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Alteration in GDP Numbers Due to New Methods

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1.1 Introduction

Gross Domestic product is the final value of goods and services produced within the geographical boundaries of a country during a specified period of time, normally a year. GDP growth rate is an important indicator of the economic performance of a country.[2] This single word is wide concept in itself which display the entire scenario of an economy. In other word, it includes consumption what people consume, how much investment has been made by private corporate or the government both and how much resources we make purchase from foreign nation or sell to them with a bounded time period. Besides this, how much income has been earned by every citizen of the nation. All these variables come under this complex indicator.

There are different methods to calculate GDP. First, output (production) method, of compiling GDP leads to counting the production by sector of activity. Second, The Income method of calculating GDP refers to compiling data from employment and earning surveys to estimates salaries and wages by industrial activity. Income approach is the total income earned by the factors of production that is owned by a country's citizen. And the last, The Expenditure method, the most widely used approach to measure GDP. This method suggests simply looking at how much do households, government, non-profit institution and financial institutions consume within a country to which one add the net export of that country.[3]

Earlier Method

The earlier method might well come from the way in which Nehru and other, the builder of independent India, were so fascinated by Fabian Socialism and even aspects of the Russian version. In the sense that it was production of stuff and things that was what they thought should be measured (of course, the soviets went entirely overboard with this idea but then that's the soviets for you. They measured the value of output by the tonnage of it. Rather than by the obvious method of measuring the value of it although they did have at least one excuse, which is that in a non-market economy there's no simple way of calculating value. However, it came about measuring at factor prices means measuring the resources used to produce things. It was required to have

[1] Assistant Professor, Email: sk840056@gmail.com
[2] http://m.economictimes.com/definition/gross-domestic-product
[3] http://econtutorial.com/blog/three-approaches-calculating-gdp/

method which enables to measure consumption opportunities, not the resources consumed in providing them.[1]

New Method

Thus, the change in the GDP calculations was devised by India's statisticians working for the central Statistical Organisation that is under the Ministry of Statistics & Programme Implementation (MOSPI), who released the new figures earlier in February.[2] There have been no changes by far in calculation of GDP leaving shift in base year. Shifting in base year has to occur on regular basis.

There are three important changes made in the calculation of the GDP:

1. Changing the base year
2. Replacing factor cost with market prices
3. Widening of the data pool

All three are raising our GDP up. Firstly, base year has been changed from 2004-05 to 2011-12, that takes place on regular basis which is going to consider inflationary trend during this much time lag which would allow the growth rate to go up. This means that 'real' GDP will be counted by keeping the prices of 2011-12 as the base prices instead of referring to the prices of 2004-05. This change alone has played an important part in shooting up the GDP and related numbers.

Secondly, concept like GDP analysis which used to calculate at factor cost has been converted into market price. Earlier the Economy used to only consider the production taxes and subsidies rather than product tax and subsidies. But now this change in formula allows taking production taxes and subsidies as well as product taxes and subsidies. This is not only look at quantitative change in production level but also includes the efficiency or value aspect in produce. This would result in GDP to go up. This is supposed to be globally accepted as per international standards.

Lastly, central statistical organisation (CSO) has broadened the base to collect data analysis. This has been undertaken by shifting from the use of RBI corporate data base confined to 2500 units to the ministry of Corporate Affairs (MCA) data base of more than 500,000 entities in the manufacturing and services sectors. Since, this CSO has strengthened the regulatory field to collect data, all the corporate unit are required to

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[1] Worstall Tim, "India's change in GDP calculation method seems highly sensible" , Economics and finance, April 18, 2015.

http://googleweblight.com/i?u=http://www.forbes.com/sites/timworstall/2015/04/18/indias-change-in-gdp-calculation-method-seems-highly-sensible/&grqid=Dq1hUuUt&hl=en-In

[2] http://www.google.co.in/amp/s/testbook.com/blog/understanding-mystery-indias-new-gdp-calculation/amp/

file their performance through various electronic media which is making the government sources richer for regular data analysis and evaluation.

Changes are meant to be made for up gradation and efficiency aspect in any event and variables. Since this has been heard enough regarding sharp increment in gross domestic product (GDP) by more than 40 per cent from 4.7 per cent in FY 2012-13 to 6.9 per cent (2013-14). Is this accurate analysis or there is really improvised economic scenario. No, there is no such improvement which reflected to this much level. This 40 per cent increment is due to change in methodology.

