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The Trader's Guide to Key Economic Indicators

Updated and Expanded Edition

WITH NEW CHAPTERS ON COMMODITIES AND FIXED-INCOME INDICATORS

Richard Yamarone

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BY RICHARD YAMARONE

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Richard Yamarone

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To Suzie,
Milton, Oskar, and Nash—felinus economicus

Contents

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Introduction

Investing without understanding the economy is like taking a trip without knowing anything about the climate of your destination or what season you'll be in when you get there. Just as inclement weather can wreak havoc with a vacation, putting hard-earned money into the stock or bond market when economic conditions are unfavorable or selling investments for the wrong reasons can destroy financial plans for a comfortable retirement, a new house, or a child's college education. This is as true today as it was when the first edition of this book was being written in late 2003.

No one understands this better than Wall Street investment banks, brokers, and research institutions. All have adopted a top-down approach to securities analysis that begins with a forecast of the general economic climate, including interest-rate projections, currency forecasts, and estimates of domestic and foreign economic growth. In this, they are following one of the precepts laid down by Benjamin Graham and David Dodd in their 1934 investors' bible, *Security Analysis*: "Economic forecasts provide essential underpinning for stock and bond market, industry, and company projections."

You don't need to manage millions or billions of dollars, however, to study economic conditions and plan your investment strategy accordingly. You can get much of the same information that Wall Street professionals use in their analyses from the business sections of the nation's newspapers, magazines, evening news programs, the Internet, and cable business channels.

Furthermore, you don't need a degree in economics or mathematics to interpret this information. In fact, many graduates of such programs at the nation's top universities find themselves entirely unprepared for the real world of finance.

This book attempts to bridge the wide gap between the sometimes mind-numbing theories of textbook economics—the principles that are taught on college campuses—and the everyday world of Wall Street. It does so by focusing on a dozen economic indicators, plus several others from fixed-income and commodity markets that have been added in this revised and expanded edition. These key indicators are among the most valuable of any analyst's or economist's tools.

Over the past century, thousands of economic indicators have emerged, predicting everything from the demand for gasoline to the size of harvests. Some are more fun than functional, such as those claiming links between stock performance for the year and which football conference, the NFC or the AFC, wins the Super Bowl, or whether women's hemlines rise to midthigh or fall to midcalf. Others indicators are more serious, solidly based in economic observations. These range from the arcane—such as the indicator connecting the production level of titanium dioxide, a constituent of pigments used in paints and plastics, with the demand for building materials—to the commonsensical. The price of copper, used in wiring and many other construction elements, for instance, has a clear relationship with the pace of housing activity. The same could be said of economic growth and railroad car loadings, shipping container production, wooden pallet shipments, and the manufacture of corrugated boxboard and packaging, all of which are connected with transporting freight or manufactured goods. Over time, economists have weeded out the least successful indicators, based on the most dubious relationships, to arrive at a core of about fifty consistently reliable ones that are must-haves in any analytical toolbox. The indicators covered in the first edition—and revisited in this new one—are among the most accurate at depicting economic relationships that can engender big swings in the financial markets.

After the first edition came out, I received close to a hundred inquiries about the omission of certain significant indicators. Many of my clients and other investors questioned the exclusion of the import price index, for example, or the absence of the consumer credit report. There are indeed thousands of indicators currently in use, some with exceptional track records of projecting economic conditions such as employment, inflation, manufacturing activity, and consumer spending. But including those would have taken us further from the primary goal of the book, which was to limit the list to a manageable number of key economic indicators that are most relevant to the Street.

Nonetheless, across the many inquiries one reoccurring and noteworthy theme presented itself: I had not included any mar-

ket-determined indicators, which many investors felt were important components of their indicator tool sets. Most of the indicators presented in the first edition are constructed by U.S. government agencies such as the U.S. Department of Commerce's Census Bureau, the U.S. Department of Labor, and the Board of Governors of the Federal Reserve System, or are products of private organizations such as the Institute for Supply Management, the Conference Board, and the University of Michigan. Some reflect principally the current state of the economy. Others have excellent predictive powers, highlighting, for example, industries that might outperform, thus helping identify the likely path of economic activity. But many influential money managers, hedge fund participants, and proprietary traders rightfully raved about the usefulness of indicators that are determined by the markets themselves.

