

Economics 1: Introduction to Economics

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Administrivia

March 28, 2016 8-9 AM
Wheeler Auditorium, U.C. Berkeley

Meta-Announcement

- We are moving announcements and administrivia out of lecture time and onto the “announcements” bCourses page...
- That is all...

For the Rest of the Course...

- 2016-03-28 Mo - 2016-04-06 We: Measurement, Growth, and the Circular Flow (FBAH chs. 15-21)
- 2016-04-11 Mo - 2016-04-20 We: The Keynesian Approach (FBHA chs. 22-25)
- 2016-04-25 We - 2016-05-09 Mo: Yet More Issues, Final Review, and Exam (FBHA ch. 26)

For the Rest of the Course...

- Measurement, Growth, and the Circular Flow:
 - 2016-03-28 Mo Lecture: Measuring the Macroeconomy (Read Frank et al. chs 15-17)
 - 2016-03-30 We Lecture: Economic Growth in the Very Long Run (Read Frank et al. ch 18)
 - 2016-04-04 Mo Lecture: Saving, Investment, Finance, Money, Prices, and Banking (Read Frank et al. chs. 19-20)
 - 2016-04-06 We Lecture: Business Cycles (Read Frank et al. ch 21)
 - 2016-04-06 Wu/-07 Th Assignment: Problem Set 5 (growth and the circular flow)

For the Rest of the Course...

- The Keynesian Approach:
 - 2016-04-11 Mo Lecture: Income and Spending (Read Frank et al. ch 22) (2016-04-11 Mo)
 - 2016-04-13 We Lecture: The Federal Reserve and Monetary Policy (Read Frank et al. ch 23) (2016-04-13 We)
 - 2016-04-13 We/-14 Th Assignment: Problem Set 6 (the Keynesian model) due
 - 2016-04-18 Mo Lecture: Aggregate Demand and Aggregate Supply (Read Frank et al. ch 24)
 - 2016-04-20 We Lecture: Macroeconomic Policy (Read Frank et al. ch 25)
 - 2016-04-20 We/-21 Th Assignment: Problem Set 7 (macroeconomic policy)

For the Rest of the Course...

- Yet More Issues:
 - 2016-04-25 We Lecture: The International Economy (Read Frank et al. ch 26)
- The Wrap-Up
 - 2016-04-27 FINAL REVIEW
 - 2016-04-27 We/-28 Th Assignment: Problem Set 8 (international and other issues)
 - 2016-05-04 We/-05 Th Section Review Meetings
 - 2016-05-04 We/-05 Th Assignment: Problem Set 9 (final review) due
 - 2016-05-09 Mo: FINAL EXAM

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Orientation

March 16, 2016 8-9 AM
Wheeler Auditorium, U.C. Berkeley

“The Market” as an Institution

- We start from what look like to us deep truths of human psychology
 - People are *acquisitive*
 - People engage in *reciprocity*—i.e., want to enter into reciprocal gift-exchange relationships in which they are neither cheaters nor saps
 - With those they *trust*...

“The Market” as an Institution II

- We devised property as a way of constructing expectations of trust...
- We devised money as a substitute for trust...
- And so, on the back of these human propensities for acquisition and for trusted gift-exchange, we have constructed a largely-peaceful global 7.4B-strong highly-productive societal division of labor:
 - Built on assigning things to *owners*—who thus have responsibility for stewardship and the incentive to be good stewards...
 - And on very large-scale webs of *win-win exchange*...
 - Regulated by *market prices*...
- This is a very valuable and important societal institution...
- Economics is the study of how it—what we usually call “the market”—works...

“The Market” as an Institution III

- In analyzing the market as an institution, we need to cover:
 - The success of the market
 - The failures of the market
 - The political-economic-sociological-historical context of the market
 - The impact of a market economy on the other institutions and practices of society
- Plus there is the peculiar domain of “macroeconomics”

The Market Balance Sheet: Pro

- The market failure-free competitive market in equilibrium, from the perspective of a utilitarian seeking to achieve the greatest-good-of-the-greatest-number, accomplishes these goals:
 1. It produces at a scale that exhausts all possible *win-win exchanges*—and is “efficient” in that sense.
 2. It allocates the roles of producers and sellers to those who can make and sell them in a way least costly to society’s overall resources—to those with the lowest *opportunity cost*.
 3. It rations the commodities produced to those with the greatest *willingness-to-pay*—to those who, by the money standard, need and want them the most.

The Market Balance Sheet: Con

- Markets can go wrong. They can:
 1. not fail but be failed by governments that fail to properly structure and support them—or that break them via quotas, price floors/ceilings, etc.
 2. be out-of-equilibrium
 3. see actors have market power
 4. be afflicted—if that is the word—by non-rivalry (increasing returns to scale; natural monopolies)
 5. suffer externalities (in production and in consumption, positive and negative; closely related to non-excludibility)
 6. suffer from information lack or asymmetry
 7. suffer from maldistributions—for the market will only see you if you have a willingness to pay, which is predicated on an ability to pay...
 8. suffer from non-excludability (public goods, etc.)
 9. suffer from miscalculations and behavioral biases
 10. suffer from failures of *aggregate demand*

To Your i>Clickers...