While the CSO has done well to make GDP data comparable and expand its coverage to include previously excluded economic activity. It would do well to present a more comprehensive analysis and data analysis and data estimates to back up its upward revision in manufacturing and trading activity in the economy.[1]

1.2 Review of literature

In order to assess or clarify, many articles were read to get comprehensive and evaluative knowledge regarding GDP such as "all about GDP methodology and why Raghuram Rajan questioned it", GDP growth at 7.4 per cent but questions remain over calculation", have we grown that fast? Making sense of India's new GDP number", you wanted to know about: calculating GDP" and "how to understand the new GDP measurement in India?"etc.

Sharma aprajita, Article titled, "all about GDP methodology and why Raghuram Rajan questioned it" talked about how Suddenly, Indian Economy has shown a drastic change in growth rate. That rate has shown a sharp increase in the GDP inspite of having real decline in the various sector. There has been 3 changes to the GDP calculation those are:

- Change in base year
- Diversion in calculation of GDP at factor cost to market price
- To make the data base wider for data collection

Along with these changes, our former governor Raghuram Rajan in an event at RBI promoted Indira Ghandhi Institute of development research has put his opinion forward to read GDP numbers in wider contexts. Obviously, there are lots of concise problems with the way we used to count the GDP, especially at the time of snuggling the data comparison with the global standards.

Business Today spoke Sunil Kumar Sinha of India Rating and Research that former governor did not raise question regarding the method but he is saying that GDP needs to be studied in wider concept. Occurring different doubts regarding new methodology

[1] Kumar Rajiv and Krishnna Geetima Das, curious case of GDP growth, centre for policy research.New GDP Series_May2015.pdf

of GDP, RBI former governor said there is need to computation of numbers so as to overlap and to capture net gains of the economy. Net gains here signifies that if a person is migrating from one place to another in search of best other alternative which would result in adding to economic output. Similarly, trading activities by manufacturing firms are now included in that sector's share. This change along with better data compilation has led to manufacturing sector to go up in its share in GDP.

In that convocation Raghuram Rajan said, There are many mechanisms through which we do calculate GDP estimation, we need to take these analysis very seriously in order to eliminate the overlapping and other confusion. Since, we have mentioned above the net output, that is need to be considered very wisely because either we do gain or we do loss when we migrate from one place to other. So, that should be into the acknowledgement of economic scenario. On other side, calculation of GDP at market price has already wiped out the confusion to make comparison.

Express news services, Article titled, "GDP growth at 7.4 per cent but questions remain over calculation" dated February 10, 2015, presented the Vulnerable 40 per cent change in growth rate from 2013-14 to 2014-15 due to adopted new methodology. This random change made the analyst jumbled regarding the economic data. In other word, this made them not only hard to trust on data analysis but the suspicious too. The former governor and other analysts gave a thought or spent time to understand the GDP numbers. Besides this, they tried to understand what are the criteria has been taken into consideration by CSO. To make themselves clear and precise, after releasing the bimonthly monetary policy of central bank of the economy that retained the forecast of 5.5 per cent of growth rate in 2014-15 (on the basis of old method). Though, no doubt there has been increment in the GDP in the better way but not as much as it shown. Since, the advance estimates released by the government further talked about the betterment, in what sense economy got positive increment. Firstly, per capita income has increased from 80,388 in 2013-14 to 88,538 during 2014-15 (upto 10 per cent change). The sectors which contributed to the advance estimates include higher manufacturing growth at 6.8 per cent and most of the services, including hotel, financial, real estate, transportation etc. growing over 7 per cent in the fiscal. However, agricultural is pegged at 1.1 per cent much lower than 3.7 per cent in 2013-14.

On the basis of revised data, this growth rate must provide job opportunities as much as shown in growth rate. The chief economist Arvind subramanium, has warned the committee to execute framing policies on the basis of this new method or new data which was mystifying. In other words, we can say, this new GDP number made them puzzled that time.

Former CEA Arvind Subramaniam, Article titled, "India's GDP Growth overestimated by 2.5%" presented that "Official estimates place annual average GDP growth between 2011-12 and 2016-17 at about 7 per cent. We estimate that actual growth may have been about 4.5 per cent with a 95 per cent confidence interval of 3.5 - 5.5 per cent," he said. Manufacturing is one such sector where the calculations have

been largely mis-measured, wrote Subramanian, who quit as the chief economic adviser in August last year before his extended tenure was to end in May 2019. He said the implication of this is: "Macro-economic policy too tight. Impetus for reform possibly dented. Going forward, restoring growth must be highest priority, including to finance government's laudable inclusion agenda. GDP estimation must be revisited."