For this reason I felt that, in revising this book, it was important to include some of the more popular market-determined measures. They conveniently fit into two categories, fixed income and commodities, which we will examine in Chapters 13 and 14 respectively.

All the indicators brought up to date in this new edition still have one thing in common, however: In one way or another, they all relate to the business cycle. Understanding how they work will make the study of economics more palatable and can make the pursuit of investment gains more profitable.

The Business Cycle

The business cycle is one of the central concepts in modern economics. It was defined by celebrated economists Arthur Burns and Wesley Mitchell in their pioneering 1946 study, *Measuring Business Cycles*, written for the National Bureau of Economic Research (NBER), which today is the official arbiter of the U.S. business cycle. According to Burns and Mitchell, the business cycle is "a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises: a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, con-

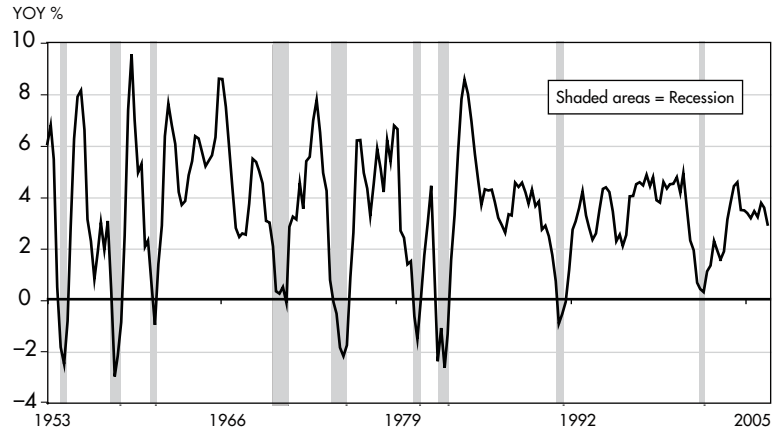
Figure I.1 U.S. Business Cycle Durations

Business Cycle Reference Dates		*Duration in Months*			
Peak *Quarterly dates are in parentheses*	**Trough**	**Contraction** *Peak to trough*	**Expansion** *Previous trough to this peak*	**Cycle** *Trough from previous trough*	**Cycle** *Peak from previous peak*
	December 1854 (IV)	—	—	—	—
June 1857 (II)	December 1858 (IV)	18	30	48	—
October 1860 (III)	June 1861 (III)	8	22	30	40
April 1865 (I)	December 1867 (I)	***32***	***46***	***78***	***54***
June 1857(II)	December 1858 (IV)	18	30	48	—
October 1860(III)	June 1861 (III)	8	22	30	40
April 1865(I)	December 1867 (I)	32	46	78	54
June 1869(II)	December 1870 (IV)	18	18	36	50
October 1873(III)	March 1879 (I)	65	34	99	52
March 1882(I)	May 1885 (II)	38	36	74	101
March 1887(II)	April 1888 (I)	13	22	35	60
July 1890(III)	May 1891 (II)	10	27	37	40
January 1893(I)	June 1894 (II)	17	20	37	30
December 1895(IV)	June 1897 (II)	18	18	36	35
June 1899(III)	December 1900 (IV)	18	24	42	42
September 1902(IV)	August 1904 (III)	23	21	44	39
May 1907(II)	June 1908 (II)	13	33	46	56
January 1910(I)	January 1912 (IV)	24	19	43	32
January 1913(I)	December 1914 (IV)	23	12	35	36
August 1918(III)	March 1919 (I)	7	44	51	67
January 1920(I)	July 1921 (III)	18	10	28	17
May 1923(II)	July 1924 (III)	14	22	36	40
October 1926(III)	November 1927 (IV)	13	27	40	41
August 1929(III)	March 1933 (I)	43	21	64	34
May 1937(II)	June 1938 (II)	13	50	63	93
February 1945(I)	October 1945 (IV)	8	80	88	93
November 1948(IV)	October 1949 (IV)	11	37	48	45
July 1953(II)	May 1954 (II)	10	45	55	56
August 1957(III)	April 1958 (II)	8	39	47	49
April 1960(II)	February 1961 (I)	10	24	34	32
December 1969(IV)	November 1970 (IV)	11	106	117	116
November 1973(IV)	March 1975 (I)	16	36	52	47
January 1980(I)	July 1980 (III)	6	58	64	74
July 1981(III)	November 1982 (IV)	16	12	28	18
July 1990(III)	March 1991(I)	8	92	100	108
March 2001 (I)	November 2001 (IV)	8	120	128	128
Average, all cycles:					
1854-2001 (32 cycles)		17	38	55	56*
1854-1919 (16 cycles)		22	27	48	49**
1919-1945 (6 cycles)		18	35	53	53
1945-2001 (10 cycles)		10	57	67	67

