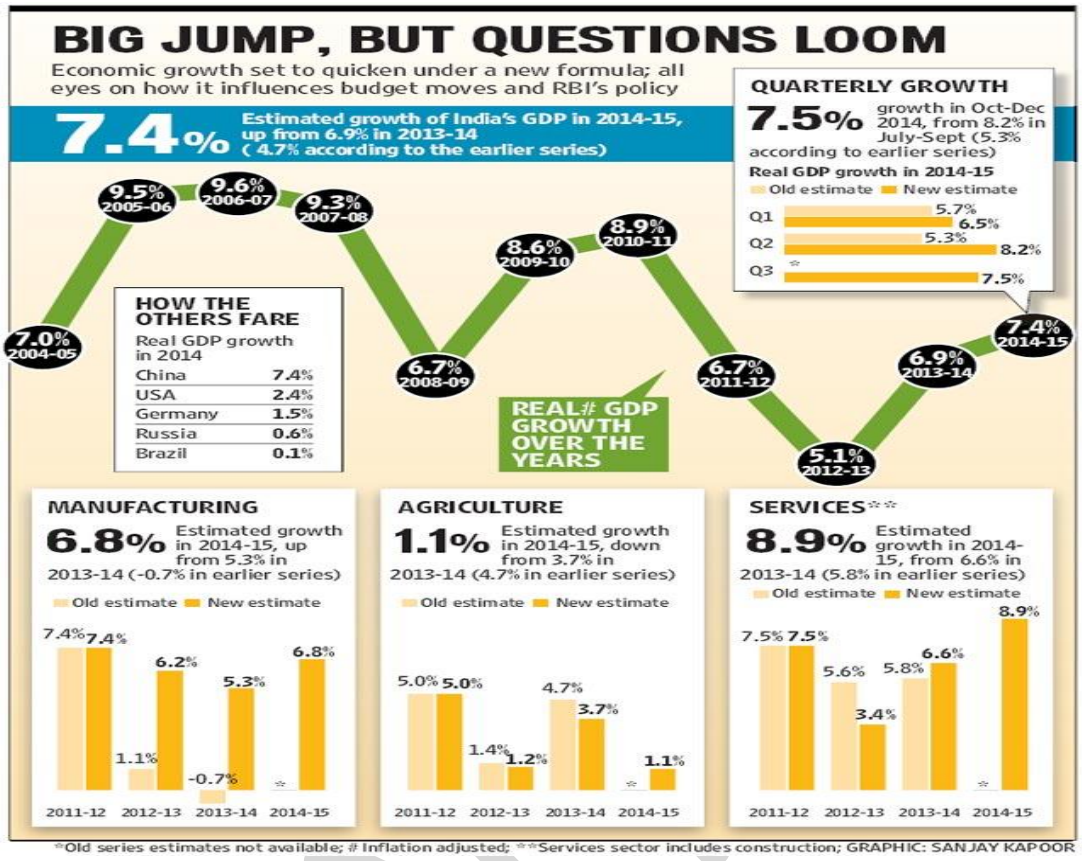
New GDP Methodology

Table of Content

In January, 2015 the Central Statistics Office (CSO), using a new method, said that India's real or "inflation adjusted" GDP in 2013-14 grew 6.9% instead of the earlier 4.7% and by 5.1% in the year before compared to 4.5% in the earlier system. Advance estimates for 2014-15 released in February projected India's GDP during the year to grow at 7.4%, making it the world's fastest growing economy surpassing China.



1 Changes made in new methodology

1. Changing the base year: The CSO changed the base year from 2004-2005 to 2011-2012. The change in base year is being done in accordance with the recommendation of the National Statistical Commission, which had advised to revise the base year of all economic indices every five years. The new base year has been selected in line with the latest quinquennial round of employment-unemployment survey.
2. Replacing factor costs with market prices: From now on, the Central Statistical Office will measure gross domestic product (GDP) by the gross value added (GVA) method – a way of calculating GDP at basic prices instead of at factor cost. The industry-wise estimates will be presented as gross value added (GVA) at basic prices while GDP at market prices will be referred to simply as GDP. The concept of GVA is considered to be a better indicator to measure economic activities as it includes not only the cost of production but also product subsidies and taxes. The new method was recommended by the United Nations System of National Accounts in 2008 and will make India's GDP growth numbers comparable with that of developed nations. The United Nations System of Accounts, 2008 (UNSNA, 2008) differentiates between product taxes and production taxes. It defines taxes on products as taxes on goods and services that become payable as a result of the production, sale, transfer, leasing or delivery of those goods or services, or as a result of their use for own consumption or own capital formation. Taxes on production consist mainly of taxes on the ownership or use of land, buildings or other assets used in production or on the labour employed, or compensation of employees paid. (Refer figure)
   - Also earlier, the services sector was overestimated while the manufacturing sector was underestimated. The new data corrects that anomaly. In the earlier method

an integrated firm which was in manufacturing and services would have the two activities put into these sectors. Under the revised method the entire value addition for such a firm would count either under manufacturing or services depending on which of them is the primary activity.

