

ECON 525
Global Macroeconomic Analysis
Andrews University Portland MBA Program
6:30-9:30 p.m. Monday-Thursday
9:00-12:00 p.m. and 1:00-4:00 p.m. Sunday
August 10-24, 2008

Instructor: David Beckworth, Ph.D.

Email: dmb@andrews.edu

Course Description

The course is an introduction to global macroeconomics. Within the context of competing economic theories, the course considers domestic policies, international trade and payment issues, economic growth, international institutions and the spread of regional economic crises, and the impact of stabilization policies. Spreadsheet analysis is required.

Course Objectives

The goal of this course is to expose you to some of the economic tools necessary to become an economic analyst. Many firms today have analysts who follow specific economies throughout world in order that the firms might make better decisions. For example, Wal-Mart might be interested to know how changes in Mexico's tax policy could influence the Mexican economy and ultimately its investment in Mexico or, a pension fund manager might want to know whether investing in Japan securities is wise choice given the sluggish growth in recent years. Country analysts need a solid grasp of macroeconomics and an understanding of how current developments—economic, social, political—can affect the economy. This course will give you the opportunity to develop some of the necessary tools. Tools you will develop in this course are as follows:

- An increased understanding of economic theory
- An ability to use the data for analysis and interpretation.

Development of the first tool will be the focus of most class time. The latter tool will primarily be developed through a series of problem sets. Together, you should begin to get a better grasp of macroeconomics and be able to apply it to real world situations.

Course Prerequisites

Principles of Macroeconomics is required for this course, **no exceptions**. If you have not had this course you cannot take this course. Also, there is an expectation you have basic algebra skills and are comfortable using excel. Since I assume you have these skills we will not spend time in class covering them.

Course Materials

The assigned textbook is *Macroeconomics and the Global Business Environment* by David Miles and Andrew Scott, 2nd edition (ISBN 0471644552). Additionally, two trade books will be read for the class: (1) *And the Money Kept Rolling In (And Out)* by Paul Blustein (ISBN 1586482459) and (2) *The Trillion Dollar Meltdown* by Charles Morris (ISBN 1586485636). All of these books are available from Amazon.

Course Requirements

The course requirements consist of the following items: (1) two exams, (2) a book review of *And the Money Kept Rolling In (And Out)*, (3) a book review of *The Trillion Dollar Meltdown*, and (4) a problem set. The weights given for the above requirements and the letter grade breakdown are as follows:

<u>Point Distribution</u>		<u>Letter Grades</u>	
Book Report I	10 points	A 94-100	C 74-76
Book Report II	10 points	A- 90-93	C- 70-73
Problem Set	20 points	B+ 87-89	D 60-69
Exam I	30 points	B 84-86	F 0-59
<u>Exam II</u>	<u>30 points</u>	B- 80-83	C+ 77-79
<u>Total</u>	<u>100 points</u>		

Book Reviews

And the Money Kept Rolling In (And Out) tells the story of the financial meltdown in Argentina in 2001. *The Trillion Dollar Meltdown* chronicles the origins of the current financial crisis. The book reviews should have a (1) 3-4 page summary section and a (2) 1-2 page critical response section. Each section should be clearly marked with a heading. The book reviews should be typed, double spaced, and turned in on time. Each day the reviews are late will lead to a 15% reduction of total points earned. As noted below, the first book review is due the first day of class. The second book is due the last class before the final exam.

Problem Set

There is a problem set to complete for the course. The problem set will require extensive use of Excel and data collection from the internet. The problem set is to help strengthen your ability as an analyst and are not so much practice exercises as they are applied exercises. If you want practice exercises do the questions at the end of each chapter and go online for review material. The problem set is due a week after class as noted below. The problem set should be turned as if you are given it as a report to your boss—it should look professional. Consequently, avoid sloppy writing, unclear graphs (clearly label what you are graphing), and tables that are larger than one page.

Exams

Your exams will be a series of multiple choice and essay questions covering material from the class. The second exam is not cumulative.

