

# Carl Menger: The Greatest Economist Who Ever Lived

By Mark Skousen

Doti-Spogli Chair of Free Enterprise, Chapman University

muskousen@chapman.edu

(Published in its final form in “The Emergence of a Tradition: Essays in Honor of Jesus Huerta de Soto,” Volume 1: Money and the Market Process, Palgrave Macmillan, 2023, pp. 327-342).

“The entire theory of capital and cycles we have presented here rests on this concept of Menger’s....In short Austrian School theorists have developed the whole theory of capital, money and cycles which is implicit in the subjectivism that revolutionized economics in 1871.” – Jesus Huerta de Soto, *Money, Bank Credit, and Economic Cycles*, 2<sup>nd</sup> ed. (Mises Institute, 2009), p. 511.

“I now rate Walras and Pareto, who were my first loves, so much below Menger.” – Sir John Hicks, “Is Interest the Price of a Factor of Production?” included in *Time, Uncertainty, and Disequilibrium: Exploration of Austrian Themes*, Mario Rizzo, ed. (Lexington Books, 1979), p. 63.

“It was the reading of his book that made an ‘economist’ out of me.”

– Ludwig von Mises

“I found it such a fascinating book, so satisfying.” – Friedrich Hayek

“No book since David Ricardo’s *Principles* has had such a great influence on the development of economics as the *Grundsätze*.” – Knut Wicksell

**Carl Menger** (1840-1921) and his followers enhanced Adam Smith’s positive vision of the capitalist system. He saw himself as a follower of Adam Smith’s “system of natural liberty” who strengthened the House that Adam Smith Built; as a remodeler rather than a teardown.

In many ways, Menger was a revolutionary discoverer of both macroeconomics (through his time structure of production) and microeconomics (subjective demand and marginal analysis), all in one book, the *Grundsätze*.

Therefore, in honor of the 150<sup>th</sup> anniversary of the publication of his magnum opus (1871), I am pleased to announce that Carl Menger deserves to be considered the greatest economist who ever lived.

I dedicated my own book, *The Structure of Production* (NYU Press, 1990), to Menger. It was Menger who inspired my development of **gross output (GO)**, a measure of spending at all stages of production that the government adopted in 2014.

With the publication of the *Grundsätze* that the Austrian school was born and made economics a real science.

Menger was born in the city of Neu-Sandez (now Nowy Sacz) in Poland, the son of a lawyer and a mother who came from a wealthy Bohemian merchant. He studied law at the Universities of Prague and Vienna and earned a doctorate in Krakow. In the 1860s Menger became an economic journalist covering the stock market in Vienna, and it was there that he noticed a discrepancy between what the classical economists taught about price theory and what he observed among stockbrokers and speculators. In 1867, he began a study of political economy, challenging the classical cost-based theories of value with a new theory of marginal subjective pricing. After publishing his magnum opus in 1871, he became an adjunct professor at the University of Vienna, and a year later was appointed a full member of the law faculty teaching finance and political economy both in seminars and lectures. In 1873 he received the university's chair of economic theory at the young age of 33.

He quickly became a man of influence. In 1876, he began teaching Archduke Rudolf, the crown prince of Austria, the only son of the emperor Franz Joseph I, and heir to the throne. His lectures incorporated the laissez faire policies of Adam Smith, and together he and the prince co-authored an anonymous pamphlet in 1878 criticizing the higher Austrian aristocracy.

Menger grew increasingly pessimistic about the future of Austrian-Hungarian empire and its authoritarian regime. His pessimism may have contributed to the Archduke's suicide in 1889. Noting that his mentor foresaw the horrors of war in Western Europe in the early 20<sup>th</sup> century, Mises commented, "He [Menger] had transmitted this pessimism to his young student and friend, Archduke Rudolf... The

Archduke committed suicide because he despaired about the future of his empire and the fate of Western civilization, not because of a woman” (Mises 1978:34).

By the turn of the century, the Austrians were considered the most dominate school in economics, thanks to Menger’s two most influential students, Eugen Böhm-Bawerk and Friedrich Wieser. Menger unexpected retired in 1903 at the age of 63, supposedly to spend more time revising his *Grundsätze*, but the real reason was the disclosure that he had a long-term “common law” relationship with his housekeeper Hermine Andermann, who was Jewish. They had a son, Karl, who later became a mathematician at the Illinois Institute of Technology. (Skousen 2016: 183).

Menger died in 1921, deeply pessimistic about the future of Europe after World War I. Fortunately, the Austrian school of economics continued into a third generation, led by Ludwig von Mises, Friedrich Hayek, and Joseph Schumpeter, among others, and continues to influence new generations of economists in the United States, the Americas, Europe and Asia.

