How to Calculate the GDP of a Country

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The GDP or gross domestic product of a country provides a measure of the monetary value of the goods and services that country produces in a specific year. This is an important statistic that indicates whether an economy is growing or contracting. In the United States, the government releases an annualized GDP estimate for each quarter and also for an entire year.

Providing a quantitative figure for GDP helps a government make decisions such as whether to stimulate the economy by pumping money into it if the economy is not growing fast enough and needs a stimulus. In the case that the economy is getting overheated, a government could also act to prevent it from doing so. The US government, for example, makes a preliminary estimate of GDP for each quarter, based on the initial information it has, and then makes a second estimate and a final one as more information flows in.

Businesses can also use GDP as a guide to decide how best to expand or contract their production and other business activities. Investors watch GDP since it provides a framework for investment decision-making.

Calculating GDP Based on Spending

One way of arriving at the GDP of a country is to calculate the monies spent by the different groups that participate in the economy. For instance, consumers spend money to buy various goods and services, and businesses spend money as they invest in their business activities, by buying machinery, for instance. Governments also spend money. All these activities contribute to the GDP of a country.

Also, some of the goods and services that an economy makes are exported overseas. And some of the products and services that are consumed within the country are imports from overseas. The GDP calculation, therefore, also accounts for spending on exports and imports. Thus, a country's GDP is a measure of consumer spending (C) plus business investment (I) and government spending (G) as well as its net exports, which is exports minus imports (X-M).

The Income Approach

Considering that the other side of the spending coin is income and since what you spend is somebody else's income, another approach to calculating GDP is based on a tally of the national income. Income earned by all the factors of production in an economy includes the wages paid to labor, the rent earned by land, the return on capital in the form of interest, as well as an entrepreneur's profits. An entrepreneur's profits could be invested in his own business, or it could be an investment in any outside business. All this constitutes national income.

Also, this approach factors in some adjustments for some items that don't show up in these payments made to factors of production. For one, there are some taxes – such as sales tax and property taxes – that are classified as indirect business taxes. In addition, depreciation – which is a reserve that businesses set aside to account for the replacement of equipment that tends to wear down with use – is also added to the national income. Another adjustment is made for foreign payments made to Americans, which is income for Americans and US payments made to foreigners, to arrive at the net foreign factor income. Subtracting the payments made to foreigners from the payments made to Americans provides a net foreign factor income.

With the income approach, the GDP of a country is calculated as its national income plus its indirect business taxes and depreciation, as well as its net foreign factor income.

Adjustment for Inflation

Considering that GDP is based on a monetary value of an economy's output, it is subject to inflationary pressure. Over a period of time, prices typically tend to go up in an economy, and this is reflected in the GDP. Thus, just by looking at an economy's unadjusted GDP it is difficult to tell whether the GDP went up as a result of production expanding in the economy or because prices went up.

That's why economists have come up with an adjustment for inflation to arrive at an economy's real GDP, rather than its nominal GDP. By adjusting the output in any given year for inflation so that it reflects the price levels that prevailed in a reference year, called "the base year," economists adjust for the inflation effect. This way, it is possible to compare a country's GDP from one year to another and see if there is any real growth.

Drawbacks

While GDP is a convenient way to get an idea about the state of an economy, it is by no means a perfect approach. One criticism that has been leveled is that there is no accounting for activities that are not part of the legalized economy. Thus, drug dealing and such illegal activities that generate a lot of income don't factor into GDP calculations.

Another criticism is that some activities that provide value are not factored into GDP. For instance, if you hire a maid to keep your house clean, a cook to prepare your meals and a nanny to care for your children, you will pay these hired helpers and such payments factor into GDP. On the other hand, if you do your own cooking and cleaning and care for your children without hiring a nanny, these activities do not contribute to GDP. And although GDP provides an idea about an economy's performance, it doesn't necessarily reflect the welfare of its citizens since it doesn't account for softer aspects such as their levels of happiness.

The Bottom Line

GDP provides a monetary value for the output of goods and services by an economy. This can be calculated using an income approach or a spending approach and by adjusting for inflation. However, GDP as a measure also has its drawbacks.