

RICHARD STARTZ

THIRD • EDITION

**STUDY GUIDE TO ACCOMPANY
DORNBUSCH AND FISCHER**

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**MACRO -
ECONOMICS**

STUDY GUIDE TO ACCOMPANY
DORNBUSCH AND FISCHER:

MACRO- ECONOMICS

RICHARD STARTZ

The Wharton School
University of Pennsylvania

THIRD EDITION

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MACROECONOMICS**

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TO THE STUDENT

The *Study Guide* is designed for use with Dornbusch and Fischer's *Macroeconomics*. The only sensible reason for the existence of a study guide is to *make learning easier*.

FORMAT

Most of the nineteen chapters have the following sections:

- Focus of the Chapter: gives a quick peek at the most important topics of the chapter.
- Section Summaries: summarize each section of the text briefly.
- Graph It: asks you to plot data, complete a graph, or fill in a chart. Most of these are quite simple. Think of the Graph Its as being like warm-up exercises before a run or limbering-up scales for piano practice. Taking a pencil in hand gets your mind loosened up *and* gets your mind focused on the subject at hand.
- Key Terms: list the most important technical terms used in the chapter.
- Review of Technique: (see below).

- **Fill-In Questions:** test the most important ideas and concepts of the chapter.
- **True-False Questions and Multiple-Choice Questions:** test the detailed concepts of the chapter and sometimes require you to work out some simple problems.
- **Problems:** finish up each chapter. These require you to apply the concepts of the chapter to a specific problem.
- **Answers:** to every question in the *Study Guide* appear at the back of the book.

At the back of the *Study Guide* you will also find a glossary with definitions of many of the terms used in the text and the *Guide*. You may find them especially helpful with working on the fill-in questions. In addition, there are some reference tables at the back of the book; these give various kinds of annual economic data for the United States. You may want to refer to these data to get a feeling for what the real numbers in the economy are.

HOW TO STUDY MACROECONOMICS

Do not! It wastes too much time. Instead—

Practice Macroeconomics

Practice, do not study. Having taught several hundred students from the first edition of *Macroeconomics*, I have seen diligent students come in with the same problem over and over. They have read and reread the text several times, underlined all the important points, and spent hours and hours trying to memorize facts and theories. But they realize that somehow they have not quite caught on. As the authors of the text say, *active learning* is the only way to learn the material. Do not waste valuable hours trying to remember masses of material. Instead, spend a small amount of time trying to *focus* on the structure of the material. Since this is easier said than done, we have created this *Study Guide* to give you very specific questions to practice on. The questions in the *Study Guide* are not just lists of points to remember. Most questions have been picked to illustrate a basic principle. If you answer a question incorrectly, decide whether you have merely missed a minor point or whether you have overlooked a basic principle involved. The early questions in each chapter are quite easy, and later questions become progressively more difficult. Some of the problems are quite advanced. While you may be able to answer all the fill-in questions in 2 minutes, the problem take time to work through. When it becomes necessary to choose between rereading the text for the third time and spending 20 minutes doing a hard problem, do the problem.

Use this Study Guide to learn more in less time.

Review of Technique

A special feature of the *Study Guide* is the Review of Technique found in each chapter. Each one presents a quick review of some useful technical trick. Some of

these are really very simple. Some are just a little bit advanced. You will probably find that you already know most of the material in each Review, but a few years may have passed since you last had to use it. The Reviews allow you to brush up at your own leisure. They are not directly related to the material in the chapters in which they appear. When you have time, browse through all the Reviews to find those most useful to use.

ACKNOWLEDGMENTS

First, thanks must go to Professors Dornbusch and Fischer for, among other things, teaching me a great deal about macroeconomics. Susann Bizzari typed the manuscript (and retyped it faster than I could edit). Professors William Zahka, of Widener College, and Stephen Van der Ploeg, of Florida Atlantic University, provided very helpful reviews, as did several Wharton students.