Siva meera, Article titled," all you wanted to know about: calculating GDP" presented that how could Indian economy show such a huge gap in GDP. The government statistics wing made 2 changes to the GDP calculations which have made the growth to 6.9 per cent for 2013-14 instead of 4.7 per cent 2012-13. There have been 2 changes to the GDP formula. One was a change in the base year for the calculation which is done routinely every 5 years and second is the new method to measure output. In other words, calculate the GDP at market price.

Online data filled with ministry of corporate affairs, suggested that trading activities by manufacturing firm are now included in that sector's share. The change along with better data compilation has led to manufacturing increasing its share in GDP.

Various economists said that this latest version will help to meet the year's fiscal deficit target. A more comfortable deficit number could help the government stop tightening its belt and consider budget sops.

Narayan Sanjoy, Article titled," have we grown that fast? Making sense of India's new GDP number" revealed that ministers and bureaucrats in the central government to its advisors are chuffed about how fast India's economy grew last year. At 7.3 per cent India's GDP growth rate during 2014-15 was the highest in the world. We have over paced China's growth at the same time. But have we really grown that fast?

The writer Narayan wanted to raise question that Under new formula, it is the value and not the number of units of factory output that is aggregated to get a measure of the goods produced. Does that make a difference? He elaborated this with an example, if a car factory produces and sells the same number of cars this year as it did last year but improves the per unit value of the car. Under new formula it would contribute to higher growth rate.

Under a new ministry of corporate affairs MCA guidelines, all companies (500000 already have and more are signing up) have to upload balance sheet on the MCA's records and this captures the value added by all activities of manufacturing, trading and even marketing.

1.3 Research Questions

In the light of the articles above, the research questions were formulated as:

- How does this method show major gap in growth rate from previous methodology?
- How would this method help to make positive prospects for foreign investor?

- How far this method is effective than the previous one?

1.4 Methodology

The scope of the research topic was to study the difference between the new methods over previous one. In other words, it can be said that how would change in mechanism of calculation help in making comparison with other nation, how far this is effective method and how would it help in making positive prospects for foreign investors. Study of these analyses has been helped to suggest various unknown or hidden facts of economic scenario.

The method that was followed during the research has been quantitative and the data was collected through secondary sources. The relevant data were collected from the specified documents, economic surveys and compiling data bases in order to analyze the material and arrive at more accurate comprehension regarding the data analysis of growth rate in the wider terms.

Data collection consist of secondary sources such as economic surveys, data from Central Statistical Organisation and National Sample Survey Organisation, budgetary report etc.

2.SHIFTING IN BASE YEAR

2.1 Introduction

Base year depicts the year on what basis we make comparison. Earlier it used to be 2004 which has been shifted to 2011. Shifting in base year is meant to take place in every 5-7 years on routine basis. This change takes place in order to overlap the evasive picture which occurs due to inflation. In other words, this reveals the truer picture of production in the economy. This shift in year considers the effect of inflation while compiling the output of production. More the difference between the base year and current production year, lower would be the growth rate.

The structure of economic activities changes over time due to changes in structure of production and demand in the economy. On production side, the production pattern changes along with changes in technology and innovation in the system and in this process some production become obsolete and other comes vogue. While on the demand side, the consumption pattern also changes over time. The changes in relative prices stimulate changes in the consumption and production choices. Therefore, to account for these structural changes and to update the prices, the rebasing exercise is needed after a certain period. The exercise of rebasing national accounts bring up a fresh lot of information about the changes in economic structure of economy, along with switching over to new base prices. This also helps in judging the size of the economy, correction of biases and looking a fresh at the relative importance of sectors in the economy.

