EC 202 Principles of Macroeconomics
Week 1: Introduction

1. Micro vs. Macro
2. The Economy
3. GDP
4. Business Cycles
5. The Great Depression

Micro vs. Macro

- **Microeconomics**
- Everything begins with individual choices.
  - Individual Consumer
  - Individual Worker
  - Individual Saver
  - Individual Investor
  - Individual Business Firm

Micro vs. Macro

- **Macroeconomics**
- Begin with the whole economy.
  - The US Economy
  - The Canadian Economy
- Or a major part of the economy.
  - Households
  - Government
  - Business

Micro vs. Macro

Microeconomics

- Individual’s demand for a Toyota Camry
  - Depends on <u>individual</u> preferences and choices given:
    - Price of Toyota Camry
    - Income
    - Price of substitutes like other cars, trucks, bicycles
    - Price of complementary goods like gasoline.
- Ignore everything else., i.e. “hold everything else constant.

Micro vs. Macro

Macroeconomics

- Demand for a Toyota Camry depends on:
  - Availability and condition of roads and highways.
  - the availability and cost of gasoline.
  - having a driver's license, which requires a motor vehicle department which requires a state government.
  - Banking system to get a car loan.
  - Having a job to get a loan.
  - Having employers that have jobs.

Individual vs. Society

- **Microeconomics**
  - The study of individuals.
  - Ignores interdependence by holding everything else constant.
  - <u>Key issue is choice</u>.
- **Macroeconomics**
  - The study of economies.
  - Ignores individual parts by **aggregating**.
  - <u>Key issue is coordination</u>.
    - How do the various parts of the economy connect?
    - How do they work together?

The Economy

- **What is "the economy?"**
- Adam Smith:
  - Sometimes called "father" of Economics.
  - Author of classic book published in 1776.
    - *An Inquiry into the Nature and Causes of the Wealth of Nations.*
- What is the "wealth" of nations?

The Economy

- **Wealth of Nations**
- Before Adam Smith, “**wealth**” meant **gold** and **silver**.
  - A wealthy individual and a wealthy country had lots of gold.
- Adam Smith defined the “**Wealth of Nations**” as a country’s ability to produce **goods and services**.
  - Depends on **resources**
    - In 18^{th} century, most important resources were land and labor.
    - In 21^{st} century, most important resources are labor and capital.

Gross Domestic Product (GDP)

- GDP
  - A measure of a country’s yearly output of “goods and services.”
  - The most widely used Macroeconomic statistic.
  - Defined as:
    - ***The total market value of all final goods and services produced in an economy in a one-year period.***

Gross Domestic Product (GDP)

GDP = The total market value of all final goods and services produced in an economy in a one-year period.

- This definition has 4 important parts:
  1) Market value
  2) Final goods and services
  3) Produced in an economy.
  4) In a one year time period.

Gross Domestic Product (GDP)

1) **Market Value:**

- We want a measure of <u>quantity</u>, i.e. How much has been produced?
  - Not possible to add "quantities of different goods," so they are multiplied by current prices and then added.

Quantity	*Price*	*Value*
2 cars	$15,000	$30,000
3 computers	$3,000	$9,000
Gross Domestic Product		$39,000

Gross Domestic Product (GDP)

2) Final goods and services

Stage 1:	Trees sold to lumber company	\$1,000
Stage 2:	Lumber sold to furniture company	\$1,700
Stage 3:	Furniture sold to retail store	\$3,200
Stage 4:	Store sells furniture to consumer	\$5,995

- What is value added at each stage?
- How much does output contribute to GDP?

Purpose is to avoid "double counting." In above example, we only want to count the trees once. The value of the trees is included in the price at Stage 4 – the "final" stage when it is sold to the end user.

Gross Domestic Product (GDP)

3. **Produced in an economy.**

- GDP measures the value of production within the geographic borders of a country.
- Example:
  - Include cars produced by General Motors in Michigan and cars produced by Mitsubishi in Illinois.
  - Exclude cars produced by General Motors in Canada. What's important is location or residency – not nationality or ownership.

