Six Key Economic Variables

The problem with gross domestic product is the *gross* bit. There are no deductions involved: all economic activity is accounted as if it were of positive value. Social harm is added to, not subtracted from, social good. A train crash which generates £1bn worth of track repairs, medical bills and funeral costs is deemed by this measure as beneficial as uninterrupted service which generates £1bn in ticket sales.

George Monbiot

Key Economic Variables

- We can get a very good idea of the pulse of economic activity by looking at only six key economic variables, six variables that together give a very large chunk of significant information about the macroeconomy. These six variables are:
  - real GDP
  - the unemployment rate
  - the inflation rate
  - the interest rate
  - the level of the stock market
  - the exchange rate

Real Gross Domestic Product (GDP)

- real: corrected for changes in the price level
- gross: includes the replacement of worn-out and obsolete equipment and structures as well as new investment
- domestic: counts economic activity that happens in the US
- product: represents the production of final goods and services

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP deflator}}$$

Real Gross Domestic Product

- ...measures how well the economy produces goods and services that people find useful
- often divided by the number of workers in the economy (GDP per capita)
- does *not* indicate the relative *distribution* of the nation's economic product
- an imperfect measure of economic well-being
- Over time, economies tend to move through periods of peak and trough. This business cycle is the fluctuations in the rate of economic growth that take place in the economy.

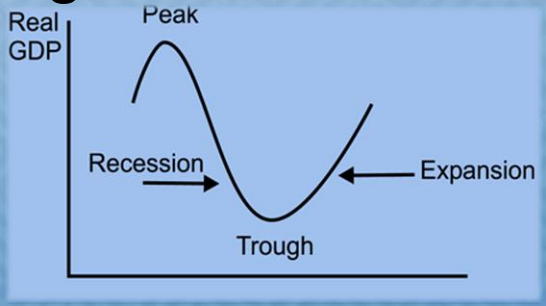
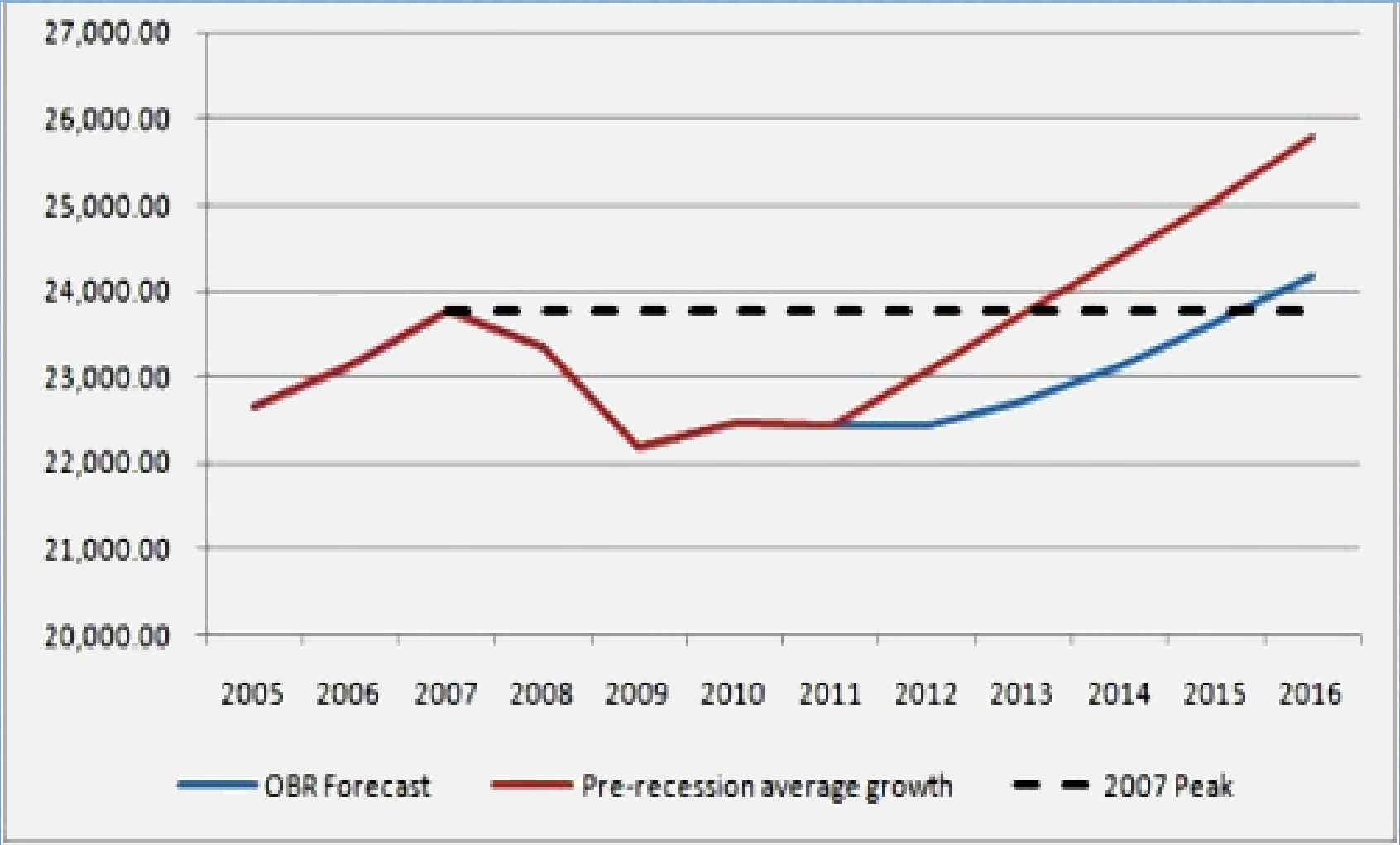


