest wisely, and live within their means, are more likely to succeed. Making good choices is the key to economic growth.

services (stage 4). Business owners have to raise the capital funds to finance both the fixed capital goods and the circulating capital to run a business and make a profit. Hayek's triangle tries to capture the importance of the supply chain with its stages-of-production approach (Hayek 1931, pp. 36-48).⁹

The beauty of GO is that for the first time it includes the full measure of B2B, that is, business spending on circulating and fixed capital during the calendar year.

Despite the fact that most professional economists, including BnB, reject the notion that "consumer spending drives the economy," it remains the conventional wisdom in the media because GDP is regarded as "the" measure of the economy. After all my efforts to dispel this error in the popular media, it keeps returning like a virus or a bad penny.

In fact, the day I wrote this review, the New York Times reported on its front page that "With personal consumption accounting for nearly 70 percent of all economic activity, however, the administration will be hard pressed to lift growth substantially if consumers remain cautious about opening their wallets." (Nelson D. Schwartz, "Economy Grows at Slowest Rate in 3 Years," New York Times, April 28, 2017, page 1. <https://www.nytimes.com/2017/04/28/business/economy/economy-gross-domestic-product-first-quarter.html>)

The only way to get rid of the "consumer spending" myth is for economics teachers and the BEA to add the "top line" to national income accounting and teach students that GO is the best measure of total economic activity, not GDP. Already many top textbook writers are incorporating GO into their textbooks, but they need to do more to emphasize the GO model.

My textbook, *Economic Logic*, is the first college textbook to fully integrates GO into national income accounting, and demonstrates how it can be done simply and effectively. See chapters 3, 14 and 15 (Skousen 2014b).

It will also help when the BEA starts releasing GO and GDP statistics at the same time every quarter. According to Brian Moyer, the current director, the BEA plans to do so in the next year.

⁹ This is one area where accounting and finance do a better job than economics when it comes to measuring all the factors in the capitalist system.

TECHNICAL ASPECTS OF HAYEK'S TRIANGLE

Fourth, BnB's critique of Hayek's triangles has some merit, but is misplaced. I don't use Hayek's diagram to measure elapsed time from start to finish of the production process, whether 10 years or 5,000 years. Rather, my 4-stage model of the economy measures *annually* or *quarterly* sales/revenues of all the firms in a country based on where they are in the production process. This is a heuristic model that conveniently divides the firms into four distinct stages, as noted in figure 1 above (resource, production, distribution and final use).¹⁰ Admittedly, it is impossible to place all firms in each of these four intertemporal stages, since some firms are involved in all four stages (such as Exxon). The four stages are purposefully a simplification in order to elucidate a basic understanding of economic behavior.

I also agree with BnB that "GO does not measure output — rather it measures expenditures." In fact, for several years, I called GO "Gross Domestic Expenditures" or GDE for short (Skousen 2014a, pp. xvi-xxii). However, in order to avoid confusion, I moved back to using GO when the BEA began publish GO on a quarterly basis.

ISSUES OF VERTICAL INTEGRATION, OUTSOURCING,
AND ROUNDABOUTNESS

BnB raise the issues of vertical integration involved in GO.

The authors state, "Vertical integration, *ceteris paribus*, reduces GO," but does not reduce GDP. Mergers and acquisitions occur regularly in the US and around the world, and when completed, reduce trade between firms. Quite true. But there's an opposite trend of outsourcing and splitting up firms that increases transactions between firms. Which trend is stronger? It's an empirical question

¹⁰ BnB use my older 4-stage model of the economy based on an industrial age (raw commodities, manufacturing, wholesale, and retail), but I have upgraded to a universal model for modern times that apply to all goods and services including a service and information economy: resources, production, distribution, and final use (Skousen 2015, p. xviii). See figure 1 above.

whether the trend changes sufficiently from quarter to quarter or month to month to make a difference. Many Austrian economists, including Eugen Böhm-Bawerk and Peter Drucker, have argued that historically the structure of production has lengthened and deepened, involving a gradual expansion in the number of stages of production, what the Austrians call “roundaboutness” (Skousen 2015 [1990], pp. 229-230). Making a Ford model T in 1914 may have involved 100 stages of production, while today’s much more sophisticated Ford Mustang may involve over 1,000 stages. That would suggest that GO/GDP should be increasing over time.

We don’t see it in the data, however. Recently BEA published GO data going back to 1947 on an annual basis: http://bea.gov/industry/gdpbyind_data.htm

It does not show any increase in the GO/GDP ratio, despite a dramatic rise in the standard of living since 1947. Was the M&A activity much stronger than outsourcing and the creation of a longer supply chain? Not necessarily. The fact is the US has seen a dramatic increase in imported finished goods and semi-finished goods where their stages of production are not counted in GO in the US. GO doesn’t count products that were produced prior to entering the country.