Gross Domestic Product (GDP)

4. In a one year time period.

- GDP counts goods and services *when they are produced*. *(i.e. not when they are sold).*
- Examples:
  - A bicycle built in 2014, but was not sold until 2015. Counts as part of GDP for 2014.
  - A bicycle built in 2014 but not sold, i.e. was put into inventory. Counts as part of GDP for 2014.
  - An antique clock from the 1920s was sold in 2015. Not counted in 2015 GDP.

Nominal vs. Real GDP

Year 1			*Year 2*		
Quantity	Price	Value	Quantity	Price	Value
2 cars	$15,000	$30,000	2 cars	$30,000	$60,000
3 computers	$3,000	$9,000	3 computers	$6,000	$18,000
	GDP =	**$39,000**		**GDP =**	**$78,000**

- GDP will increase when prices increase, even if the physical quantities of the goods produced remain the same.
- Since we want a measure of quantity, we need to adjust for changing prices.
    - GDP adjusted for changing prices = real GDP.
    - GDP not adjusted, i.e. stated in terms of current prices = nominal GDP.

Real GDP

- Real GDP changes over time.
  - **Long-run view:** GDP has increased substantially over the past 50 years or so.
  - **Short-run view:** GDP grows faster in some periods than others.

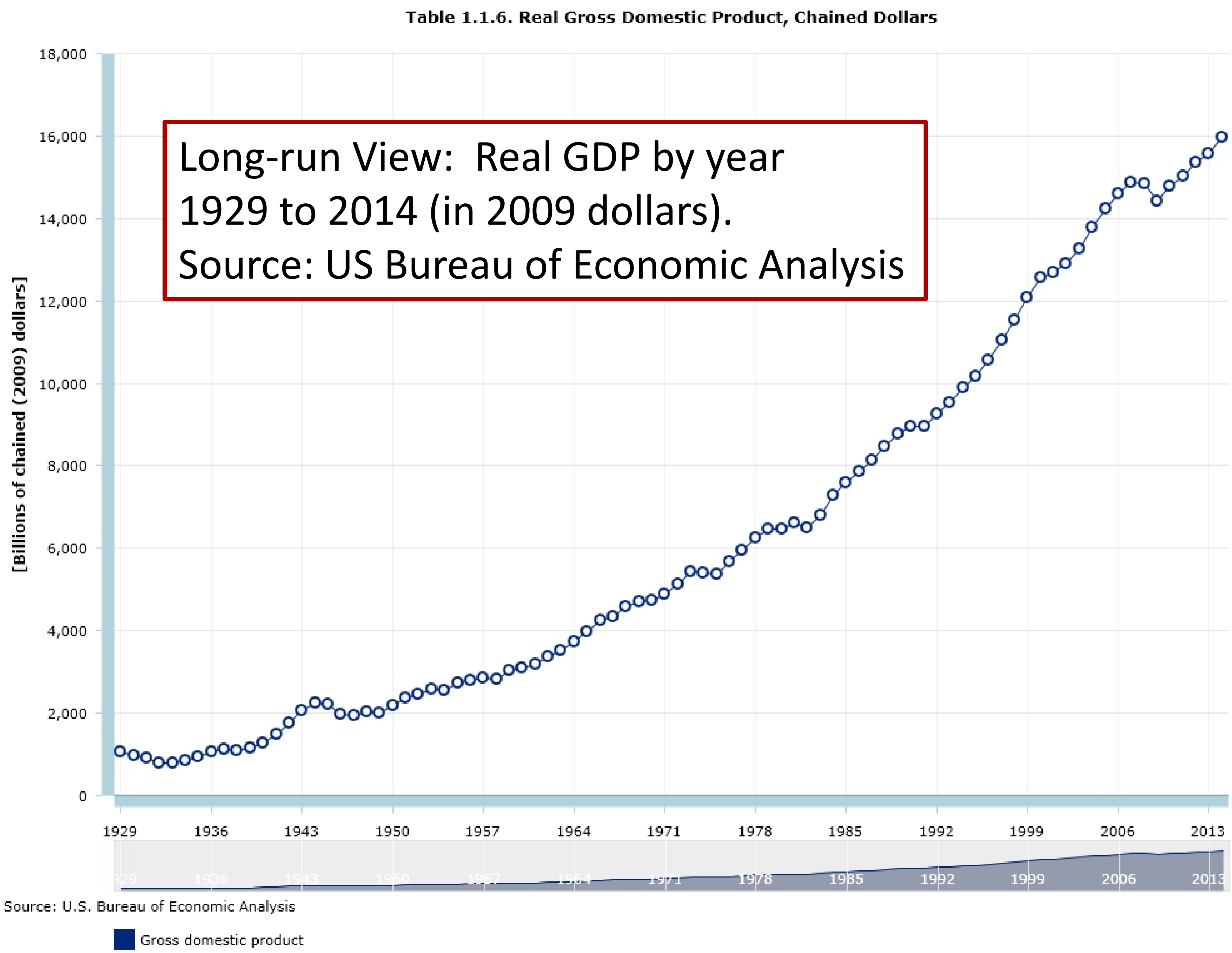


Table 1.1.6. Real Gross Domestic Product, Chained Dollars
Long-run View: Real GDP by year
1929 to 2014 (in 2009 dollars).
Source: US Bureau of Economic Analysis
[Billions of chained (2009) dollars]
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1929
1936
1943
1950
1957
1964
1971
1978
1985
1992
1999
2006
2013
Source: U.S. Bureau of Economic Analysis
Gross domestic product