### **How I use Menger in My Classes**

I use Menger in a variety of ways in the classroom, in both micro and macro courses.

#### **Example #1: Real Wages vs Goods/Services**

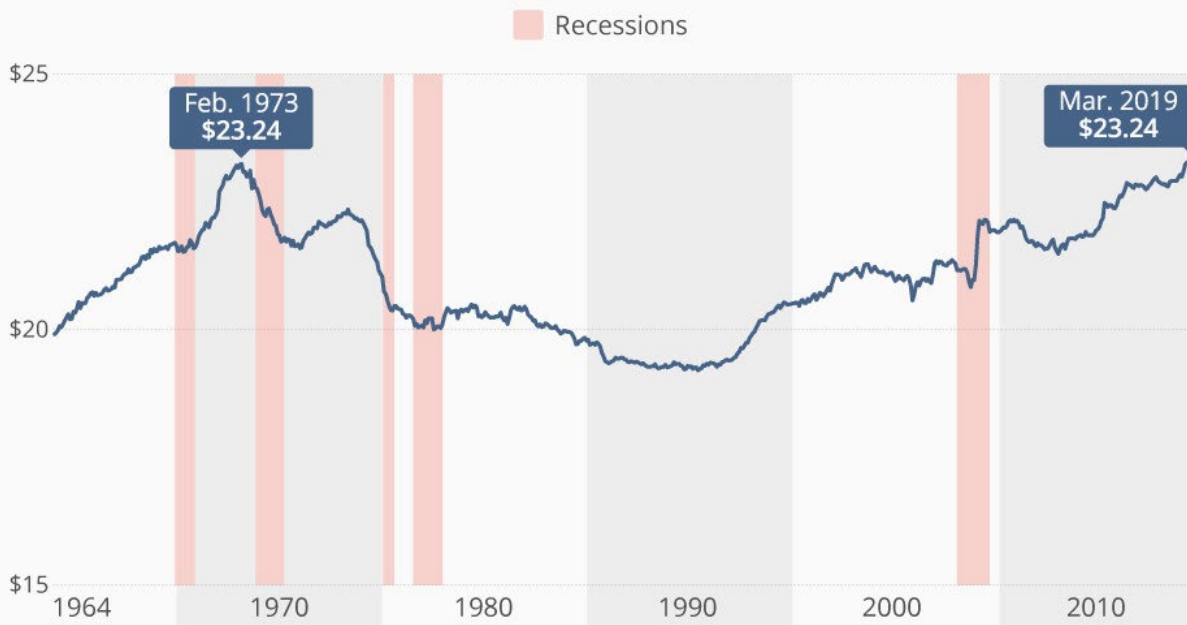
In microeconomics, I first talk about his pathbreaking method, “the general theory of the good,” as outlined in chapters 1-2 of *Principles*. Instead of focusing on the division of labor (Adam Smith’s approach), and the distribution of income (David Ricardo’s model), Menger began with a discussion of the character of goods.

Even today, most economists measure economic growth and the standard of living by the level of real per capita GDP, or average real wages.

According to this chart below, average real wages in the US have stagnated since the 1970s.

## A Longterm View on Wages in the United States

Real hourly earnings for production and nonsupervisory employees in the U.S.\*



\* adjusted to March 2019 dollars using the Consumer Price Index for Urban Wage Earners and Clerical Workers; seasonally adjusted

Source: Bureau of Labor Statistics

statista

Figure 1: Real hourly earnings, 1964-2019

Conclusion: America's standard of living has not changed in 40 years!

Now let's look at another way to measure the standard of living by looking at changes in the goods and services that Americans buy and use over time. This is the approach Menger took.

Menger's model is more complex. He examines the change in the quantity, quality and variety of goods and services over time, and to what extent individuals and family units enjoy Q, Q, and V. As Erich Streissler notes, "Mengerian goods are three-dimensional. They have quantity, quality, and variety as separate dimension of dynamic change" (Black et al. 1973: 165).

Lionel Robbins adds, "This business of conservation to meet future needs, according to Menger, involves four aspects of behavior: conservation of quantity,

conservation of quality, choice between goods, and choice such as to secure the greatest result all around” (Robbins 1998: 272; Menger 1950: 95-96).

Using Menger’s approach, we discover that the standard of living has increased dramatically since 1970s and more and more Americans are using new and better goods and services.