BnB even go so far to suggest that vertical integration could conceivably be so pervasive that it would result in a single monopoly, so that GO and GDP are identical. Another possibility is that technology could conceivably eliminate all stages of production entirely. According to BnB, “the optimal production process is one for which the production time is practically zero.” Yet, historically we see no evidence of that, or even a movement toward the development of a single firm, short of the establishment of a communist central plan. The evidence is overwhelming that despite technological advances, the structure of production is becoming more roundabout, involving more stages of production. Should we not attempt to measure that roundaboutness?

THE ISSUE OF DOUBLE COUNTING

I was glad to see BnB deal with the issue of double counting, a bug-bear for economists. Even the BEA is so concerned about double

counting that it has downplayed GO and prefers to analyze GO by Industry when they issue a press release every quarter.

Accounting and finance have a better understanding of how business works, and see no problem understanding the vital role double counting plays in an economy.

GO does indeed involve the repeatedly sale of a commodity as it goes through the production process, while GDP measures value added only and thus avoids double counting. I agree that double counting should be avoided in measuring final output, but that does not mean it is without value and should be ignored. For two reasons, multiple transactions in the supply chain play a vital and necessary role in the capitalist system.

First, products are transformed either in product development or space as they move along the production process, e.g., iron ore becomes steel; coffee beans are roasted and grounded; cowhide becomes leather and then shoes; wholesalers distribute goods from one location to another — all serving useful, productive purposes that should be measured.

Second, businesses are engaging in real economic activity throughout the “double counting” process. Checks are being written and investment funds are being advanced to pay for gross expenses of a business, including goods-in-process. B2B transactions are the critical steps in moving the production process along the supply chain toward final use. Firms cannot run a business on value added alone. In sum, double counting counts. No analyst on Wall Street can afford to ignore sales, the top line in financial statements, and focus on profits only. Equally the smart economist will look at the direction of GO as well as GDP in determining economic performance.

HIDDEN MOTIVES OF THE FEDS TO PRODUCE GO

BnB accuse the federal government of adopting GO in order to “increase the size and rewards to the bureaucracy... support the hiring of a new army of bureaucrats,” and possibly empower the government to engage in anti-trust litigation or perhaps even

impose value added taxes. Somehow GO will unleash a new Hollywood version of "Feds Gone Wild."

I have my doubts. Certainly GDP, in conjunction with the value added data already being collected before GO was announced, long ago gave the bureaucrats plenty of ammunition to fulfill these dire purposes.

One thing for certain: The BEA, which collects GO data, added this feature without increasing its hiring or budget. In fact, Steve Landefeld, the director at the time, told me the staff was pleased that they put together the GO by Industry statistics with no additional budget requirements from Congress.

Over the years, I've gotten to know the senior staff members of the BEA. They tend to be non-political and well trained in their profession. I don't agree with everything they are doing, but their integrity is above board, and I've been impressed with their willingness to listen to alternative views and to be innovative in updating and improving national accounting statistics. I've been meeting and corresponding with the senior staff since the early 1990s, and I firmly believe they were convinced by my arguments and a those of a long list of economists including Wassily Leontief, Irving Fisher, Friedrich Hayek, and Sir John Hicks who argued that the national income accounts were incomplete without including the value of the supply chain (Skousen 1990). If you have any doubts about their motives, I suggest you read their exhaustive work, *A New Architecture for the US National Accounts* by Dale W. Jorgenson, J. Stephen Landefeld, and William D. Nordhaus (University of Chicago Press, 2006).

CONCLUSION: AWAY WE GO!

In sum, BnB's critique of GO is wrong-headed and misguided, and is another sad example of why their limited version of Austrian economics is blocking progress of the best that Austrian economics has to offer the profession. In the past, many fundamentally sound principles of Austrian economics have been incorporated into the discipline, including marginal price theory, subjective cost analysis, opportunity cost, economic growth theory, and the

socialist calculation debate. Contributions by Roger Garrison (2000) and others have advanced the Austrian macro model into the 21st century. It's high time Hayek's triangles be added to the toolbox of economists everywhere. By providing real data to clothe the theoretical skeleton of Hayek's triangles, GO goes a long way toward that goal.

I reject BnB's assertion that GO is a "new threat to economic freedom" and "another government con." To the contrary, the quarterly release of GO data has gone a long ways to dispel falsehoods about the economy and government policies, while adding important information about how the economy works. It's a triumph in supply-side Austrian economics, and should be celebrated by free-market economists everywhere.

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