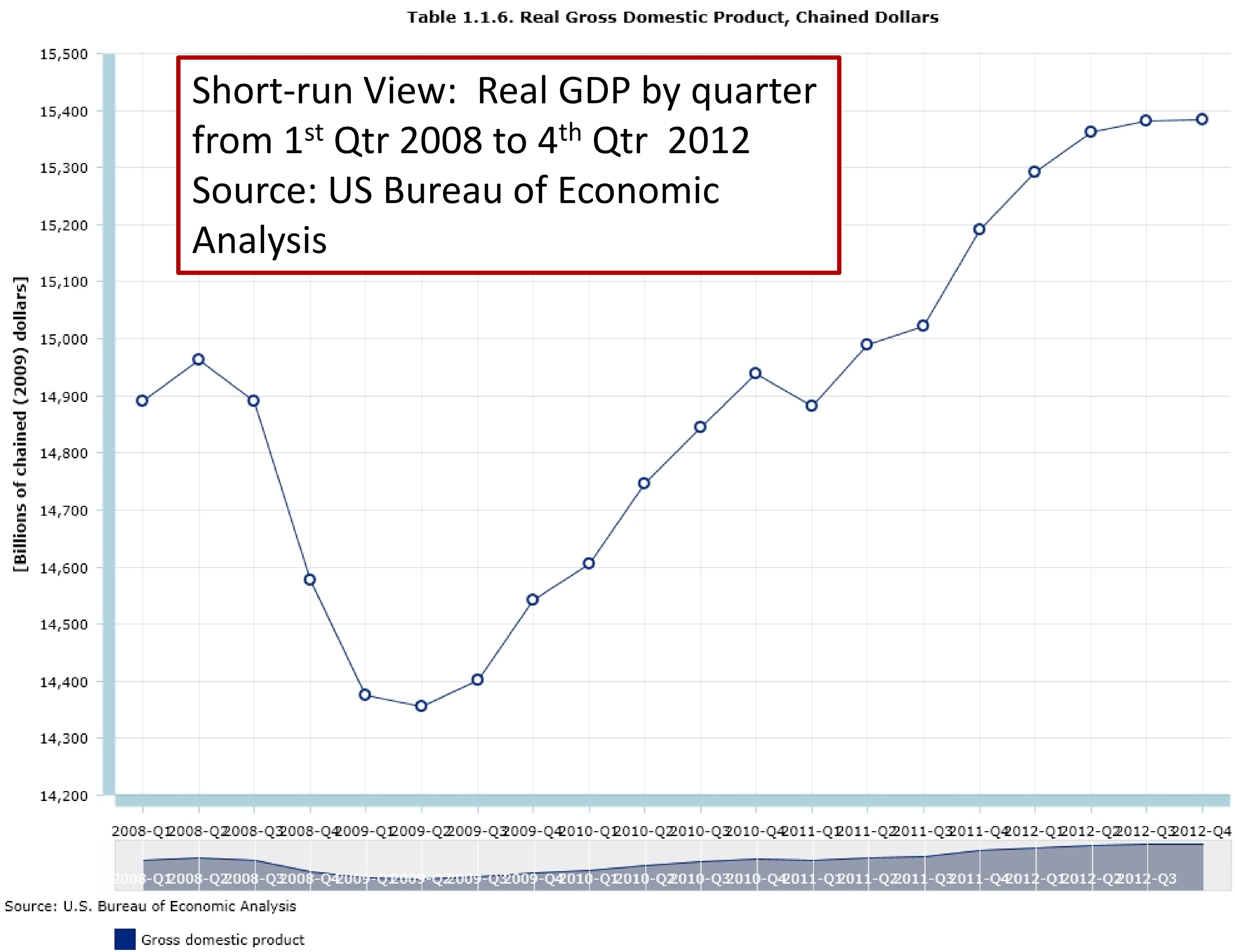