- Amartya Sen's theory of famines is best summarized as: Famines occur because...
 - A. ...there is not enough food to feed everyone.
 - B. ...poor people do not have enough money.
 - C. ...the market system privileges the demands of the rich for food-as-a-luxury over the demands of the poor for food-for-survival
 - D. (A) and (C)
 - E. (A), (B), and (C)

Review: Case Study: The \$15/ Hour Minimum Wage

March 28, 2016 8-9 AM
Wheeler Auditorium, U.C. Berkeley

The News (Fit to Print?)

- This is, if I may say so, not a very helpful story...
- It doesn't get any better further down the page...
- What would a useful story say?
- Start with basic statistics...

LOS ANGELES — California lawmakers have reached a tentative deal to raise the state minimum wage to \$15 an hour by 2022, potentially signaling the biggest advance yet in a campaign to increase pay for low-income workers that has reverberated in the Democratic presidential contest and in cities across the country.

If approved, California would become the first state to adopt a \$15 an hour minimum wage. A measure to impose a \$15 statewide minimum wage in New York is under negotiation in Albany.

Under the tentative California deal — which could be announced as soon as Monday — the wage, which was raised to \$10 an hour on Jan. 1, would increase incrementally to \$15 over the next six years. Small businesses would have an extra year to comply.

Advocates for the higher wage hailed the California legislation, describing it as a major victory that would propel similar efforts nationally.

"This is a very big deal," said Paul K. Sonn, the general counsel to the National Employment Law Project, a national research and advocacy group on wages. "It would mean a raise for one of every three workers in the state."

The movement has gained traction in a dozen cities, including Los Angeles, San Francisco and Seattle. Last week, the mayor of Washington proposed raising the minimum wage to \$15 by 2020.

In New York, Gov. Andrew M. Cuomo is pushing for a \$15 minimum wage in New York City by the beginning of 2019 and statewide by July 2021. Mr. Cuomo, a Democrat who has previously raised wages to \$15 for state workers and fast-food employees, was attempting to broker a deal with the State Senate, which is led by Republicans who remain wary of the potential economic effect of the wage, particularly in long-suffering areas upstate.

The deal comes as raising the minimum wage has become a central point of contention in the Democratic presidential contest. Bernie Sanders, the Vermont senator running for the Democratic nomination, has made a \$15 federal minimum wage a central plank in his campaign; it is now \$7.25 an hour.

The News (Fit to Print?) II

- Basic statistics:
 - 18M workers in California
 - 3M near-minimum wage workers
 - Proposal for a \$15/hr minimum wage in 2023
 - In the context of an \$8/hr minimum wage at start of 2014
 - \$10/hr minimum wage today

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Useful Context

- 18M workers in California
- 3M near-minimum wage workers
- Proposal for a \$15/hr minimum wage in 2023
- In the context of an \$8/hr minimum wage at start of 2014
 - \$10/hr minimum wage today 2%/year inflation and 2%/year productivity growth over 9 years
- $(1.04)^9 = 1.3$
- $\$15/\text{hr}/1.3 = \$10.50/\text{hr}$
- 3M workers covered...

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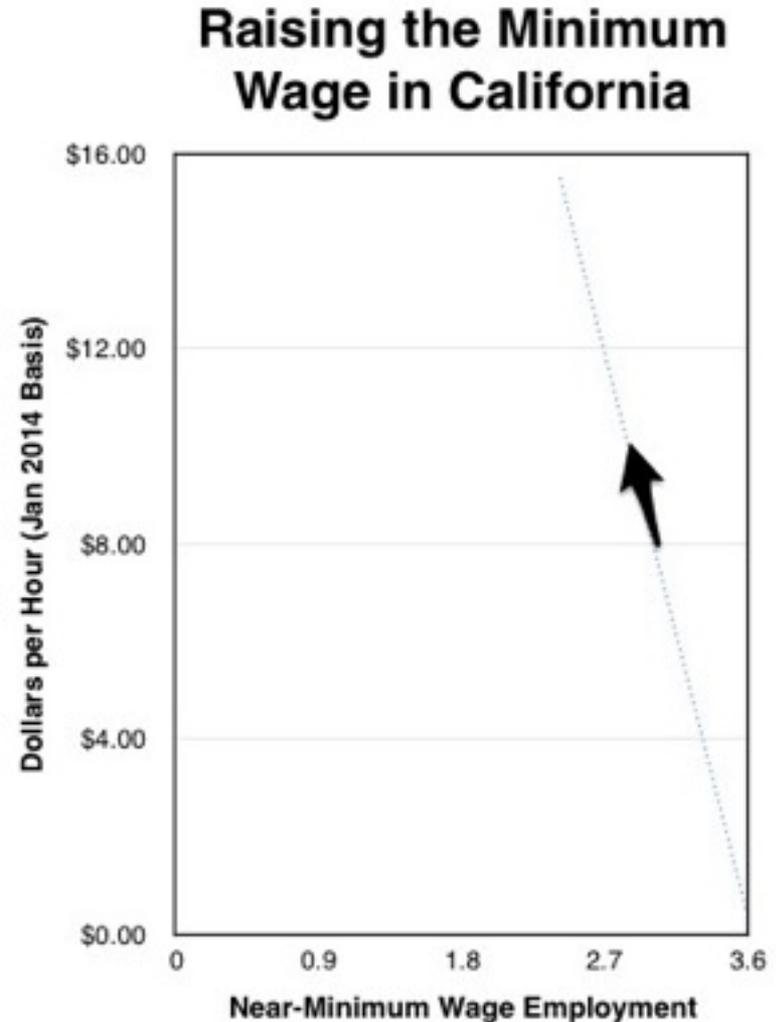
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Analysis

