Lecture 3

More Macro Data

- Computing real GDP – Chapter 6
- Computing price indices – Chapter 6
- Interest rate data – not in book
- Kinds of unemployment – Chapter 7
- Costs of inflation – Chapter 7

Fixed weight price index, like the CPI:

Quantity weights are fixed—the actual quantities purchased in some given year. The prices for each year are multiplied by the same quantity weights year after year. As the price of one good rises relative to prices of other goods, people usually substitute away from the higher price good. Using fixed quantity weights does not capture this quantity change, so the higher price good is weighted too much. The CPI is biased upward.

	Q_1	Q_2	P_1	P_2
A	6	11	.50	.40
B	7	4	.30	1.00
C	10	12	.70	.90

BASE YEAR = 1

.50×6+.30×7+.70×10=$12.10 Nominal GDP

.40×6+1.00×7+.90×10=$18.40

$$\frac{18.40}{12.10}=1.52 \text{ (52\% inflation using year 1 quantities)}$$

BASE YEAR = 2

.50×11+.30×4+.70×12=$15.10

.40×11+1.00×4+.90×12=$19.20 *Nominal GDP*

$$\frac{19.20}{15.10}=1.27 \text{ (27\% inflation using year 2 quantities)}$$

$$\frac{15.10}{12.10}=1.25 \text{ (25\% real growth using year 1 prices)}$$

$$\frac{19.20}{18.40}=1.04 \text{ (4\% real growth using year 2 prices)}$$

Three kinds of unemployment:

1. frictional—normal working of labor market

2. structural—little that macro policies can do about this

3. cyclical—the main macro concern; maybe macro policies can help

Costs of Inflation:

1. Distribution of Income

2. Administrative costs

3. Uncertainty

Anticipated versus unanticipated inflation. Unanticipated is more costly.

Real interest rate (r)—not directly observed
Nominal interest rate (i)—observed
Rate of inflation ($\dot{p}$)—observed
$r \equiv i - \dot{p}$

There are many different nominal interest rates. We will examine some of these on the Board of Governors web site. They differ by maturity and by who issues the bonds.