

Macroeconomics

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Chapter 1 Introduction

Section 1 Organization

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The TA

- Pan Shan
- Wang Zixiong

Organization

- 15 minutes' break
- Strictly English in class, but no language restriction after class
- Students' participation highly encouraged
- Interruption with questions is welcome, but please identify yourself if I cannot remember you
- Cell phone silent

Assessment

- Homework: 30% (6 assignments, 5% each)
- Midterm: 30%
- Final exam: 40%

Section 2 What is this course about?

Definition of Economics

- **Economics** is the social science that studies the *choices* that individuals, businesses, governments, and societies make as they cope with *scarcity* and the *incentives* that influence and reconcile those choices.

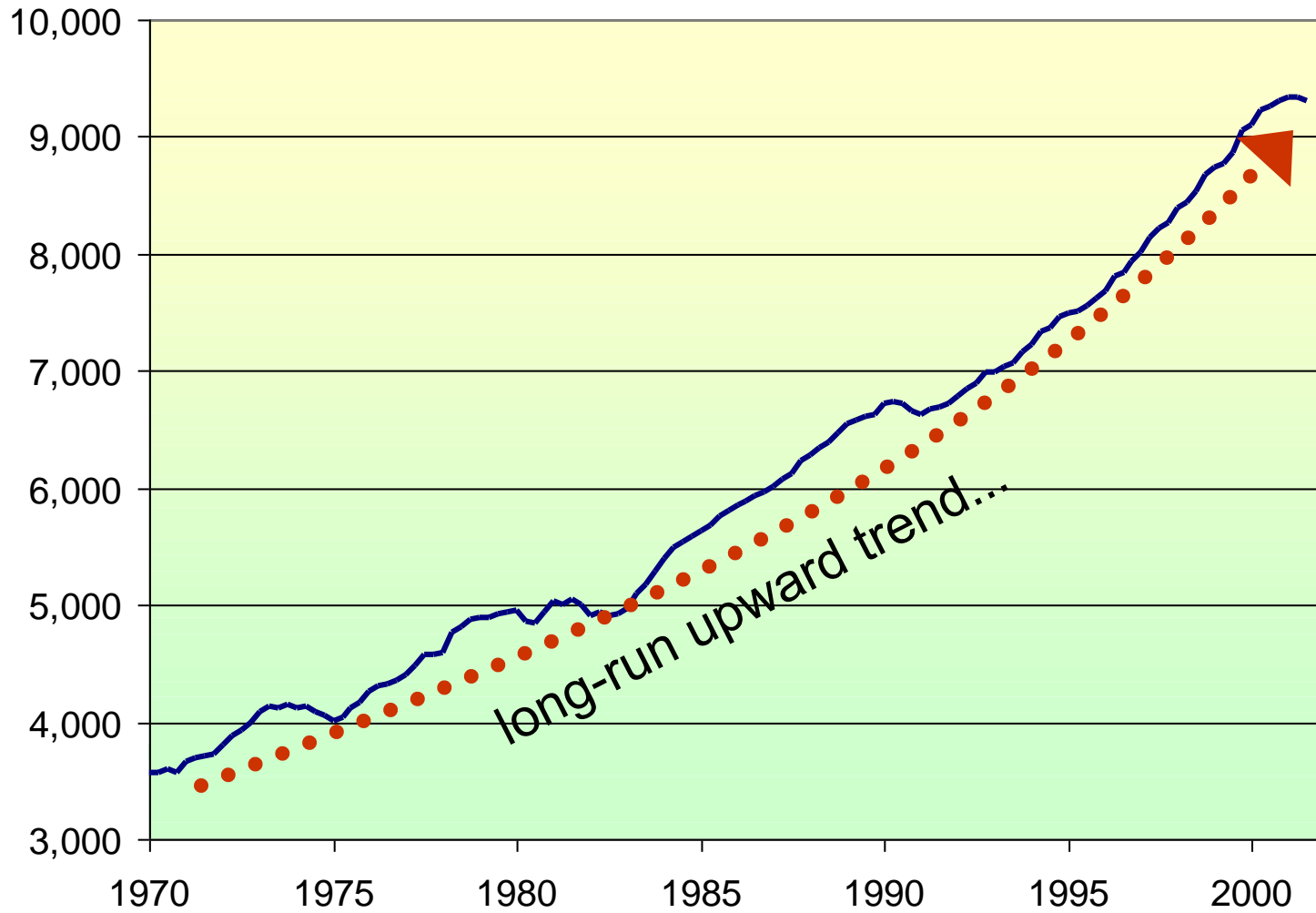
In general, economists study how agents make decisions under certain constraints.

