

Real World Economic Applications

THE WALL STREET JOURNAL

WORKBOOK

SIXTH EDITION

Michael B. Lehman

 College
Custom
Series

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Michael B. Lehman

University of San Francisco

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Real World Economic Applications
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Workbook

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Editor's Note



Real World Economic Applications: The Wall Street Journal Workbook is not a typical study guide or workbook. It incorporates a proven, successful method for teaching fundamental principles of the macroeconomy by focusing on a handful of key statistical reports that appear regularly and predictably in *The Wall Street Journal*.

A student using this workbook and *The Wall Street Journal* acquires a surprisingly quick and firm comprehension of the ups and downs of the American business economy in a systematic, pleasing, and nontechnical manner. The macroeconomy becomes real, not abstract. The real-life aspect of the data and applications goes a long way in supporting theoretical arguments and a student's motivation to learn them. *Real World Economic Applications: The Wall Street Journal Workbook* has been thoroughly developed for survey and principles of economics (macro) courses but may also be used in intermediate-level courses in macroeconomics, money and banking, and business cycles. Several instructors also use this material for courses in introduction to business.

Much of the basic methodology employed in this workbook was developed and refined by Michael Lehmann while teaching principles of economics at the University of San Francisco. The course was so successful, and students became so motivated, that Irwin Professional Publishing persuaded Professor Lehmann to write a book for business professionals. The result—*The Irwin Guide to Using The Wall Street Journal*, in its fifth edition—has sold more than 225,000 copies.

Irwin, and now McGraw-Hill, the Educational Service Bureau of Dow-Jones and Company, and Professor Michael Lehmann have teamed up to develop an extremely useful and interesting tool for learning about the American economy. We challenge you to discover the power and effectiveness of this approach for yourself.

Preface



Students enroll in introductory economics courses for a variety of reasons. Many do so, I suppose, because it's a requirement for graduation, or because they feel they "ought" to discover how the world of money and business works. These students expect something dry and deadening and all too often, that's what they get. Other students are truly curious about the economic forces that shape their lives and influence the historical currents of societies and nations. When such students encounter instead an abstract hypothetical course, they are severely disappointed.

Your instructor's use of this workbook shows that he or she is determined to bring economics to life for you and wants you to see its principles not as some dry, abstruse set of numerical theories, but as a powerful tool for understanding the universe of business and finance.

This workbook will show you how economists and businesspeople analyze each day's news from the world of production, work, and finance, and how you, too, can evaluate this stream of data in order to assemble a reasonable understanding of current events as well as a forecast of future developments.

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Michael B. Lehmann

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Real World Economic Applications

*The **Wall Street***

Journal

Workbook

1

Introduction



CHAPTER OUTLINE

Getting Started
The Outline

What to Look For and Where to Find It

CHAPTER OBJECTIVES

1. Recognize applications or “learning by doing” as a way to understand economics.
2. Preview the plan of the book and the chapter sequence.
3. Learn where to find key data in *The Wall Street Journal*.

GETTING STARTED

People learn by doing. That’s what makes classroom learning (and teaching) so difficult: usually you’re dealing with matters in the abstract, far from the field of real-world activity.

Of course, you can try to learn auto mechanics sitting in the classroom while the car is parked in the garage, but with any luck at all, some sensible person will suggest that instructors and students move to the garage, raise the hood, roll up their sleeves, pick up the tools, and get busy.

Only after you’ve taken an engine apart and put it back together again can you even think of calling yourself a mechanic. Reading the manual and taking written exams just won’t do it.

The connection between learning and doing does not apply only to manual tasks like auto mechanics. Galileo’s demonstration that bodies of unequal weight accelerate in free fall at the same pace became physics’ most famous experiment. Today’s instructor can most effectively introduce the principles of gravity by beginning with a modern rendering of Galileo’s example, *showing* students the 5- and 10-pound weights hitting the ground at the same time. A theoretical discussion of gravity makes more sense in the context of this exercise.

Of course, a trip to Pisa to learn physics might seem excessive, and you might not be permitted to climb up to the top of the Leaning Tower, even if you got there. But scientists take their students on field trips and conduct laboratory experiments for their classes all the time. They use real-world applications not only to breathe life into the subject matter (to liven up what might otherwise be a dull subject), but also to show their students how things really work.

Taking field trips and conducting laboratory experiments in business and economics doesn't provide quite the same illumination as in physics, biology, and chemistry. A trip to the stock or commodity exchange or to your local Federal Reserve Bank won't reveal much, and it certainly is not as dramatic or concise as Galileo's experiment. You'll see people going about their business at the exchange and the bank, but you will not observe what these activities *represent*: the transactions that make the world go round, the making, using, buying, selling, borrowing, and paying, on scales from individual actions to those of national governments and multinational corporations.