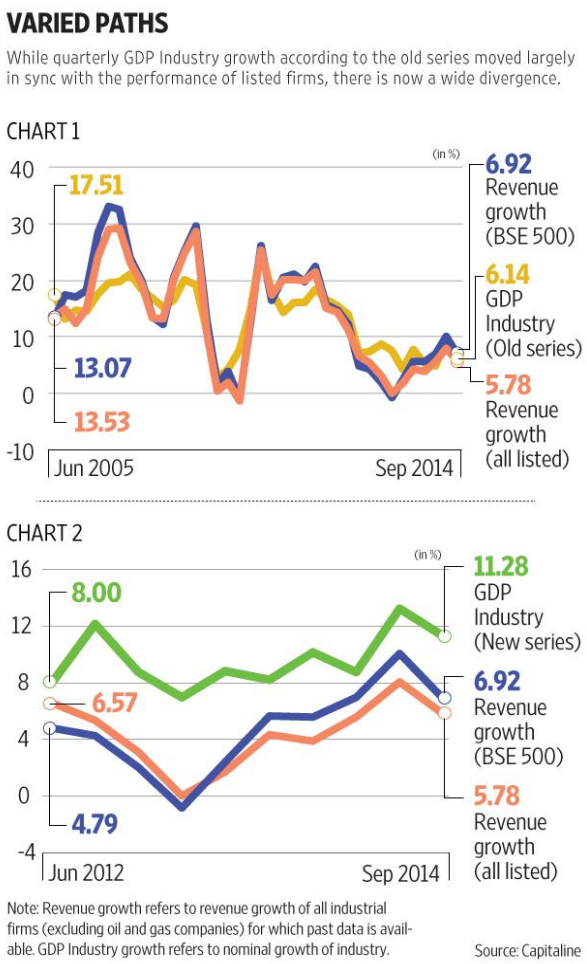
3. Widening of the data pool: The new GDP incorporates more comprehensive data on corporate activity than the old one. Earlier, data from the Annual Survey of Industries (ASI), which comprises over two lakh factories, was used to gauge activity in the manufacturing sector. Now, annual accounts of companies filed with the Ministry of Corporate Affairs — MCA21 — has been used. This is said to include around five lakh companies, bringing in more companies from the unlisted and informal sectors. Also, the new 2011-12 series will incorporate results of the recent national sample surveys such as enterprise survey (2010-11), employment-unemployment survey (2011-12), all India debt and investment survey, situation assessment survey of farmers and survey on land and livestock holdings (2013). It will also take into account the population census (2011), agriculture census (2010-11) and livestock census (2012).
    - Improved coverage of financial corporations: Financial corporations in the private sector, other than banking and insurance, in the earlier series was limited to a few mutual funds (primarily UTI) and estimates for the Non-Government Non-Banking Finance Companies as compiled by RBI. In the new series, the coverage of financial sector has been expanded by including stock brokers, stock exchanges, asset management companies, mutual funds and pension funds, as well as the regulatory bodies, SEBI, PFRDA and IRDA.
    - Improved coverage of local bodies and autonomous institutions: Earlier, estimates for local bodies and autonomous institutions were prepared on the basis of information received for seven autonomous institutions and local bodies of four States – Delhi, Himachal Pradesh, Meghalaya and Uttar Pradesh. In the new series, there has been an improved coverage of local bodies and autonomous institutions, covering around 60% of the grants/transfers provided to these institutions.
4. Changes in calculation of labour income: In the old series, due to lack of annual surveys, output in the unorganized, or informal, manufacturing and services sectors is calculated using the Labour Input (LI) method, which uses a benchmark-indicator process and then calculates output as the estimated labour input times the value added per worker, making all kind of labour equal. In the new series, an Effective Labour Input (ELI) method is used. This method distinguishes workers on productivity by assigning weights to different categories of workers (such as owner, hired professional or a helper), changing overall output contributed by these sectors.
5. Changes in calculation of agricultural income: Value addition in agriculture is now taken beyond farm produce. Livestock data is critical to new method. Value attached to by-products of meat including “heads and legs”, “fat” “skin”, “edible offal and glands” of cattle, buffalo, sheep, goat and pig.