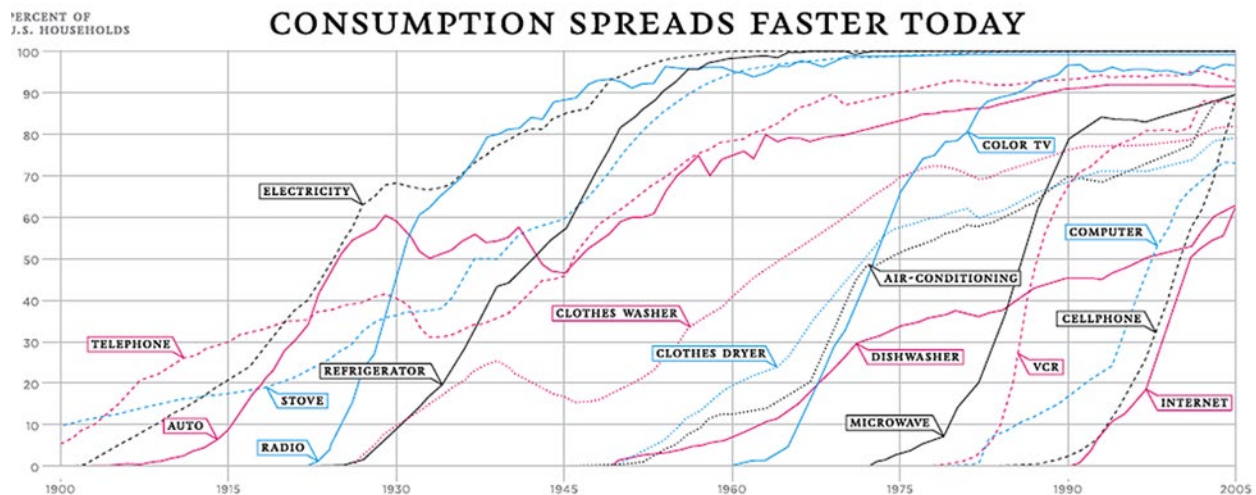


Figure 2. Consumer use of individual goods, 1900-2005. Source: W. Michael Cox and Richard Alm, “You Are What You Spend,” *New York Times*, Feb. 10, 2008.

I believe the disaggregate approach by Menger is superior to the aggregate “average wage” model used by most economists. I cite a variety of economic indicators, such as average size of new homes, and households with computers, TVs, microwave, air conditioning, washer and dryer, dishwashers, etc., in both my textbooks, *Economic Logic* and *The Making of Modern Economics*, citing the works of Cox and Alm (1999), and Stanley Lebergott (1976; 1993). It gives students a more comprehensive and accurate picture of progress.

### Time Prices: A New Way To Measure Inflation

Time prices tell you how many hours you need to work (based on people’s actual wages/salaries) to purchase a television, an automobile, food, entertainment or a trip to Hawaii.

In their book “Superabundance,” economists Marian Tupy and Gale Pooley use numerous examples of “time” prices to show that our standard of living has never been higher, and “money” prices used in the CPI and other price indexes overestimate how much price inflation there is.

For example, in 2022, gas prices were at an all-time high (over \$4 a gallon), but not in terms of “time” prices. In 1929, it took about 24 minutes to earn the money to buy one gallon of gasoline. Today, the time price is closer to six minutes. The time price of gasoline has dropped by 75%.

In 2022, food prices rose sharply. But Tupy and Pooley looked at a basket of 42 food items and found that it took over 40 hours of work in 1929 to purchase these food items, but today it takes around 10 hours!

They have applied “time pricing” to all kinds of products and services — commodities, housing, automobiles, etc., — and found the same pattern.

### **Example #2: Why Prices Are Determined at the Margin**

I also use Menger’s insights in teaching price theory. What determines prices of goods and services?

In business, most businesses use a “cost plus” approach, as well as what competitors are charging, to estimate the right price for their products or services.

In reality, prices are not ultimately determined by their cost of production, but what customers are willing to pay. How often do we see businesses unloading unsold merchandise at below cost?

Or what about a newly designed automobile comes on the market and car dealers charge a premium for the new hot car, unrelated to its cost of manufacturing?

Thus, we see that pricing is ultimately subjective, based entirely on what customers are willing to pay. Knowing the cost of production is important in business, and can be used to estimate what price you should charge, but there are no guarantees that you can sell the product at a certain percentage above your costs.

In the 1860s, when Menger was a financial reporter covering the stock market in Vienna, he discovered that prices of stocks are based on only a small (marginal) number of buyers and sellers. There may be a million shareholders of Apple stock, but only several thousand may be buying or selling Apple stock on any given day. These traders determine the daily price of Apple stock – not the entire owners, or what they themselves paid for the stock (their cost basis).

And thus Menger discovered a fundamental error of the classical school, that the cost of production determines prices. He replaced it with subjective marginal analysis that forms the basis of economic science today.

In class, I ask students: What determined the price of your home that you live in or rent? I note that maybe only 1 in 30 homes is for sale at anyone time. What determines its price? The answer: Sellers set their price based on appraisals of a few similar homes in the neighborhood that have recently sold.