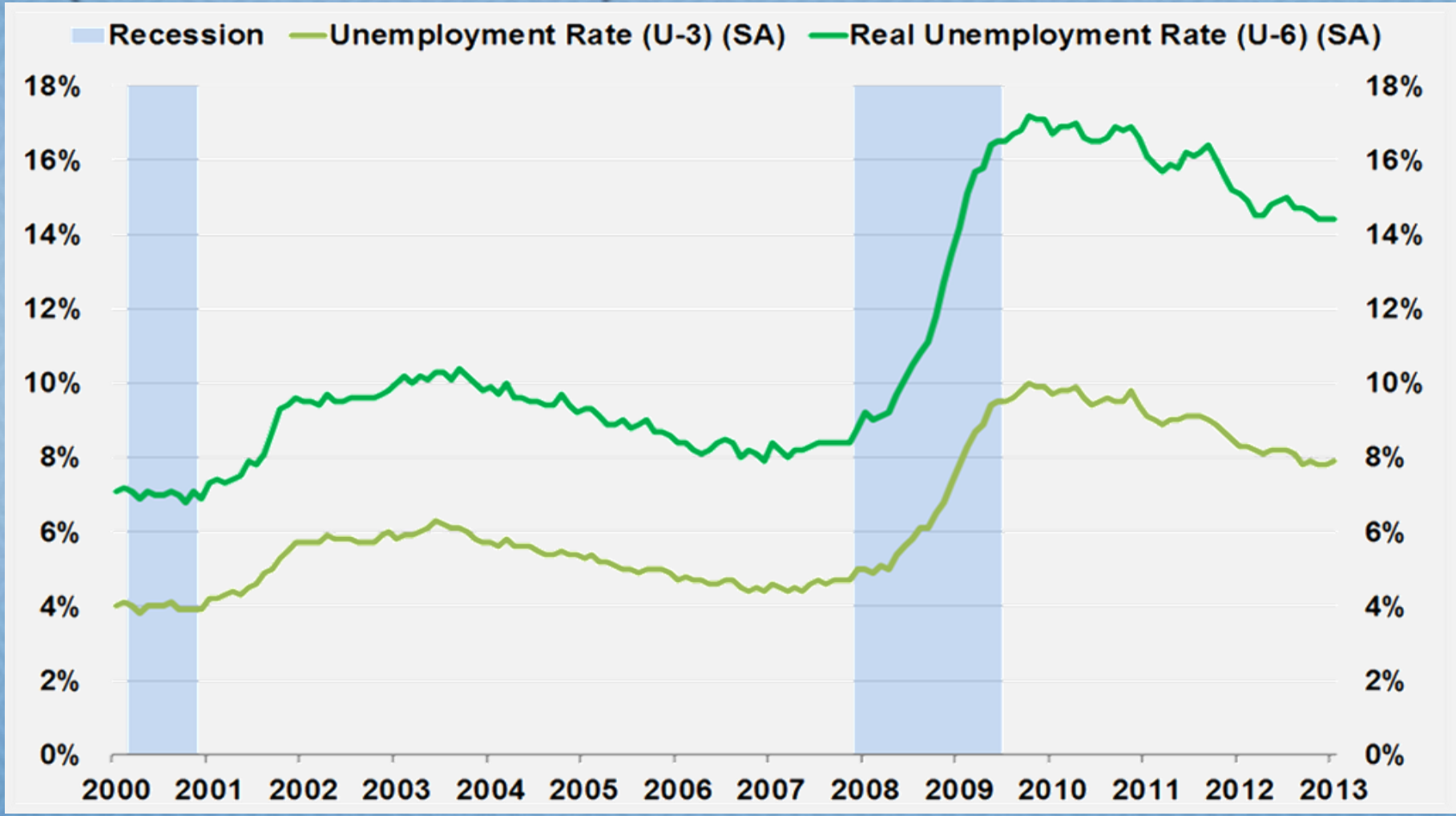
Chart: US Real GDP per Capita, 2005-2016