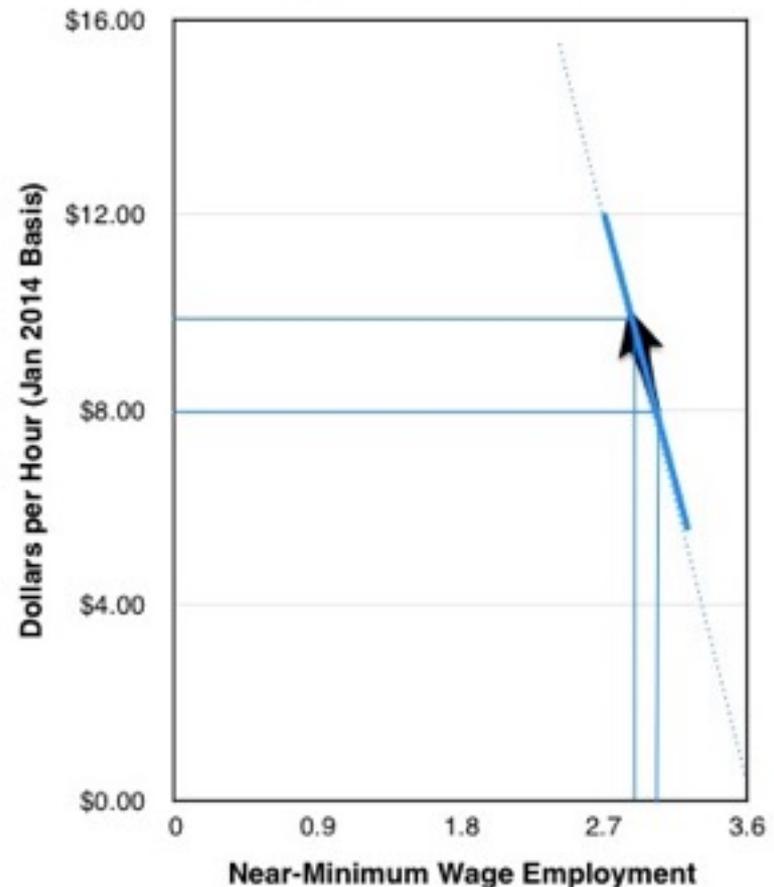
- Governor Jerry Brown and the Democrats in the California state legislature have embarked on a plan to raise the minimum wage over a decade
- By $\$2.50/\$8 = 31.25\%$
- What effect would this have on the 3M workers at the low end of the labor market?
- Meta-analysis of Doucouliagos et al.: “Publication Selection Bias in Minimum-Wage Research? A Meta-Regression Analysis”: -0.2: a 1% increase in the minimum wage reduces employment by 0.2%



To Your i>Clickers

- A 1% increase in the minimum wage reduces employment by 0.2%
- As the minimum wage on a 2014 basis goes up from \$8 -> \$10.50/ hr...
- Employment of low-wage workers will go from 3M to:
 - A. 2.805M
 - B. 3.195M
 - C. 2.650M
 - D. 2.105M
 - E. None of the above...

