Macroeconomics under Financial Crisis

Lecture 1

Economic methods and economic questions;

June 27, 2016

Professor Georgios Chortareas,
SKKU-ISS 2016

Readings: ALL, Chapters 2,5,6; MB Chapters 1,2; Rodrik Chapters 1,2

Topics of today’s lecture

- Module organisation
- Key macroeconomic concepts (e.g., growth, business cycles, unemployment, inflation, the open economy, macroeconomic policy, aggregation
- The importance of open economy macroeconomics and how economies interact through trade deficits and trade surpluses
- What macroeconomists do
- Why macroeconomists disagree—classicals vs. Keynesians;

Module organisation

- Lecturer: G. Chortareas
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- Teaching Assistant: Jongwoo Lim
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- Meeting Room: 9B215, International Hall

- Office and Office hours:
  - TBA

Module outline

WEEK 1: *A quick refreshing course in macroeconomics*

- Economic methods and economic questions;
  Macroeconomics and measurement.
- *Analytical frameworks in macroeconomics:*
  the horse-work approaches.
- *Schools of economic thought.*
- *Macroeconomic policy debates before the crisis.*
- *The great moderation and the macroeconomics*
  consensus before the crisis.

Module outline

WEEK 2: The crisis and its aftermath

- *The global economic and financial crisis: origins and development.*
- *The great recession.*
- *The European crisis.*
- *Macroeconomic policies in the aftermath of the crisis*
- *Macroeconomic theory after the crisis.*

Module outline

WEEK 3: After the crisis: Theory and policy

- *Monetary policy after the crisis.*
- *Fiscal policy after the crisis.*
- *Macro prudential and regulation policy after the crisis.*
- *Macroeconomic concerns and the open economy.*
- *What have we learned? Challenges ahead.*

What Macroeconomics Is About?

- Macroeconomics: the study of structure and performance of national economies and government policies that affect economic performance.

- Macroeconomics in the long-run: ***economic growth***

- Macroeconomics in the short/medium-run: ***business cycles***

What Macroeconomics Is About? Economic growth

- Why do we observe differences in the rates of growth of different countries in the long run? In other words why some countries become richer and others remain poor?
- Why some countries display high rates of economics growth during given periods and why they remain stagnant over different periods?
- Do the rates of growth converge?
- Is growth occurring because we use more inputs (capital, labour) or because the inputs are becoming more productive over time?

- Why should we care?

AN EXAMPLE: Say that the GDP per capita in the US is about 8 times that of China.