The Unemployment Rate

- ...equal to the number of unemployed people divided by the labor force
- To be unemployed, a person must want to work and be actively looking for a job (but not yet have one).
- The labor force consists of those who are employed and those who are unemployed.
- unemployment rate (U-3): the rate that's reported to the media and public ... only counts those who are completely unemployed and have looked for a job in the *past four weeks*
- real unemployment rate (U-6): U-3 numbers plus marginally attached (haven't looked in last 4 weeks), discouraged (given up and stopped looking) and underemployed (working part-time but still looking for full-time) ... U-6 includes *everyone* who wants a full-time job but doesn't have one and is usually twice U-3

Chart: US Unemployment Rate (U-3 and U-6), 2000-2013



The Strange Case of American Inequality

The Unemployment Rate

- frictional unemployment: occurs because workers and firms spend time searching for the best match
- cyclical unemployment: occurs during recessions and depressions
- The unemployment rate is the *best* indicator of how well the economy is doing relative to its productive *potential*.

The Unemployment Rate

- An economy with no unemployment would not be a good economy.
- Just as an economy needs inventories of goods - goods in transit, goods in process, goods in warehouses and sitting on store shelves - in order to function smoothly, so an economy needs inventories of jobs-looking-for-workers (vacancies) and of workers-looking-for-jobs (the unemployed).
- An economy in which each business grabbed the first person who came in the door to fill a newly-open job and in which each worker took the job associated with the first help-wanted sign that he/she saw would be a less productive economy.

The Unemployment Rate

- We want workers to be somewhat choosy about what jobs they take, to be willing to think "this job pays too little" or "this job would be too unpleasant."
- We want employers to be somewhat choosy about which workers they hire, to find the best fit.
- Such frictional unemployment is an inevitable part of any process that will make good matches between workers and firms: match workers qualified to do jobs with jobs that use their qualifications.