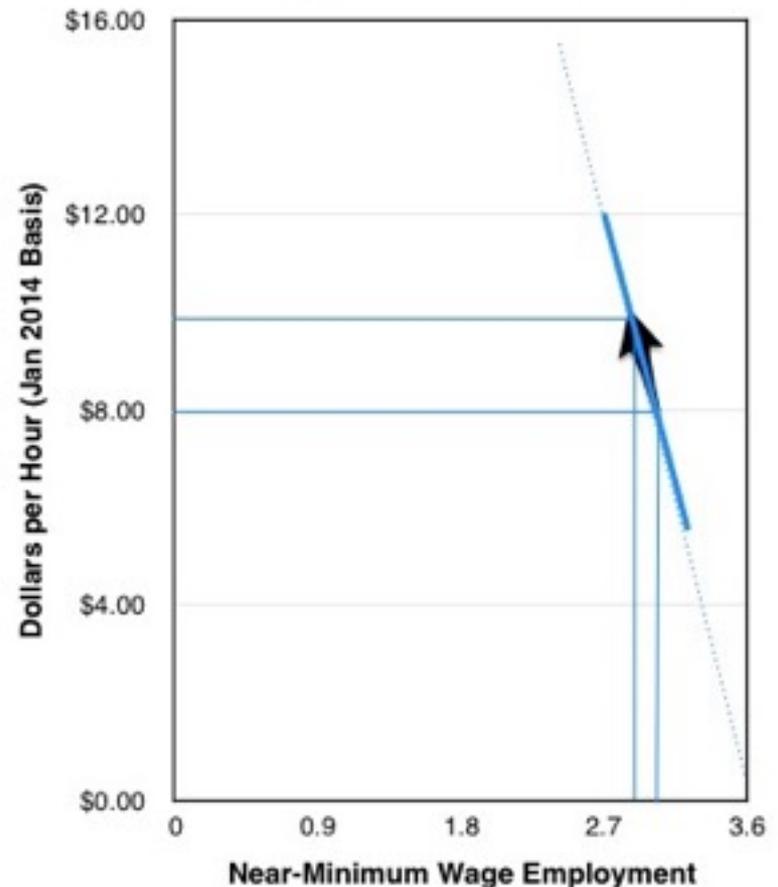
Raising the Minimum Wage in California



To Your i>Clickers

- A 1% increase in the minimum wage reduces employment by 0.2%
- As the minimum wage on a 2014 basis goes up from \$8 -> \$10.50/hr and low-wage employment goes from 3 -> 2.805M...
- At an average workweek of 30 hrs/wk, those 0.195M workers affected by job losses lose a total of
 - A. \$46.8M/week
 - B. \$61.4M/week
 - C. \$1.56M/week
 - D. \$15.6M/week
 - E. None of the above...

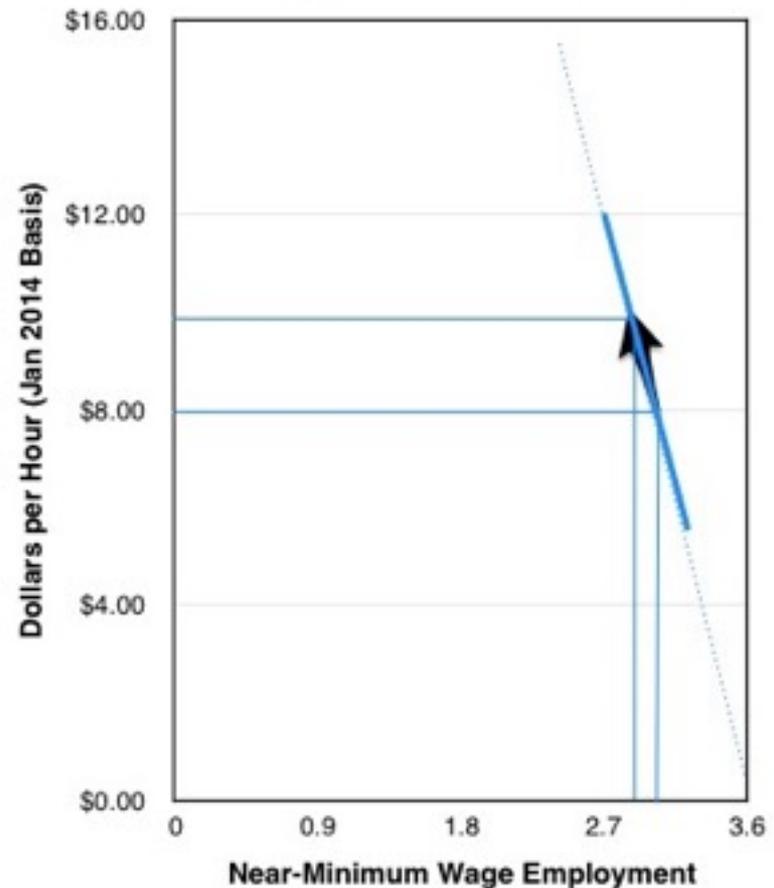
Raising the Minimum Wage in California



To Your i>Clickers

- A 1% increase in the minimum wage reduces employment by 0.2%
- As the minimum wage on a 2014 basis goes up from \$8 -> \$10.50/hr and low-wage employment goes from 3 -> 2.805M...
- At an average workweek of 30 hrs/wk, those 2.805M workers who receive wage gains see their incomes increased by
 - A. \$210.4M/week
 - B. \$673.2M/week
 - C. \$883.575M/week
 - D. \$105.2M/week
 - E. None of the above...

Raising the Minimum Wage in California



To Your i>Clickers

- A 1% increase in the minimum wage reduces employment by 0.2%...
- As the minimum wage on a 2014 basis goes up from \$8 -> \$10.50/hr and low-wage employment goes from 3 -> 2.805M...
- At an average workweek of 30 hours, the reduction in total surplus is:

A. $\$2.50 \times 0.195\text{M} \times 30 \times 1/2 =$
 $\$7.3125\text{M}/\text{week}$

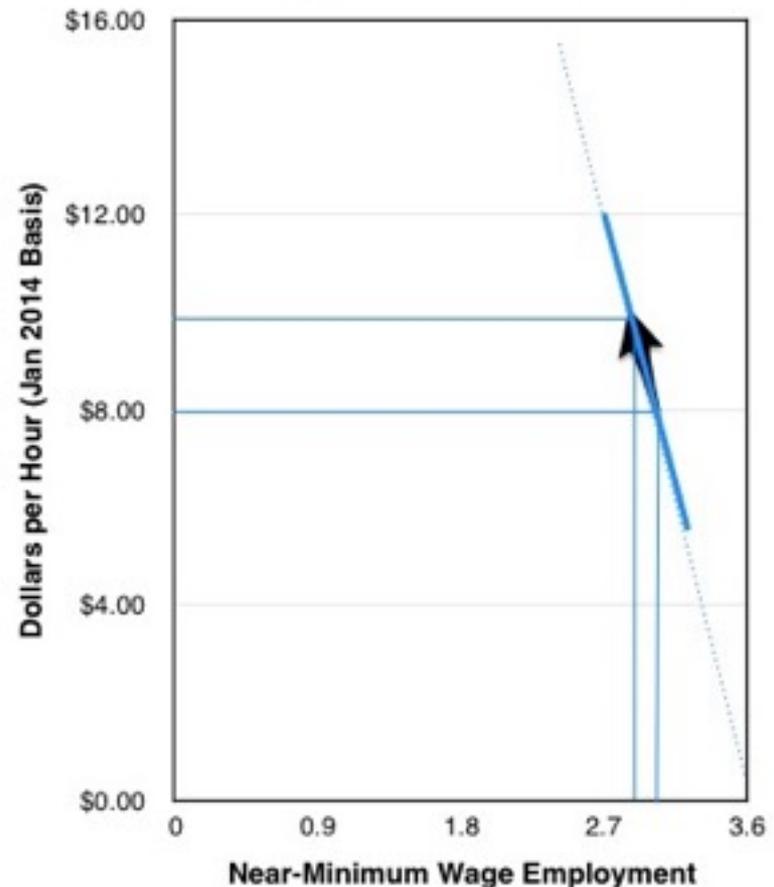
B. $\$2.50 \times 0.195\text{M} \times 30 =$
 $\$14.625\text{M}/\text{week}$

C. $\$8 \times 0.195\text{M} \times 30 \times 1/2 =$ $\$23.4\text{M}/$
 week

D. $\$10.50 \times 0.195\text{M} \times 30 \times 1/2 =$
 $\$30.7125\text{M}/\text{week}$

E. None of the above...

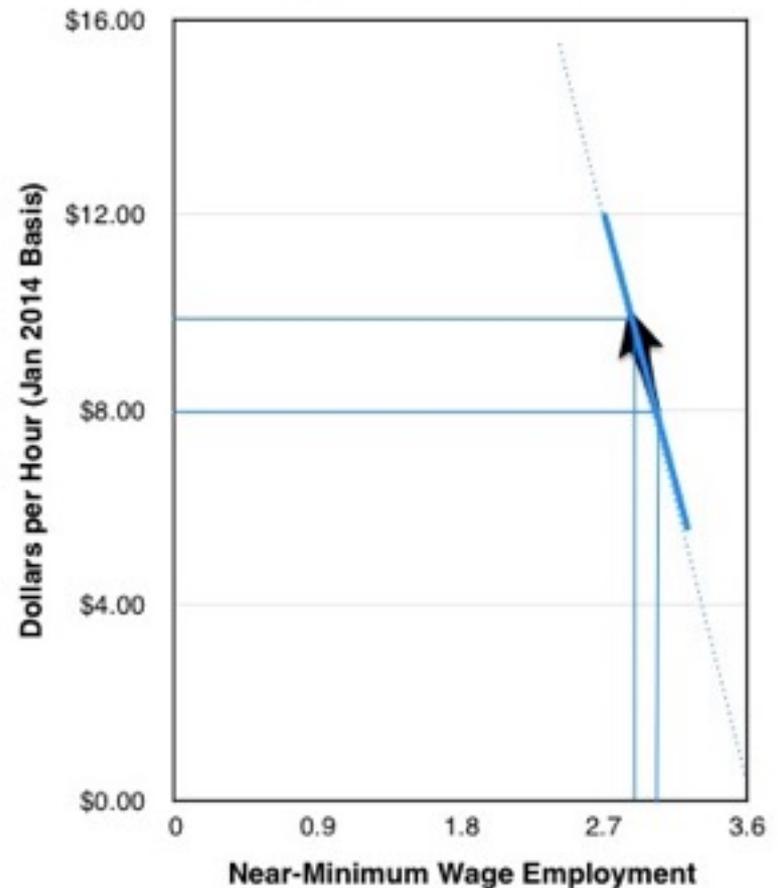
Raising the Minimum Wage in California



Summing Up the Impact...

- A reduction in surplus from the low-wage labor market in California of \$7.3125M/week
- A transfer of surplus from consumers and employers to low-wage workers in California of \$210.4M/week
- A good thing as long as you think wealth in the hands of employers and consumers is less than 96.5% as worthwhile as income in the hands of low-wage workers...