What if suddenly 1 out of every 10 homes came on the market to sell? There might be a glut of homes, and sellers would have to sharply reduce their sale price. Or what if the neighborhood suddenly became a desirable place to live? Home prices in the area might jump 50% in a year.

Thus, prices are determined by a small marginal number of home owners who wish to sell at that time.

I also ask students: Is the supply curve for signed Babe Ruth baseballs perfectly inelastic? After all, Babe Ruth died in 1948, and there is only a limited supply of signed Ruth balls.

It turns out that the supply of Babe Ruth baseballs is quite elastic, because the collectibles market is determined by the supply of signed baseballs “for sale” at a given time. It’s not determined by the total number of signed balls in the universe. If the price of a Babe Ruth ball rises high enough, more collectors will put their prized baseball on the market. The supply is flexible – and so is the demand. Thus, there is no guarantee that a Babe Ruth baseball will go up in price. It’s all subjective.

### **Example #3: Using the Tobacco to Demonstrate the Theory of Imputation**

In *Principles*, Menger used the example of tobacco to introduce marginal price and cost theory. He asks, “Suppose that the need for direct human consumption of tobacco should disappear as the result of a change in tastes...?” (Menger 1950: 64). What a modern example!

I hold up a pack of cigarettes and ask, “Suppose people stop smoking. Would the price of a pack of cigarettes fall?” Students know the answer. It would fall to zero, since there is suddenly no demand for cigarettes anymore. As Menger puts it, “it is certain that all tobacco products already on hand...would immediately lose their goods-character” (p. 64).

But what about the value of the factors of production – land, labor, and capital – used in the making of tobacco products? Would they fall to zero? Menger points out that those of exclusive or specialized use, such as tobacco seeds, would lose their entire value, but because farms and machinery have other uses, they do not lose their value entirely. They can be used to produce other agriculture products, such as wheat, corn, or soybeans, or perhaps even be converted into condominiums. Their value falls to the next best *marginal* use (Menger 1950: 65-66).

Thus, Menger’s tobacco example introduces the concepts of marginal utility and opportunity cost. It also demonstrates that even the costs of production are not fixed, but are variable, in the long run.

During the economic recession in the early 1980s, oil prices sharply, and so did the cost of producing oil rigs, which often sat idle and did not have other uses.

Thus, Menger developed his theory of imputation. It was a sharp break from the Ricardian cost-of-production theories. As Roger Garrison notes, “The direction of causation was reversed by Menger. A consumption good is not valued because of the labor and other means of production that were used to produce it. Rather, the means of production are valued because of the prospective value of the consumption goods” (Garrison 1981: 19).



## Introducing A More Complete Macroeconomic Model

The *Grundsätze* not only introduced us to a more accurate view of the theory of the firm in microeconomics, but it also established the foundation for macroeconomics, the model of the economy as a whole.

He did this by focusing on the “causal connections between goods” (Menger 1950: 56).

In his first chapter, “The General Theory of the Good,” Menger rejected the simplistic two-good model (production and consumption goods) of the classical school. Instead of focusing on goods as if they were homogeneous, he envisioned consumer and investment goods as an array of goods—of the first order, the second order, the third order, and so forth.

He defined finished consumer goods as “goods of the first order,” because they “serve our needs directly.” Goods of a second order are used in the production of goods of the first order. Goods of a second order are used in the production of second-order goods. And so forth. There is a vertical hierarchy, from lower-order goods (close to consumption) to higher-order goods (furthest from consumption).

Production is defined as the process of transforming higher-order goods into successively lower-order goods. Menger viewed economic production as “the process by which goods of higher order are progressively transformed into goods of lower order and by which these are directed finally to the satisfaction of human needs” (Menger 1950: 67). Like so many, he used the simple example of making bread....

Sir John Hicks recognized Menger’s approach as “the typical business man’s viewpoint, nowadays the accountant’s viewpoint, in the old days the merchant’s viewpoint” (Hicks 1973: 12). The economy consists of a production process over time, as goods go from a raw commodity stage through the production stage, and are finally distributed to their final use.

## Menger Provides the Missing Link between Micro and Macro

To demonstrate the production process, Menger used the simple example of making bread, a consumer good. Starting at the beginning of

production (the highest order), seed grain is planted in the ground by machines and labor. This stage represents “goods of the fifth order.” The “goods of the fourth order” consists of grain mills, wheat, rye and labor services, all used to produce flour. “Goods of a third order” include flour, baking utensils, and the journeyman baker and other workers to produce bread. Then the bread must be distributed to the wholesaler, what we might call “goods of the second order.” And finally the bread reaches the consumer, and thus represents a “good of first order” (Menger 1950: 56-57).

At each stage of production, the process moves toward final use, and value (profit) is added.