The Unemployment Rate

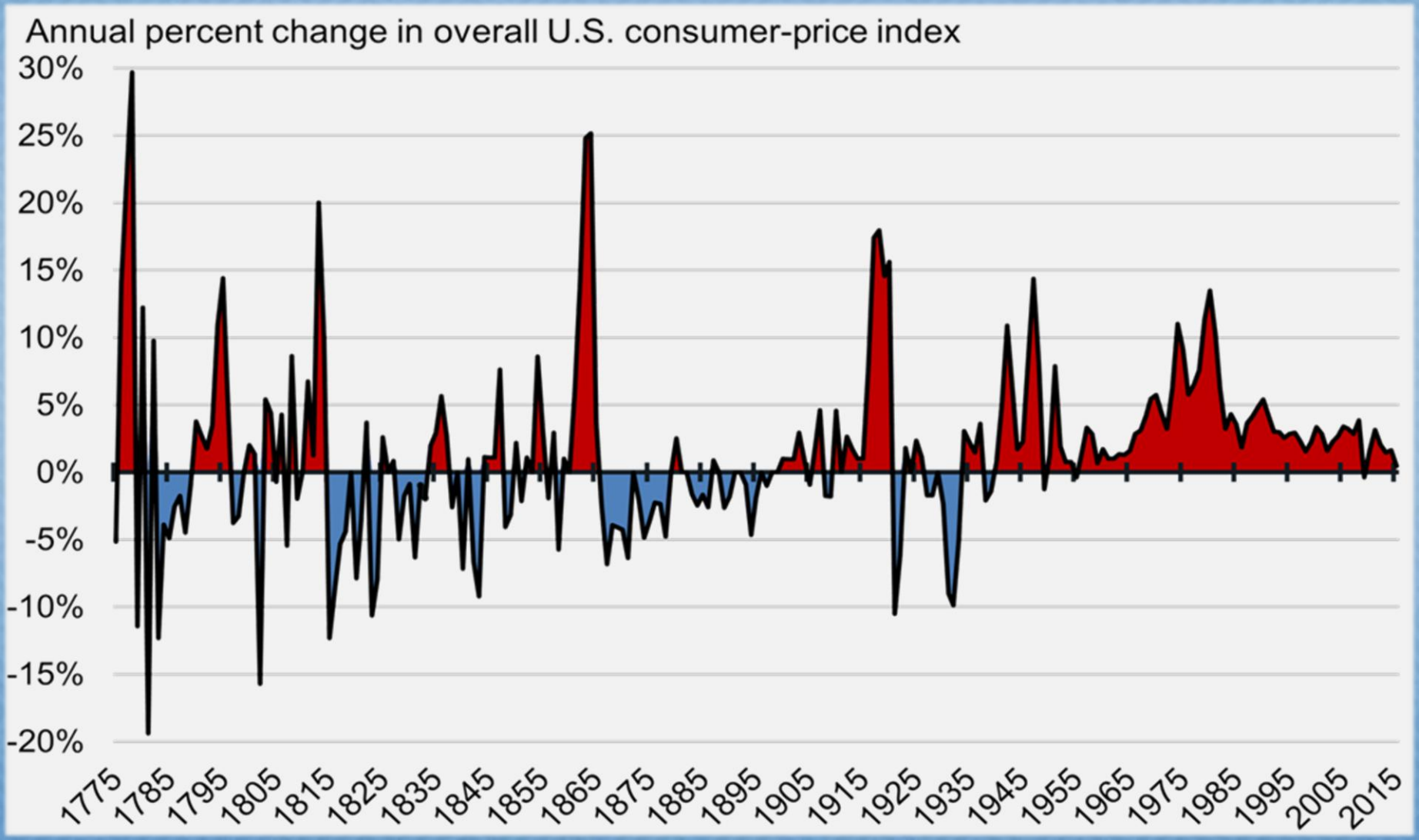
- But there are recessions and depressions during which unemployment is definitely not frictional.
- The market economy's matching of the supply of workers willing and able to work with businesses that could put their skills and labor-power to making useful goods and services breaks down.
- In the US and Germany during the Great Depression, the share of workers unemployed rose to between 25% and 30%.
- The unemployment rate is perhaps the best indicator of how well the economy is living up to the potential created by the current level of technology and the current stock of productive capital.