Raising the Minimum Wage in California



Measuring the Economy

March 28, 2016 8-9 AM
Wheeler Auditorium, U.C. Berkeley

Measuring the Economy

- How prosperous are we?
- Add up the value of goods and services produced in the economy
 - *Final* goods (and services)
 - Total and *per capita* (and *per worker*)
 - Adjusted for changes in the *price level*—in the *purchasing power of money*

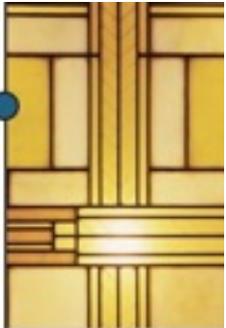
CHAPTER 15

Spending, Income, and GDP



HOW DO ECONOMISTS MEASURE THE ECONOMY'S OVERALL HEALTH?

Nominal gross domestic product grew at a 2 percent rate in the third quarter . . .
“The Dow Jones Industrial Average closed up 93 points yesterday in moderate trading . . .”
“Inflation appears subdued as the consumer price index registered an increase of only 0.2 percent last month . . .”
“The unemployment rate last month rose to 5.8 percent, its highest level since . . .”



LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- LO1 Explain how economists define and measure an economy's output.
- LO2 Apply the expenditure method for measuring GDP to analyze economic activity.
- LO3 Define and compute nominal GDP and real GDP.
- LO4 Discuss the relationships between real GDP and economic well-being.

Gross Domestic Product

- “GDP”
- *Per capita or per worker*
- Home production?
- Depreciation—NDP?
- Marketed goods and services only—Wikipedia does not count?
- We really want a surplus-based measure...
- But this is what we can calculate...

RECAP	MEASURING GDP
	<p>Gross domestic product (GDP) equals the market value of final goods and services produced within a country during a given period.</p> <ul style="list-style-type: none">• GDP is an aggregate of the market values of the many goods and services produced in the economy.• Goods and services that are not sold in markets, such as unpaid housework, are not counted in GDP. An important exception is goods and services provided by the government, which are included in GDP at the government's cost of providing them.• Final goods and services—goods and services consumed by the ultimate user—are counted in GDP. By convention, newly produced capital goods, such as factories and machines, also are treated as final goods and are counted in GDP. Intermediate goods and services, which are used up in the production of final goods and services, are not counted.• In practice, the value of final goods and services is determined by the value-added method. The value added by any firm equals the firm's revenue from selling its product minus the cost of inputs purchased from other firms. Summing the value added by all firms in the production process yields the value of the final good or service.• Only goods and services produced within a nation's borders are included in GDP.• Only goods and services produced during the current year (or the portion of the value produced during the current year) are counted as part of the current-year GDP.

Components of Total Demand for U.S.-Made Commodities

- Four major categories:
 - Consumption expenditures by households
 - Investment expenditures by businesses
 - Government purchases—valued at factor cost
 - Net exports—exports minus imports
- Currently \$18T/year
 - \$56,000/year per capita
 - \$110,000/year per worker

TABLE 15.2

Expenditure Components of U.S. GDP, 2013 (billions of dollars and % of total GDP)

Consumptions		11,484.4	68.5%
Durable Goods	1249.3		
Nondurable Goods	2601.9		
Services	7633.2		
Investment		2,648.0	15.8%
Business fixed investment	2054.0		
Residential investment	519.9		
Inventory investment	74.1		
Government Purchases		3,143.9	18.7%
Net Exports		-508.2	-3.0%
Exports	2262.9		
Imports	2770.2		
Total: Gross domestic product		16,768.1	

SOURCE: U.S. Bureau of Economic Analysis, www.bea.gov.

Nominal GDP versus Real GDP

- The purchasing power of money
 - MIT's Billion Prices Project
 - The BLS and the CPI
 - Close agreement between series constructed on very different principles is quite heartening and quite reassuring
- Want to distinguish changes in GDP that come about as a result of changes in production from those that come about as a result of changes in the purchasing power of money