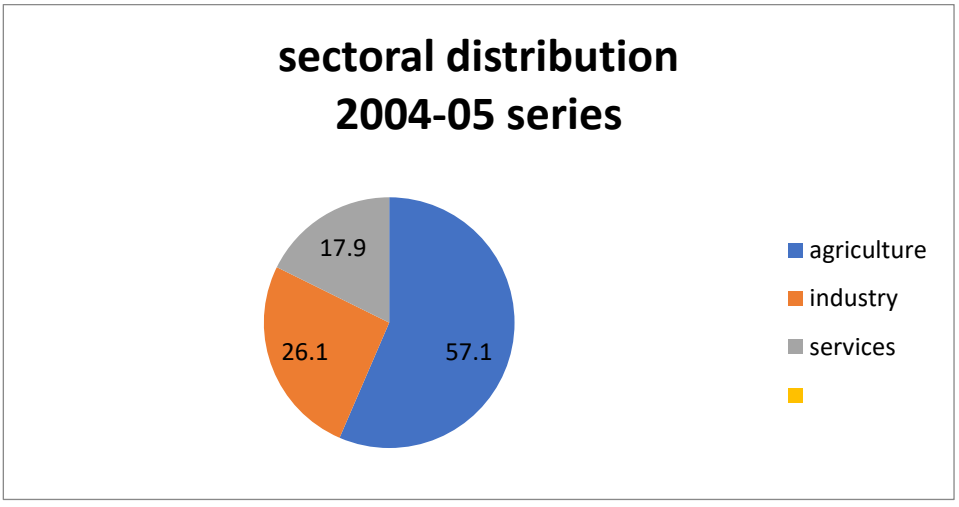
The recent introduction of new series of national accounts by Central Statistics Office (CSO) revised the base year for national accounts statistics to 2011 from 2004-05. The new series of national accounts is an improvement upon old (base:2004-05) in

terms of its comprehensive coverage of corporate sector and government Activities and incorporation recent data generated through national sample survey. It also bring some changes in method of evaluation, approaches to account economic activities, introduces new concepts and incorporation of new classifications.[1]

2.2 Sectoral Distribution of GDP

The recent revised estimates of national income brought out by the central statistical office, point to the fact that revival of growth had started in 2013-14 and attained further vigor in 2014-15. Before analyzing the recent macroeconomic trends, it may be mentioned that the Central Statistics Office (CSO) has recently revised the national accounts aggregates by shifting to the new base of 2011-12 from the earlier base of 2004-05 (see Box 1.1 for details). Given the provisional and preliminary nature of the available information that may take time to stabilize and the fact that information for growth-related parameters is available only for three years on the revised base, it becomes difficult to objectively analyze the broad macroeconomic trends on a longer term horizon. The new set of information also cannot be compared with the information and analysis based on the 2004-05 series.

Percentage share of sectors in GVA at factor cost at current price average of 2011-12 to 2013-14.



1.[1]http://arthapedia.in/index.php?title=GDP_/_National_Accounts_Revised_Series_with_2011-12_as_base_year

2. http://googleweblight.com/i?u=http://www.thehindu.com/business/Economy/new-gdp-data-with-201112-as-base-year-in-january/article6557219.ece&grqid=UwQqfBay&hI=en-IN retrieved on 5.04.2017

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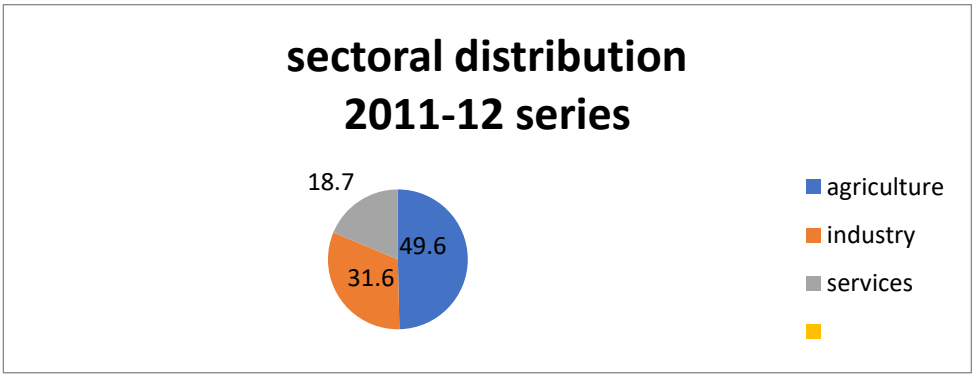
From the macroeconomic perspective, the worst is clearly behind us. The latest indicators, emerging from the recently revised estimates of national income brought out by the Central Statistics Office, point to the fact that the revival of growth had started in 2013-14 and attained further vigor in 2014-15.