The Inflation Rate

- ...a measure of how fast the overall price level is rising
- If the inflation rate this year is 5%, that means this year things in general cost 5% more in money terms than last year.
- Moderate inflation rates - more than 10% a year - are very unsettling to consumers and businesses.
- Hyperinflation (one of the worst economic disasters that can befall an economy) occurs when the price level is rising by more than 20% per month.

Germany's Hyperinflation-Phobia, The Worst Hyperinflations in History: Hungary

Chart: US Inflation Rate (CPI), 1775-2015



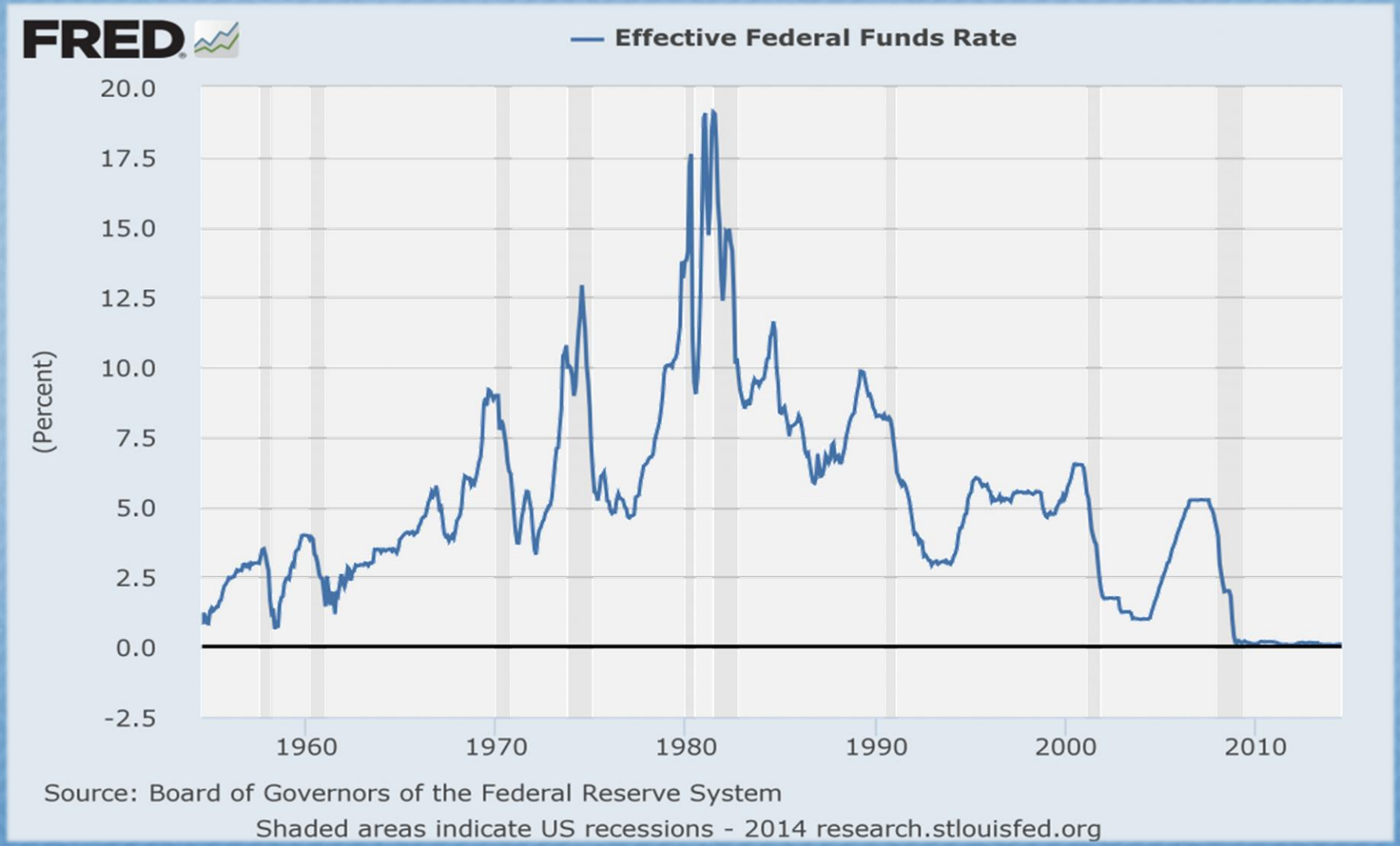
The Interest Rate

- ...important because it governs the redistribution of purchasing power across time
