

## A MORE ECONOMICAL APPROACH TO TEACHING ECONOMICS:

### ADOPTION OF A REFERENCE BOOKLET IN ECON 111

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During 2006, based on the general direction given President Clark to lower the overall cost of education, I decided to pursue the use of alternative text material. The current text used by our department (*Economics*, McConnell & Brue, 16<sup>th</sup> Edition) costs students about \$140 new, and it was selling for \$84 used at the bookstore during Fall semester 2006. However, there have been a variety of four-page, quick reference guides on macro- and microeconomics principles produced by various authors and publishers. On a trip to New York City last summer, I visited the Pace University bookstore where I found three such guides. As I reviewed them, I found none completely satisfactory. Each covered some topics well, but lacked in other topics. Nevertheless, I purchased all three guides for macroeconomics and three more guides for microeconomics.

Before I went to New York, several faculty members had made me aware of a 390-page soft-covered, generic student study guide containing hundreds of multiple-choice, true-false, and short essay questions and answers relating to both macroeconomic and microeconomic topics. This study guide (*Schaum's Outline of Principles of Economics*, Salvatore & Diulio, 2nd Edition<sup>1</sup>) sells for about \$18 retail.

### COURSE DEVELOPMENT

Consequently I decided to consolidate the three study guides with my own lecture material to develop a booklet on macroeconomic principles as covered in Econ 111. Since most of the students in this course are not economics majors, I wanted a text that would help focus them on core economic principles and on how such principles apply to their lives. Once the students understand the core, I can help “enlarge” their understanding through examples, experiments, lab exercises, case studies, and applications. The reference guides were very useful in helping me organize the material for this purpose, but my own knowledge and lectures formed the foundation for the booklet information, as well as for all of the “enlarging” activities that correspond to the twelve main topics covered in the course (see Appendix 1). All of these topics are covered in all leading textbooks today. Moreover, all of the data, tables, historical information, graphs, and pictures were either taken from government or publicly-available, non-copyrighted sources, or else developed by me. A

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sample topic from the booklet is attached as Appendix 2. I estimate that the development of the booklet required about 50 hours on my part.

The course evolved with the following material:

1. Course Outline—sets the rules for and expectations of the students, lists the topics to be covered, and shows students how to obtain additional study resources if necessary. The course outline also shows students the exact pages in the booklet that apply to the respective topics and the corresponding chapters on which to focus in the Schaum’s study guide.
2. Macroeconomics booklet—covers twelve topics, with each topic spanning one to three pages. When fully printed, the booklet totals 18 pages. Each topic is covered as a distinct section so students can print the topic and take notes directly on the pages. Each topic also includes a list of related handouts and PowerPoint slides (see #5 below). All of the key terms in the booklet are highlighted so that students who seek additional study of these terms can perform a Google or Wikipedia search and find significant additional information from the Internet. Moreover, I also have placed on reserve in the McKay Library, nine regular textbooks from different authors to provide the same information in hard copy.
3. *Schaum’s Outline of Principles of Economics*—provides the applications or “practice” of economics, through self-study and discovery.
4. Websites of Interest—lists URL’s that are demonstrated in class and points students to data sources for future reference or research.
5. Handouts & PowerPoint files—some of my lectures include handouts or PowerPoint slides that I make available before the lecture so that students can print them and take notes directly on the pages.

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At the beginning of the semester, I make all of this material freely available on Blackboard. However, I strongly suggest to students that it be printed in color, since many of the graphics displayed in the booklet are color-coded. I also suggest that students print all of the material and place it in a one-inch, three-ring binder, which they then bring to class for the remainder of the semester. Color printing of all of the material should cost students about \$15.

## RESULTS

### *From a Teacher’s Perspective*

I used this combination of teaching materials in all five sections of Econ III Macroeconomics during Fall semester 2006. All of my lectures, homework, quizzes, midterm, and final exam were exactly the same as those I used in teaching Econ III during the preceding semester. The only

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material difference was the use of the booklet and *Schaum's Outline*. I noticed several differences in Fall semester classes almost immediately:

- Attendance during my lectures was higher than during the Summer semester. I don't have any official reports, but when I mentioned to students in the fall semester that I thought attendance was higher than it had been for previous semesters, some students responded that they felt an obligation to come to class and participate in the lecture since they could no longer rely on simply reading a book.
- Very soon after the course started, I noticed that many students formed study teams on their own. I have always encouraged that, but I think students quickly saw the benefit of study partners in order to better assimilate the lecture material. I estimate that about 60 percent of the students formed themselves into study groups.
- Class participation levels also rose somewhat as students sought additional and deeper levels of understanding.

