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National Taiwan University	Course: ECON2004

#### Macroeconomics

## Course Description

The following figure shows per capita GDP for the United States, which is one of the most intriguing graphs of macroeconomics. It will also serve as an organizing device for our course.



#### Per Capita GDP in the United States, 1870-2004

Sources: Maddison, The World Economy (see Figure 1.1); U.S. Department of Commerce, Bureau of Economic Analysis. The solid line shows actual per capita GDP in the United States. The dashed line, which is hard to distinguish from the solid line, shows potential output. The difference between actual and potential output is a measure of short-run fluctuations in GDP.

In this figure two lines are plotted:

- (i) the solid line is **actual** per capita GDP;
- (ii) the dashed line is potential output, measured by the way per capital GDP would evolve if prices are completely flexible (and hence clear all markets in

the economy) and **resources are fully employed** (and hence all inputs are utilized at their long-run, sustainable levels).

Potential output refers to a **long-run trend**. The most impressive feature of this figure is the enormous increase in standards of living over the years, i.e. an upward trend. The second important feature of the figure is that actual output deviates from potential output. The rise and fall of the **deviations** are called "economic fluctuations" or "business cycles." Business cycles are *temporary* and exist in the **short run** – whether in an expansion or a recession, output is eventually expected to return to its trend level. The so-called short run is defined to be length of time over which these deviations occur.

These two important features of the figure parallel the two main parts of our course, namely the long-run analysis and short-run analysis.

### (A) The Long-Run Analysis:

The long-run analysis is concerned with economic growth and the determinants of the macro-economy in the long run. Given that you have preliminary understanding to economic growth, I am planning to

- (i) provide a comprehensive review of economic growth;
- (ii) investigate why per capita GDP varies so much across countries, focusing on differences in (physical and human) capital accumulation and total factor productivity. We also investigate what we can learn from the Asian miracle.
- (iii) develop endogenous growth models and use them to explain growth convergence and poverty traps (poor regions not only grow more slowly than wealthier regions, but also remain poor in absolute terms).
- (iv) explore the long-run relationship between inflation and potential output by using the quantity theory of money.

With a particular emphasis, our approach will consist of three main steps: • describe the facts; • develop models; and •compare the predictions of the models with the original facts.

#### Textbook(s?):

Charles I. Jones (2008), Macroeconomics (指南書局), chapters 3-8.

David Miles and Andrew Scott (2005), Macroeconomics: Understanding the Wealth of Nations (滄海書局), chapters 3-7.

#### (B) The Short-Run Analysis:

The short-run analysis seeks to understand the forces that lead the economy to fluctuate over time. Our works include:

- (i) outlining the main statistical facts that characterize business cycles and assessing whether business cycle fluctuations are bad for the economy or whether they may have beneficial effects.
- (ii) investigating how a government's monetary and fiscal policies affect the business cycle fluctuations and can the government use these policies to stabilize the economy. We also ask why government spending varies across countries and analyze the rationale behind government intervention.
- (iii) exploring the role of the labor market and in turn, the unemployment problem
- (iv) discussing the Phillips curve

### Textbook(s?):

David Miles and Andrew Scott (2005), Macroeconomics: Understanding the Wealth of Nations (滄海書局), chapters 10 and 14-16.

Charles I. Jones (2008), Macroeconomics (指南書局), chapters 9, 11, and 12.

### (C) Open Economy:

Finally, because of the rise of globalization, the third part of our course will focus on the relevant issues of an open economy. Specifically, we

- (i) explore the determination of the real exchange rate and the nominal exchange rate as well as the relevant issues of international finance.
- (ii) discuss the problems of globalization.

# Textbook(s?):

David Miles and Andrew Scott (2005), Macroeconomics: Understanding the Wealth of Nations (滄海書局), chapters 9, 19 and 20. Charles I. Jones (2008), Macroeconomics (指南書局), chapter 15.

## References

總體經濟學,賴景昌著,雙葉書廊。 總體經濟學,陳明郎著,學富文化事業。

# • Grades

Grades will be given according to 30% of the midterm, 40% of the final and 30% of the problem sets you turn in. We have **no** make-up exams.