Per capita GDP US : $47,000
GDP Growth rate: 1.3%

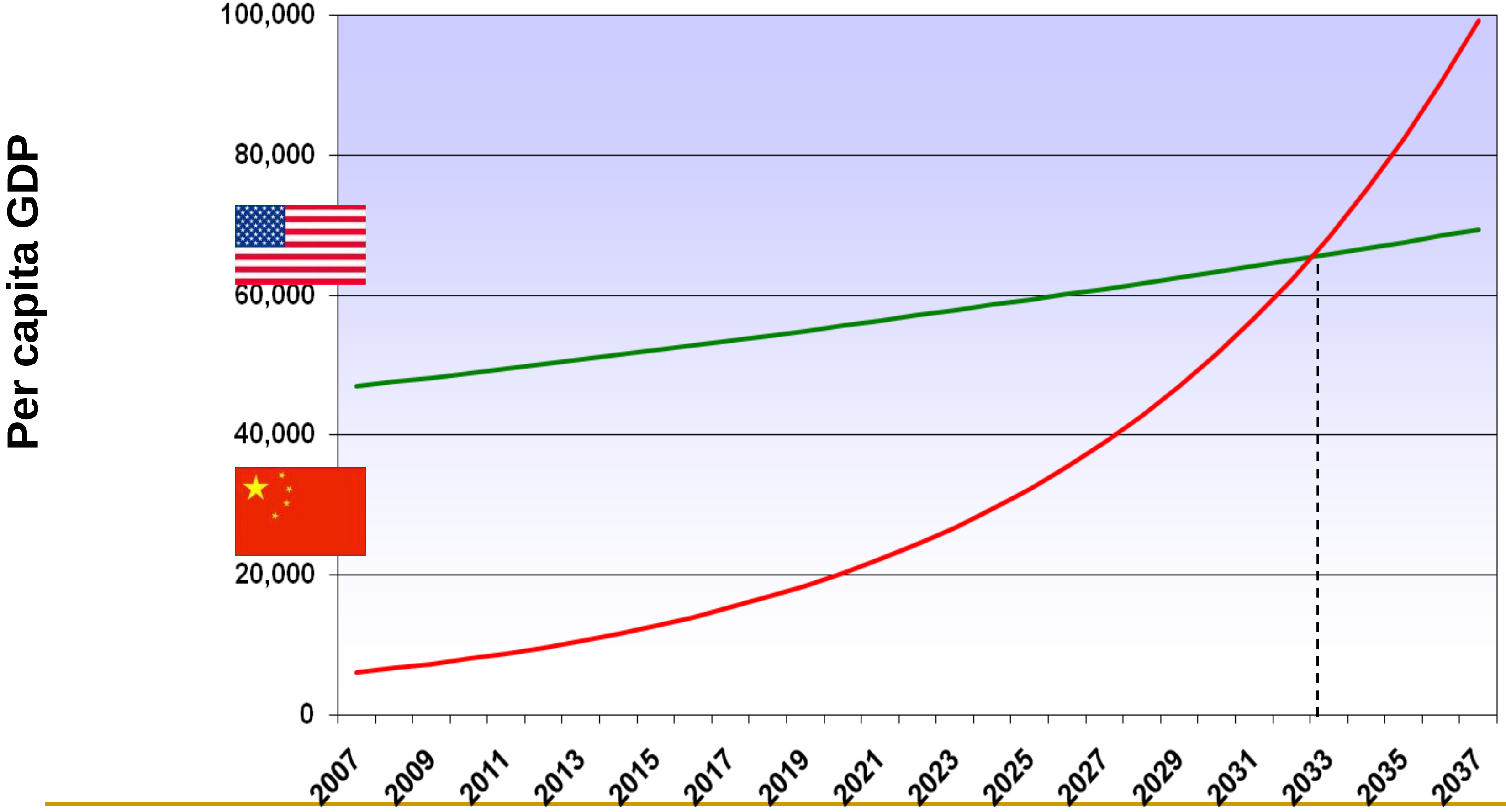
$$\$47{,}000(1.013)^{20} = \$60{,}853$$

Per capita GDP China: $6,000
GDP Growth rate : 9.8%

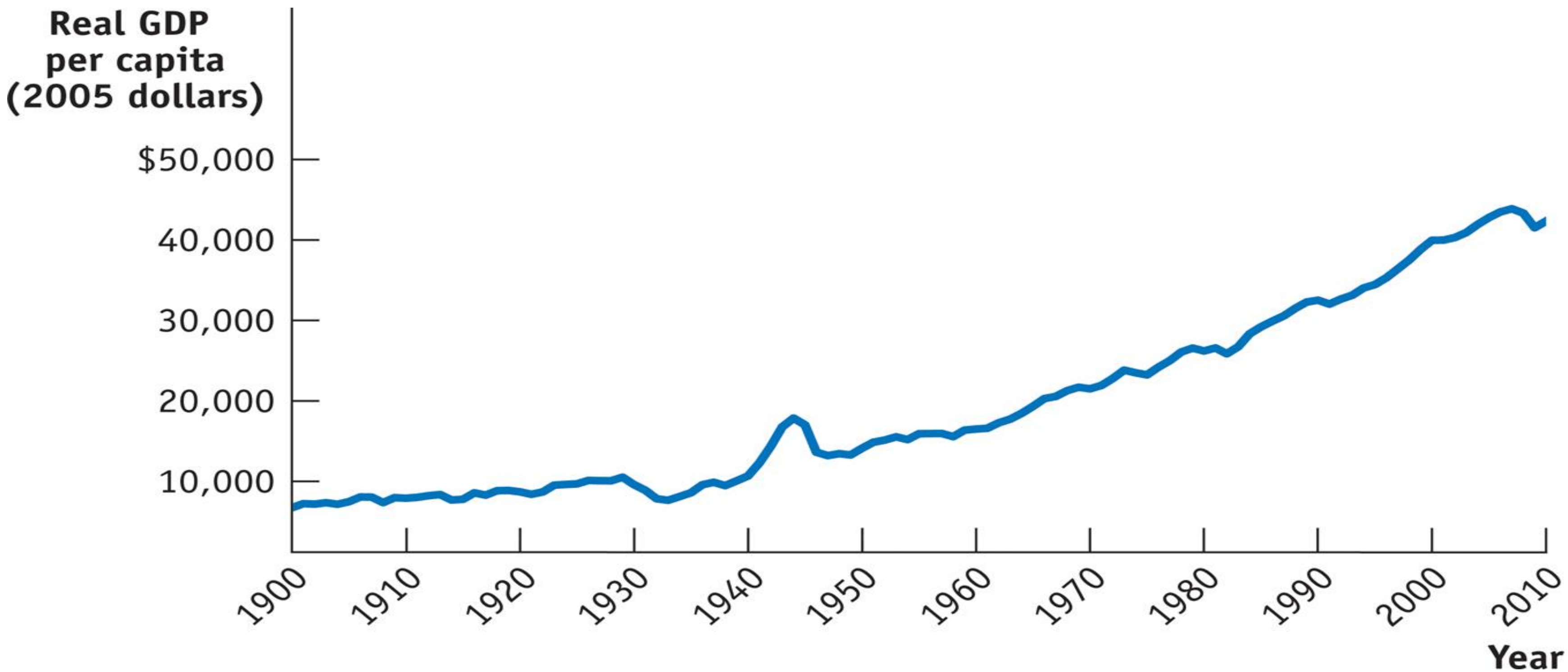
$$\$6{,}000(1.098)^{20} = \$38{,}922$$

With the given rates of growth this difference can be significantly reduced!

In 25 years the standards of living in China could overpass that of the US!



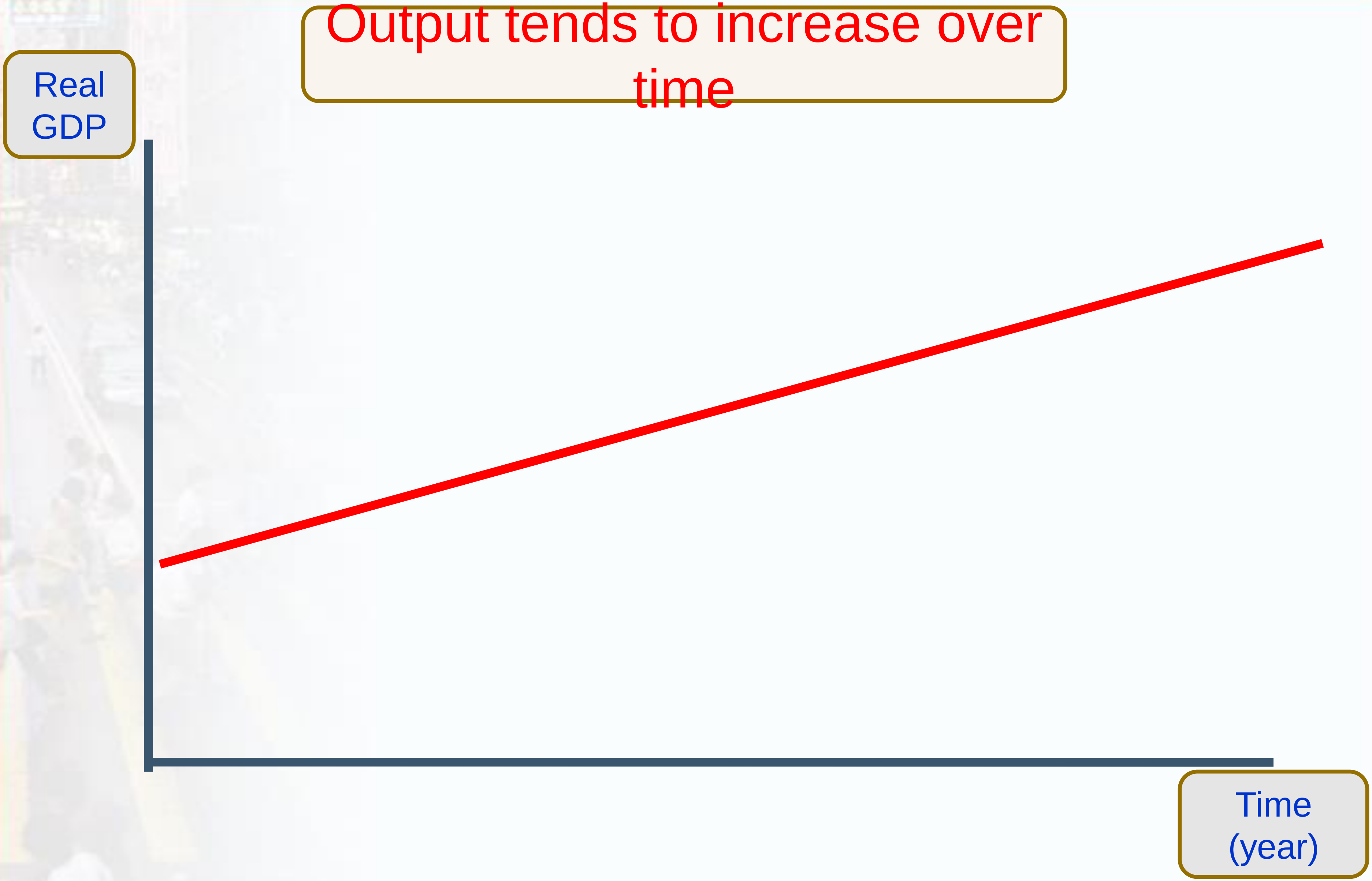
Long Run Growth in U.S.