Definition of Micro- and Macro-Economics

- Microeconomics (managerial economics)
 - **Microeconomics** is the study of choices made by individuals and businesses, and the influence of government on those choices.
- Macroeconomics
 - **Macroeconomics** studies economics as a whole, a collection of all the goods and services in an area, usually a country.
- Two major topics in macroeconomics:
 - Economic Growth: long-run trend
 - Business cycles: short-term fluctuations around trend

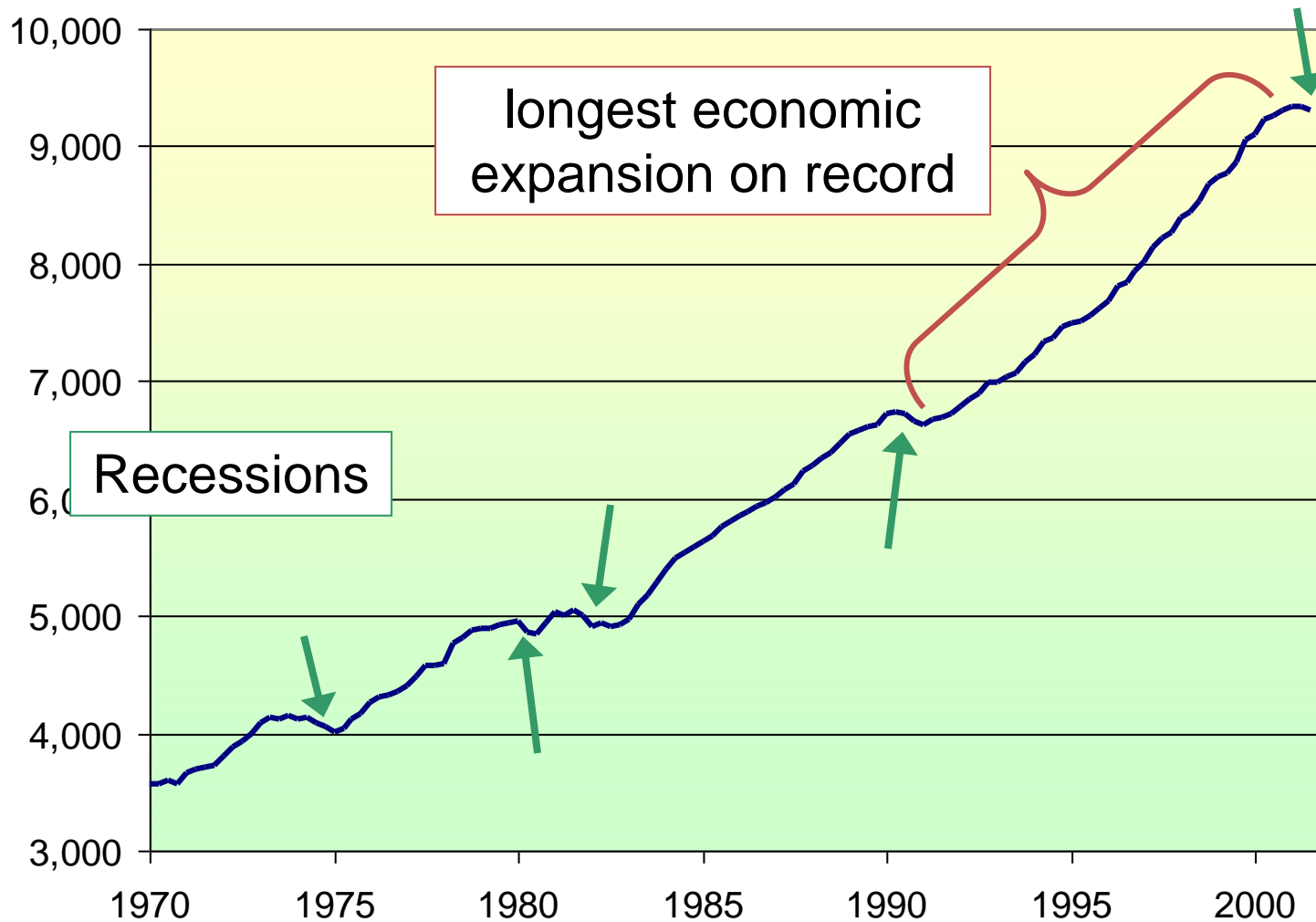
U.S. Gross Domestic Product