- The many different interest rates in the economy – applying to loans that mature at different times in the future and to loans of different degrees of risk – vary by duration and degree of risk but often move up and down together.

The Interest Rate

- When interest rates are low (money is "cheap“) investment tends to be high, because businesses find that even less-profitable investments will still generate the cash flow needed to pay the interest and repay the principal sum borrowed.
- nominal interest rate: interest rate in terms of money ... does *not* take into account the effects of inflation
- real interest rate: nominal interest rate minus the inflation rate ... *does* take into account the effects of inflation

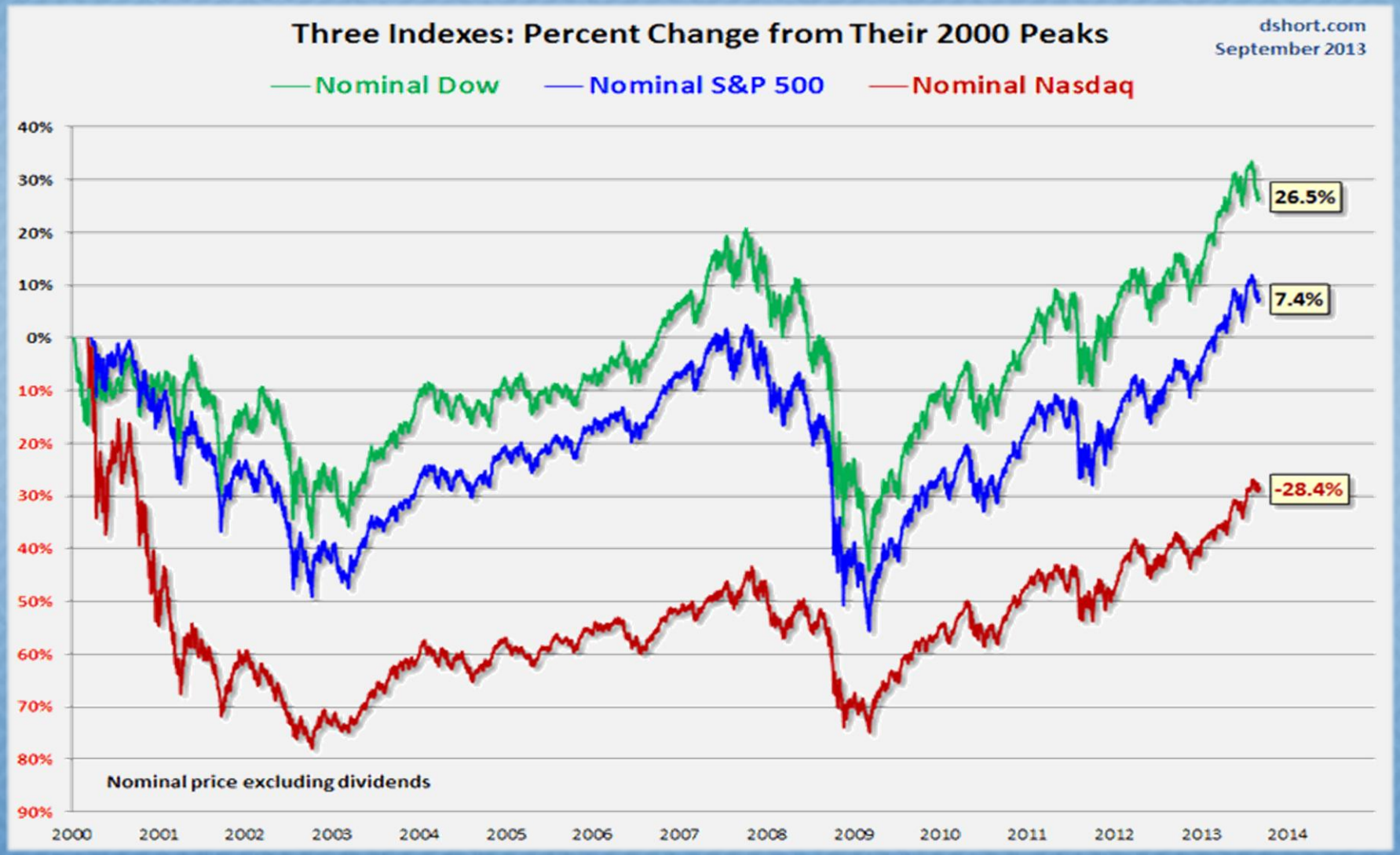
Chart: US Effective Federal Funds Rate, 1950-2015



