GOVERNMENT OF INDIA
MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION

Understanding the New Series of National Accounts[1]

Frequently Asked Questions

1. Why is Base Revision undertaken?

Base year revisions differ from annual revisions in National Accounts in the nature & coverage of changes. In annual revisions, changes are made only on the basis of updated data becoming available without making any changes in the conceptual framework or using any new data source, to ensure strict comparison over years. Annual updated data is available in a few segments and may not cover all aspects of the value chain also. These gaps are filled by special surveys and studies conducted near to the base year. In case of base year revisions, apart from a shift in the reference year for measuring the real growth & updating surveys and studies, conceptual changes, as recommended by the international guidelines, are incorporated. Further, statistical changes like revisions in the methodology of compilation, adoption of latest classification systems and inclusion of new and recent data sources are also made. Changes are also made in the presentation of estimates to improve ease of understanding for analysis and facilitate international comparability.

2. Why is the GDP estimate for 2011-12 lower than that in the old series?

As noted above, the annual value added data, through annual accounts, is not available in all sectors of the economy. In these cases, value added is estimated through surveys and other current indicators. This is especially true for the unorganised or informal sectors of the economy. One such sector is that of Trade, both Retail and Wholesale. In this segment value added for the unincorporated sector in the base year is estimated from the Enterprise Survey and Employment & Unemployment Survey of NSS. For the 2004-05 base revision, there was no sample survey of unorganised trade available, so the exercise continued with the results of the earlier survey (NSS 55th Round in 1999-2000). In years succeeding the base year, the estimate of value added was moved through some current

[1] *(i) Press Release on the New Series of National Accounts, released on January 30, 2015*
http://mospi.nic.in/Mospi_New/upload/nad_press_release_30jan15.pdf
(ii) Press Release on Advance Estimates of National Income, 2014-15, released on February 9, 2015
http://mospi.nic.in/Mospi_New/upload/nad_press_release_9feb15.pdf

indicators (more on that later). Trade was again included in the survey of unincorporated sector in 2010-11 (NSS-67th round). Comparing the results of this with the estimates generated for 2010-11, it was found that the indicator based growth had overstated value added by a very large margin. That is why, the 2011-12 estimates in the new series are less than those in the old series.

3. Why did this happen?

In Trade, value added in years subsequent to the base year was derived by reference to a volume indicator i.e. Gross Trading Income (GTI) Index. The index tracked the growth in volume of tradable goods, in the economy, derived from current estimates of production in agriculture and manufacturing. The underlying assumption was that value added is strongly correlated with the physical volume of goods available for trade. This is a reasonable assumption in short intervals of time; however, when projections are extended over long periods of time, errors build up. This is because in addition to physical volume, value added also depends on levels of intermediation between the producer and consumers; changes in underlying quality of goods; and changes in marketing practises, for instance bundling higher quality value added services with goods like warranties etc. and so on. These get picked up in our surveys as they gather information on all aspects of value added. In the current series, in addition to an updated survey, this has also been partly corrected by changing the underlying indicator from a volume indicator to one based on value, namely sales tax collections. Since sales taxes are value based, growth in this indicator captures the underlying growth better in value added. A comparison of GTI with sales tax from 2004-05 is in Table-1[2].

4. Why is the growth in manufacturing higher in the new series than the old? Or how can such a high growth in manufacturing be accepted when the IIP growth is much less?

To understand the growth in manufacturing, some background is necessary. In the old series the first estimate was derived by applying the IIP growth to estimates of the previous year. These estimates were then updated with the ASI figures when they became available. Both IIP and ASI data are establishment based, i.e. they report output and value added (in case of ASI) for the producing establishment.

The implementation of MCA-21 programme supplemented with the data base of BSE and existing RBI studies, has given us access to corporate financial statistics which have

[2] Table given at the end of the note – at Page 7

been incorporated in the new series for measuring manufacturing value added. The timelines of data availability in the old series and the new are given in the following table:

Series	Year 1 (Advance & Provisional)	Year 2 (1st Revised Estimate)	Year 3 (2nd Revised Estimate)
2004-05 series	IIP	IIP	ASI
2011-12 series	IIP + Advance filing of corporate Accounts	IIP + MCA 21	MCA 21 + Non-corporate ASI

This change from establishment to enterprise level data has had significant implication for value added and growth.