Academic Honesty

Andrews University, as a Seventh-day Adventist institution, expects students to demonstrate the ability to think clearly and exhibit moral integrity in every sphere of life. Honesty in all academic matters is a vital component of personal integrity. Breaches in academic integrity principles are taken seriously by the university and are subject to the disciplinary penalties as found in the *University Bulletin*. Such acts are tracked and reported by the office of the Vice President for Academic Administration. Repeated offenders will be referred to the Committee on Academic Integrity for further recommendations on penalties. Anyone found cheating on a test will be given an “F” on that test. Also, please note that all electronic equipment other than a calculator is banned during a test.

Important Course Dates	
Date	Event
August 10	Book Report I Due
August 17	Exam I (9:00am-12:00pm)
August 22	Book Report II Due
August 24	Exam II (1pm-4pm)
August 31	Problem Set Due

Course Outline & Projected Dates

TC = Textbook Chapter,

DA = Discussion Article

I. The Basics

Sunday, 8/10

- A. Market Economy Overview ([lecture slides](#))
Required Readings: Property Rights [Hernando De Soto](#) DA [Prices and Natural Disasters](#)
- B. Macroeconomic Basics ([lecture slides](#))
Required Readings: TC 1, 2
- C. Discuss Book: *And the Money Kept Rolling in (And Out)*

II. Long-Run Analysis

Monday, 8/11

- A. Economic Growth ([lecture slides](#))
Required Readings: TC 3; DA [Chasing the Leader](#), [Relative Wealth](#)
- B. Capital and Technology ([lecture slides](#))
Required Readings: TC 4, 5;

III. Short-Run Analysis

Tuesday, 8/12

- A. Labor Markets ([Lecture Slides](#))
Required Readings: TC 7
- B. Consumption ([Lecture Slides](#))
Required Readings: TC 12

Wednesday, 8/13

- C. Fiscal Policy ([Lecture Slides](#))
Required Readings: TC 10
- D. Money & Prices ([Lecture Slides](#))
Required Readings: TC 11

Thursday, 8/14

- E. Monetary Policy ([Lecture Slides](#))
Required Readings: TC 15
- F. Business Cycles ([Lecture Slides](#))

Sunday, 8/17

- G. Stabilization Policy ([Lecture Slides](#))
Required Readings: TC 14
- H. Yield Curve Analysis
Required Readings: TC 18 [Summary](#)

IV. Short-Run Analysis: Open Economy Issues

Monday, 8/18

- A. International Trade ([Lecture Slides](#))
Required Readings: TC 8;
- B. Balance of Payments Accounting & Identities ([Lecture Slides](#))
Required Readings: TC 19

Tuesday, 8/19

- C. Exchange Rates I ([Lecture Slides](#))
Required Readings: TC 19, 20; Big Mac Index [Dutch Disease](#)

Wednesday, 8/20

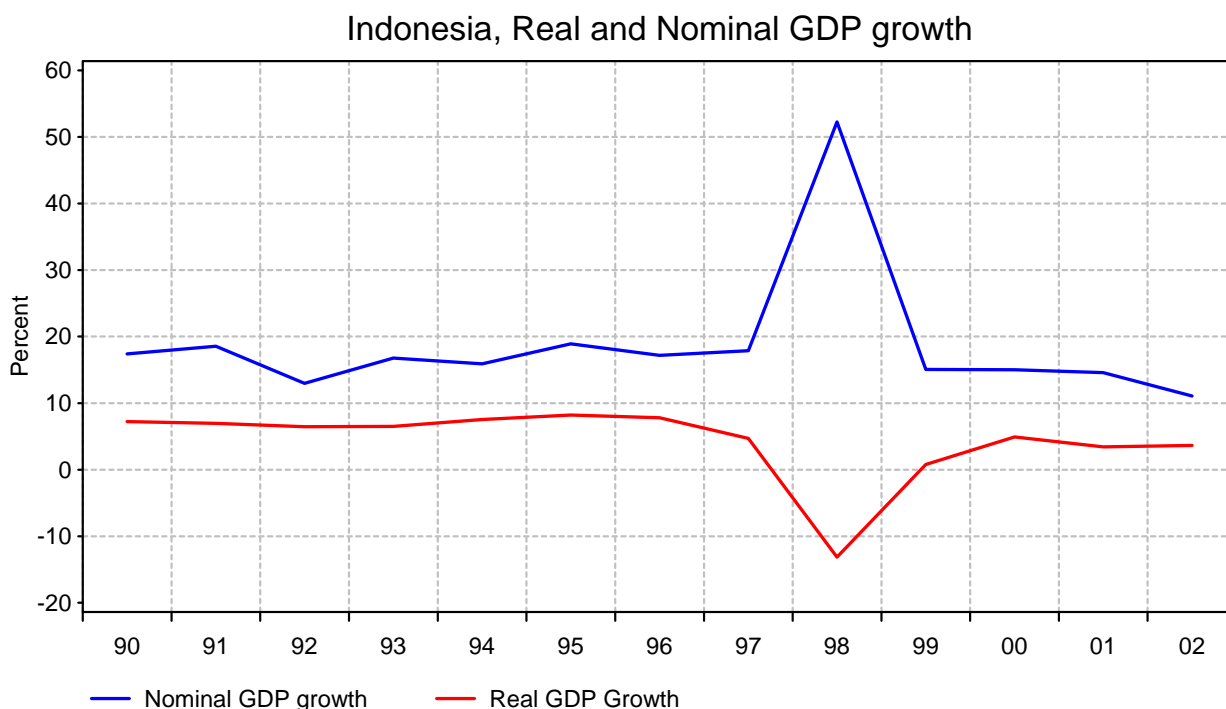
- D. Exchange Rates II ([Lecture Slides](#))
Required Readings: TC 21;
- E. Currency Crisis
Required Readings: TC 21