To observe the business transactions that drive our economy, determining what is produced, in which quantities, by what methods, and who gets which slice of the pie, it is not necessary (or even helpful) to visit the business establishments where these transactions take place. However, studying the written record of those transactions is vital; that record not only provides the accounting framework that permits us to keep score and to track all the events that comprise what we call economic activity, it also provides the applications—the examples—that will teach us how it works.

At first glance those applications—the recorded data of our business life—may not seem as immediately instructive to you as dismantling and reassembling the automobile engine, but you will learn more quickly when a familiarity with application precedes theory. After the concept is introduced through example, general principles can be built on your intuitive understanding. If you learn the theory first, before you have any real experience with the subject, you might find the theory's abstract rules and principles unconnected to reality, difficult to comprehend, and therefore of little use to you.

But no matter why you are using this workbook and whether or not you plan to make business a career, your intellectual curiosity regarding current events can't be satisfied without a working knowledge of how our economy functions.

For instance, were President Reagan's tax cuts, spending cuts, and supply-side economics responsible for the decline of inflation in the 1980s and 1990s, or should the Federal Reserve System take the credit? And how serious are the problems of the federal government's budget deficit and the balance-of-trade deficit? Do your answers to these questions reflect your analysis of the data, your political point of view, or the opinions of your favorite teacher? Maybe they should reflect all three, but they can reflect only the last two until you learn to deal with the numbers on your own. Once you do that, your own judgment will be of greater importance to you and others.

And if you do plan to make business a career, your desire to master the data will stem from your own business needs. Sooner than seems possible now, you may be required to offer an opinion on some important business decisions; you may even be the decision maker yourself. Will demand for your product be weak or strong in two quarters or two years? Will this be the time to lay in additional inventory, hire key personnel, and build more plant? Or, despite the current level of orders, would it be more prudent to cancel those plans? Can you beat the competition to the punch, one way or another? Are interest rates likely to rise or to fall? Is disinflation (as deflation is sometimes called) merely a buzzword, or has inflation really been licked? That's just a hint of the issues you can begin to analyze on your own; all you have to do is learn to come to grips with a small number of regularly released statistical reports.

GDP, the money supply, the consumer price index, and labor productivity cannot remain vague and indefinite terms if you are going to be in control of the information. For example, when *The Wall Street Journal* reports that the money supply has increased, you need to know that this fact has virtually nothing to do with the availability of paper money. The money supply consists largely of checking accounts; currency is the petty cash of the economy.

Simply understanding the nature of the various statistical series will not suffice, of course. You must then be able to place them in both historical and contemporary contexts. These essential skills will develop and gain strength with each chapter. Your historical perspective will deepen, providing the background or benchmark for evaluating contemporary events. When a *Journal* article states that the trade deficit or the budget deficit is the largest ever or that retail sales have hit a new high, you can't assess the information intelligently unless you grasp the frame of reference, for knowledge of the past aids evaluation of the present by providing a standard against which recent developments are measured. Auto sales and housing starts may move slightly higher or lower than they were a year ago, but if you know that current levels of activity lie substantially below the peaks reached in the 1970s, your perspective provides evidence that today's economy has not yet approached boom conditions.

As you read on, you will become aware that none of the statistical reports stands alone. Understanding the relationships among them provides your sharpest insight into the economy's operation; each represents a piece of the puzzle, and together they compose the picture. For instance, mortgage interest rates and home construction have doubtless been featured in the *Journal* lately, and they are simply and vitally linked: as mortgage interest rates fall, home construction increases.

Consider another example. In 1985 the United States asked our major trading partners to intervene in the foreign exchange (currency) markets in order to depress the value of the dollar. Our hope was that cheaper dollars—and hence cheaper prices for U.S. goods in world markets—would boost our exports and reduce our balance-of-trade deficit. Thus, the statistical reports on the value of the dollar and our ability to export are inextricably connected, as you will see in more detail in Chapter 7.

All of the statistics you will learn to analyze in this workbook can be interrelated in this fashion, so they need not seem a series of isolated events released piecemeal on a day-to-day basis. Instead, they will reveal an unfolding pattern that clearly reveals the essence and direction of economic and business activity.

Each chapter will introduce one or more statistical series, and each will be devoted to a theme (such as the money and credit markets) that is used to describe and explain the statistical series introduced in the chapter, beginning with the simplest and most basic elements and proceeding to additional topics that will complete your understanding. The chapters will describe the statistical series under discussion in the context of the economy and explain the relationship of the new series to the overall picture. Analysis will be based on charts drawn from official publications so that you can visualize the data and put the current information in perspective. And after each statistical series is treated, you will find some assignments designed to ensure your comprehension, giving you a firm foundation on which to build your learning.