* 31 cycles
** 15 cycles

Source: NBER

Figure I.2 GDP and Highlighted Recessions



Sources: U.S. Department of Commerce, Bureau of Economic Analysis; NBER

tractions, and revivals, which merge into the expansion phase of the next cycle."

No two business cycles are the same. As illustrated in **FIGURE I.1**, during the relatively short time that people have been measuring the U.S. economy, the length of expansions, from economic trough to peak, and of contractions, from peak to trough, have varied widely—although the former, especially recently, have generally been longer and steadier than the latter. Expansions have ranged from 120 months (April 1991 to March 2001) to 10 months (March 1919 to January 1920), and downturns from 43 months (September 1929 to March 1933) to 6 months (February 1980 to July 1980). The amplitude of the peaks and troughs has also differed significantly from cycle to cycle.

One way to think of the business cycle is as a graphical representation of the total economic activity of a country. Because the accepted benchmark for economic activity in the United States is currently gross domestic product (GDP), economists generally identify the business cycle with the alternating increases and declines in GDP. Rising GDP marks economic expansion; falling GDP, a contraction (see **FIGURE I.2**). That said, the business cycle, as defined by Burns and Mitchell, can't be fully captured by one indi-

cator, not even the GDP. Rather, a compendium of indicators reflects various aspects of the economy.

Economic indicators are classified according to how they relate to the business cycle. Those that reflect the current state of the economy are *coincident*; those that predict future conditions are *leading*; and those that confirm that a turning occurred are *lagging*.

Indicators and the Markets

The organization responsible for an indicator generally distributes its report about an hour before the official release time to financial news outlets such as Bloomberg News, Dow Jones Newswires, Reuters, and CNBC. The reporters, who are literally locked in a room and not permitted to have contact with anyone outside, ask questions of agency officials and prepare headlines and analyses of the report contents. These stories are embargoed until the official release, at which time they are transmitted by the newswires to be dissected by the Wall Street community. Most Wall Street firms employ economists to provide live broadcasts of the numbers as they run across the newswires, together with interpretation and commentary regarding the likely market reaction. This task, known as the "hoot-and-holler" or tape reading, is among the most stressful performed by an economist. One slipup can cost a trader or an entire trading floor millions of dollars.

The more an indicator deviates from the Street's expectations, the greater its effect on the financial markets. A 0.1 percent decline in retail sales, for example, might not move the markets much if economists were looking for a flat reading or a 0.1 percent rise. But if the consensus were for an increase of 0.7 percent, and instead the 0.1 percent decline hit the tape, the markets might well be rocked. That said, it is always prudent for traders and other market participants to keep apprised of what the Street's expectations are for key economic indicators such as those covered here.

How to Use This Book

You've no doubt read in a paper or heard on television or the radio forecasts of economic expansion or recession. You also probably realize that one is desirable and the other is not. But you may not know how the economists quoted came up with their predictions. Without this knowledge, how can you judge how well considered or rash they are—and whether to trust them in creating your investment strategy? This book seeks to help you form your own opinions about the possible direction of the economy and the markets and to decide how to act based on those opinions.

Each chapter corresponds to an indicator, beginning with the most comprehensive—the GDP and indexes of leading, lagging, and coincident indicators—and continuing with those tied to particular aspects or segments of the overall economy, such as consumer prices, manufacturing, housing, and retail sales. Every chapter contains four principal sections: an introduction sketching out the major attributes of the indicator and its effect on the markets; a discussion of its origins and development; a description of how the relevant data are obtained, analyzed, and presented; and an explanation of how to incorporate these data into your investment process. The last section also contains at least one "trick"—involving either a little-known subcomponent of the indicator or a combination of subcomponents—that Wall Street economists use to get a clearer or more timely picture of business activity. At the end of the book is a listing of additional reading and resources, organized by chapter, pointing those interested to references that discuss the relevant indicator in greater detail.