Comments and (corrections!) on the *Study Guide* will be most appreciated.

For the New Edition—Further Acknowledgments and Hints

Thanks continue to go to Professors Dornbusch and Fischer for continuing to teach me about macroeconomics. Thanks also go to the number of students who have sent corrections and suggestions. In response to several suggestions, this edition of the *Study Guide* is just a smidgen less technical than the earlier edition.

Here are two hints—the result of teaching several hundred students with the text and *Study Guide*.

1 Don't become overwhelmed by the details. Concentrate instead on the overall structure. The text has literally thousands of important details, but only a dozen or so major themes. You can think of the themes as big branches and the details as leaves on a tree. It's much easier to trace down a specific detail by running out along the right branch than it is to build up an entire tree from a pile of leaves.

2 Study with a pencil in your hand and scribble in the margins or on scrap paper as you go. Pictures show structures better than words do. When the *Study Guide* describes how two curves interact, scribble an example graph right there in the *Study Guide*. The picture you draw sticks much better than any words we can use.

Richard Startz

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PART ONE

1

INTRODUCTION

FOCUS OF THE CHAPTER

- Our study of macroeconomics commences with an introduction to the principal concepts of macroeconomics and an overview of the textbook. We look at the questions of gross national product, unemployment, inflation, and economic growth.

SECTION SUMMARIES

1. *Gross national product (GNP)* is the value of all goods and services produced in the economy in a year. *Real, or constant dollar, GNP* is the basic measure of economic activity. *Nominal, or current dollar, GNP* is the number of dollars needed to buy the entire gross national product. When prices go up, nominal GNP goes up even if real GNP doesn't change. In both the text and the *Study Guide*, "GNP" means "real GNP" unless we explicitly use the word "nominal." In order to measure the real value of goods and services—wiping away price changes—we often measure the value of goods in terms of "1972 dollars."

From 1962 through 1982, GNP grew an average of 3.1 percent per year, though of course some years were good and some were bad. Trend growth in GNP is due to increased amounts of labor and of capital and to increased efficiency in using these factors of production. Year-to-year movements around trend depend on how much of the available resources are used. When unemployment is high, less is produced.

Macroeconomic performance is judged on the *inflation* rate, the *growth* rate of GNP, and the *unemployment* rate. Macroeconomics is largely the study of how these three economic variables behave, how they can best be controlled, and what limits we face in our attempts to control them.

Full-employment output, or *potential output*, is the level of GNP that the economy would produce if all resources were being used at just the right level. Actual output fluctuates around this level. The difference between potential output and actual output is called the *output*, or *GNP*, *gap*.

2. Output growth and unemployment are related by *Okun's law*. The trend growth of GNP is roughly 3 percent per year. If output grows faster than trend, unemployment falls. Okun's law suggests that GNP must grow about $2\frac{1}{2}$ percent per year above trend to lower unemployment by 1 percentage point.

Inflation is the rate of increase in prices. When prices are going up, the level of inflation is positive. When (on those rare occasions) prices are going down, the level of inflation is negative.

The *Phillips curve* describes a relation between inflation and unemployment: the higher the rate of unemployment, the lower the rate of inflation. This relation is fairly reliable in the short run (say, 2 years). In the long run, there is no tradeoff worth speaking about between inflation and unemployment.

3. Policy makers can affect the economy through *monetary policy* and *fiscal policy*. The primary instruments of monetary policy, controlled by the Federal Reserve, are the stock of money and, through the stock of money, the interest rate. The primary instruments of fiscal policy, controlled by Congress and the President, are tax rates and government spending. The Federal Reserve and Congress and the President use *stabilization policy* to smooth out fluctuations in the economy. Stabilization policy is also called *countercyclical policy*. Political use of policy instruments to reduce unemployment right before an election leads to the idea of the *political business cycle*.