Thursday, 8/21

- F. Making Sense of the Current Financial Crisis
Required Readings: Trillion Dollar Meltdown
- G. Review/Book Discussion

Problem Set
Global Macroeconomics
August 2008

1. According to our discussion on the importance of the price signal for the market economy, should price controls be enacted during disasters? Could there be any adverse consequences to price controls during disasters? Explain your answer.
2. Explain the following graph:



3. Using the [United Nations National Accounts database](#) and using GDP at constant prices (i.e. real GDP), U.S. dollars, calculate and interpret the following:
 - (1) The annual real GDP growth rates of the *world*, the *advanced nations* (use the G7: U.S. Canada, France, Germany, Italy, United Kingdom, Japan), and the *rest of the world* for the 1995-2006 period. The rest of the world aggregate can be calculated by subtracting the advanced nations GDP from the world GDP.
 - (2) The contribution each of the above two regions made to world growth for the years covering 1995-2006. The contributions for each region should add up to the world's growth rate. Effectively, you are finding how much of the overall world growth can be attributed to each region. Contributions can be calculated by taking the weight of each region's GDP as % of the world GDP for the previous year times the current year growth rate of the region's GDP. For example, to calculate the advanced nations contribution to world GDP in 2003, do the following (using constant dollar GDP):

$$\frac{\text{Advanced Nations } GDP_{2002}}{\text{World } GDP_{2002}} \times \text{Growth Rate of Advanced Nations } GDP_{2003}$$

4. Calculate and interpret the contributions to growth from the real expenditure categories (i.e. $GDP = C+I+G+NX$) for both China and the U.S. for the years covering the 1995-2006 period. The constant dollar expenditure accounts for both countries can be found at the [United Nations National Accounts database](#). Here, C = household consumption expenditure, I = Gross Capital Formation, and G = Gross Government Final Expenditure, and NX is self explanatory. (Note, the individual expenditure categories don't add up

exactly to the listed total real GDP. Consequently, in your calculations use the real GDP that results from adding up the individual expenditure categories)

5. Your textbook on page 43 gives us the following equation,

$$\frac{GDP}{Population} = \frac{GDP}{Hours\ Worked} \times \frac{Hours\ Worked}{Employment} \times \frac{Employment}{Labor\ Force} \times \frac{Labor\ Force}{Population},$$

which can be reduced to

$$\frac{GDP}{Population} = \frac{GDP}{Employment} \times \frac{Employment}{Population}.$$

This reduced-form equation tells us that GDP per capita is equal to labor productivity (GDP/employment) times the share of the population that is employed. This reduced-form equation shows that either a country must (1) increase labor productivity or (2) have a larger percent of the population working to get a higher per capita GDP. Which of these two factors can a country increase without end? Why?