In putting what you learn from this book into practice, you might take some pointers from Wall Street. Just about every investment firm has a pre-market-opening meeting in which the day's events and potential trading strategies are presented. This always includes a discussion of the economic indicators scheduled for release that day. No trader wants to be caught off guard by an unexpected market-moving release. For the same reason, many traders have on their desks calendars showing which economic release is scheduled for a

particular day and indicating both the value or percentage change of the previous report and the Street's estimates—highest, lowest, and consensus—for the upcoming report. That way, when the actual figure is released, they will know how it compares with expectations and can react accordingly.

Of course, no single economic indicator will tell you all you need to know about the current or future economic climate. Each has drawbacks and may send false signals because of unforeseen shocks, faulty measurements, or suspect collection processes. Piecing together the information from all the indicators discussed in this book like tiles in a mosaic will give you a dynamic representation of the economy. But if you are truly serious about understanding the macroeconomic climate and individual industry conditions, you should also take advantage of the Securities and Exchange Commission's fair-disclosure regulation, Regulation FD, which was adopted in 2000 and mandates that individual investors have the same access to companies' quarterly earnings conference calls that professional analysts have.

These calls provide a great deal of insight into corporate spending plans, manufacturing and production activity, international conditions, pricing, and the general business climate. Especially informative are the announcements of industrial behemoths such as Alcoa Inc., the Boeing Company, Caterpillar Inc., Cummins Inc., Emerson Electric Company, Ford Motor Company, General Electric Company, Illinois Tool Works Inc., Johnson Controls Inc., and United Technologies Corporation. Many companies also offer slide presentations, handouts, and supplemental data with these quarterly presentations, which often provide even greater detail on their buying intentions, prospective employment changes, and any threats to performance that they foresee. There's no cheaper and easier way to gather anecdotal evidence about business conditions. If you can't listen in, the presentations are almost always archived on company websites, from which they may be readily retrieved twenty-four hours a day.

Who Can Benefit From This Book?

This book was written primarily for those traders and investors lacking a formal introduction to the most popular economic indicators on Wall Street. Just because an individual is entrusted with investing millions of dollars does not guarantee a practical command of economic indicators and their meaning for investment. When newly minted MBAs arrive on the trading floors of financial firms, for example, few are equipped with a complete appreciation of these indicators—no matter from which institution that degree has come. My years of experience on a few of the largest trading floors in the world has suggested the need to fill what can be viewed as a surprisingly expansive void regarding indicators, statistics, the economic meaning of the associated figures, and the market's likely reaction.

Those new to the field of investing and economics, including students of the subject, also should benefit from the fundamental, application-oriented nature of this book. As most academics know, if students cannot see the results or directly test theories with practical data, the knowledge they hold tends to remain more theoretical than real-world and they may eventually lose interest in the field. It is here that many future economists are lost. As exercises within an imperfect "science," experiments conducted in the social discipline of economics are predominantly theorized or hypothesized and seldom tested with tangible data. In this sense, economists are not as fortunate as physicists or natural scientists, who conduct experiments in a controlled environment such as a laboratory, riverbed, or ocean. The economic indicators contained in these chapters serve as concrete guideposts within the discipline of economics, and as such make experimentation, testing, and study for investments not only possible but also understandable.

Gross Domestic Product 1

Economics has received a bad rap. In the mid-nineteenth century, the great Scottish historian Thomas Carlyle dubbed this discipline "the dismal science," and jokes about economists being more boring than accountants abound on Wall Street. But truth be told, there is nothing more exciting than watching the newswire on a trading floor of a money-center bank minutes ahead of the release of a major market-moving economic report. One of the top excitement generators is the report on gross domestic product (GDP)—an indicator that is a combination of economics and accounting.

Economists, policy makers, and politicians revere GDP above all other economic statistics because it is the broadest, most comprehensive barometer available of a country's overall economic condition. GDP is the sum of the market values of all final goods and services produced in a country (that is, domestically) during a specific period using that country's resources, regardless of the ownership of the resources. For example, all the automobiles made in the United States are included in GDP—even those manufactured in U.S. plants owned by Germany's BMW and Japan's Toyota. In contrast, gross national product (GNP) is the sum of the market values of all final goods and services produced by a country's permanent residents and firms regardless of their location—that is, whether the production occurs domestically or abroad—during a given period. Baked goods produced in Canada by U.S. conglomerate Sara Lee Corporation, for example, are included in U.S. GNP, but not U.S. GDP.