Economists can, to some extent, be divided into *monetarists* and *activists*. Monetarists believe that the money supply is the most important determinant of the state of the economy and usually believe that the government should interfere in the economy as little as possible. *Activists* look to many other factors in addition to money and believe that the government ought to manage actively the level of economic activity.

The overall concepts in studying unemployment, growth, and inflation are *aggregate demand* and *aggregate supply*. Basically, aggregate demand tells how much GNP consumers, business, and the government choose to buy given the overall level of prices. Aggregate supply tells how much output is produced at a given price level. Figure 1-1 (text Figure 1-9) shows that the aggregate supply curve is flat at low levels of production and quite steep as production approaches potential GNP. In the flat region, changes in output occur with little price change. In the steep region, it is difficult to increase GNP; prices rise instead.

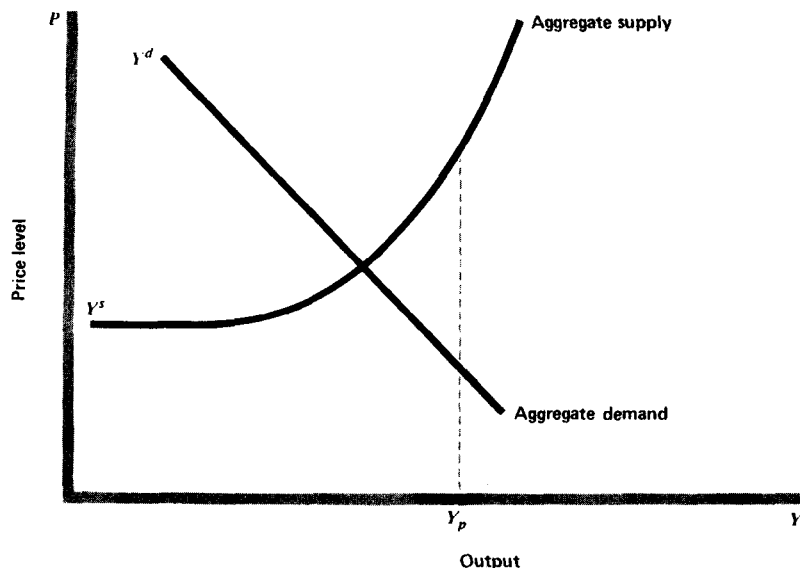


FIGURE 1-1

Chapters 3 through 10 concentrate on aggregate demand. Later chapters consider aggregate supply as well as aggregate demand. You should think of the lessons of these early chapters as applying best at high levels of unemployment, that is, on the flat region of the aggregate supply curve.

Remember: In Chapters 3 through 10, *GNP really means aggregate demand for a given price level.*

5. The easiest way to study macroeconomics is to break the subject into smaller pieces. You may find it helpful to think of some chapters as “forest” (broad overview) chapters and others as “tree” (sophisticated detail) chapters. Chapters 3, 4, and 5 (forest) give the “big picture” about aggregate demand, as does Chapter 11 for aggregate supply. Chapters 12 and 13 (forest) put together aggregate demand and supply. Chapters 6 through 10 (tree) provide the details behind aggregate demand policy. Chapters 14 through 17 (tree) provide more details on the combination of aggregate demand and supply. Chapters 18 and 19 (some forest, some tree) look at international trade. Chapter 2 describes national income accounting; it’s a tree chapter in that it provides details about national income accounting, but a forest chapter in that it provides an overview of how the economy is put together.

KEY TERMS

Monetarists

Keynesians

New classical macroeconomist

GNP, nominal and real

Inflation

Growth

Unemployment

Business cycle

Trend or potential output	Phillips curve
Peak	Monetary policy
Trough	Fiscal policy
Recovery or expansion	Stabilization policies
Recession	Activists
Output gap	Aggregate demand and supply
Okun's law	

GRAPH IT

The easiest way to see whether the economy is doing well is to chart real GNP. If GNP is going up by more than its usual trend, the economy is doing well—and vice versa. In Chart 1-1 you are asked to graph the annual rate of change in GNP from 1962 through 1982. Over this period, GNP grew about 3.3 percent each year *on average*, though some years had faster growth and some lower.