Given provisions and preliminary nature of the available information that may take time to stabilize and the fact that information for growth-related parameters is available only for three years on the revised base, it becomes difficult to objectively analyze the broad macroeconomic trends on a longer term horizon.

The new set of information also cannot be compared with the information and analysis based on the 2004-05 series.[1]

The new measurement under the new base year of 2011-12, replacing 2004-05, released on 30th January for three years to 2013-14.

Percentage share of sectors in GVA at factor cost at current price average of 2011-12 to 2013-14



The Indian economy grew at 6.7%, 4.5% and 4.7% during 2011-12, 2012-13 and 2013-14 fiscal years, respectively. Sen said that along with GVA at basic prices for these three years, revised measurements for GDP at factor cost will also be provided. Providing GVA growth rate at basic prices historically for earlier years may take longer, he said.

The change in base year of national accounts statistics will result in an increase in the size of the economy in 2013-14 to Rs.111.7 trillion as against the earlier estimate of

[1] State of the Economy-An overview, Central Statistical Organisation, Economy Survey 2014-15 Echapvol2-01.pdf

Rs.105.4 trillion, he said Devendra Kumar Pant, Chief Economist and Senior Director (public finance) at Indian Ratings.[1]

"the 2013-14 fiscal deficit and current account deficit are likely to decline to 4.3% of GDP (4.6% earlier) and 1.6% of GDP (1.7% earlier), respectively," he said. Indian Ratings expects the economy to reach $3trillion by 2019-20 with the change in base to 2011-12, it said in statement. On the 2004-05 base, it would have happened a year later in 2020-21.

2.3 Comparisons of Old series and New series

With the new base year of 2012-13, GDP growth rate in FY 14 (2013-14) has been revised upward to 6.6%at factor cost and a whopping 6.9% at market price. This represents about 2% increase in GDP growth over the earlier estimate of 5%. Surely, such a large scale revision will or should significantly affect the understanding of the underlying economic phenomenon and lead to a marked policy shift. Contrary to what Surjit S Bhalla (SSB) would have us believe, not even the government is taking the revised estimates seriously enough as reflected in a lack of any change in policy direction.[2]

Comparison of Old Series and New Series

Item	Year	Difference between new series and old series In percentage points
Growth in GVA at factor cost	2012-13 2013-14	0.4 1.9
Growth in deflator	2012-13 2013-14	0.5 -0.3
Level of GVA at factor cost at current prices	2011-12 2012-13 2013-14	-2.2 -1.3 0.2

[1] http://googleweblight.com/i?u=http://www.livemint.com/politics/L4gx0gzFLN3y9IGNHOOJhK/India-to-change-the-way-it-measures-economic-growth.html&grqid=my48y0IL&hl=en-IN

[2] Kumar Rajiv and Krishna Geetima Das, the curious case of GDP Growth, economic survey 2014. PDF: New GDP Series_May 2015

This table from CSO captures these effects separately based on the new and old series of the GVA at factor cost. The level of GVA was lower in 2011-12 and 2012-13 in the new series in comparisons to the old series, with the degree of change tapering off in successive years. [This cannot be verified for the Advance Estimates (AE) for 2014-15, for which only the data from new series is available].A greater decline in the level of GDP in 2011-12 and 2012-13, has given an upward push to the growth rate in the 2013-14. On the other hand, the upward revision of inflation in 2012-13, measured by the GDP deflator, gave a downward push to growth, but not to the extent of nullifying the positive effect of relative revisions in absolute levels. In 2013-14, the downward revision in the deflator pushed up real growth in the new series.

Summary

The structural changes in the economic activities leads to make a push to mitigate untenable overwhelming evasive picture of the Economy. Change in economic activities mean that the structural changes in consumption and production which ultimately gives us the output. As far as consumption and productions are concerned, change in relative prices leads to alteration in various variables of economy which relevant to consumption and production structure. In brief, shift in base year is meant to take place on regular basis from the time lag of 5-10 years due to occurrence of alterations in economic scenario. Change in base year is kind of requirement for every economy to fulfil the need of dynamic aspects in changing world.

. The new series of national accounts is an improvement upon old (base:2004-05) in terms of its comprehensive coverage of corporate sector and government Activities and incorporation recent data generated through national sample survey. It also brings some changes in method of evaluation, approaches to account economic activities, introduces new concepts and incorporation of new classifications. Originally, it was decided to keep 2009-10 as base year but it was postponed due to economic crisis.