The Stock Market

- ...most talked about of the six variables
- ...an index of expectations for the future
- A high value (rising prices, bull market) means that investors expect economic growth to be rapid, profits to be high and unemployment to be low.
- When the stock market is low (falling prices, bear market), average opinion expects the economic future to be relatively gloomy.

Chart: Stock Index Percent Change, 2000-2014



The Exchange Rate

- ...the price of one currency in terms of another currency. For example, if the exchange rate between the £ and the $ is £1=$1.65, you pay a price of £1 for every $1.65.
- Exchange rates can be fixed or floating.
  - Fixed means that rates stay at the value set by the government.
  - Floating means that rates fluctuate day to day according to the market.

The Non-Existent but Remarkable Austerity-Depreciation Mechanism

The Exchange Rate

- nominal exchange rate: rate at which monies of different countries can be exchanged for one another
- real exchange rate: (1) nominal exchange rate adjusted for inflation ... $R = EP^*/P$ (where E is the nominal domestic-currency price of foreign currency, P is the domestic price level, and P* is the foreign price level) or (2) real price of foreign goods ... the quantity of domestic goods needed to purchase a unit of foreign goods

The Exchange Rate

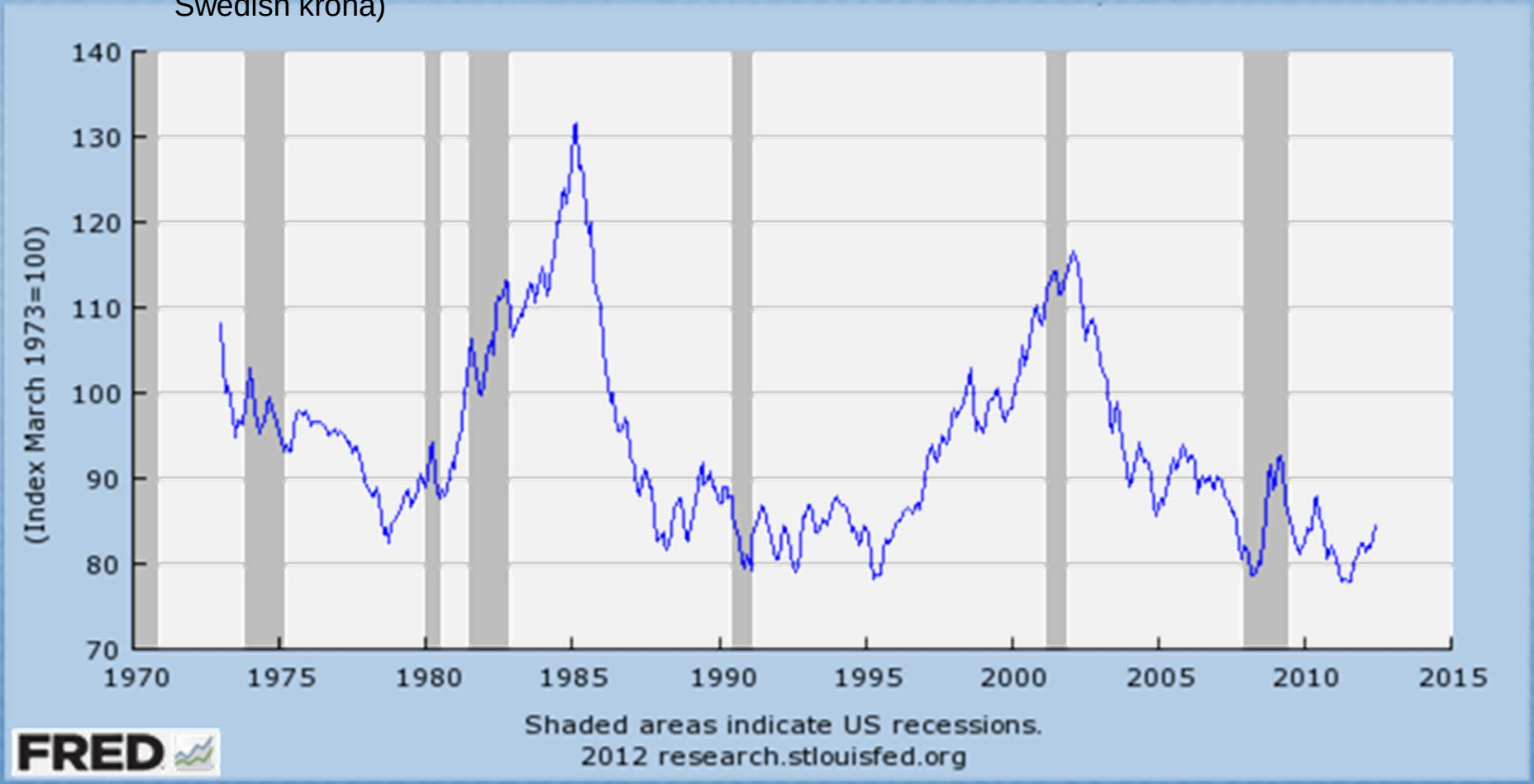
- ...governs the terms under which international trade and investment take place
  - if domestic currency appreciates
    - its value *compared to other currencies* increases
    - foreign-produced goods are relatively cheap for domestic buyers ... imports are likely to be high
    - domestic-made goods are relatively expensive for foreigners ... exports are likely to be low

The Exchange Rate

- ...governs the terms under which international trade and investment take place
  - if domestic currency depreciates
    - its value *compared to other currencies* declines
    - domestic-produced goods are relatively cheap for foreign buyers ... exports are likely to be high
    - foreign-made goods are relatively expensive for domestic buyers ... imports are likely to be low

Chart: Real Trade Weighted US Dollar Index against Major Currencies, 1970-2015

(Euro, Canadian dollar, Japanese yen, British pound, Swiss franc, Australian dollar, Swedish krona)



The End


DOLLAR
DOWN
GDP
UP
INFLATION
DOWN
INTEREST
UP
UN-
EMPLOYMENT
UP
STOCK
MARKET
DOWN