In order to fill out the chart, you must first calculate the rates of change of GNP and then plot them. For example, GNP was 832.5 billion dollars in 1963 and 800.3 billion dollars in 1962. So the 1963 annual growth rate was $100 \times [(832.5 - 800.3) / 800.3]$, or 4.0 percent. We've filled in several years on the calculation table and chart. You do the rest.

TABLE 1-1

Year	GNP	Percentage change from previous year
1962	800.3	
1963	832.5	4.02
1964	876.4	5.27
1965	—	—
1966	—	—
1967	—	—
1968	—	—
1969	—	—
1970	—	—
1971	—	—
1972	—	—
1973	—	—
1974	—	—
1975	—	—
1976	—	—
1977	—	—
1978	—	—
1979	—	—
1980	—	—
1981	—	—
1982	—	—

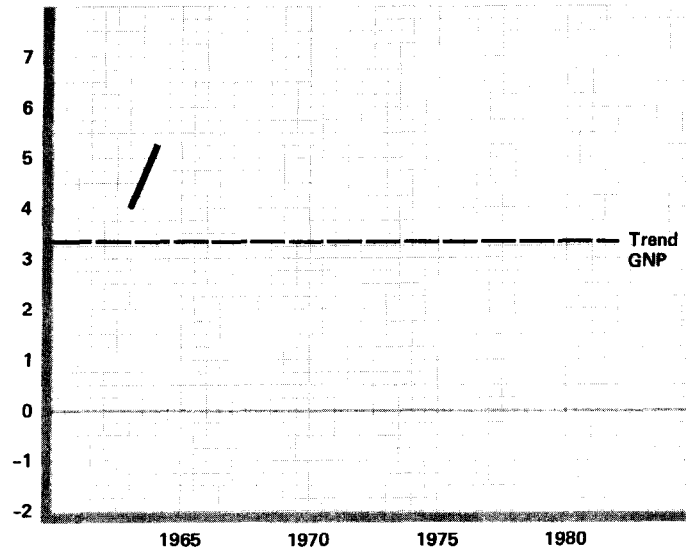


CHART 1-1

REVIEW OF TECHNIQUE 1

How to Review for This Course

Each person has a method of study which works best for her- or himself. In this Review, we present some suggestions for breaking your studying up into manageable chunks. In each chapter, form a picture of the "forest" for that chapter before looking at the "trees." In this way, you have a framework on which to hang the details of the chapter. The text is far too rich for you to try to memorize a long list of unrelated facts and theories. Think of the difference in putting together a jigsaw puzzle when you know the general picture as compared with assembling it when you have no idea of the meaning of the big heap of pieces!

Figure 1-2 presents one outline you can use for studying a chapter. You can start at the top with any of the suggestions for initial reading and work your way down to the RELAX box.

FILL-IN QUESTIONS

1. The value of production when all inputs are fully employed is _____.
2. The difference between production with fully employed inputs and actual production is the _____.
3. The bottom of the business cycle is called the _____.
4. Economic policy makers may try to improve economic performance by changing government spending and taxes, which are types of _____ policy.