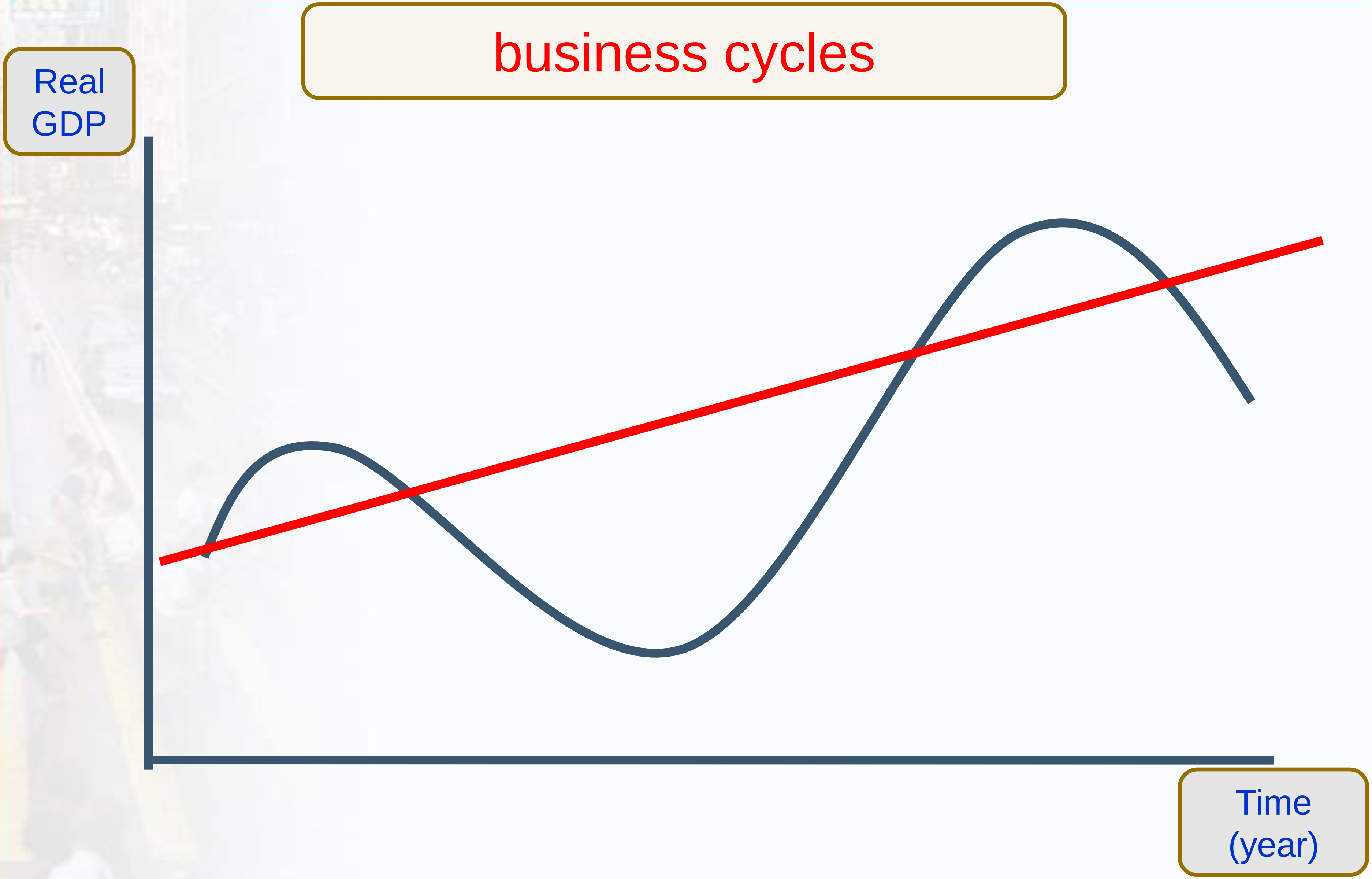
Long-Run Economic Growth

- **Long-run economic growth** is the sustained upward trend in the economy's output over time.
- A country can achieve a permanent increase in the standard of living of its citizens only through long-run growth.
- A central concern of macroeconomics is what determines long-run economic growth.

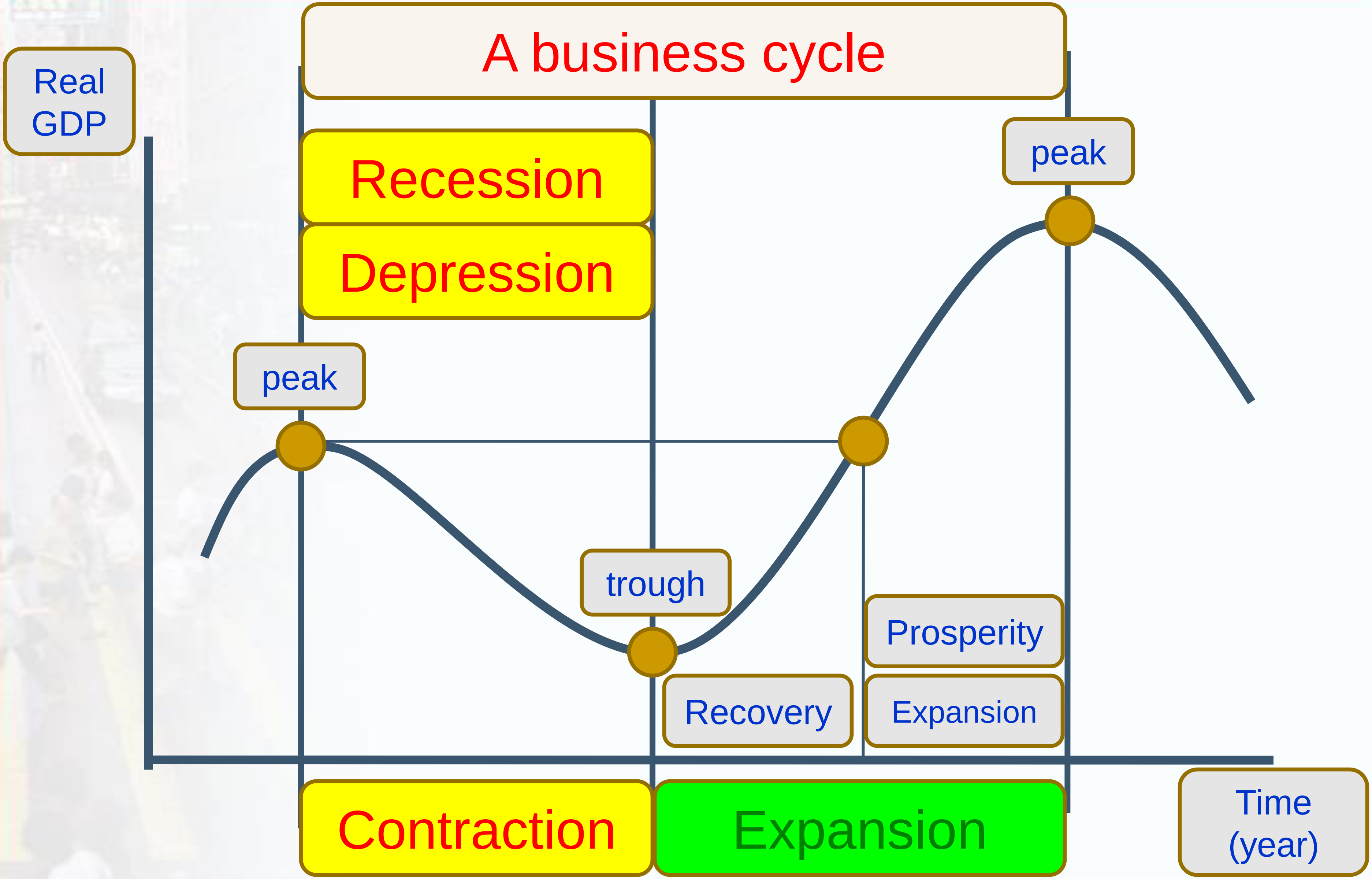
The Business Cycle



The Business Cycle



The Business Cycle



Defining Recessions and Expansions

- In many countries, economists adopt the rule that a recession is a period of at least 6 months, or two quarters, during which aggregate output falls.

  → sometimes too strict

- In the U.S., the task of determining when a recession begins and ends is assigned to an independent panel of experts at the National Bureau of Economic Research (NBER). They look at a number of economic indicators, with the main focus on employment and production, but ultimately the panel makes a judgment call.

  → sometimes controversial

The Business Cycle

TABLE 21-2 The History of the Business Cycle

Business-Cycle Peak	Business-Cycle Trough
no prior data available	December 1854
June 1857	December 1858
October 1860	June 1861
April 1865	December 1867
June 1869	December 1870
October 1873	March 1879
March 1882	May 1885
March 1887	April 1888
July 1890	May 1891
January 1893	June 1894
December 1895	June 1897
June 1899	December 1900
September 1902	August 1904
May 1907	June 1908
January 1910	January 1912
January 1913	December 1914
August 1918	March 1919
January 1920	July 1921
May 1923	July 1924
October 1926	November 1927
August 1929	March 1933
May 1937	June 1938
February 1945	October 1945
November 1948	October 1949
July 1953	May 1954
August 1957	April 1958
April 1960	February 1961
December 1969	November 1970
November 1973	March 1975
January 1980	July 1980
July 1981	November 1982
July 1990	March 1991
March 2001	November 2001
December 2007	June 2009

Source: National Bureau of Economic Research.