The economic scenario presented by the new series (with 2011-12 as base year) reveals that there was perceptible improvement in some of the macro-aggregates of the economy in 2013-14, which got strengthened in 2014-15. One of the reasons why the real GDP growth rate for 2013-14 appears to be strong is the lower GDP level in 2011-12 and 2012-13 along with lower GDP deflators than were thought hitherto. Apparently, improvement is becoming a interrogative in 2013-14, we can say from all the analysis that growth during 2011-12 was on too slower pace in comparison to last 2-3 years (even these years includes global crisis) due to which economy has to revive as far as development is concerned.

Furthermore, I have mentioned above regarding the sector contribution in the GDP which has been affected due to change in base year. On one hand industrial sector is showing a huge increase, if we would calculate its sharing on new series from 26.1 per

cent to 31.7 per cent (average of 2011 – 2013-14). In this sector, data for manufacturing is also depicting improvement say in 2012-13, 2013-14 was 6.2 per cent and 5.3 per cent besides that in 2014 in January growth of this sector was 7.4 per cent. On other hand, service sector is declining drastically from 56.1 to 49.6 per cent (average of 2011 to 2013-14) on new series. Although, Service sector remained strong during the global economic crisis. After that, this sector has become slower in comparison to 2009-10. May be these factor are leading changes in the contribution in GDP by these sectors.

3.Change in GDP formula

3.1 Introduction

The structure of economic activities changes over time due to change in structure of production and demand in the economy. On production side, the production pattern changes along with changes in technology and innovations in the system and in this process some production become obsolete and other comes in vogue. While on demand side, the consumption pattern also changes over time. The changes in relative prices stimulate changes in the consumption and production choices. Therefore, to account for these structural changes and to update the prices, the rebasing exercise is needed after a certain period. The exercise of rebasing national accounts brings up a fresh lot of information about the changes in the economic structure of the economy, along with switching over to new base prices. This also helps in judging the size of the economy, correction of biases and looking a fresh at the relative importance of sectors in the economy.

Earlier "GDP at factor cost" was known as simply the "GDP" in India. It is nothing but sum of the factor costs incurred during the process of turning out economy's output for the concerned year. Thus, it is a compilation of wages, interests, salaries, profits etc. This concept – GDP at factor cost- used to be expressed both in constant prices (with 2004-05 price as base year prices) and current prices. For most purposes, including academic works, GDP at factor cost in constant prices was used as "GDP". Further by adding net indirect taxes (ie. Product taxes-product subsidies), GDP at Market price were also reported in the National Account Statistics. (For details of the calculations one can see the brochure issued by CSO, Ministry of Statistics and programme implementation.

3.2 Comparison of GDP growth due to occurring change in formula

The Central Statistics Office (CSO), the custodian of Indian statistics, has faced a lot of questioning after the release of the new GDP series with 2011-12 as base. The RBI, Ministry of Finance, IMF, several credit rating agencies have all questioned the validity of the revisions.[1] Some analysts like Ruchir Sharma of Morgan Stanley have

[1] 1 The Economic Survey, 2014-15, pointed out that this growth surge is accompanied by dramatic declines in savings and investment ratios. 'The data show that private corporate investment increased robustly in 2013-14 which seems at odds with stressed balance sheets and

gone as far as to assert that these revisions if not corrected will make Indian statics as suspect as Chinese GDP data in the past. This will be a real pity.

The extent of the revisions is shown in Table 1 below. With the new base year of 2012-13, GDP growth in FY 14 (2013-14) has been revised upwards to 6.6% at factor cost and a whopping 6.9% at market prices. This represents about 2% increase in GDP growth over the earlier estimate of 5%. Surely, such a large scale revision will or should significantly affect the understanding of the underlying economic phenomenon and lead to a marked policy shift. Contrary to what Surjit S Bhalla (SSB) would have us believe, not even the government is taking the revised estimates seriously enough as reflected in a lack of any change in policy direction. [1]

Comparison of GDP Growth				
	GDP at Factor Cost		GDP at Market Price	
	Old Series	New Series	Old Series	New Series
FY 2013	4.5	4.7	4.7	5.1
FY 2014	4.9	6.6	5	6.9

The large upward revision of FY 2013-14 GDP growth from 5.0% to 6.9% and even more so of manufacturing sector from (-) 0.7% to 5.3% surprised most analysts. This acceleration is in sharp contrast to all other observed high frequency data such as car sales, heavy vehicle sales, credit-deposit growth, projects under implementation, coal production, cement-steel production, petroleum consumption, non-oil-non-gold imports, corporate taxes, excise duty collections etc. The year FY 2013- 14 also had witnessed significant currency volatility as a result of the US Fed taper talk that prompted RBI to raise rates three times, seriously dampening both consumer and business sentiments.