DAILY ONLINE PRICE INDEX

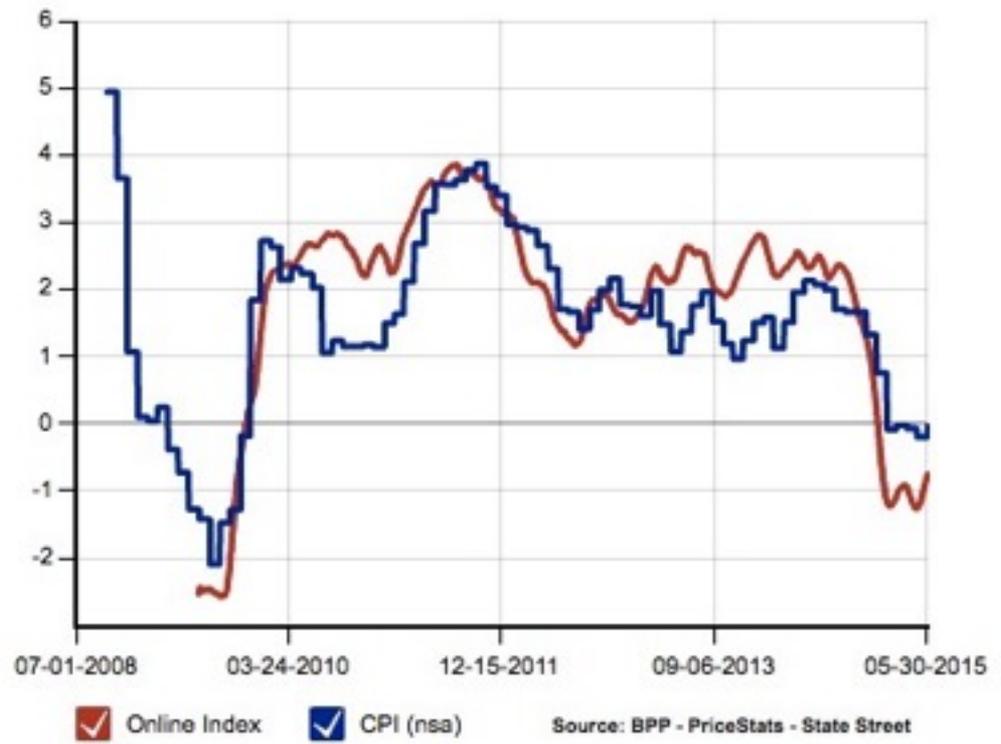


The Inflation Rate

- The rate of change of the price level—in percent per year—is the inflation rate...
- The Federal Reserve thinks it appropriate for the U.S. economy to have a CPI-inflation rate that is steady at about 2.5%/year
- Inflation works as a tax on liquid savings
- And as making rational calculation more difficult
- But, in general, inflation raises both your costs and your income by about the same percentage

ANNUAL INFLATION

(last 365 days)



Inflation Makes Politicians Unpopular

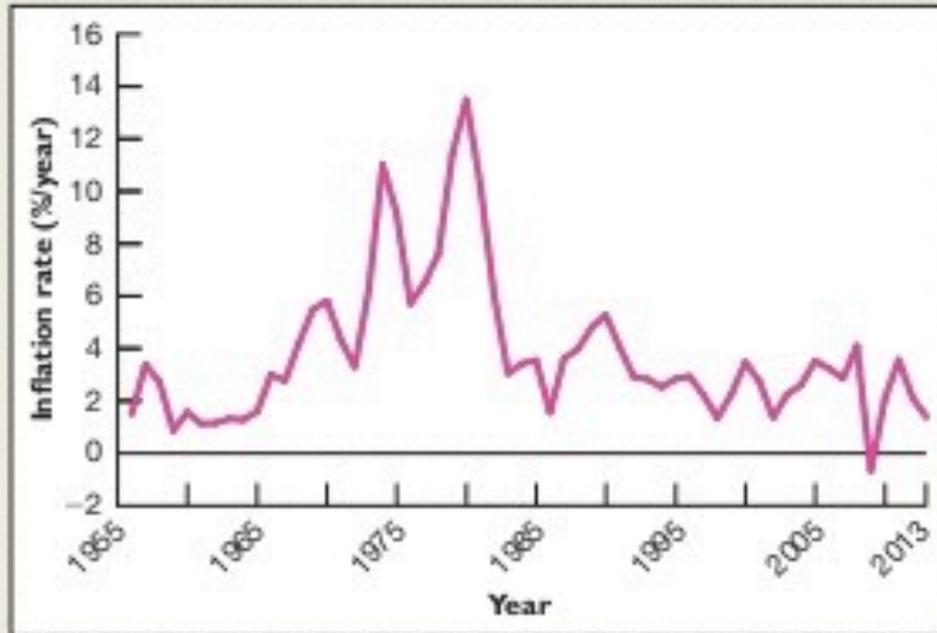


FIGURE 16.1

The U.S. Inflation Rate, 1956–2013.

The U.S. inflation rate has fluctuated over time. Inflation was high in the 1970s but has been quite low recently.

SOURCE: FRED, Federal Reserve Economic Data, from the Federal Reserve Bank of St. Louis, <http://research.stlouisfed.org/fred2/>.

- The burst of >4%/year inflation from 1968-1984 was a big deal in American politics, government, and political economy
- After 1984, nobody wanted to go through that again
- Hence our current Age of the Central Banker