The Business Cycle

- The **business cycle** is the short-run alternation between economic downturns and economic upturns.
- A **depression** is a very deep and prolonged downturn.
- **Recessions** are periods of economic downturns when output and employment are falling.
- **Expansions**, sometimes called *recoveries*, are periods of economic upturns when output and employment are rising.

The Business Cycle

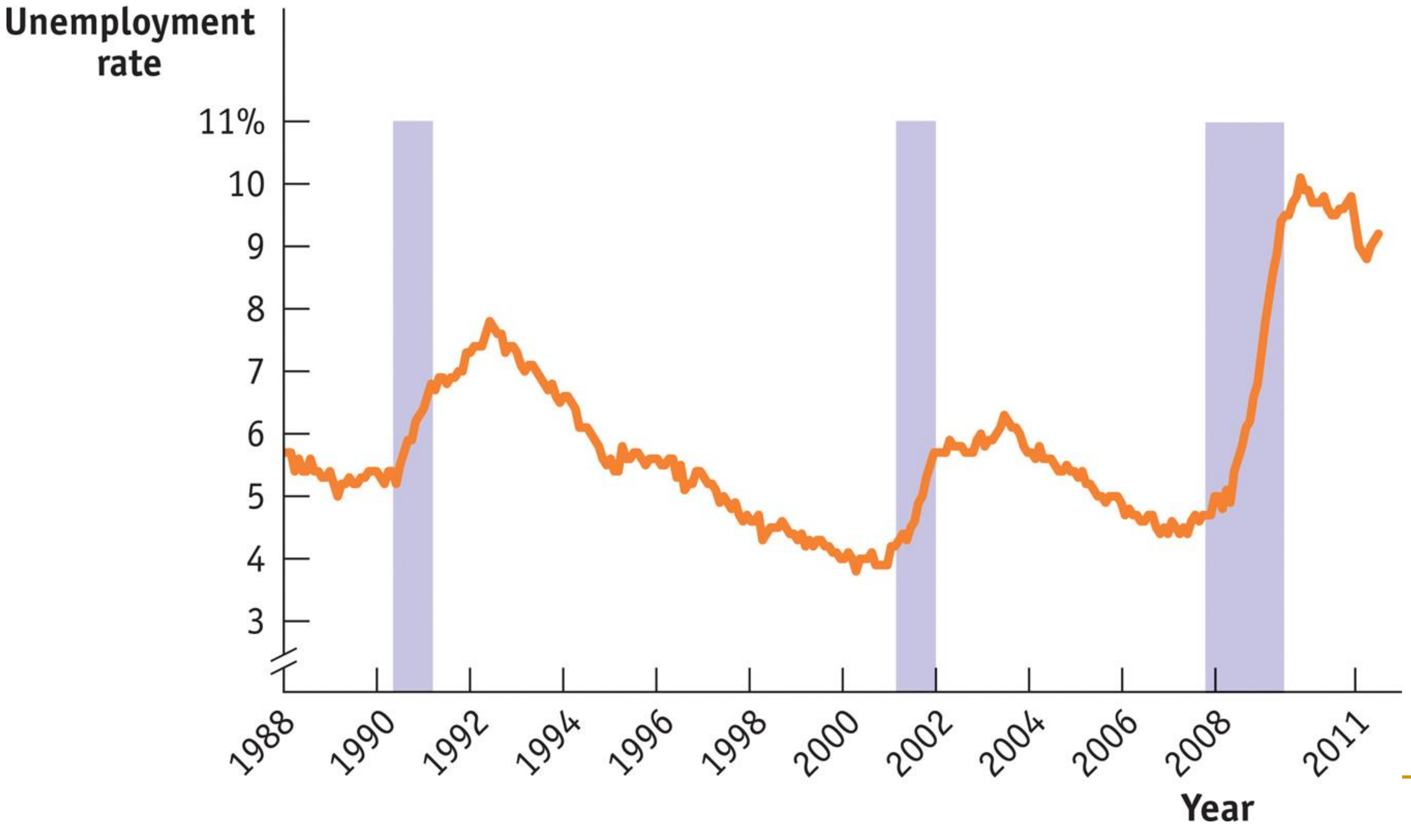
- The point at which the economy turns from expansion to recession is a **business-cycle peak**.

- The point at which the economy turns from recession to expansion is a **business-cycle trough**.

The Business Cycle

- What happens during a business cycle, and what can be done about it?
  - The effects of recessions and expansions on unemployment
  - The effects on aggregate output
  - The possible role of government policy

The U.S. Unemployment Rate (note that it rises during recessions)



The Global Outlook

Real GDP Growth (Y/Y)

	2015	2016	2017
Global Output Growth	**3.1**	**3.3**	**3.6**
US:	2.4	1.8	2.0
Euro Area:	1.5	1.5	1.6
Japan:	0.6	0.7	0.6
UK:	2.2	2.0	2.2
Brazil:	-3.8	-3.5	0.6
Russia:	-3.7	-1.5	1.1
China:	6.9	6.4	6.2
India:	7.3	7.5	7.6

Taming the Business Cycle

- Policy efforts undertaken to reduce the severity of recessions are called **stabilization policies**.
- One type of stabilization policy is **monetary policy**: changes in the quantity of money or the interest rate.
- The second type of stabilization policy is **fiscal policy**: changes in tax policy or government spending, or both.

Important issues in macroeconomics

Macroeconomics, the study of the economy as a whole, addresses many topical issues, *e.g.*:

- What causes recessions? What is "government stimulus" and why might it help?
- How can problems in the housing market spread to the rest of the economy?
- What is the government budget deficit? How does it affect workers, consumers, businesses, and taxpayers?

Important issues in macroeconomics

Macroeconomics, the study of the economy as a whole, addresses many topical issues, *e.g.*:

- What causes financial crises? How should the government respond to them?
- Why does the cost of living keep rising?
- Why are so many countries poor? What policies might help them grow out of poverty?