We can represent Menger’s simple bread-making example below is illustrated in figure 3. In this case, we simplified the diagram by combining the second and third orders to represent the production process.



Figure 3. Four Stages of Production of Bread

Source: Skousen 2015: 34.

Stanford economist John Taylor has created a more accurate view of a four-stage production process of a cup of coffee. See figure 4 below for my updated version of that chart.

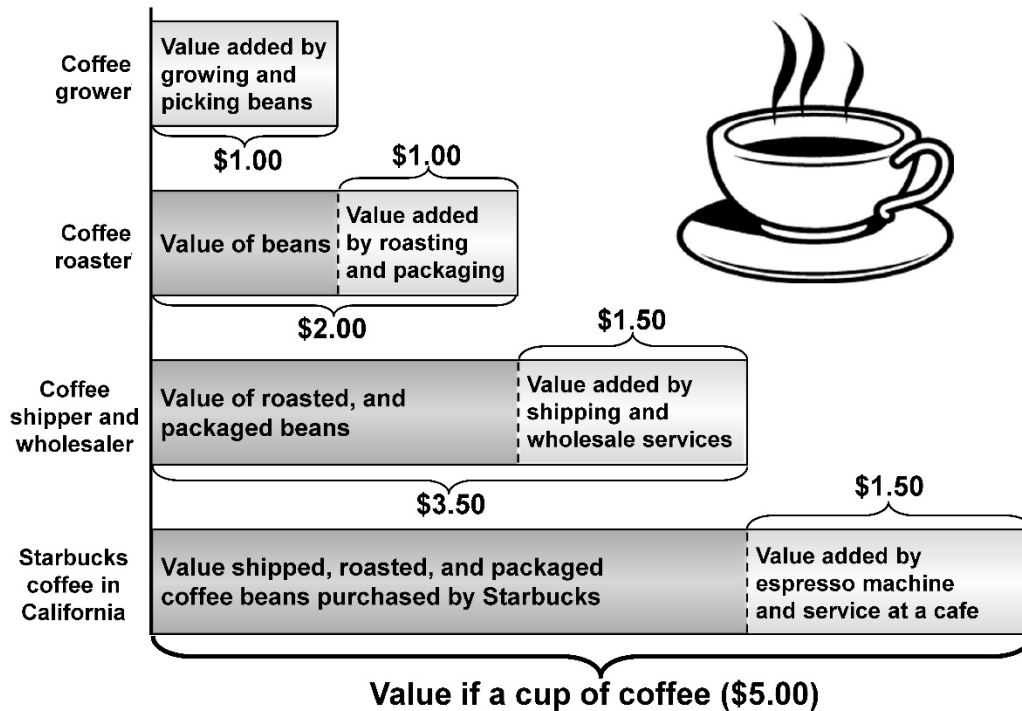


Figure 4: Four-stage diagram of the production of a cup of espresso  
Source: John B. Taylor Economics 2004:147.

### Four-Stage Macro Model of the Economy

Menger then speaks in terms of a general model of the “goods in the human economy.” He refers to “thousands of other things that do not have the capacity to satisfy human needs directly,” referring to higher stages of production. He then refers to four general stages of production in agriculture, from the farmer in the fourth stage, the producer of farm products in the third stage, the wholesaler who transports the produce in the second stage, and lastly the retail consumer whose needs are satisfied in the first stage (Menger 1950: 56-57).

Menger’s stages-of-production macro model was greatly advanced with the introduction of Hayek’s triangles in his lectures at the London School of

Economics, published as *Prices and Production* (Hayek 1931). The triangles illustrate Menger's time structure of production with a triangular diagram whose area shows the total value of the successive stages from the highest order (resources) to the middle order (production) down to the lowest order (consumer) goods, adding value at each stage. See figure 5 below.