This step-by-step progression of topics will not, however, prevent you from breaking into any chapter, out of order, if you wish to examine a particular statistical series or group of series. Indeed, perhaps you already have a firm grasp of some of these topics and need only to fill in the missing elements to round out your grasp of the essential workings of U.S. business. A complete listing of all the statistical series discussed in this guide can be found on pages 8, 9, and 10 to help you find the ones you want to review.

This workbook will use *The Wall Street Journal* to develop the kind of practical, hands-on guidance in which applications precede theory. After all, the *Journal* is the authoritative source of business news in the United States; it is published coast to coast and has the largest daily circulation of any newspaper in the country. It is also the business newspaper that you will find most readily available on campus and are most likely to read upon graduation.

Recent *Wall Street Journal* articles containing the statistical series will be reproduced and discussed so that you can interpret the data in light of the visual representation made by the charts. They will provide an intuitive understanding of key concepts before you move on to each chapter's general principles. By focusing on a handful of key statistical reports in the *Journal*, you can acquire a surprisingly quick and firm grip on the ups and downs of the U.S. business economy. This workbook will facilitate that comprehension, clearly and accurately, but—and here is its main goal—in a pleasing and non-technical way.

THE OUTLINE

Here is an outline of the chapters that follow. It lists the concepts introduced and the statistical series used to explain those concepts.

Chapter 2: Gross Domestic Product

The workbook begins with gross domestic product (GDP) because it is the best known measure of our economy's output of goods and services.

You will focus on the amount spent on purchasing GDP (i.e., the demand for GDP) rather than its output because of the Great Depression. That disaster turned economists' attention away from production and toward aggregate (total) demand. They realized that aggregate demand's collapse (shrunk spending or buying) had depressed output, income, and employment. Why should businesses hire employees to produce products they could not sell? From then on economists would devote more of their attention to the forces comprising the economy's ability to buy its potential output.

To facilitate the investigation of demand, expenditures made in purchasing GDP are broken out into four components: Consumption, Investment, Government, and Net Exports.

Wall Street Journal indicators: GDP.

Chapter 3: The Macroeconomic System

After the Great Depression, economists' focus on aggregate demand became known as *macroeconomics*. Think of the term as referring to the overall economy. This chapter briefly outlines the macroeconomic approach so that you can systematically organize the data found in *The Wall Street Journal*.

Chapter 4: Consumer Demand

Consumer demand is the most important component of total expenditures on our economy's output (GDP). After all, as you can imagine, if most consumers start curtailing their purchases, a slump lurks around the corner.

To begin, you'll concentrate on those statistical series (such as new-vehicle sales) that provide an advance warning of consumer behavior. That way, you'll know whether the economy faces prospects of continued growth or imminent contraction.

This chapter will weave these statistical series into the macroeconomic view of the economy.

Wall Street Journal indicators: personal income, retail sales, new-vehicle sales, consumer credit.

Chapter 5: Investment Expenditures

This is the most volatile component of aggregate demand (total expenditures); therefore, economists have traditionally looked to it as a barometer of future business conditions.

The term *investment* no doubt conjures up the image of business acquisition of machinery and equipment, factories, and office buildings. And indeed, those make up a big chunk of the total. But consumer expenditures on new homes are included here, too, because they differ so greatly from ordinary consumption purchases due to their longevity, their tendency to appreciate in value, their expense, and the amount of debt incurred in their purchase.

Macroeconomics focuses heavily on this component of aggregate demand. Strong and rising investment expenditures herald prosperity, while anemic outlays provide an omen of depressed economic conditions.

Wall Street Journal indicators: housing starts, new orders for nondefense capital goods, business inventories and sales.

Chapter 6: Government Expenditures

Perhaps you have heard of the conventional wisdom that blames government expenditures in general, and federal deficits in particular, for inflation. But how wise is this wisdom?

Government expenditures are an important component of total GDP expenditures, just as government borrowing is an important part of total borrowing. You can put both in perspective by learning the conditions under which government becomes a significant stimulus or depressant of economic activity.

Macroeconomics assigns a critical role to government expenditures and taxation, referring to them as *fiscal policy*. If investment or consumption expenditures falter and the economy consequently slumps, increased government spending or reduced taxes could fill the gap. That is, larger government spending would meet the shortfall of inadequate investment or consumption expenditures, or tax reduction could stimulate aggregate demand by enhancing disposable income and consumption expenditures.

Wall Street Journal indicators: federal expenditures, revenues, and deficit.

Chapter 7: U.S. International Transactions

U.S. international transactions captured increasing attention in recent years as we became more and more aware of our massive balance-of-trade deficits and the dollar's fluctuation in the international currency markets.

The macroeconomic system includes foreign demand for our goods as part of total expenditures on GDP. Since we have purchased more from other countries in recent years than we have sold to them, this component of GDP actually creates a net reduction in demand for U.S. output.