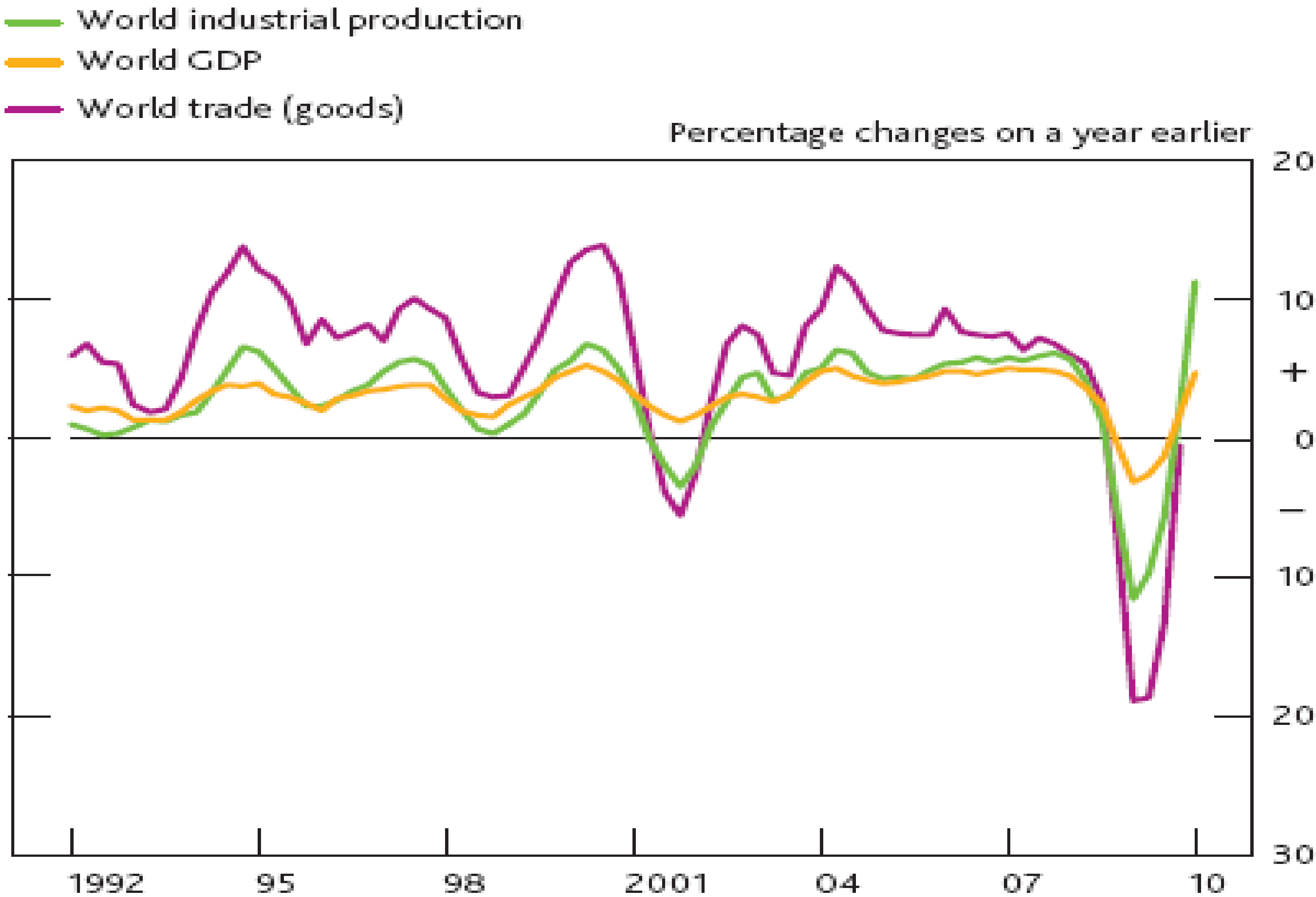
Open Economies

(exports to GDP, %)

	1960	2001		1960	2001
European Union	6.1	11.8	Poland	--	19.4
United States	5.2	11.2	Portugal	16.0	31.6
Japan	10.7	10.8	Russian Federation	--	36.3
Belgium	38.3	84.4	Spain	8.9	29.9
Denmark	32.7	45.6	Sweden	22.7	46.5
Germany	19.0	35.0	Switzerland	27.7	45.5
Hungary	--	60.6	Ukraine	--	55.5
Ireland	30.6	95.4	United Kingdom	20.9	27.1
Netherlands	46.3	65.1			

Sources: World Bank, Eurostat

- Globalisation
- Globalisation in capital markets is more profound
- Positive implications: more efficient allocation of resources
- Negative implications: instability, currency crises and financial crises
- Is the international economy today more globalised than in the end of the 19th century?



Sources: CPB Netherlands, IMF, Thomson Reuters Datastream and Bank calculations.

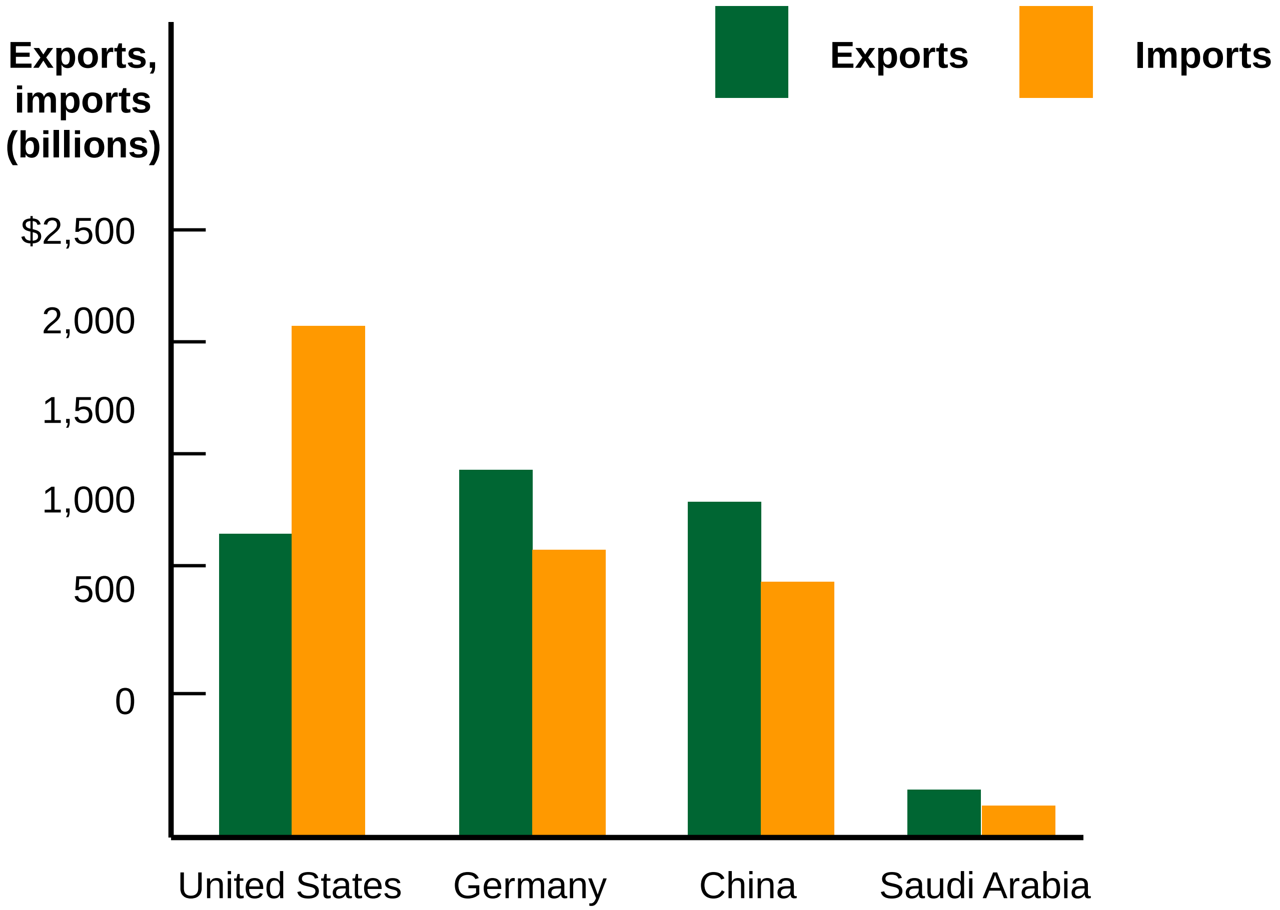
Open Economies and International Imbalances

- An **open economy** is an economy that trades goods and services with other countries.

