

Macroeconomic Definitions -- Dr. Tom McGahagan -- Spring 2005

II. COST OF LIVING MEASURES

1. **Nominal values** are money values or current dollar values.

If you are paid \$10 an hour, your nominal wages are \$10; if you must pay back \$11 next year for every \$10 you borrow this year, the nominal interest rate is ten percent.

Current dollar values are synonymous with nominal values.

2. **Real or constant dollar** values are measures which indicate how much a given amount of money would buy in terms of real goods or services.

If the price of hamburgs is \$2, your nominal wages of \$10 would translate into real wages of 5 hamburgs. When speaking of constant dollar values, we translate nominal values into the dollar values in some base year. If hamburgs cost 50 cents in 1929, we could say your nominal wages of \$10 have a constant dollar value (in 1929 dollars) of \$2.50, since that is what it would take to buy 5 hamburgs in 1929.

3. **Price indexes** are **weighted averages** of the prices of all goods and services in an economy.

Since hamburgs are not the only good in an economy, and since some prices can move up while others move down (or do not move up as much), price indexes are needed to provide an indication of the average cost of living.

4. **Consumer Price Index.** A price index indicating the price of the market basket purchased by an average consumer.

The market basket is selected as the market basket purchased in a BASE YEAR or years (1982-84 are currently used), and the price of that market basket TODAY is expressed as a PERCENTAGE of the price of that market basket in the BASE YEAR. A CPI of 160 indicates that you would pay 60 percent more for the 1982-4 market basket today than you would have in 1982-4.

5. **GDP Deflator.** A price index indicating the prices of all currently produced goods and services (including capital equipment not purchased by the average consumer) compared to base year prices. The index is computed by taking CURRENT prices times CURRENT real GDP and dividing by BASE YEAR prices times CURRENT real GDP.

6. **Deflating nominal values.** To "deflate" values means to convert nominal values into real ones. We do so by dividing by a price index and then multiplying by 100. If the current CPI is 150, nominal wages of \$ 300 a week become real wages of $(\$ 300 / 150) \times 100 = \$ 200$ a week.

7. **Inflation** is a general and continuing increase in the prices of goods and services. It is measured by a **percent change** in a price index.

8. **Change in relative prices.** A change in the price of one good relative to the price of another.

If the price of gasoline goes up from \$ 1 to \$ 1.50 a gallon, and the price of beef goes up from \$ 2 to \$ 6 a pound, the price of gas has DECLINED relative to the price of beef. A gallon of gas formerly cost half as much as a pound of beef, and now costs one-quarter as much ($\$ 1.50 / \$6 = 1/4$).

9. **Inflation rate.** The inflation rate is measured as the percentage change in a price index.

While we usually speak of "inflation" and the "inflation rate" as identical, a sudden jump in the measured inflation rate can be due to temporary factors or shifts in relative prices rather than a continuing or very general increase in prices.

10. **Substitution bias.** The mismeasurement of the cost of living by a price index because of failure to take into account the fact that consumers will substitute goods with lower relative prices for goods with higher relative prices. The CPI, which holds the market basket fixed, suffers from substitution bias.

11. **Outlet bias.** The bias introduced into the CPI by the failure to adequately sample new outlets (often discounters such as Walmart or Target).

12. **New product and quality bias.** The mismeasurement of the cost of living by failing to include new products in the market basket or to take account of improvements in the quality of those products.

13. **Indexation.** The adjustment of nominal values for inflation, for example by means of cost-of-living adjustment (COLA) clauses in labor contracts, or the use of “floating rate” mortgage contracts.

14. **Real interest rates.** Nominal interest rates adjusted for inflation. The real interest rate is the nominal rate minus the rate of inflation.

15. **Fisher effect.** The tendency of nominal interest rates to increase in an inflationary period, so as to keep real interest rates constant. The effect is named after the American economist Irving Fisher.

16. **Distributional effects of inflation.** Unexpected inflation will redistribute wealth from lenders to borrowers, since the borrowers will repay loans in money that is worth less in real terms. Unexpected deflation will hurt borrowers – for example, the farmers in post-Civil War America, whose protests in the “Populist” movement were largely motivated by the post-Civil War deflation.

17. **Shoe leather costs of inflation.** Inflation, even when expected, will force holders of money to spend time and effort managing their money, for example by making additional trips to the bank.

18. **Informational costs of inflation.** Inflation, when it is not absolutely uniform for all commodities, makes it harder to distinguish between changes in relative prices and changes in nominal prices, and forces market participants to spend more time and effort collecting information.

19. **Tax distortion and inflation.** Since the tax system is based on nominal values, inflation will lead to distortions such as **bracket creep** (moving taxpayers into a higher bracket due to inflation) or to distorting the value of depreciation allowances based on historical prices for machinery rather than replacement prices.

20. **Menu costs of inflation.** Changing the “menus” or price lists as a result of inflation takes some ink and often more cost in the form of friction (customers irritated by frequent price rises) and negotiation (labor contracts were negotiated every other week in Brazil during a period of hyperinflation).

21. **Hyperinflation.** Very high rates of inflation (sometimes made more precise by saying more than 100 percent per year), which are usually seen only during or immediately after wars, when money creation is the only resource of the government (the American Revolution, Germany in 1923, Hungary after World War II).