



The Big and the Small Picture

Why economics is split into two realms

G. Chris Rodrigo

PHYSICISTS look at the big world of planets, stars, galaxies, and gravity. But they also study the minute world of atoms and the tiny particles that comprise those atoms.

Economists also look at two realms. There is big-picture *macroeconomics*, which is concerned with how the overall economy works. It studies such things as employment, gross domestic product, and inflation—the stuff of news stories and government policy debates. Little-picture *microeconomics* is concerned with how supply and demand interact in individual markets for goods and services.

In macroeconomics, the subject is typically a nation—how all markets interact to generate big phenomena that economists call *aggregate variables*. In the realm of microeconomics, the object of analysis is a single market—for example, whether price rises in the automobile or oil industries are driven by supply or demand changes. The government is a major object of analysis in macroeconomics—for example, studying the role it plays in contributing to overall economic growth or fighting inflation. Macroeconomics often extends to the international sphere because domestic markets are linked to foreign markets through trade, investment, and capital flows. But microeconomics can have an international component as well. Single markets often are not confined to single countries; the global market for petroleum is an obvious example.

The macro/micro split is institutionalized in economics, from beginning courses in “principles of economics” through to postgraduate studies. Economists commonly consider themselves microeconomists or macroeconomists. The American Economic Association recently introduced several new academic journals. One is called *Microeconomics*. Another, appropriately, is titled *Macroeconomics*.

Why the divide?

It was not always this way. In fact, from the late 18th century until the Great Depression of the 1930s, economics was economics—the study of how human societies organize the production, distribution, and consumption of goods and services. The field began with the observations of the earliest economists, such as Adam Smith, the Scottish philosopher popularly credited with being the father of economics—al-

though scholars were making economic observations long before Smith authored *The Wealth of Nations* in 1776. Smith’s notion of an invisible hand that guides someone seeking to maximize his or her own well-being to provide the best overall result for society as a whole is one of the most compelling notions in the social sciences. Smith and other early economic thinkers such as David Hume gave birth to the field at the onset of the Industrial Revolution.

Economic theory developed considerably between the appearance of Smith’s *The Wealth of Nations* and the Great Depression, but there was no separation into microeconomics and macroeconomics. Economists implicitly assumed that either markets were in equilibrium—such that prices would adjust to equalize supply and demand—or that in the event of a transient shock, such as a financial crisis or a famine, markets would quickly return to equilibrium. In other words, economists believed that the study of individual markets would adequately explain the behavior of what we now call aggregate variables, such as unemployment and output.

The severe and prolonged global collapse in economic activity that occurred during the Great Depression changed that. It was not that economists were unaware that aggregate variables could be unstable. They studied business cycles—as economies regularly changed from a condition of rising output and employment to reduced or falling growth and rising unemployment, frequently punctuated by severe changes or economic crises. Economists also studied money and its role in the economy. But the economics of the time could not explain the Great Depression. Economists operating within the classical paradigm of markets always being in equilibrium had no plausible explanation for the extreme “market failure” of the 1930s.

If Adam Smith is the father of economics, John Maynard Keynes is the founding father of macroeconomics. Although some of the notions of modern macroeconomics are rooted in the work of scholars such as Irving Fisher and Knut Wicksell in the late 19th and early 20th centuries, macroeconomics as a distinct discipline began with Keynes’s masterpiece, *The General Theory of Employment, Interest and Money*, in 1936. Its main concern is the instability of aggregate variables. Whereas early economics concentrated on equilibrium in individual markets, Keynes introduced the

simultaneous consideration of equilibrium in three interrelated sets of markets—for goods, labor, and finance. He also introduced “disequilibrium economics,” which is the explicit study of departures from general equilibrium. His approach was taken up by other leading economists and developed rapidly into what is now known as macroeconomics.

Coexistence and complementarity

Microeconomics is based on models of consumers or firms (which economists call agents) that make decisions about what to buy, sell, or produce—with the assumption that those decisions result in perfect market clearing (demand equals supply) and other ideal conditions. Macroeconomics, on the other hand, began from observed divergences from what would have been anticipated results under the classical tradition.

Today the two fields coexist and complement each other.

Microeconomics, in its examination of the behavior of individual consumers and firms, is divided into consumer demand theory, production theory (also called the theory of the firm), and related topics such as the nature of market competition, economic welfare, the role of imperfect information in economic outcomes, and at the most abstract, general equilibrium, which deals simultaneously with many markets. Much economic analysis is microeconomic in nature. It concerns such issues as the effects of minimum wages, taxes, price supports, or monopoly on individual markets and is filled with concepts that are recognizable in the real world. It has applications in trade, industrial organization and market structure, labor economics, public finance, and welfare economics. Microeconomic analysis offers insights into such disparate efforts as making business decisions or formulating public policies.

Macroeconomics is more abstruse. It describes relationships among aggregates so big as to be hard to apprehend—such as national income, savings, and the overall price level. The field is conventionally divided into the study of national economic growth in the long run, the analysis of short-run departures from equilibrium, and the formulation of policies to stabilize the national economy—that is, to minimize fluctuations in growth and prices. Those policies can include spending and taxing actions by the government or monetary policy actions by the central bank.

Bridging the micro/macro divide

Like physical scientists, economists develop theory to organize and simplify knowledge about a field and to develop a conceptual framework for adding new knowledge. Science begins with the accretion of informal insights, particularly with observed regular relationships between variables that are so stable they can be codified into “laws.” Theory is developed by pinning down those invariant relationships through both experimentation and formal logical deductions—called models (see “What Are Economic Models?” *F&D*, June 2011).

Since the Keynesian revolution, the economics profession has had essentially two theoretical systems, one to explain the small picture, the other to explain the big picture (micro and macro are the Greek words, respectively, for “small” and

“big”). Following the approach of physics, for the past quarter century or so, a number of economists have made sustained efforts to merge microeconomics and macroeconomics. They have tried to develop microeconomic foundations for macroeconomic models on the grounds that valid economic analysis must begin with the behavior of the elements of microeconomic analysis: individual households and firms that seek to optimize their conditions.

There have also been attempts to use very fast computers to simulate the behavior of economic aggregates by summing the behavior of large numbers of households and firms.

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It is too early to say anything about the likely outcome of this effort. But within the field of macroeconomics there is continuing progress in improving models, whose deficiencies were exposed by the instabilities that occurred in world markets during the global financial crisis that began in 2008.

How they differ

Contemporary microeconomic theory evolved steadily without fanfare from the earliest theories of how prices were determined. Macroeconomics, on the other hand, is rooted in empirical observations that existing theory could not explain. How to interpret those anomalies has always been controversial. There are no competing schools of thought in microeconomics—which is unified and has a common core among all economists. The same cannot be said of macroeconomics—where there are, and have been, competing schools of thought about how to explain the behavior of economic aggregates. Those schools go by such names as New Keynesian or New Classical. But these divisions have been narrowing over the past few decades (Blanchard, Dell’Ariccia, and Mauro, 2010).

Microeconomics and macroeconomics are not the only distinct subfields in economics. Econometrics, which seeks to apply statistical and mathematical methods to economic analysis, is widely considered the third core area of economics. Without the major advances in econometrics made over the past century or so, much of the sophisticated analysis achieved in microeconomics and macroeconomics would not have been possible. ■

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Reference:

Blanchard, Olivier, Giovanni Dell’Ariccia, and Paolo Mauro, 2010, “Rethinking Macroeconomic Policy,” *IMF Staff Position Note 10/03* (Washington: International Monetary Fund).