Real and Nominal Wages

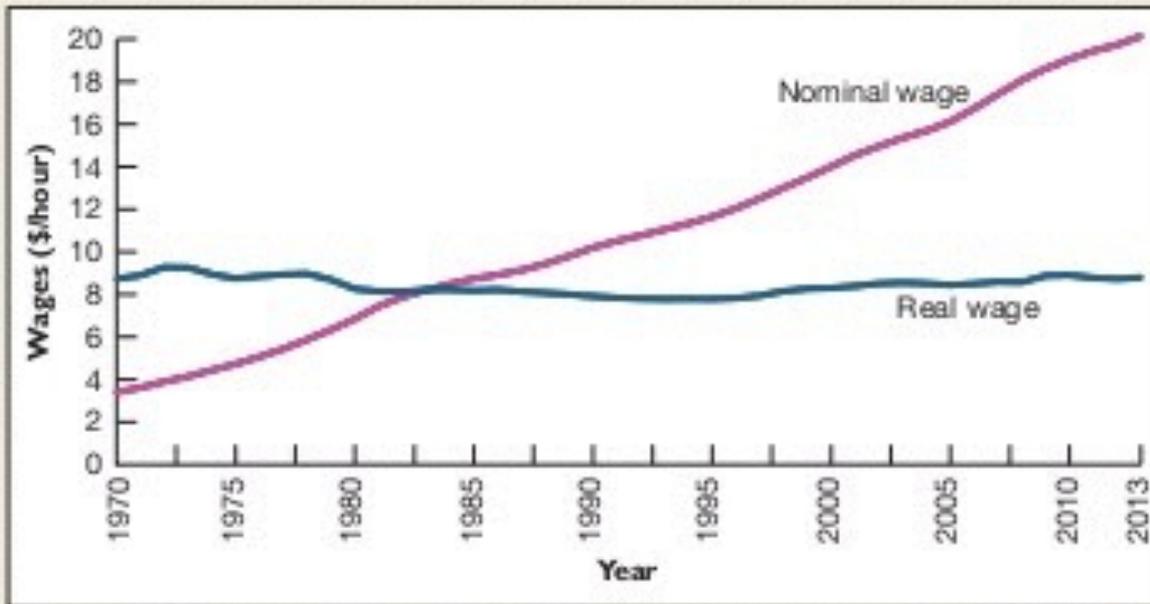


FIGURE 16.2

Nominal and Real Wages for Production Workers, 1970–2013.

Though nominal wages of production workers have risen dramatically since 1970, real wages have stagnated.

SOURCE: FRED, Federal Reserve Economic Data, from the Federal Reserve Bank of St. Louis, <http://research.stlouisfed.org/fred2/>.

- American wage stagnation since 1970
- American production workers paid $> \$21/\text{hr}$ today, $< \$3.75$ in 1970, yet all of that increase “eaten up” by inflation

Employment and Unemployment

TABLE 17.5

U.S. Employment Data, August 2014 (in millions)

Employed	146.37
Unemployed	9.59
Labor force	155.96
Not in labor force	92.27
Working-age (over 16) population	248.23
Unemployment rate = $9.59/155.96 = 6.1\%$	
Participation rate = $155.96/248.23 = 62.8\%$	

SOURCE: Bureau of Labor Statistics, www.bls.gov.

- 158M workers
- 10M unemployed

Employment and Unemployment

TABLE 17.5

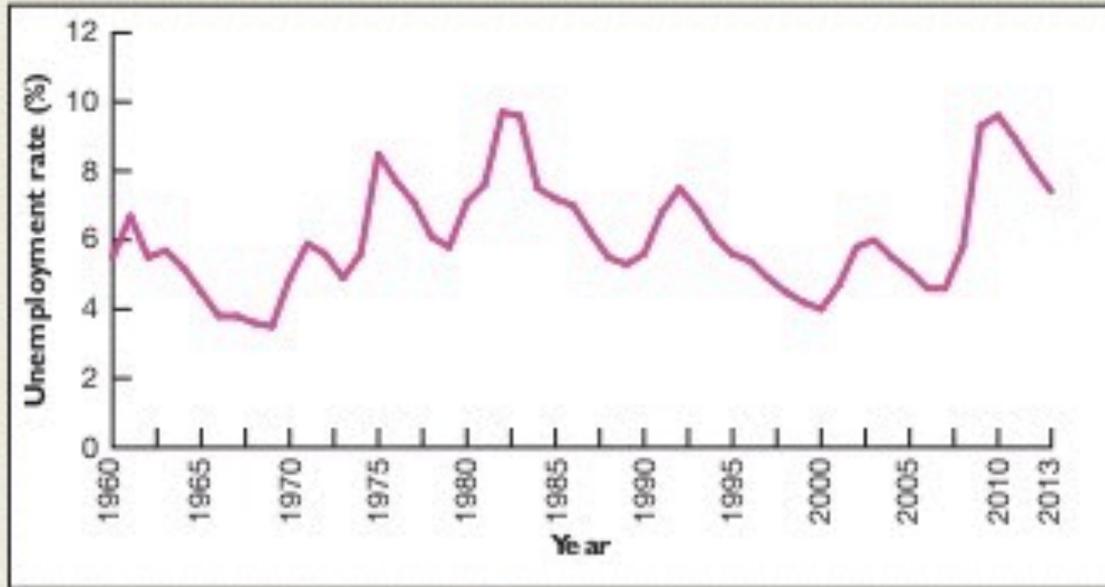
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Unemployment Over Time



SOURCE: Bureau of Labor Statistics, www.bls.gov.

FIGURE 17.8

The U.S. Unemployment Rate, 1960–2013.

The unemployment rate—the fraction of the U.S. labor force that is unemployed—was just above 4 percent in the late 1990s, the lowest recorded rate since the latter part of the 1960s. Unemployment rose above 9 percent in 2009 during the recession that began in December 2007, and it began falling again in 2010.

- Large fluctuations in the unemployment rate
- These are what we call the “business cycle”

Unemployment and Participation Over Time

