http://www.bea.gov/faq/index.cfm?faq_id=513

What is an implicit price deflator and where can I find the GNP IPD?

An implicit price deflator is the ratio of the current-dollar value of a series, such as gross domestic product (GDP), to its corresponding chained-dollar value, multiplied by 100. BEA publishes implicit price deflators for GDP, related components, and gross national product (GNP) in NIPA table 1.1.9. - See more at: http://www.bea.gov/faq/index.cfm?faq_id=513#sthash.VCSIpUhf.dpuf

http://www.differencebetween.net/business/finance-business-2/difference-between-cpi-and-gdp-deflator/

Difference Between CPI and GDP Deflator

CPI vs GDP Deflator

CPI and GDP deflator generally seem to be the same thing but they have some few key differences. Both are used to determine price inflation and reflect the current economic state of a particular nation.

GDP Deflator takes into account goods that are produced domestically. It does not bother with imported goods and it reflects the prices of all the commodities, services included. The GDP deflator is calculated quarterly and it weights may change per calculation.

GDP is an abbreviation of Gross Domestic Product which is the overall value of all final goods and services made within the borders of a country in specified period. GDP has two types the: Nominal GDP and the Real GDP. The ratio of the two values is the GDP deflator.

If expressed mathematically,

GDP Deflator = (Nominal GDP/Real GDP) x 100

Essentially, the GDP deflator compares the price level in the current year to level in the base year.

There are so many price indices out there and GDP is unlike some of them that are based on a predetermined basket of goods and services. In the GDP deflator, the so-called basket in a year is weighted by the market value of all the consumption of each good therefore it is allowed to change with people’s investment and expenditure patterns since people do respond to varying prices.

CPI, which is short for Consumer Price Index, indicates the prices of a representative basket of commodities procured by the consumers. It uses a fixed basket of goods and services and is a widely used measure of the cost of living faced by consumers of a nation. Like the GDP deflator, it also compares prices of the current period to a base period.

CPI tends to consider insignificant goods, even the outdated ones that are not really purchased by the consumers anymore. Nevertheless, they are still considered for pricing in the fixed basket. Consumption goods are the main priority of the CPI measure. The prices of other items used in production are not considered as well as the prices of investment goods. Only consumer items are taken into account, the machines and the industrial equipments that are used to make them are not considered.

As you can see, GDP deflator is not identical with the CPI but provides an alternative to each other as a measure of inflation. Over long periods of time, both provide similar numbers, but they can diverge in shorter periods.

Summary:

1. The GDP deflator measures a changing basket of commodities while CPI always indicates the price of a fixed representative basket.
2. GDP deflator frequently changes weights while CPI is revised very infrequently.
3. CPI will consider imported goods because they are still considered as consumer goods while GDP deflator will only contain prices of domestic goods.