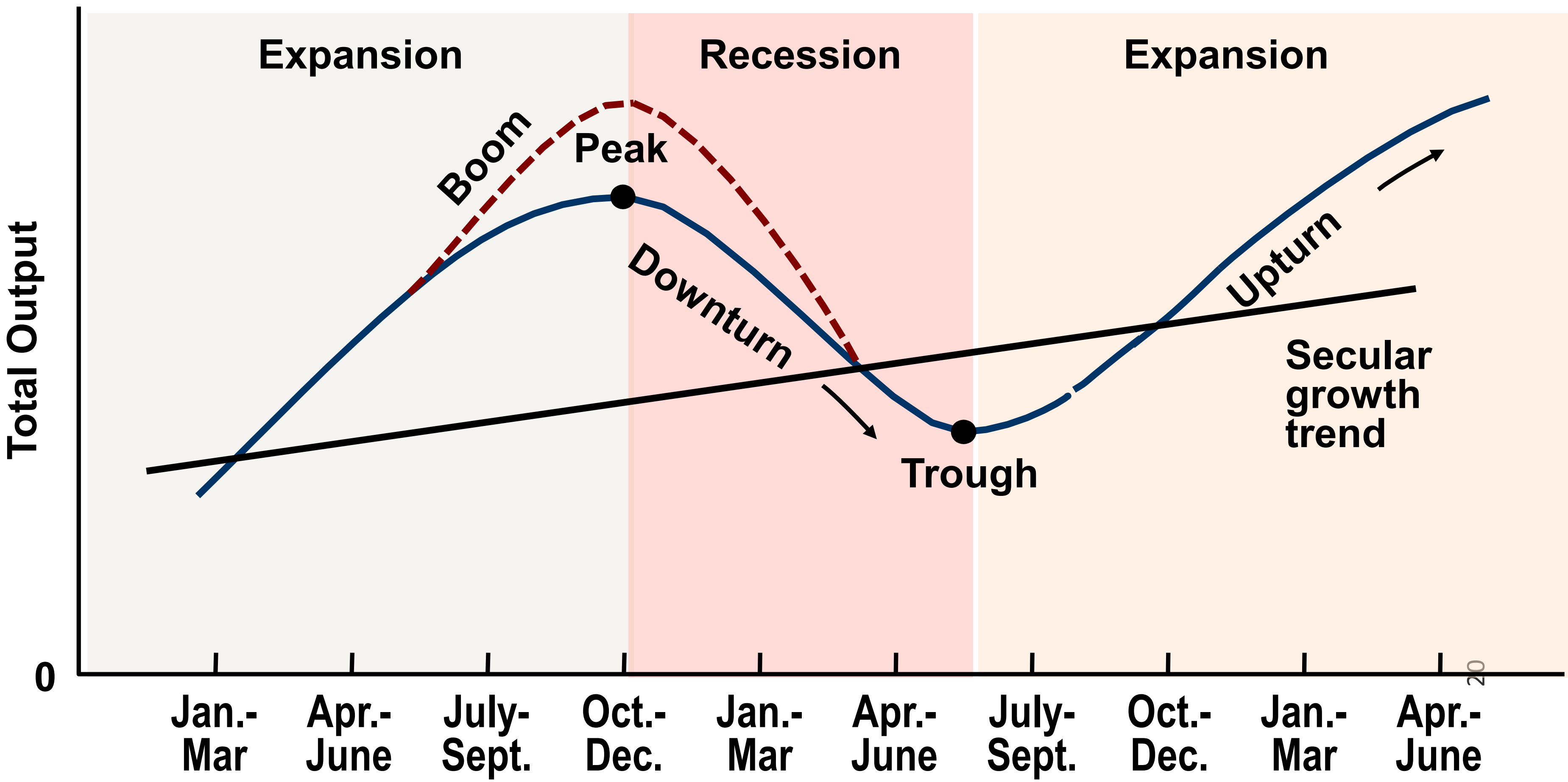