#### *From Students' Perspectives*

At the end of the semester, I asked students what they thought about the approach to the course, the use of the instructional materials, and the relevance of these materials to the overall course. Their responses were as follows:

- Virtually all students thought that the booklet helped them focus on the core principles and noted that this was an extremely useful approach to understanding fairly rigorous economics. They mentioned that their friends in other economics classes using a regular textbook felt that lots of superfluous reading was required in order to find the core principles.
- Virtually all of the students indicated they used the *Schaum's Outline* study guide extensively and found it very helpful in solidifying the concepts discussed in the course and in the booklet.
- A number of students also mentioned that while they appreciated this approach, it did require them to take additional steps on their own to fully learn the material. Such remarks indicate to me that the students were perhaps taking more responsibility for their own learning.

#### *From a Testing Perspective*

As mentioned above, the only difference in teaching this course from the summer semester to the fall semester was the use of the booklet and *Schaum's Outline*. Consequently, I can make some general comparisons regarding performance during the two semesters:

- Average score on the midterm exam (all students, all sections) improved by 5.7% from summer to the fall.

- Average score on the final exam (all students, all sections) improved by 9.5% from summer to fall.
- Average overall, weighted score (all students, all sections) improved by 8.3% from summer to fall, indicating that the fall students also performed better on quizzes and homework than the summer students.

*From a Cost Perspective*

Finally, I estimate that the total per student cost of materials for this class is about \$35, given the expense for *Schaum's Outline*, and the printing of the booklet and other material. During the Fall 2006 semester, there were 227 students in my sections. If the average price of the regular textbook in that semester was \$112, then I estimate the total savings to students from this effort amounted to approximately \$17,500.

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CONCLUSION: ECONOMY WORKS IN ECONOMICS

The Economics Department has decided to adopt this method for use in all principles courses (Econ 111 Macroeconomics, and Econ 112 Microeconomics) beginning in the Fall 2007 semester, and I am currently in the process of drafting the new booklet that will be used for the Econ 112 courses. All of these materials (the booklet, PowerPoint slides, and handouts) will be made available to faculty, who are then free to modify them as they see fit and to build their own lectures and teaching around them.

The department also is pursuing an arrangement with Addison-Wesley Publishing, so that both faculty and students can access additional resource materials, video clips, case studies, and textual information—for a minimal subscription fee. Such an arrangement will allow faculty access to up-to-date “enhancement” material without being tied to a particular text.

While I believe this approach could successfully be implemented in a number of different courses and disciplines, it is probably simpler to implement in the 100-200 level introductory courses. Nevertheless, I think this approach could be employed for my upper-division Econ 453, Money & Banking, class without much greater effort than for the introductory course. While the concepts are more difficult and theoretical, this is still the type of course where numerous textbook authors discuss the *same* concepts and theories. Often, such authors and their textbooks only differentiate themselves by their examples or inclusion of the most recently released data. Consequently, most of the material is widely known in academic circles and is publicly available. Most likely I will develop such material for this upper-division course over the next year.

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This method, however, may be somewhat impractical for upper-division courses, which expose students to multiple authors, opinions, controversy, and debate. For example, in my Econ 430, History of Economic Thought, class, I want students to consider multiple opinions from various authors about socio-economic issues and the development of economic theories. Consequently, three different books are used in that course to present a diversity of opinion. Students typically pay about \$150 for those three books.

I feel this approach has been very successful in both reducing the cost of education and improving student learning and involvement in all aspects of the class. ☺

#### NOTE

1. *Schaum's Outlines*, published by McGraw-Hill, are readily available for many disciplines ranging from Chinese Grammar to Calculus and can be found by a simple Google search.

## APPENDIX 1

### TOPICS COVERED IN THE ECON III MACROECONOMICS BOOKLET\*

Topic 1	Introduction to economics, tools of analysis, history of thought–B1, S1
Topic 2	Production possibility curves, efficiency, & circular flow model–B2, S2
Topic 3	Supply and demand basics, market equilibrium, & applications–B3-4, S3
Topic 4	Overview of the U.S. economy–B5
Topic 5	National income accounting–B6, S5
Topic 6 Exam #1	Growth, business cycles, & economic indicators–B7-8, S4-5
Topic 7	The aggregate expenditures model and multipliers–B9-10, S6-7
Topic 8	The aggregate demand and supply model–B11-12, S5
Topic 9	Perspectives on fiscal policy–B13, S8 & S12
Topic 10	Money/financial markets, money creation/money multiplier–B14-15, S9-10
Topic 11	The Federal Reserve & monetary policy–B16-17, S11
Topic 12 (time permitting)	The U.S. as a global player & international trade/exchange rates–B18, S23
Final Exam	

\*The codes denote the page(s)/chapter(s) in the booklet/*Schaum's Outline* covering the topic (i.e., B1 means booklet, page 1, while S1 means *Schaum's Outline*, chapter 1).