In a small entity, there is usually not much difference between establishment and enterprise value added. But for large entities, these differences are significant. The enterprise provides post manufacturing value added, through marketing and other services. This component of value added was earlier being excluded from GDP because it was not covered in ASI, although the concerned enterprise belonged to the manufacturing segment.

During 2013-14, share of corporate sector including NDCUs and DCUs (organized sector) in the manufacturing industry was 73.1% and that of ASI non-corporate, and household sector was 26.9%. The organized sector in 2013-14 was compiled using data derived from actual analysis of budgets and accounts of public sector enterprises, accounts of MCA Private Corporate Sector database, while the non-corporate sector comprising of ASI (individual, proprietorship and partnership), and household sector have been compiled using the IIP data. Similar trend was observed in the year 2012-13 also.

In 2014-15, the share of public sector was 8.4%, private corporate sector was 66% and the share of non-public and non- corporate sector is 25.6%. The growth of public sector companies has been obtained based on past trends in growth in GVA of public limited companies. Private corporate sector data has been provided by the RBI Sample Study and quarterly results available with Bombay Stock Exchange (BSE). The household sector has been compiled using the growth in Index of Industrial Production (IIP) as was done in 2013-14.

Details are given in the following table:

MANUFACTURING SECTOR

SECTORS	2013-14		2014-15	
	% SHARE	GROWTH	% SHARE	GROWTH
(i) Public sector including Public Sector enterprises	7.9	(NDCUs=6.3, DCUs=1.7)[&]	8.4	12**
(ii) Private Corporate Sector	65.2	7.9[$]	66.0	8.0[@]
(iii) ASI (Non- corporate) & Household	26.9	0.7* (IIP growth=(-0.8)	25.6	1.9* (IIP growth=(1.6)

* : *Growth is derived from relevant two digit compilation categories. Hence the growth is not the same as total IIP growth.*

$: *derived from MCA 21 data base*

@ : *derived from RBI-sample study and BSE data base*

** : *derived from past trends*

& : *derived from analysis of accounts of PSU's and government budgets*

There is another implication of the above changes. It may be noted that IIP is a Pure Volume Index. Value added data is available from accounts and the ASI. The 2011-12 series captures value addition information based on corporate filing right from the first year and comprehensively from second year as against 2004-05 series where this information was getting captured only in the 3rd year. During 2013-14, high domestic inflation coupled with lower international prices for imported inputs could have helped improve corporate bottom-lines. This improvement would not be apparent through IIP and ordinarily would not be reflected in national accounts in the old series until the 2nd Revised (3rd year) estimates which would have come out in 2016.

5. Why is the overall growth rate higher?

The overall growth rate has been influenced, in part, by the changes in measuring manufacturing value added. In addition, the way value-added and growth has been derived has also been changed in some segments of the Service Sector. Here, indirect taxes like sales tax and service tax have been used to measure changes in value added. In trade, for instance, the change for a physical volume indicator to a tax based indicator resulted in higher growth rate. A similar story is also seen in those service segments where service tax has been used. Details of the changes in measuring value added in Services are given in Table-2[3].

[3] Table given at the end of the note – at Page 8

6. Does it mean that our earlier concerns of industrial slow down were misplaced?

This is a complex question and the short answer here is **NO.** There are two elements in any calculation of value added, one a physical volume dimension and the second a per unit value dimension. The value dimension is influenced by a number of elements relating both to the structure of the economy and technological change. To illustrate, as we move from generic to branded goods, physical production may not change but the value added can increase. Alternatively in areas where there is product innovation and quality improvement, model changes can increase value added with little or no change in volumes of production. For reasons that have been stated, the new series is more sensitive to such underlying changes in value. But the volume indicators are still important. Some indicators of economic well-being, like employment, can be linked to volume indicators. Similarly, industrial activities as measured by volumes of production are important determinants of the other supporting/network activities such as transport, logistics etc. Thus, slow growth in production volumes, even if not accompanied by a slowdown in value added, can be a matter of concern.