Now use data from <http://research.stlouisfed.org/fred2/> to see what has actually happened based upon the reduced-form equation. You will need to download Real GDP, population, civilian employment: 16 years and older, and the civilian employment-population ratio beginning in 1950 to the present. GDP is provided quarterly, but civilian employment and population is provided monthly so you will need to pull out the quarterly values (i.e. March, June, September, December) for the latter two series to match the GDP data (You may also want to try www.freelunch.com which sometimes provides quarterly values). Create the three series that make up the reduced-form equation (2) from this data and then graph them. What appears to explain more of the movement in GDP per capita?

6. Use the growth accounting method to determine the role capital, labor, and total factor productivity (TFP) played in U.S. economic growth from 1987 to 2006. Table 1.1 *Fixed Assets and Consumer Durables* from the [BEA](#) will provides a measure of the capital stock (use fixed assets) and the [BLS](#) provides the total civilian labor force over 16 years for use as the labor input. Calculate the contribution each input and TFP made to the annual growth rate over the 1987-2006 period. After calculating the yearly values, take the average capital, labor, and TFP contribution for 1987-1994 and for 1995-2006. Is there any big difference?
7. Go to U.S. Bureau of Labor Statistics and find the [international data section](#). Download annual data from 1970 to the present of the (1) the labor force participation rate and (2) the unemployment rate. Select the following countries: the U.S., U.K., Germany (note, you will need to combine Germany and W. Germany series), Italy, and France. Now in one graph, show all the unemployment rates and in another graph show all the labor force participation rates. Based on these graphs answer the following questions: What has happened to unemployment in the United States relative to the other countries? How do the labor participation rate vary among countries
8. At the [WEO database](#), download (1) the gross domestic product, constant prices, annual percent change and (2) the trade volume of goods and services, annual percent change for the world economy for 1980-2006. Now graph these two series together. Is one series growing faster than the other? What does this result imply about the world economy?
9. Using the [WEO](#) database, select the regions *Newly Industrializing Asian Economies* and *Developing Asia*. Next, select (1) gross national savings as a percent of GDP and (2) investment as a percent of GDP for these two regions for the years 1995-2004. Subtract the investment series from the saving series for both regions and then graph the results. What do you see and how do you explain it? (If there is excess savings, where is it going?)

10. Go to the St. Louis Federal Reserve [data website \(FRED II\)](#) and look under the GDP link for (1) real GDP and (2) real potential GDP. Download quarterly data for both series over the 1990 – 2005 period. First, graph these two series together. Second, calculate the annualized growth rate for each quarter for the two series and then derive the output gap (potential GDP growth rate minus actual GDP growth rate). Identify any major deviations from potential growth. Do any of these deviations correspond to what you know about the U.S. economy (i.e. are there major deviations during recessions?)
11. The U.S. yield curve attracted a lot of attention leading up to the current financial crisis. Create your own yield curve using U.S. Treasury securities' data from <http://www.treas.gov/offices/domestic-finance/debt-management/interest-rate/yield.html>. Specifically create yield curves: (1) one for the end of June 2004, when the Federal Reserve started its monetary policy tightening; (2) one for the end of December 2004; (3) one for the end of December 2005; and (4) one for the end of December 2006. Did the yield curve correctly predict the economic crisis that began in late 2007?
12. Many economists believe the dollar was highly overvalued going into the current financial crisis. Using the Federal Reserve Board's [data](#), graph both the (1) broad real effective exchange rate and the (2) major currencies real effective exchange rate for the U.S. dollar on a monthly basis beginning in January 1973. When has the dollar appeared to be overvalued?
13. The current account balance of the United States has received a lot of attention lately. Using the [WEO](#) database, download and sum the dollar value of the current account balance for the following groupings: (1) Developing Asia, Newly Industrializing Asia, and Japan; (2) Western Hemisphere and Canada; (3) Africa and the Middle East; (4) EU; (5) Commonwealth of Independent States and Mongolia; and (6) the United States. Also download the dollar value of world GDP. Download both series over the period 1990 – 2005. Now take the current account balances for each group and divide it by world GDP. Graph all the series. How does the U.S. current account look relative to the other regions of the world?