GDP is a more relevant measure of U.S. economic conditions than GNP, because the resources that are utilized in the production process are predominantly domestic. There are strong parallels between the GDP data and other U.S. economic indicators, such as industrial production and the Conference Board's index of coincident indicators (the coincident index), which will be explored in later chapters.

The GDP is calculated and reported on a quarterly basis as part of the national income and product accounts (NIPAs). The NIPAs, which were developed and are maintained today by the Commerce Department's Bureau of Economic Analysis (BEA), are the most comprehensive data available regarding U.S. national output, production, and the distribution of income. Each GDP report contains data on the following:

- Personal income and consumption expenditures
- Corporate profits
- National income
- Inflation

These data tell the story of how the economy performed—whether it expanded or contracted—during a specific period, usually the preceding quarter. By looking at changes in the GDP's components and subcomponents and comparing these with changes that have occurred in the past, economists can draw inferences about the direction the economy might take in the future.

Of all the tasks market economists perform, generating a forecast for overall economic performance as measured by the GDP data is the one to which they dedicate the most time. In fact, the latest report on GDP is within arm's reach of most Wall Street economists. Because several departments in a trading institution rely on the economist's forecasts, this indicator has emerged as the foundation for all research and trading activity and usually sets the tone of all of Wall Street's financial prognostications.

Evolution of an Indicator

Measuring a nation's output and performance is known formally as national income accounting. This process was pioneered largely by Simon Kuznets, an economist hired by the U.S. Department of Commerce in the 1930s—with additional funding from the National Bureau of Economic Research—to create an accurate representation of how much the U.S. economy was producing. Up until that time, there was no government agency calculating this most critical of economic statistics.

The initial national income estimates produced by Kuznets in 1934 were representations of income produced, measures of the national economy's net product, and the national income "paid out," or the total compensation for the work performed in the production of net product. At that time, no in-depth breakdown of components existed. In fact, Kuznets didn't even have a detailed representation of national consumption expenditures. This was the first step of several in the creation of a formal method of national income accounting, and yet was still a far cry from today's highly detailed representation of the macroeconomy.

The result was the national income and product accounts. In addition to this immense task, Kuznets reconstructed the national income accounts of the United States back to 1869. (He was awarded a Nobel Prize in Economics in 1971 in part for this accomplishment.) Kuznets's first research report, presented to Congress in 1937, covered national income and output from 1929 through 1935.

In 1947, the first formal presentation of the national income accounts appeared as a supplement to the July issue of the *Survey of Current Business*. This supplement contained annual data from 1929 to 1946 disseminated in thirty-seven tables. These data were separated into six accounts:

1. National income and product account
2. Income and product account for the business sector
3. Government receipt/expenditure account
4. Foreign account

5. Personal income/expenditure account
6. Gross savings and investment account

Before the creation of the NIPAs, households, investors, government policy makers, corporations, and economists had little or no information about the complete macroeconomic picture. There were indexes regarding production of raw materials and commodities. There were statistics on prices and government spending. But a comprehensive representation of total economic activity wasn't available. In fact, the term *macroeconomy* didn't appear in print until 1939. Policy making without knowing the past performance of the economy, how it operated under different conditions and scenarios, or which sectors were weak and which were strong was a daunting task. This may have been the reason for many of the economic-policy failures of the early twentieth century.

Many economists have laid the blame for the Great Depression of the 1930s on the Federal Reserve Board's failure to respond to the ebullient activity during the Roaring Twenties (sound familiar?). The Fed may bear much of the responsibility; but very few, if any, have defended the Federal Reserve's failures on the grounds of insufficient information. The Great Depression forced the government to develop some sort of national accounting method. World War II furthered the government's need to understand the nation's capacity, the composition of its output, and the general economic state of affairs. How could the government possibly plan for war without an accurate appreciation of its resources? The NIPAs permit policy makers to formulate reasonable objectives such as higher economic growth rates or lower inflation rates, as well as to formulate policies to attain these objectives and steer the economy around any roadblocks that might impede the attainment of these goals.

Digging for the Data

Tracking the developments in an economy as large and dynamic as that of the United States is not easy. But through constant revision and upgrading, a relatively small group of dedicated economists