in billions of chained 1996 dollars



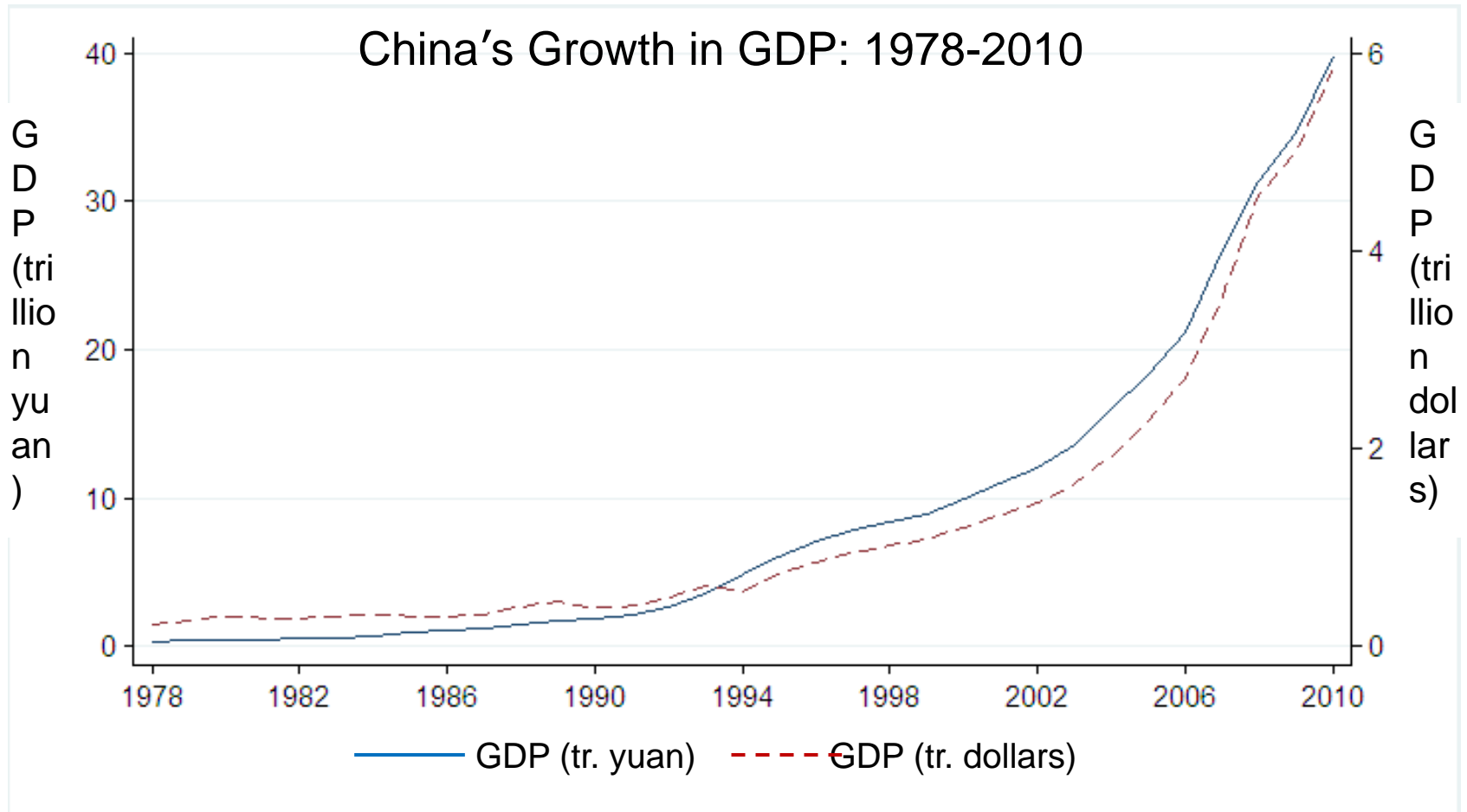
U.S. Gross Domestic Product

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Chinese Economy

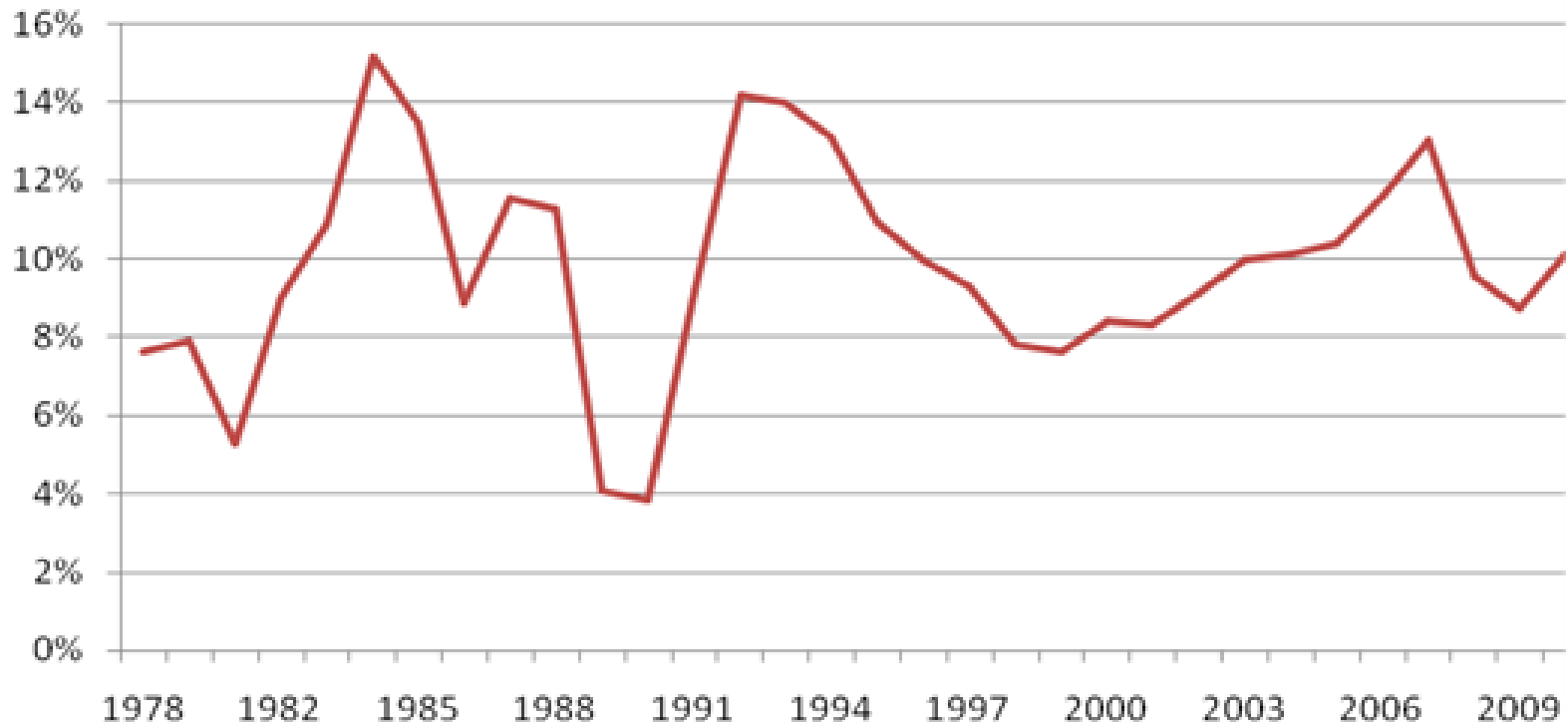
GDP 2010=\$5.9 trillion, second largest, 17 times of 1978