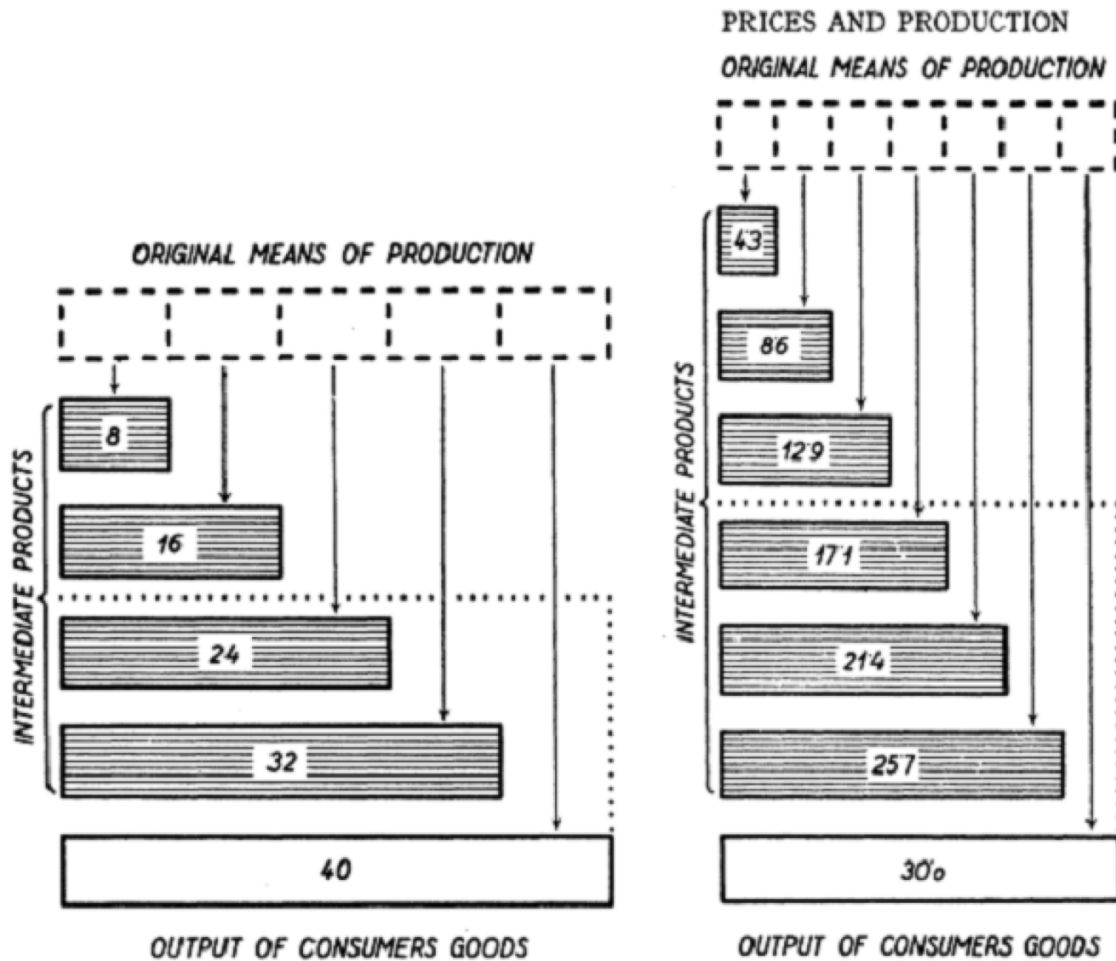


Figure 5: Hayek's Triangles  
 Source: Hayek (1931:44, 52)

However, Hayek never went beyond high theory, never applied his stages of production to government statistics. Hayek's triangles were purely theoretical and did not conform to modern economic statistics.

It wasn't until a generation later that Austrian economists developed diagrams to reflect Menger's vision of macroeconomics.

Roger Garrison improved Hayek's triangles with five-stage model (Garrison 2001). See figure 6 below.