## APPENDIX 2

### TOPIC 6—MEASURING ECONOMIC PERFORMANCE

#### MEASURING GROWTH

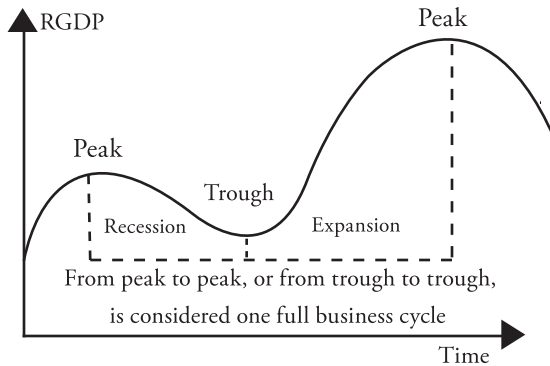
##### *GDP—Real, Nominal, & Potential*

1. Typically, economic growth is measured by finding the percentage change in Real GDP (RGDP) from one period to another. Real GDP is adjusted for inflation, and it measures what is actually produced in the economy. Nominal GDP is GDP calculated at existing prices (market values) for goods and services. The problem with nominal GDP is that prices can go up causing nominal GDP to increase, but the economy may not actually produce any greater amount of real goods and services.  $RGDP = \text{Nominal GDP} / \text{Price Index}$ . (See Price Indexes below.) Real and nominal GDP measures are calculated quarterly by the Bureau of Economic Analysis of the U.S. Department of Commerce.
2. Potential GDP is the output an economy produces when operating at its full productive capacity (i.e., its target rate of unemployment). Long run economic policy focuses on increasing the economy's potential GDP. (See Figure 9 below.)
3. Productivity is the measure of output per unit of input (i.e., orders processed per worker).
4. Increases in RGDP and productivity typically come from the greater use of capital, increases in available resources, and from technological improvements.

##### *Business Cycle*

The business cycle is represented by the fluctuations in the growth rate of RGDP. As indicated in Figure 8, when RGDP is growing the economy is in expansion mode, and when RGDP is declining, the economy tends toward a slowdown or recession.

The Business Cycle  
Figure 8



1. Peak: the highest point before a recession
2. Contraction/recession: decline in RGDP that typically lasts at least 6 months
3. Trough: the lowest point at the end of a recession and before an expansion
4. Expansion: period between the end of a recession and the next peak
5. Recovery: the beginning of the economic expansion
6. Depression: very long and deep recession

## MEASURING PRICE LEVELS

### *Price Indexes*

**Price Index:** A price index can be constructed by dividing the average level of prices in any given period by the average level of prices in a base time period. It is most often reported as the cost of a fixed set of goods/services (market basket of goods/services) as a percentage of the base period cost for the same market basket. The price index level for the base year is usually set at 100. The price level in other years then shows changes in the price level since the base year. For example, a price index level of 110 for any given year indicates that prices have risen 10 percent since the base year. There are a number of different price indexes used in economic analysis. They differ because they contain a different composition in their market baskets. The most common price indexes are:

1. Consumer Price Index (CPI): a measure of changes in the average price of a fixed basket of consumer goods, representing the average consumer's expenditures.
2. Producer Price Index (PPI): uses a basket of goods common to industrial production. It measures the prices received by producers

for their goods as well as the prices of their raw materials and intermediate goods.

3. GDP Deflator: a measure of changes in the average price of all goods and services. It is calculated by dividing nominal GDP by real GDP and does not use a fixed basket of goods and services, but rather adjusts to people's consumption and investment decisions. It is used mostly for empirical research.

The Consumer Price Index and the Producer Price Index are calculated monthly by the Bureau of Labor Statistics of the U.S. Department of Labor.

### *Inflation*

**Inflation:** the continuing increase in the average level of prices of goods and services over time. Inflation leads to continuing uncertainty, speculation, and non-productive investments.

**Deflation:** the continuing decrease in the average level of prices of goods and services (negative inflation rate) over time.

**Disinflation:** a falling inflation rate. Note that prices are still increasing, but at a decreasing rate.

The inflation rate between two time periods is given as

$$100 \times \frac{\text{Price Index Level}_{\text{period 2}} - \text{Price Index Level}_{\text{period 1}}}{\text{Price Index Level}_{\text{period 1}}}$$

Types of Inflation:

1. Cost-push: increases in labor and/or non-labor costs lead to price increases.
2. Demand-pull: increases in the price level result from excessive aggregate demand, usually caused by excessive total spending and/or the issuance of too much money by the central bank.