7. If volume indicators are also important, what sources are available to track these?

The Index of Industrial Production continues to be a high frequency volume series. Steps are underway to revise the base year for this series. In addition, the Annual Survey of Industries gives gross output & employment in the manufacturing sector. Steps are also underway to produce a regular series on employment.

8. Is there a change in estimation of Gross Value Added for agriculture sector? Why is GVA showing a positive growth even when the production of most crops is lower than in the previous year?

Agriculture sector GVA comprises of estimates of GVA from crop production, horticulture, animal husbandry, fishery and forestry. Although there has been decline in agriculture production, production in horticulture and animal husbandry has been increasing resulting in positive growth in agriculture for the year 2014-15.

Further, the new series has adopted data from the latest livestock Census and results of a recent study conducted on the sources of value addition in this sector, which has led to improved and more recent estimates in this segment.

9. Why is growth in current prices in 2014-15 estimated at 11.5 per cent as against 13.6 per cent in 2013-14, though real growth in 2014-15 is 7.4 per cent in 2014-15 against 6.9 per cent in 2013-14?

There has been a reduction in the growth in the underlying price indices, WPI and CPI in 2014-15 as compared to the corresponding growth in 2013-14. WPI and CPI, increased by 3.4 per cent and 6.0 per cent in 2014-15,, as compared to 6.0 per cent and 9.5 per cent in 2013-14. Consequently, the GDP deflator increased by 3.8 per cent in 2014-15 as against 6.2 per cent in 2013-14, leading to a reduced gap between the growth rates of real and nominal GDP.

10. Does this higher growth mean that higher growth will be seen in Government Tax Revenues?

Like the earlier question, the short answer is **NO**. The new series captures the value chain better, by using enterprise data, where available, and linking growth in value addition in a number of service sectors through value linked indicators of tax collection rather than volume linked indicators. However, this has not changed the underlying tax capacity of these segments. Therefore, tax collection from these segments is likely to continue as per earlier trajectories. The new series will introduce a wrinkle in revenue modelling. To the extent that these models use segment wise value added or growth, they will now need to take account of the implied endogeneity in these calculations with respect to tax revenue. It is suggested that the underlying econometrics be revisited.

11. How does this affect the Fiscal Deficit of the Government?

The fiscal deficit is defined as the excess of Government Expenditure over Revenue; as such these numbers are not affected by the GDP calculation. The reference here is, what should be the fiscal deficit target. This is once again a complex question; the target for fiscal deficit is linked to the issue of prudential behaviour and sustainability of government activities. The earlier norms on fiscal prudence were derived from the old series and its description of the economic reality. The new series captures the reality better, but this is because certain activities that were imperfectly captured earlier are now better described. But this also means that our norms for prudential behaviour should be reviewed. In which direction should they be revised is not immediately obvious.

12. In light of the earlier answers, why is the new series better?

GDP as a statistical indicator has a limited purpose, which is to describe and quantify the process of value addition in the economy. This new series does that well. It captures, in large segments of the economy, the value chain more completely; and also updates in other segments, the basis for computing value addition. The more complete corporate database helps us describe corporate value addition in all segments of the economy. The new series also describes growth in value addition better, through its greater use of value linked indicators. This is important because as an economy develops, growth in value added comes from improvements in the per unit value addition rather than in growth of volume. From this perspective, the new series better equips us to understand the changes which are taking place and will take place in the years to come.