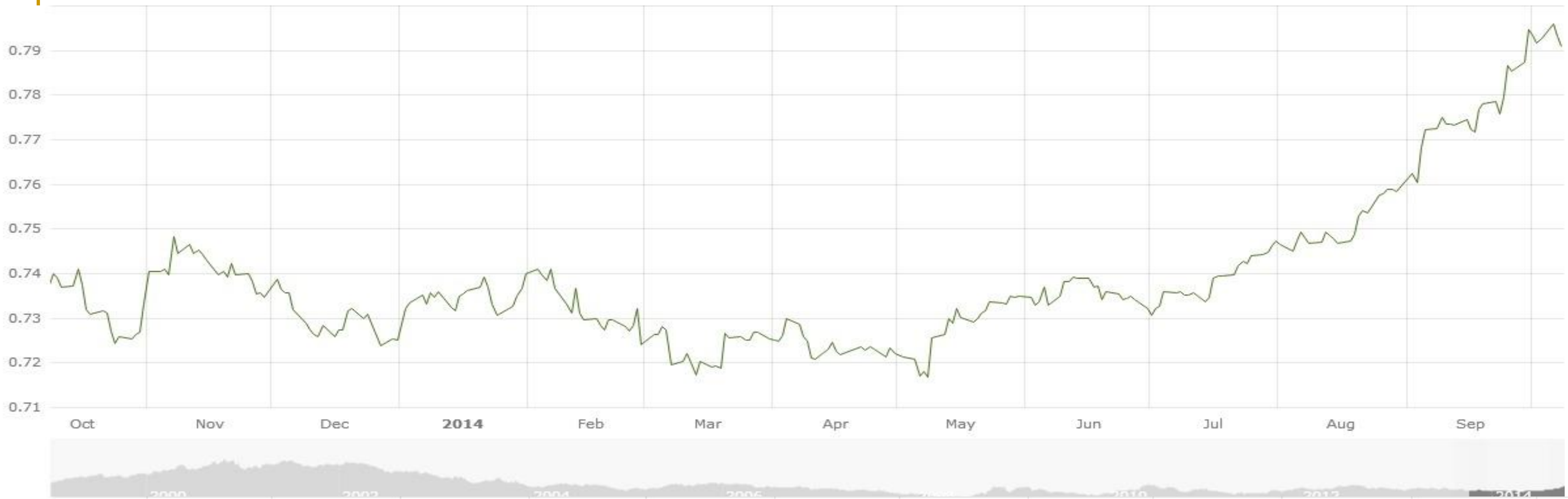
- A country runs a **trade deficit** when the value of goods and services bought from foreigners is more than the value of goods and services it sells to them.

- It runs a **trade surplus** when the value of goods and services bought from foreigners is less than the value of the goods and services it sells to them.

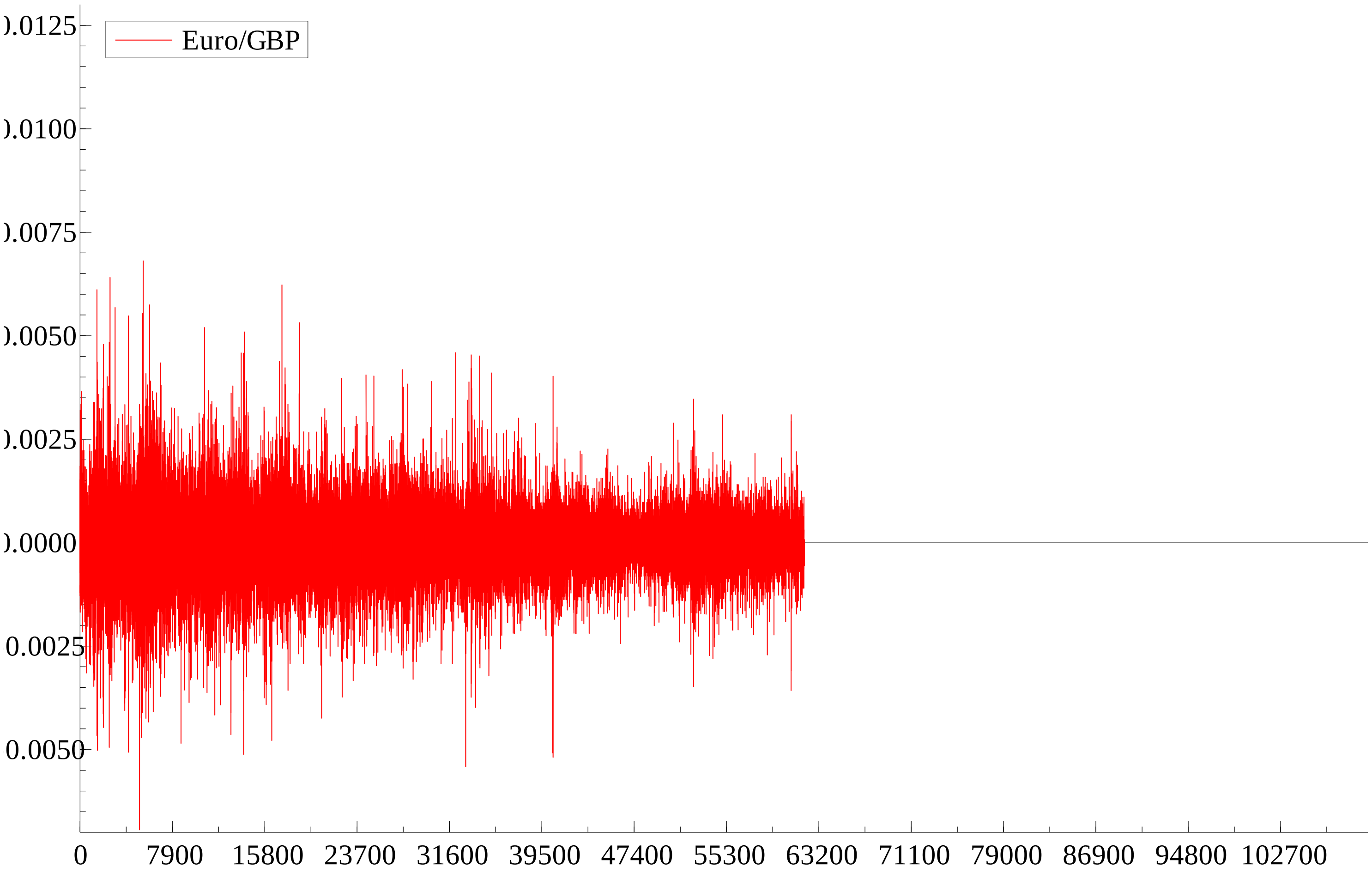
International Imbalances



The exchange rate between the $ and the euro (8/10/13-9/10/14)



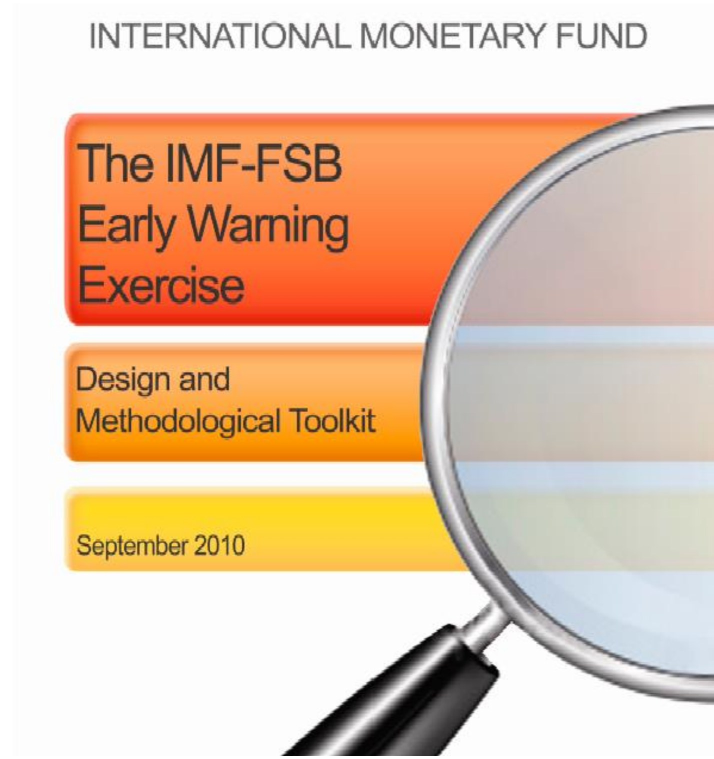
Euro/£ exchange rate (high frequency data -- every 15')