Fluctuations of Chinese Economy

High Speed: Average Growth Rate over 30 years= 9.8%

China's Annual Growth Rate of Real GDP: 1978-2010



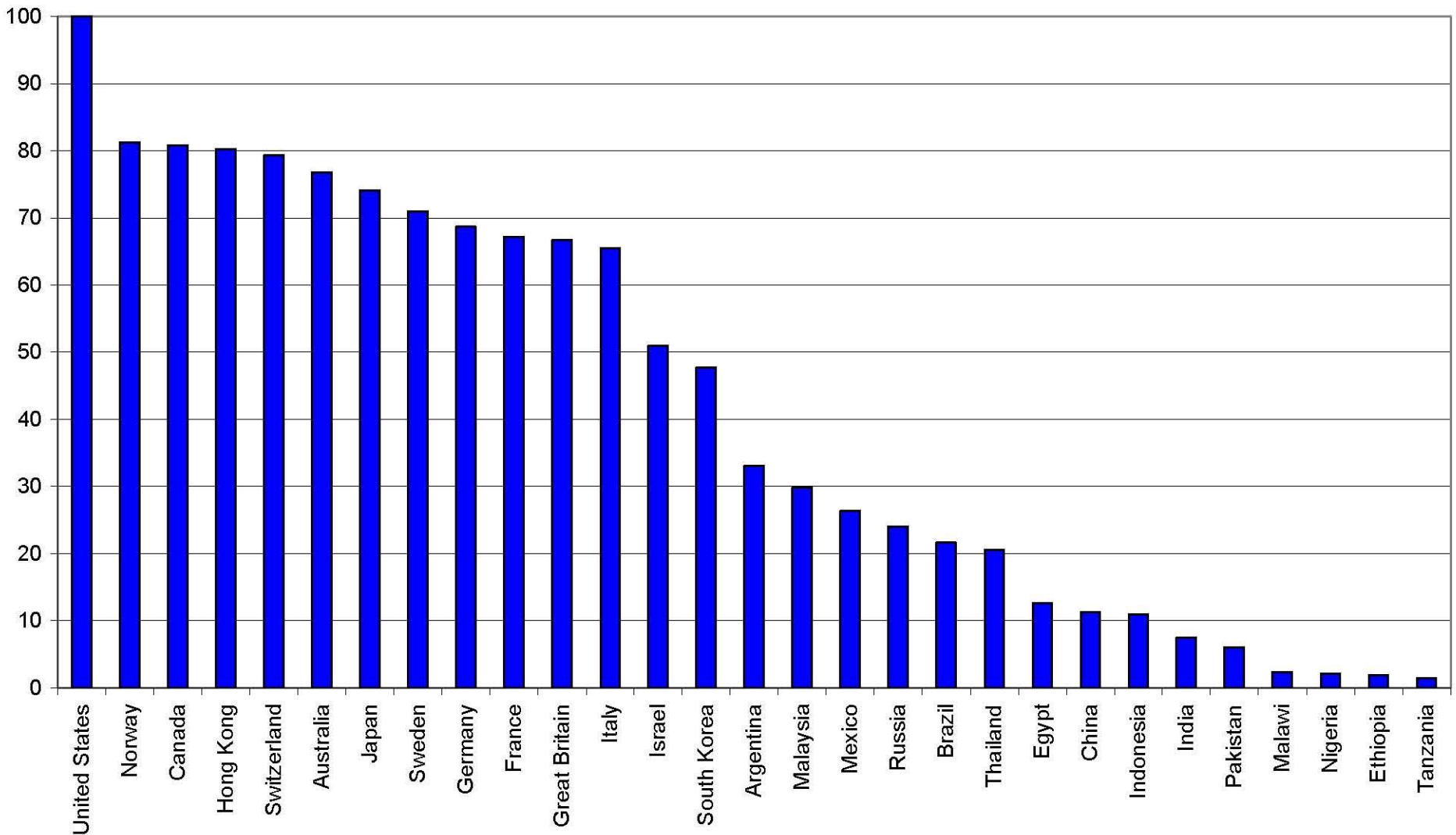
Why do we care?