2 Impact of the changes

- A higher growth rate in 2014-15 will help the government achieve a better fiscal deficit and current account deficit ratios calculated as a percentage of GDP. The government had set a fiscal deficit target of 4.1% of GDP for the year to March. Despite crossing the limit in value terms, a favourable base due to higher GDP growth may help the government achieve the target.
- The change in method of calculation has brought Indian GDP calculations more in line with global practice. For example, IMF’s world economic outlook projections are not based on factor costs. This used to create confusion in the past, with IMF’s projections turning out to be very different from the Government’s.
- The base year change ensures that the products and services included in the GDP calculation do remain contemporary and reflect the present state of the economy. For instance, the latest change in base year from 2004-05 to 2011-12 has included the recycling industry which didn’t figure in the earlier GDP computations.
- There is more incentive for the Government to raise indirect taxes and reduce subsidies. This may have an impact on sectors such as agriculture which receive a lot of subsidy.
- Foreign /domestic investors may view India in more favourable light due to increase in GDP.

3 Criticism of the new methodology

- The strong economic recovery which the new series suggests is out of sync with other macroeconomic indicators such as revenue growth of listed firms, credit offtake, tax collections, project announcements and data on India's balance of payments. The charts plot the revenue growth of listed industrial firms (excluding oil and gas companies) along with the quarterly growth in GDP. As the charts show, while the old series moved largely in sync with the performance of listed firms, there is now a wide divergence.



- The new GDP numbers overturn a fundamental principle of economic growth as they suggest the growth acceleration of the past three years occurred even as the rate of investment fell. The rate of investment or the gross fixed capital formation (GFCF), as a percentage of GDP, has steadily fallen from 33.6% in 2011-12 to 31.9% in 2012-13, to 30.7% in 2013-14, and finally to 30% in 2014-15 even as GDP growth accelerated. Such acceleration with declining investments is possible if there is increased capacity utilization of existing plants and machinery. But as successive rounds of Order Books, Inventories and Capacity Utilisation Survey (OBICUS) survey show, capacity utilization has also been steadily falling over this period.
- The problem with the new series also lies in questionable innovations used to arrive at the estimates. The Central Statistics Office (CSO), India's top statistical body in charge of estimating the GDP series, has said that the methodological innovations are in line with the new UN system of national accounts 2008 (SNA 2008). But as critics have pointed out, several of these changes have been mechanically applied without taking into account data limitations in the Indian context. For instance, a new category called "quasi-corporates" was introduced in the new series to capture that segment of household enterprises which are unincorporated but maintain accounts. The savings of this set of firms is then imputed based on survey data. But in the absence of detailed balance sheet data, such imputations are not credible.
- Similarly, the use of service tax as a proxy for growth of certain services, and the use of growth rates of the organized manufacturing industry to estimate growth for unorganized manufacturing could potentially be over-estimating growth. After all, the growth in service tax partly reflects tax deepening (as new services are brought under the tax net) and does not accurately capture tax buoyancy. The assumption that unorganized manufacturing is growing at the same rate as organized manufacturing appears unrealistic. There is evidence to show that unorganized manufacturing has not kept pace with the growth of organized manufacturing over the past few years.
- Critics have pointed out that although the MCA-21 database is much larger than the sample covered by RBI, detailed accounts are available for only a small set of companies. The MCA-21 database consisted of half a million companies but detailed accounts were available only for around 30,000 firms. The lack of detailed data for the larger set of small companies makes it difficult to trust the corporate sector estimates.
- With the new GDP series there is growing divergence between Index of Industrial production and industrial data in GDP. While industrial growth in the new GDP numbers, with a revised definition and base, is officially pegged at 6.1 per cent for 2014-15, it was just 2.1 per cent in April-December in terms of the IIP. However, there is a need to bring the IIP methodology in line with the new GDP series by changing its base year to 2011-12.

- The new estimation methodology is in line with global norms where increased value addition, as against an actual increase in quantity of production, leads to a higher GDP. This approach can work seamlessly in an economy where all value addition is tracked formally and recorded in well-codified data. But for a country like India, where 93 per cent of labour works in the informal sector and where there is no credible data on employment, this method requires a more nuanced appreciation.