Table 1.1.6. Real Gross Domestic Product, Chained Dollars
Short-run View: Real GDP by quarter from 1st Qtr 2008 to 4th Qtr 2012
Source: US Bureau of Economic Analysis
[Billions of chained (2009) dollars]
15,500
15,400
15,300
15,200
15,100
15,000
14,900
14,800
14,700
14,600
14,500
14,400
14,300
14,200
2008-Q1
2008-Q2
2008-Q3
2008-Q4
2009-Q1
2009-Q2
2009-Q3
2009-Q4
2010-Q1
2010-Q2
2010-Q3
2010-Q4
2011-Q1
2011-Q2
2011-Q3
2011-Q4
2012-Q1
2012-Q2
2012-Q3
2012-Q4
Source: U.S. Bureau of Economic Analysis
Gross domestic product

Business Cycles

- Short-run fluctuations in GDP are called business cycles.
  - Most of the time, we tend to focus on the short-run. i.e. we are interested in how the economy is doing **now** and how it will be doing over the next year or two.

Phases of the Business Cycle



Recessions and Expansions

- **Expansion**
  - A period in which the economy is growing at a rate significantly above normal
  - Boom
    - A particularly strong and protracted expansion
- **Recession (or contraction)**
  - A period in which the economy is growing at a rate significantly below normal
  - Depression
    - A particularly severe or protracted recession

Recessions and Expansions

- **Peak**
  - The beginning of a recession, the **high point** of economic activity prior to a downturn
  - A recession is measured from the peak to the trough.
  - An entire business cycle is measured peak to peak.
- **Trough**
  - The end of a recession, the low point of economic activity prior to a recovery.

