

18th Class

3/2/11

don't forget test tonight in Judd 116

today I'd like to do three pieces of business; define some main macroeconomic indicators, use them to look at US macroeconomic history over the "modern" period, and talk a little about the current state of the economy

define some main indicators

GDP (loosely defined last time)—Gross Domestic Product = $\sum P \cdot Q$, is the monetary value of the goods and services produced over all of the final (as opposed to intermediate, which are inputs into other goods) product markets in the country

GDP per capita = GDP/population; gives an idea of the amount of stuff available per person

nominal vs. real

assume the base year is year 0

nominal GDP in year 1 = $\sum P_1 \cdot Q_1$

real GDP in year 1 = $\sum P_0 \cdot Q_1$

(and nominal GDP in year 0 = $\sum P_0 \cdot Q_0$ = real GDP in year 0)

inflation (defined last time as rises in the price level, i.e. the general level of prices in the economy)

the inflation rate is generally the percent change in the price level relative to the preceding period

different measures of inflation:

$$\text{GDP deflator} = 100 * \frac{\sum P_1 \cdot Q_1}{\sum P_0 \cdot Q_1} = 100 * \frac{\text{nominal GDP}}{\text{real GDP}}$$

CPI—consumer price index, prices a fixed basket of goods and services and shows changes in

the price of buying that fixed basket, $100 * \frac{\sum P_1 \cdot Q_0}{\sum P_0 \cdot Q_0}$

so note there are two basic ways of constructing a price index: weighting prices by base year quantities (like the CPI), or weighting prices by current year quantities (like the GDP deflator)

they are answering different hypotheticals and as such neither is exactly equivalent to what consumers actually experience, because consumers change their purchasing from year to year, partly in response to changes in prices!

unemployment

different definitions of unemployment in different countries

for the US, we define a person as unemployed if they don't have a job but is actively looking for employment

the unemployment rate is the percent of the labor force that is unemployed, where the labor force = employed + unemployed

(the rest of the population is those not in the labor force, i.e. don't have a job but not actively looking for employment; includes what are known as discouraged workers)

terms for periods where GDP is changing:

what is a:

recession—period where GDP falls; usually defined as falling for at least two consecutive quarters; any year where there is a net decline is a recession year

The Business Cycle Dating Committee of the National Bureau of Economic Research (NBER, which is a private thinktank) is the official decider for the US of when recessions begin and end <http://www.nber.org/> (show business cycle page)

depression—a sustained downturn/recession with bigger change in unemployment; no set definition

contraction—also used to refer to sustained downturns/recessions; again no set definition, but implication that things continue to get worse during it

expansion—opposite of contraction, synonymous with upturn (but maybe going on longer), so times of economic growth and reduced unemployment

peak and trough—top and bottom for cycle points

how to think about how well we are over time? We want to look both at growth over long periods of time, and fluctuation over subsections of those periods

several sources for macroeconomic data; linked to the course webpage are the Economic Report of the President, the St. Louis Fed data site (main data site for the Federal Reserve System), data

from the NY Fed, and Fedstats; later in the course we'll look at some more of the international data (mostly macro as well, as in describing the whole country)

common measure of long-run well-being and also comparison across countries: GDP per capita; e.g., we can look at this measure from 1790 to the present for the US:

<http://www.measuringworth.com/> (mention this is also a good source for finding historical inflation rates—back to 1265 in the case of the UK, 1775 for the US)

show the data for US GDP and have it plot some of the measures

--real GDP

--real GDP per capita

(run cursor along graphs to see exact value at different points)

across countries, if we want to know what the biggest economies are, look at total GDP

e.g., http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29

alternatively, if we want to know how well off people are in different countries, look at GDP per capita

e.g., http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29_per_capita

there are some issues with this too (a dollar goes farther in some countries than in others, so it can also be done by purchasing power per capita; we'll look at that version later in the course)

now let's consider fluctuations.

It's interesting to look at the recent macroperiod and see when the recessions (as defined by the NBER) occurred and what the change in real GDP is in those periods.

go to St. Louis Fed page and show real GDP and %chg GDP graphs from FRED

<http://research.stlouisfed.org/>

we can also try to think more about what were the effects on people of those fluctuations

show FRED graphs for unemployment and inflation

can add them together to create the misery index (unemployment rate + inflation rate)

1948-2009 <http://www.miseryindex.us/>

so what has been going on most recently, and what should we keep an eye on for the rest of this semester?

Some people find this the fun part of economics: trying to figure out what will happen next economics tends to do better at explaining after the fact what happened than at predicting what will happen, though you can always find people that predicted any given event

the recession that we're now climbing out of was a big deal, both because it was so bad and because it was due to a cause that really hadn't happened before

It is instructive to read this year's Economic Report of the President to see their take on how things are now and how things were in the depth of the recession.

<http://www.gpoaccess.gov/eop/>

(show first part of report, read p. 19; p. 29, bottom of p. 31, top of. p. 32; bottom of p. 33, p. 34

what's ahead for the US?

Let's look at some consensus forecasts by economists

<http://www.nabe.com/publib/macsum.html>