Review Sheet for Quiz 3

ECO 1110 Current Economic Problems

National Income Accounting

GDP - Gross Domestic Product

$$\underset{\text{GDP(Income)}}{\underbrace{Y}} = \underset{\text{Consumption}}{\underbrace{C}} + \underset{\text{Investment}}{\underbrace{I}} + \underset{\text{Gov.Expenditure}}{\underbrace{G}} + \underset{\text{Net Exports}}{\underbrace{NX}}$$

Consumption does not include purchase of "new houses". Investment excludes financial investments. Government spending does not include transfer payments(i.e. Social Security, Medicare, Medicaid)

- Nominal GDP – GDP calculated at **current prices**
- Real GDP – GDP calculated at **constant prices** (Select a base year and calculate the GDP all the years given at the prices in the base year)
- GDP deflator = $\frac{Nominal\ GDP}{Real\ GDP} \times 100$

Cost of Living

CPI - Consumer Price Index

- Fix a basket of goods bought by a typical consumer in a base year and track it for years. This gives you an idea about the change in prices of the goods in the basket and you will be able to calculate inflation rate using that.

$$CPI = \frac{Cost\ of\ the\ basket\ in\ current\ year}{Cost\ of\ the\ basket\ in\ the\ base\ year} \times 100$$

$$InflationRate = \frac{CPI_{current\ year} - CPI_{previous\ year}}{CPI_{previous\ year}} \times 100$$

Important Difference in CPI and GDP Deflator

Both are the measures of inflation in the economy. The GDP deflator does not account for imports(Recall how we subtract imports from the GDP calculation). So it might not measure the inflation correctly as it will exclude all the goods that a typical consumer would buy but are imported from other countries. The CPI does not care about whether the good is imported or exported. It includes the goods that a typical consumer would buy.

The CPI also sometime suffers from a "substitution bias". Recall that the basket was fixed. So if for some reason people substitute one good from the basket with another good (not in the basket) , it will not be reflected in the CPI. Also, the CPI does not tell us anything about the quality of the products.

- Real Interest Rate = Nominal Interest Rate - Inflation Rate (Fischer Effect)
- Correcting Variables for Inflation

– Comparing the dollar values from different times

$$Amount\ in\ Today's\ dollars = \frac{Amount\ in\ year\ T\ dollars}{Price\ level\ in\ year\ T} \times Price\ level\ today$$