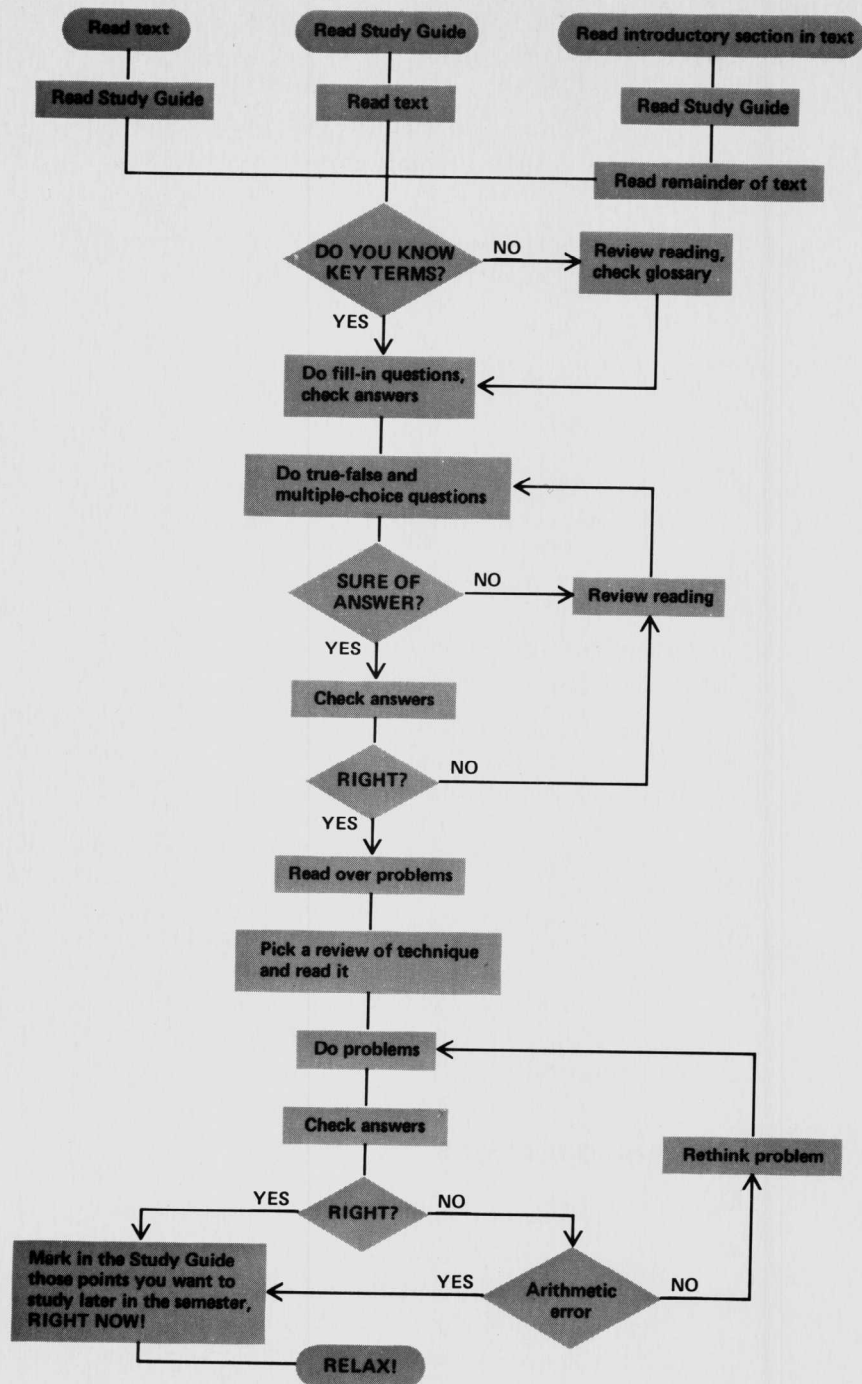


FIGURE 1-2

5. Or they may try to do so by changing the money supply or interest rates, which are examples of _____ policy.
6. Both (4) and (5) are examples of _____.
7. GNP and unemployment are related through _____.
8. A time of high economic growth is called _____.
9. Times of economic weakness and contractions are termed _____.
10. The first half of the text is devoted to the study of _____.

TRUE-FALSE QUESTIONS

- | | | |
|---|---|--|
| T | F | 1. GNP growth and increases in the unemployment rate are positively related. |
| T | F | 2. In the first half of the text, prices are taken as being given. |
| T | F | 3. Chapter 1 is a "trees" chapter. |