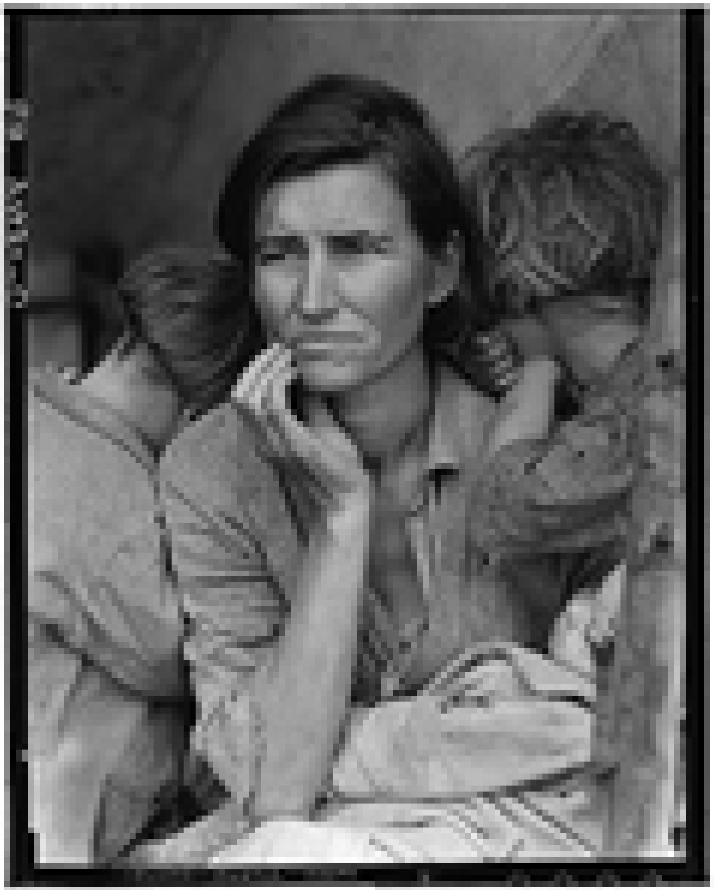
Business Cycles

- Business cycles are measured officially by the National Bureau of Economic Research.
  - NBR looks at a variety of economic indicators.
  - Often, a statement about the beginning and end of a recession comes out several months or more after the fact. This is because it's hard to know if you have reached the peak (or the trough) until after it has passed.
- http://www.nber.org/cycles/cyclesmain.html

Business Cycles

- Business cycles are an inherent part of any market economy.
  - i.e. the existence of recessions and expansions is **normal**.
  - The problem arises when the fluctuations are severe.
- The most severe downturn in US history was the Great Depression in the 1930s.
- The second worst downturn was the Great Recession that officially ended in 2009.

The Great Depression



Migrant Mother photograph, Dorothea Lange, Library of Congress
http://memory.loc.gov/ammem/fsowhome.html

The Great Depression

Library of Congress Collection, Dust Bowl Oklahoma Panhandle, Arthur Rothstein, photographer.
http://memory.loc.gov/ammem/fsowhome.html

The Great Depression

Library of Congress Collection, Soup kitchen, Iowa, 1940.
http://memory.loc.gov/ammem/fsowhome.html

The Great Depression

Library of Congress Collection, Arkansas family, Dorothea Lange.
http://memory.loc.gov/ammem/fsowhome.html

The Great Depression

Why was the Great Depression important?

- The depression was so severe and lasted so long that it fundamentally changed our view of the economy.
- The Great Depression lasted for 10 years from 1929 to the beginning of World War II.
- Output fell by 30%
- Unemployment rose to 25%
- Prices fell to 1/5 of former levels.

Government & the Economy

- Dominant View before the Great Depression of 1930s was *Laissez-faire.*
- *Laissez-faire*
  - Term coined by a French economist in the 18th century.
  - Refers to the belief that there are **natural laws** that automatically lead to maximum market efficiency.
  - Based on the 18th century enlightenment view that the world is rational and orderly.
  - Economic downturns or recessions occurred, but it was believed that the economy would recover on its own.

Government & the Economy

- Before the Great Depression, the US Government had a <u>minimal</u> role in the economy.
  - No unemployment compensation, no federal government assistance of any kind for any reason.
  - In some cities, a limited amount of short-term emergency assistance was available from private charities or municipal funds. But funds soon ran out. Little or no assistance in rural areas.
- Since the Great Depression, the US Government is <u>expected</u> to take action.
  - When there is widespread hardship for any reason, e.g. hurricanes, floods, earthquakes, mass unemployment, credit crisis, high inflation, etc..

Government & the Economy

- Policy Debates:
  - Most disputes are not about <u>whether</u> the government should try to stabilize the economy.
  - Debates are now about <u>what</u> steps should be taken and <u>how</u>.
  - We now tend to blame the government if action is not taken or if the action is not effective.