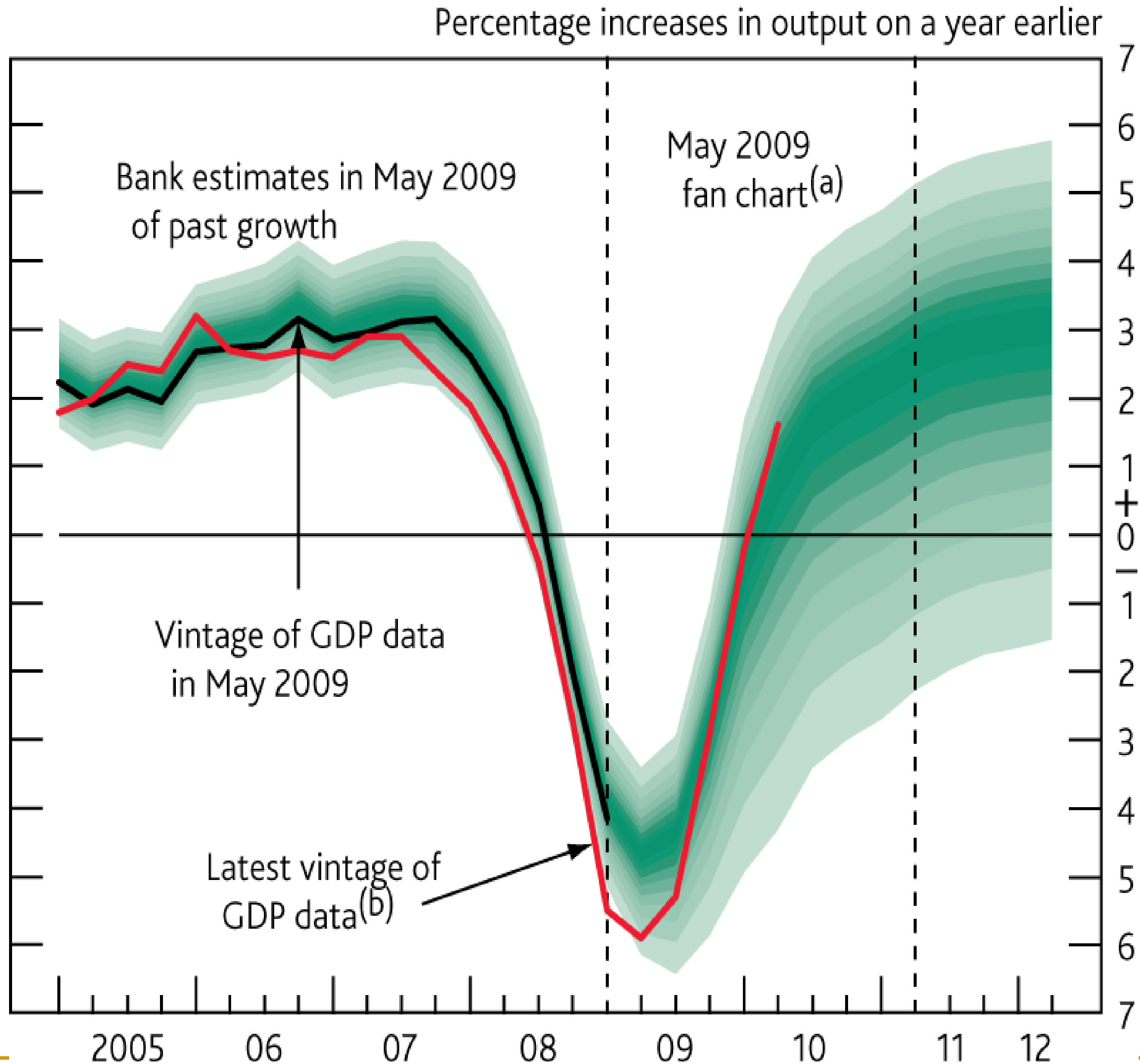
What Macroeconomists Do?

A) Macroeconomic forecasting

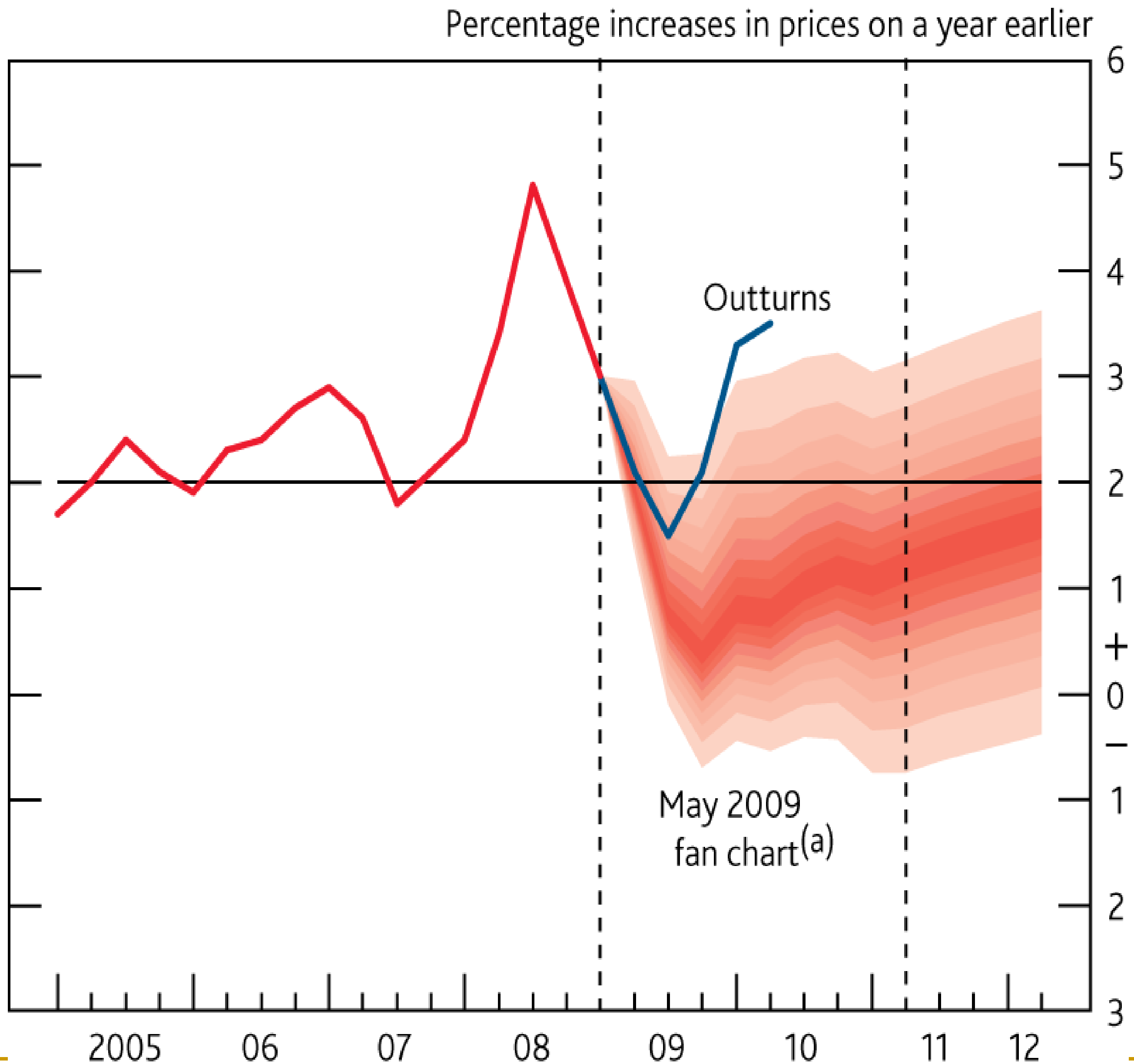
- not an easy job



- Main forecasting firms in the United States: Global Insight and Macroeconomic Advisers.
- Several other surveys of forecasters including the Blue Chip survey, the NABE (National Association of Business Economists) survey, the Livingston survey, and the Survey of Professional Forecasters. UK NIESR



(a) Based on market interest rate expectations and the assumption that the stock of purchased assets reached £125 billion and remained there throughout the forecast period. See footnote to **Chart 5.1** for information on how to interpret the fan chart.
(b) Revisions to early estimates of GDP growth account for the gap between the red and black lines prior to the fan chart.



