

NATIONAL INCOME ACCOUNTING

In order to intelligently conduct economic analysis, one has to have a basis of comparison, and that requires some agreed-upon definitions and measures. There are many measures of national income. The entire collection of measures and definitions is referred to as the National Income and Product Accounts (NIPA). We will focus on only a popular few.

Gross Domestic Product

Gross Domestic Product (GDP) is the aggregate spending on final goods and services produced within the United States in one year. Intermediate goods, such as steel making, are not included because to include them would be to count them twice, once as steel, secondly as part of a car. If the goods or services are not sold in the market, then they are generally not counted. For example, the value of goods produced and consumed in the household such as home improvements, lawn care, child care etc. are not included but if a contractor built the home improvement, a lawn service cut the lawn, or a nanny provided child care then those services would be included in GDP. Consequently, some argue that GDP is understated particularly for those countries that rely on home production, such as India.

Another important characteristic of GDP is that it measures production, not sales. Consider used cars, let's say that you buy a 95 Ford Mustang, it is not included in the current year as it was counted in GDP in 1995. To count it again would be double counting. However, the commission earned by the salesperson would be included in GDP as it is a service. Another way of looking at this is the sale of the car represented an exchange of assets, not new production.

One major problem in determining GDP is the use of estimates. One of the largest sources of errors occurs in measuring the size of the underground economy. Much of the GDP data comes from tax information. Many people do not report all of their income to the government. This may be to avoid paying taxes, forgetfulness, or possibly, because they are not a legal resident.

There are other measurement problems. Statistical sampling, data collection, and interpretation all introduce error. Usually an estimate is released, followed by revised estimates in later periods. American GDP tends to have a conservative bias. Revisions are usually upwards. Recently data compiled on income has been growing much faster than data compiled on expenditures. An increasing number of economists believe the US is growing faster than official statistics suggest.

GDP is not necessarily a good measure of welfare. Consider the following fictitious example:

| | France | Kuwait |
|---------------------|--------|---------------|
| GDP | 40 | 10 |
| Population | 80 | 10 |
| Per capita | .5 | 1.0 |
| Income Distribution | 80@.5 | 1@9.1 9@.1 |
| Average Work Week | 40 | 1 |

If we measure welfare on the basis of GDP, we might pick France, but when we look at GDP per capita (per person), clearly Kuwait would be preferred. However, consider the distribution of income, France would seem to have a middle-class society while Kuwait has one who has it all. Chances are very good you are not going to be that one, so you pick France. But wait a minute, in France you have to work 40 hours per week, in Kuwait only one hour. For that one hour per week, the "One" provides you with free housing, education, healthcare and your own personally monogrammed Mercedes complete with cellular phone and satellite TV. It's just a real shame the Kuwaiti citizenship is so hard to get.

Bottom line - you need many more statistics and facts to assess the welfare of a society.

There are two approaches to measuring GDP: the income approach and the expenditure approach. Under the income approach, National Income, which is the sum of wages, interest, rents, corporate profits, and proprietors' income, is added to depreciation (also called consumption of fixed capital) and indirect business taxes. The expenditure approach sums expenditures by sectors: consumption, investment, government expenditures, and net exports (imports). Under the NIPA framework, measures based on the income approach have the word income in their title those based on expenditure have the word product.

Components of Gross Domestic Product, 1997

\$ Billions

| | \$ | % |
|--|---------|-------|
| Personal consumption expenditures | 5,493.7 | 67.7 |
| Gross domestic private investment | 1,256.0 | 15.5 |
| Government consumption expenditures and gross investment | 1,454.6 | 17.9 |
| Net Exports (Imports) of goods and services | -93.4 | -1.1 |
| Total | 8,110.9 | 100.0 |

Source: Survey of Current Business

Gross National Product

Until the late 80's, Gross National Product (GNP) was the primary measure of national income used in the United States. GNP measures the output of the US economy including foreign-factor receipts and excluding foreign-factor payments. The vast bulk of the factor payments are dividends and interest. For countries like the United States, the difference between GDP and GNP are minor. For other countries, that difference can be substantial. Here is why. A French mining operation in central Florida may generate \$100 million in profits that is sent to Paris. Under GDP, that is counted as part of the American economy. Under GNP the profits are counted as part of the French economy. To put it briefly, GDP looks at the location of the activity, GNP ownership.

National Income

To make matters confusing, there is a measure of national income called national income. It measures income accruing to the factors of production. GDP measures expenditures. When the two approaches are reconciled, any remaining, unexplained amount is called statistical discrepancy. National income can be very useful for forecasting purposes.

Disposable Personal Income

National income adjusted for business and non-income items yields personal income. Personal income minus personal taxes equals disposable personal income (DPI). This is the determinant of demand for income that was discussed earlier. DPI is very useful in forecasting sales for consumer goods and services.

Analysts, researchers, policymakers, etc are very interested in the trends and interrelationships of the NIPA. NIPA data is found in a variety of sources. Various reports are issued by the Department of Commerce in its Bureau of Economic Analysis and compiled by private sources. STAT-USA is one of the most well known. Data are available in print, diskette, or through the internet.

Summary National Income and Product Accounts, 1997

\$ Billions

| | | | |
|---|---------|--|---------|
| Compensation of employees | 4,687.2 | Personal consumption expenditures | 5,493.7 |
| Proprietors' income, adj. | 551.2 | Gross private domestic investment | 1,256.0 |
| Corporate profits | 817.9 | Government consumption expenditures and gross investment | 1,454.6 |
| Net interest | 432.0 | Net exports (imports) | -93.4 |
| Rental Income | 158.2 | | |
| National Income | 6,646.5 | | |
| Business transfer payments | 35.1 | | |
| Consumption of fixed capital | 871.8 | | |
| Gross national income | 8,158.7 | | |
| Less: Receipts of foreign factor income | 265.5 | | |
| Plus: Payments of foreign factor income | 273.5 | | |
| Gross domestic income | 8,166.7 | | |
| Statistical discrepancy | -55.8 | | |
| GROSS DOMESTIC PRODUCT | 8,110.9 | GROSS DOMESTIC PRODUCT | 8,110.9 |

Source: Survey of Current Business