## MEASURING UNEMPLOYMENT

### *Unemployment*

1. The unemployment rate is the ratio of individuals without jobs to the number of people in the labor force.
2. The labor force consists of those people in the economy who are over 16, not in the armed forces, and who are willing and able to work.
3. An unemployed person is defined as someone in the labor force who is not working but is looking for work. With these definitions, the unemployment rate is given as:

$$\left[ \frac{\text{Number of people unemployed}}{\text{Labor force}} \right] \times 100$$

*Types of Unemployment:*

1. Frictional: unemployment caused by new entrants into the job market and people quitting a job just long enough to look for and find another one. Seasonal unemployment (unemployment during periods between agricultural seasons, tourist seasons, school breaks, etc.) is a form of frictional unemployment.
2. Structural: unemployment typically caused by the institutional restructuring of an economy. Changes in demand or technology over time alter the demand for various labor skills, making some jobs obsolete.
3. Cyclical: unemployment resulting from fluctuations in aggregate economic activity (i.e., changes in the business cycle—cyclical unemployment goes up during a recession and goes down during an expansion).

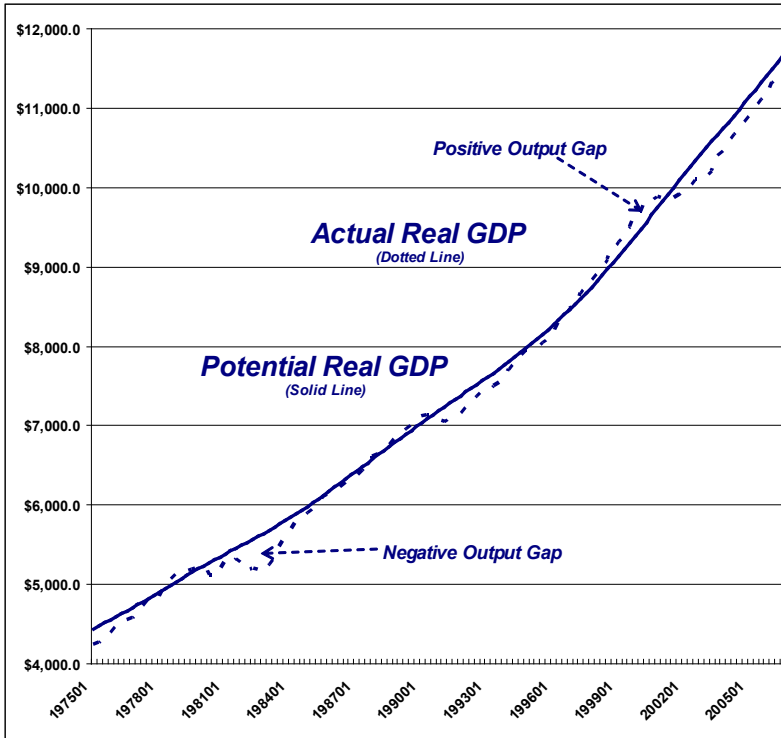
*Consequences/Issues of Unemployment:*

The Employment Act of 1946 assigns to the U.S. government the responsibility of creating full employment.

1. Target rate of unemployment is the lowest sustainable rate of unemployment that can be achieved with existing population demographics and institutional structures, and without creating accelerating inflation. Most economists in the U.S. place this level currently between 4 and 5 percent. Potential GDP is the real output that is possible when the economy achieves its natural rate of unemployment.
2. Unemployment is related to economic output. *Okun's Law* suggests that a 1 percent increase in the unemployment rate reduces real GDP by 2 percent. As shown in Figure 9, a negative output gap exists when the economy fails to produce enough jobs for all those willing and able to work. As a result, the potential output of goods and services is not achieved. A positive output gap exists if the economy operates above its potential; however, that generally results in unacceptably high inflation rates.
3. The unemployment rate does not account for those who are “underemployed”—those who are working part-time who would like to work full time, or those who are employed at jobs below their capability. Both of these situations count the same as a person with a full-time job.
4. The unemployment rate does not account for those who are discouraged workers—people who have given up looking for jobs.

5. There are significant differences in unemployment rates relating to minorities and women, when compared with whites and males.

Real and Potential GDP  
Figure 9



Handouts or slides to be used with this topic, all of which can be obtained on Blackboard:

1. Handout #4—Duration of Business Cycles.
2. U.S. Business Cycles.
3. Unemployment by Country, Real and Potential GDP, & *Okun's Law*.