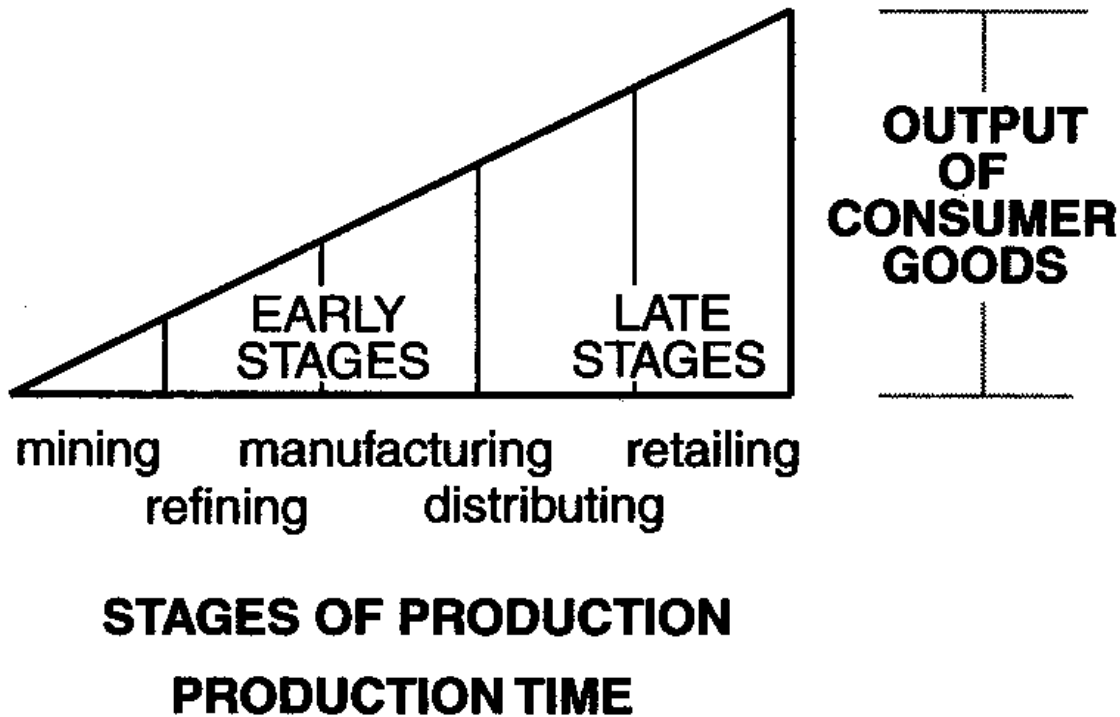


Figure 6: A five-stage generalized model of Hayek's triangles.

Source: Garrison (2001).

Today's economists and accountants recognize this theoretical hierarchy as the stages of production. Drawing from Hayek's triangles (Hayek 1931), I've generalized into a standard four stage model of the economy in figure 7 to better conform to statistical indexes used by the various government agencies, private industries, and Wall Street firms.

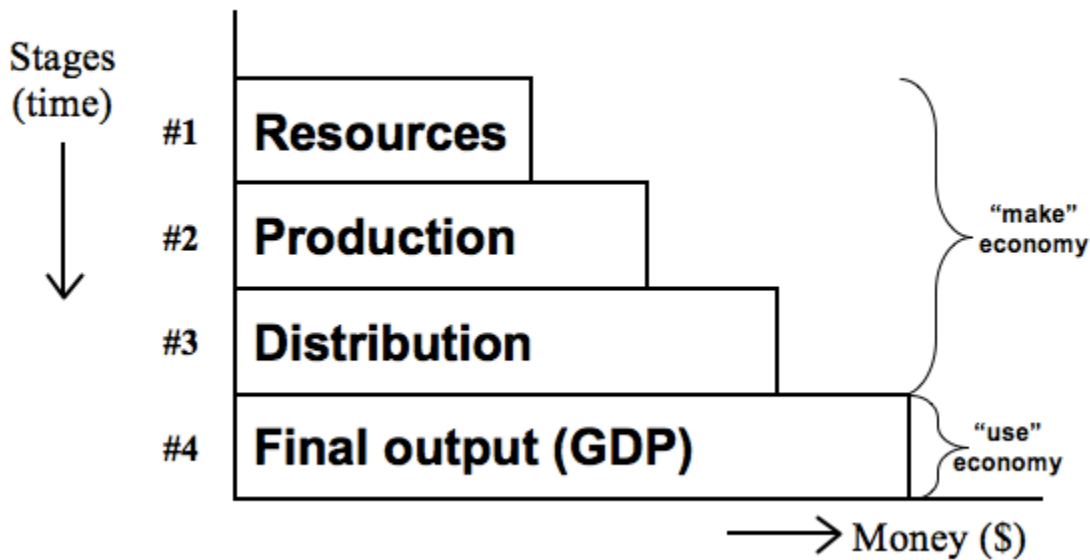


Figure 7: 4-Stages of Production Model. Source: Skousen 2015: xviii

### Applying the Menger Model to Today

While Menger and his followers (Mises, Hayek, et al.) developed only a purely theoretical model of the time structure of production, there are a variety of economic data that fit this model today. Production, price and employment indexes have been created for every stage of production. For example, every month the government releases price indexes for consumer goods, producer goods, and commodities.

The first economist to apply empirical flesh and bone to Menger/Hayek skeleton was Frederick C. Mills, an economist at the National Bureau of Economic Research, who in the mid-1930s undertook a systematic study of the price structure of the US and world economies which paralleled the theoretical work of Menger, Böhm-Bawerk, and Hayek (Mills 1936; Skousen 2015: 55-56).

### GO and GDP

The “causal connection between goods” has also had an evolution as economists sought to find the best way to measure annual economic growth, and the various

components of the economy. Irving Fisher devised an “equation of exchange” to measure total spending in the economy.

$$M V + P Q,$$

Where M = the money supply

V = velocity of money

P = price level

Q = total transactions

For Fisher, Q represents total sales or revenues at all stages of production, what Menger calls the value in exchange for the production of all goods of the first order (final use) through goods of the last order (raw commodities and all resources) combined.

Hayek’s triangle is a diagram that illustrates the total value, expressed in dollars or other currencies, of total revenues at all stages of production.

My own Skousen Steps (see figure 4) is a general 4-stage model of production at all levels.