- Can I find a good job after graduation?
- Why is there inflation? Why is inflation bad?
- What will be the GDP growth of China this year? Why do we care?
- What happened to US economy a few years ago? What happened to the state of California?
- Should Chinese currency appreciate?
- Is China's economic growth sustainable?
- Why GDP per capita in Shanghai is tens of times that in Guizhou?
Why GDP per capita in US is hundreds of times that in some African countries?

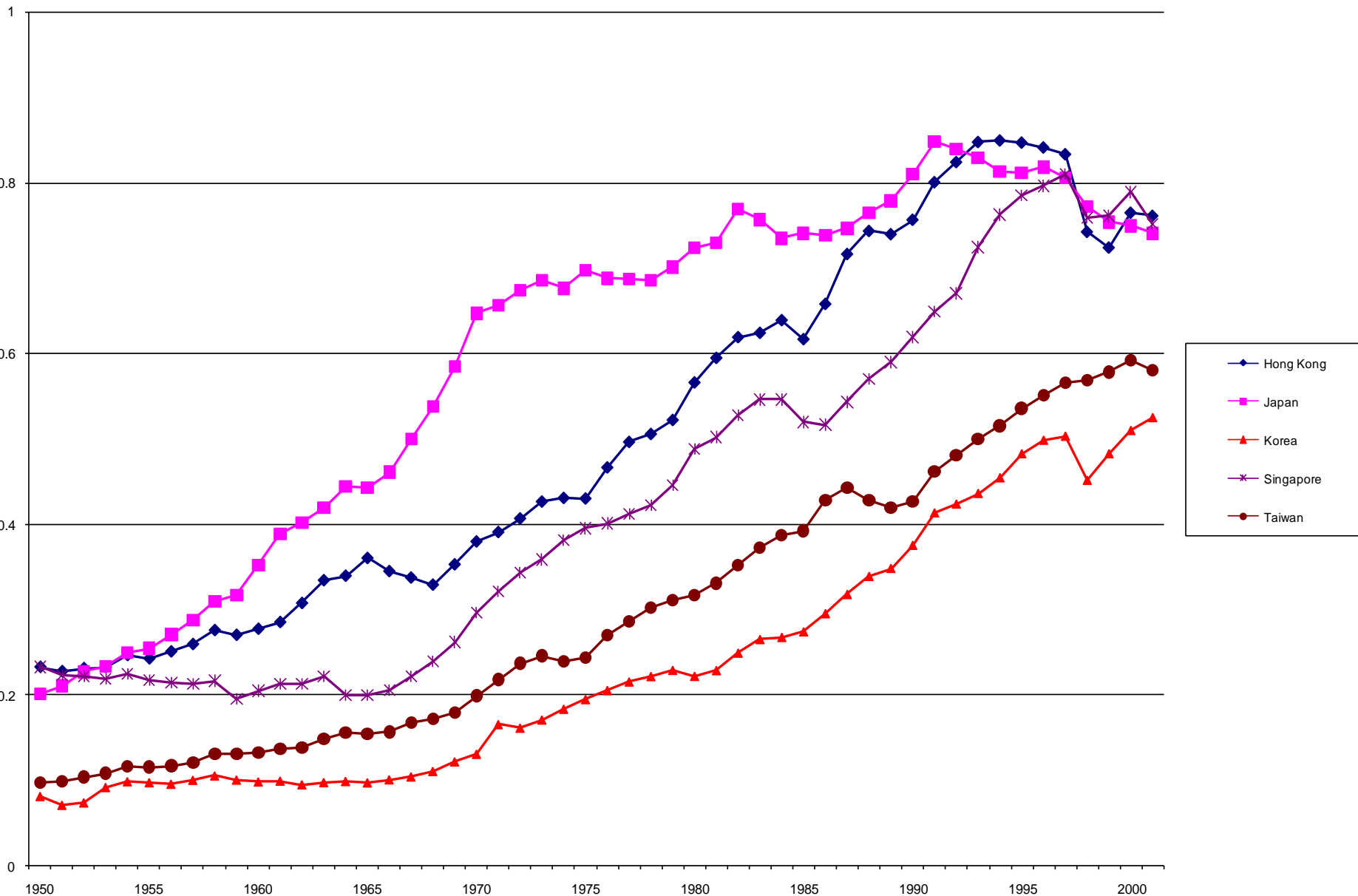
Some important issues in macroeconomics

- Why some countries so rich and others so poor?
- China miracle vs. Latin American disaster
- What causes inflation and hyperinflation?
- Why unemployment rate is high in some countries and low in others?