(a) Based on market interest rate expectations and the assumption that the stock of purchased assets reached £125 billion and remained there throughout the forecast period. See footnote to **Chart 5.6** for information on how to interpret the fan chart.

What Macroeconomists Do

Macroeconomic analysis

- Private and public sector economists—analyse current conditions (e.g., economists in the Wall Street and the City of London)

Macroeconomic research

- Goal: to make general statements about how the economy works
- Theoretical and empirical research are necessary for forecasting and economic analysis
- Economic theory: a set of ideas about the economy, organized in a logical framework
- Economic model: a simplified description of some aspect of the economy

Economic models

…are simplified versions of a more complex reality

- irrelevant details are stripped away

…are used to

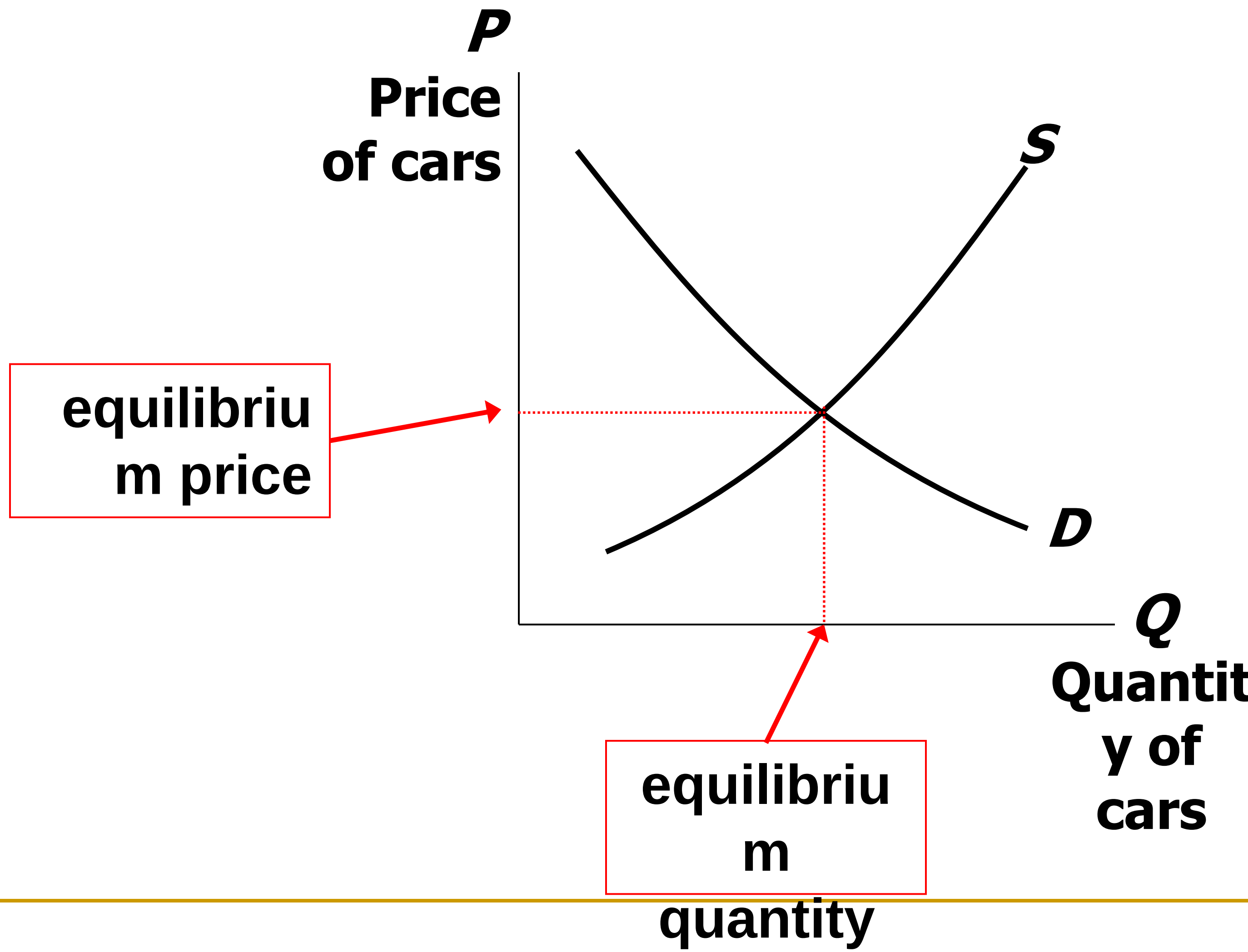
- show relationships between variables
- explain the economy's behavior
- devise policies to improve economic performance

The demand for cars

demand equation: $Q^d = D(P, Y)$

- shows that the quantity of cars consumers demand is related to the price of cars and aggregate income

The market for cars: Equilibrium



Endogenous vs. exogenous variables

- The values of **endogenous** variables are determined in the model.
- The values of **exogenous** variables are determined outside the model: the model takes their values & behavior as given.
- In the model of supply & demand for cars,

endogenous: P, Q^d, Q^s

exogenous: Y, P_s

The use of multiple models

- No one model can address all the issues we care about.
- *E.g.*, our supply-demand model of the car market…
  - can tell us how a fall in aggregate income affects price & quantity of cars.
  - cannot tell us *why* aggregate income falls.

The use of multiple models

- So we will learn different models for studying different issues (*e.g.*, unemployment, inflation, long-run growth, asset prices).
- For each new model, you should keep track of
  - its assumptions
  - which variables are endogenous, which are exogenous
  - the questions it can help us understand, those it cannot

Why Macroeconomists Disagree?

Positive vs. normative analysis

Positive analysis: examines the economic consequences of a policy

Normative analysis: determines whether a policy should be used

Why Macroeconomists Disagree? Classicals vs. Keynesians

The classical approach

- The economy works well on its own
- The "invisible hand": the idea that if there are free markets and individuals conduct their economic affairs in their own best interests, the overall economy will work well
- Wages and prices adjust rapidly to get to equilibrium
- Equilibrium: a situation in which the quantities demanded and supplied are equal
- Changes in wages and prices are signals that coordinate people's actions
- **Implication:** *Government should have only a limited role in the economy*

Why Macroeconomists Disagree? Classicals vs. Keynesians

The Keynesian approach

- The Great Depression: Classical theory failed because high unemployment was persistent
- Keynes: Persistent unemployment occurs because wages and prices adjust slowly, so markets remain out of equilibrium for long periods
- **Implication:** *Government should intervene to restore full employment*

The evolution of the classical-Keynesian debate

- Keynesians dominated from WWII to 1970
- Stagflation led to a classical comeback in the 1970s
- Last 20 years: elements of convergence/consensus

The End