Table 1: Comparison of Sales Tax and Gross Trading Income

(2004-05 series at Current Prices)

	Sales Tax Index			Gross Trading Income Index	
Years	(Rs. Cr)	Sales Tax Index	rate of growth (%)	GTI	rate of growth (%)
2004-05	117740	100.0		100.0	
2005-06	136446	115.9	15.9	115.5	15.5
2006-07	162382	137.9	19.0	135.8	17.6
2007-08	183422	155.8	13.0	156.0	14.9
2008-09	208166	176.8	13.5	180.3	15.6
2009-10	231859	196.9	11.4	205.5	14.0
2010-11	293198	249.0	26.5	259.3	26.2
2011-12	361205	306.8	23.2	314.4	21.2

Table 2: List of Compilation Categories along with indicators used for extrapolating Value Added in the Unorganised Service Sector in the Old Series (B.Y. 2004-05) and in the New Series (B.Y. 2011-12)

S. No.	Compilation Category	Earlier Indicator (2004-05 series)	Present Indicator (2011-12 series)
1.	Maintenance and repair of motor vehicles and motor cycles	GTI Index	Motor Vehicles Sales growth
2.	Sale of motor vehicles	GTI Index	Total sales tax converted to turnover and adjusting for private corporate and NDCUs give turnover for sales tax paying unorganised sector. This residual was used as an index to move the GVA of the base year. Same index is applicable to wholesale & retail trade
3.	Whole sale trade except of motor vehicles	GTI Index	As in 2
4.	Repair of personal and household goods	GTI Index	Service tax growth
5.	Retail trade (except motor vehicle)	GTI Index	As in 2
6.	Hotels; camping sites etc.	GTI Index	Corporate growth
7.	Restaurants, bars and canteens	GTI Index	
8.	Scheduled passenger land transport	Growth in registered vehicles * Price index	Growth in registered vehicles * Price index
9.	Non-scheduled passenger land transport by motor vehicles	Growth in registered vehicles * Price index	
10.	Freight transport by motor vehicles	Growth in registered vehicles * Price index	
11.	Other non-scheduled passenger land transport	LI method	
12.	Freight transport other than by motor vehicles	LI method	
13.	Water Transport	Index of cargo handled at major and minor ports X CPI	Index of cargo handled at major and minor ports X CPI
14.	Storage and warehousing	LI method	Corporate growth
15.	Supporting & auxiliary transport activities	Combined growth of Road, Water and Air transport	Combined growth of Road & Water Transport
16.	Courier activities	LI method	Service tax growth
17.	Cable operator	LI method	Service tax growth of cable operators
18.	Other communication	Growth in subscribers/minutes of usage & Implicit price deflator of Private corporate	
19.	Real Estate Activities	LI method	Corporate growth

S. No.	Compilation Category	Earlier Indicator (2004-05 series)	Present Indicator (2011-12 series)
20.	Renting of machinery & equipment without operator, personal / household goods	LI method	Corporate growth
21.	Computer and Related activities	Private corporate growth	Corporate growth
22.	Legal activities	LI method	
23.	Accounting, book-keeping	LI method	
24.	Research and development + market research and public opinion polling+ business and management consultancy activities+ architectural, engineering and other technical activities+ advertising+ business activities n.e.c (-) auctioning activities	LI method	
25.	Coaching centres + Activities of the individuals providing tuition	LI method	Growth in consumer expenditure
26.	Education excluding (Coaching centres + Activities of the individuals providing tuition)	Growth in consumer expenditure	
27.	Human health activities+ Veterinary activities	Growth in consumer expenditure	
28.	Activities Of Membership Organisations n.e.c.+ Social work with accommodation	LI method	Service tax growth
29.	Recreational, cultural and sporting activities	LI method	Growth in non-food consumer expenditure
30.	Washing and cleaning of textile and fur products	LI method	-do-
31.	Hair dressing and other beauty treatment	LI method	Service tax growth
32.	Custom Tailoring	LI method	Growth in non-food consumer expenditure
33.	Funeral and related activities	Population Growth	-do-
34.	Private households employing staff	LI method	Population growth and CPI

Notes:

1. ***LI Method****: For the purpose of compilation of base year estimates of unorganised services, Gross Value Added per worker was obtained from the enterprise surveys of NSS and Labour Input (which is the total of usual and subsidiary activity of workers engaged in the activity) from employment and unemployment surveys. This LI for each compilation category was projected based on the inter survey growth rate of LI between 1999-2000 and 2004-05.*
2. ***GTI Index****: Gross Trading Income (GTI) Index is an index of trading income of all commodity producing sectors. The trading income is derived from the marketable surplus of these commodities by applying trade margins.*