Relative Income Per Capita 2000



Asian GDP per capita relative to U.S.



Unemployment and social problems

Each one-point increase in the unemployment rate is associated with:

- 920 more suicides
- 650 more homicides
- 4000 more people admitted to state mental institutions
- 3300 more people sent to state prisons
- 37,000 more deaths
- increases in domestic violence and homelessness

What do we do here?

- Try to find out these facts
- Try to understand these facts
- See if we can predict the future
- If we can predict the future, can we make the future better? with macroeconomic policies?

Four Goals of Macroeconomic Policies

- Economic growth
- Full employment
- Inflation
- Balance of international payment

How do we do?

- Look data: GDP; inflation rate; unemployment rate; interest rate
- formulate an idea and build a model to explain the data

Section 3 How do economists think?

Economic models

- Economic models are simplified versions of a more complex reality. Irrelevant details are stripped away.
- For what:
 - show the relationship between economic variables
 - explain the economy's behavior
 - devise policies to improve economic performance

Two types of variables

- Endogenous variables: to be determined by model; something the economist wants to explain
- Exogenous variables: taken by the model as given
- Models try to explain how exogenous variables affect the behavior of endogenous variables

An example

- Demand as a function of price and income of consumers:
 $Q^d = D(p, Y)$
- Supply as a function of product price and price of materials:
 $Q^s = S(p, P_m)$
- Market clears with flexible prices: $Q^d = Q^s$
- Endogenous: price and quantity
- Exogenous: income and price of materials
- Given values of exogenous variables, we can solve for endogenous. There is an equilibrium given the exogenous variables
- We can therefore analyze the impact of equilibrium if we change exogenous variables (comparative static analysis)

Ten Principles Of Economic Thinking

- How do people make decisions?
 - 人们面临权衡取舍
People face tradeoffs.
 - 机会成本
The cost of something is what you give up to get it.
 - 理性的人用边际概念思考
Rational people think at the margin.
 - 人们接受激励
People respond to incentives.

TEN PRINCIPLES OF ECONOMICS

- How do people interact?
 - 交易使得每个人变好
Trade can make everyone better off.
 - 市场是组织经济活动的好方法
Markets are usually a good way to organize economic activity.
 - 政府**有时候**能够改进经济的结果
Governments can **sometimes** improve economic outcomes.

TEN PRINCIPLES OF ECONOMICS

- The Economy as a whole
 - 生活水平取决于一个国家的生产能力
The standard of living depends on a country's production.
 - 当政府印刷太多货币的时候，价格水平会上升
Prices rise when the government prints too much money.
 - 短期内，通货膨胀和失业有一个交替关系
Society faces a short-run tradeoff between inflation and unemployment.

Essence of Economics: Critical Thinking

- Critical thinking clarifies goals, examines assumptions, discerns hidden values, evaluates evidence, accomplishes actions, and assesses conclusions.
- A logical way to tackle a question: the way to analyze issues and write thesis
- A central issue is how to identify causal relations
- Critical thinking makes the process of reasoning highly rigorous; this is exactly why economic analysis dominates not only other social science disciplines, but also many natural sciences.

Challenges to Make Causal Arguments

- Reverse Causality: democracy and economic growth; infrastructure and economic growth
- Missing variables: Protestantism and economic growth
- Sample selection: rural-urban inequality; questionnaire survey studies

How to establish causality?

- Applied micro techniques:
 - Controlled experiment
 - Natural experiment
- Build models, calibrate and simulate

Outline of this course

- ***Macroeconomic Theory***
- ***Classical Theory***
How the economy works in the long run, when prices are flexible
- ***Growth Theory***
The standard of living and its growth rate over the very long run
- ***Business Cycle Theory***
How the economy works in the short run, when prices are sticky.