But you can't examine the balance of trade without also learning about our balance of payments and the forces that shape the value of the dollar in comparison to other currencies, so these statistics are discussed, too.

Wall Street Journal indicators: balance of payments, balance of trade, foreign exchange rates.

Chapter 8: Banks and the Money Supply

Consumption, Investment, Government, and Net Exports together make up the demand for the economy's final output (GDP). Credit irrigates that demand by permitting consumers, business, government, and the rest of the world to spend more than their current incomes when making their GDP purchases. When borrowing finances spending, total output can be bid upward very quickly and boom conditions ensue, generating inflation (rising prices).

This places banks in a crucial macroeconomic position. Their lending permits the rapid growth of investment expenditures such as residential construction, purchases of plant, equipment, and inventory, and key consumer expenditures such as automobiles. When banks lend, the money supply grows. You'll learn how banks create money.

Wall Street Journal indicators: monetary aggregates.

Chapter 9: The Federal Reserve System

The Federal Reserve System (the Fed) is our nation's central bank, responsible for managing the banking and credit systems so that borrowing grows quickly enough to promote an adequate level of demand, but not so quickly as to generate inflation. These responsibilities make the Fed our key macroeconomic institution. Its policy prescriptions are called *monetary policy*.

Wall Street Journal indicators: Federal Reserve data.

Chapter 10: Interest Rates

The *interest rate* is the price borrowers pay for funds. You'll learn how the credit markets determine interest rates and how the Fed influences those rates in its attempt to control the macroeconomy.

Wall Street Journal indicators: Treasury-bill rates and other interest rate data.

Chapter 11: Economic Fluctuations

The preceding chapters examined GDP and the economy from the perspective of demand. Now you will consider the effect of that demand upon the nation's productive facilities. You will learn how surging expenditures can push our economy's productive capacity to its limit, driving costs upward and generating inflation. You will also learn why slack aggregate demand restrains production costs and thereby holds inflation in check.

And the process does not stop there. You'll see that rising inflation can bring the economy full circle, depressing consumer sentiment and expenditures, and thus instigating the recession that brings the expansion to an end.

Wall Street Journal indicators: composite index of leading economic indicators, industrial production, capacity utilization, labor productivity, producer prices, consumer prices, consumer sentiment.

Chapter 12: Summary and Conclusion

Now you will weave your knowledge of Consumption, Investment, Government Expenditures, and Net Exports, as well as your understanding of the credit markets and the Fed, into a coherent overview. This summary will focus on the forces that generate expansion and inflation, contraction and recession, and how the banking system and credit markets provide the flexibility that can rapidly propel the economy forward and just as swiftly drag it back into recession.

WHAT TO LOOK FOR AND WHERE TO FIND IT

This workbook is designed to accompany *The Wall Street Journal*, so you'll need a guide to the statistical series examined as well as a guide to where to find these series in the *Journal*.

The table below presents, in matrix form, a summary of all the statistical series introduced and employed in this workbook. It informs you when these indicators regularly appear in the *Journal* so that you can anticipate their publication.

▼ Listing of Statistical Series According to *The Wall Street Journal* Publication Schedule

Quarterly (Jan.–Mar., Apr.–Jun., Jul.–Sep., Oct.–Dec.)		
Day of Month Usually Published in <i>The Wall Street Journal</i>	Series Description	Chapter in Which Series Introduced
Middle of last month of quarter	Balance of payments	7
25th	GDP	2
Month after end of quarter	Productivity	11
Monthly		
Day of Month Usually Published in <i>The Wall Street Journal</i>	Series Description	Chapter in Which Series Introduced
1st	Leading indicators	11
1st week	Consumer confidence	11
1st week	Manufacturer's orders (nondefense capital goods)	5
5th, 15th, 25th	New-vehicle sales	4
Monday of 2nd week	Employment	11
2nd week	Consumer credit	4
Middle of 2nd week	Retail sales	4
Midmonth	Industrial production	11
Midmonth	Capacity utilization	11
Midmonth	Producer price index	11
Midmonth	Consumer price index	11
17th to 20th	Housing starts	5
3rd week	Balance of trade	7
Thursday or Friday of next-to-last week	Durable goods orders (nondefense capital goods)	5
4th week	Inventories	5
Last week	Federal expenditures, receipts, and deficit	6
Last week	Personal income	4
Weekly		
Day of Week Usually Published in <i>The Wall Street Journal</i>	Series Description	Chapter in Which Series Introduced
Monday	Bond yields (chart)	10
Friday	Monetary aggregates and Federal Reserve data	8, 9
Thursday	Short-term interest rates (chart)	10
Tuesday	Treasury-bill auction	10