Simon Kuznets, the Russian American economist, was the first to measure spending in the economy in his development of gross national

product, now gross domestic product (GDP). When creating GDP, he recognized the value of all intermediate stages of production, but focused on the “end product” or national income, which meant subtracting “the value of that part of the nation’s stock of goods that was expended...in producing the total” (Kuznets 1934:1).

Unfortunately, he never took into account the value of the supply chain, or intermediate production. We were left with GDP – spending of final goods and services only -- as THE measure of the economy.

Even though the economics textbooks clearly state that GDP measures “final” spending on finished goods and services only, the media never thinks about the value of the business-to-business (B2B) supply chain, all the intermediate “goods in process” that eventually end up as the final product.

With the publication of my book *The Structure of Production* in 1990, I proposed that it was time to measure the entire production process that Menger originally wrote about in 1871. In chapter 6, I made the case that the Bureau of Economic Analysis (BEA), which published the quarterly GDP statistics, should also account for intermediate production (the supply chain) in the entire production process, to be called gross output (GO).

Surprisingly, in April, 2014, under the leadership of Stephen Landefeld, the BEA director, the federal government began measuring GO. I considered it the greatest breakthrough in Austrian economics since Hayek won the Nobel prize in 1974.

Now, in the 21<sup>st</sup> century, we have a “top line” (GO, or total spending) in national income accounting, and a “bottom line” (GDP). The economics profession has finally caught up with the world of accounting and finance.

I won't go into details of all the benefits of GO, but in summary, (1) GO shows that business spending (B2B) is almost twice the size of consumer spending in the US; (2) business spending is far bigger and more important than consumer spending; (3) GO is more consistent with growth theory, that saving, investing, capital formation, technology and other “supply side” factors are the key to economic growth and a higher standard of living; and (3) GO is a leading indicator of where the economy is headed.

## **Conclusion**

In *Principles*, Menger also made another singular contribution to economics by demonstrating the money, the lifeblood of the economy that links microeconomics to macroeconomics, did not develop by government edict but by the natural evolution of trade. Those commodities that are more “marketable” become more and more likely to become a medium of exchange, or money. Gold and silver eventually became the ideal medium of exchange through the “invisible hand” of exchange (Menger 1950: 257-285).



Thus we see how Menger was in the forefront of developing a sound model of microeconomics through the production process; a way of developing macroeconomics by adding up all the transactions of goods and services; and the vital role of money to measure economic performance, all through a “general theory of the good.” As Schumpeter concludes, “The whole of the organon of pure economics thus finds itself unified in light of a single principle—in a sense in which it never had been before” (Schumpeter 1954:913)

### References

Black, R. D. Collison, A. W. Coats, and Cranford D. W. Goodwin, eds. 1973. *The Marginal Revolution in Economics*. Durham, NC: Duke University Press.

Cox, W. Michael and Richard Alm. 1999. *Myths of Rich and Poor*. New York: Basic Books.

Garrison, Roger B. 1981. “The Austrian-Neoclassical Relation: A Study in Monetary Dynamics.” Ph. D. dissertation, University of Virginia.

Garrison, Roger B. 2001. *Time and Money: The Macroeconomics of Capital Structure*. London: Routledge.

Hayek, Friedrich A. 1931. *Prices and Production*. London: George Routledge.

Hicks, John R. 1973. *Capital and Time*. Oxford: Oxford University Press.

Kuznets, Simon. 1934. “National Income, 1929-32.” Bulletin 49. New York: National Bureau of Economic Analysis. June 7.

Lebergott, Stanley. 1976. *The American Economy*. Princeton, NJ: Princeton University Press.

Lebergott, Stanley. 1993. *Pursuing Happiness: American Consumers in the Twentieth Century*. Princeton, NJ: Princeton University Press.

Menger, Carl. 1976 [1950, 1871]. *Principles of Economics*. Translated by James Dingwall and Bert F. Hoselitz. New York: New York University Press.

Mills, Frederick C. 1936. *Prices in Recession and Recovery*. New York: National Bureau of Economic Research.

Mises, Ludwig von. 1978. *Notes and Recollections*. South Holland, Illinois: Libertarian Press.

Robbins, Lionel. 1998. *A History of Economic Thought: The LSE Lectures*. Steven G. Medema and Warren J. Samuels, eds. Princeton, NJ: Princeton University Press.

Schumpeter, Joseph A. 1954. *History of Economic Analysis*. New York: Oxford University Press.

Skousen, Mark. 2015 [1990]. *The Structure of Production*. New York: New York University Press.

Skousen, Mark. 2016 [2001]. *The Making of Modern Economics*. New York: Routledge.

Tupy, Marian and Pooley, Gale, 2022, *Superabundance: The Story of Population Growth, Innovation, and Human Flourishing on an Infinitely Bountiful Planet*. Washington, D.C.: Cato Institute.