3.3 Efficiency of new measurement over the old method

According to the Chief Statistician of the Government of India, Professor T C Anant who was kind enough to spend an hour with us on February 11th, these revisions are due to two structural changes in the computation of growth of gross value added. According to him, the two structural changes in the new series represent significant

the phenomenon of stalled projects…..Until a longer data series is available for analysis and comparisons, and until the changes can be plausibly ascribed to the respective roles of the new base, new data, and improved methodology, the growth narrative of the last few years may elude a fuller understanding.'

[1] Perhaps in his fondness of contrarian positions, Surjit S Bhalla (SSB) has made a valiant attempt to defend the revisions as kosher and reflective of ground realities. On this occasion, unfortunately, SSB's contrarian stance will only help to obfuscate the issues. It will be used by the CSO to sit back and not undertake a thorough review of its new series as it should be doing.

improvement both in the sectoral coverage and estimation methodology and have consequently resulted in the marked upward estimates of GDP growth for FY14 and a higher forecast of 7.4% for FY 15. Professor Anant further explained that even previously in the old series, manufacturing GDP computed on the basis of IIP (Index of Industrial Production) numbers would get revised up later when ASI (Annual Survey of Industries) data becomes available after a lag of two years. This is clearly preferable as the IIP reflects trends in volume of production (being based on physical production data), which can often diverge from the GVA estimates that are based on trends in value of production as in ASI estimates.

According to the new series, the growth of GVA in the manufacturing sector has gone up from a negative 0.7% in FY 14 to a very healthy 5.3%. It is argued that this has happened because the new data captures the entire gamut of value added activities in any given firm and not merely the trends in physical production, which is captured by the series of Index of Industrial Production or even the Annual Survey of Industries.

It is possible that the informal sector units, hitherto not included in growth estimates, have been it captured in the new estimates. This amounts to expanding the universe and not necessarily an increase in growth rates. This is compatible with and reflective of the large increase in the share of the manufacturing sector that is now reported by the CSO. Manufacturing sector's share in total GDP, for long bemoaned to have remained stagnant, has in one stroke been increased by 4% points from 13% to 17% as a result of these revisions.5 We repeat that this is an improvement in that it brings in the contribution of the informal manufacturing sector and thus better captures the state of manufacturing activity in the economy. But this does not reflect higher growth rates unless one assumes that the rate of growth of GVA in the informal sector, hitherto uncovered, is far higher than in the formal sector. In a recent article, Dr Arvind Virmani has argued that the small globally connected organized sector of India has been impacted by global demand recession as reflected in poor IIP numbers and quarterly corporate results but large unorganized sector catering to the domestic market has been growing strongly.[1]

However, it is implausible to argue that informal manufacturing sector growth rate in FY 14 accelerated while the formal manufacturing sector was experiencing a sharp decline. The informal sector constitutes the third or the fourth tier of the manufacturing activity and supplies to the larger enterprises. Growth in the informal sector could hardly be rising when the industries to which its units were supplying inputs was declining.

3.4 Summary

[1] "The global financial crisis and the consequent global demand recession and excess capacity have affected … the globally connected and competitive corporate sector of India. Thus, all indicators connected with these companies, such as IIP, corporate profits, corporate and excise tax revenue would also lag the GDP recovery."

In order to escape from hurdles, we used to face at the time of making comparison with other nation. Majority of foreign nation have their growth calculation on the basis of market prices, in contrast India had GDP (Gross Domestic Product) at factor cost. Therefore, we usually had to first convert GDP into market price in order to make compatibility or compliance with other nation. So, UN asked us to opt for the standard formulas which enable us to prevent from the obstacles which we used to suffer.

Earlier, we used to calculate GDP at factor cost which does not include contribution of taxes and subsidies. In other words, we used to only know about the fact that how much amount of production is taking places from the producer's side only but this is not the end of the story. In brief, GDP at factor cost used to entail partial picture of the economy. In order to have clear picture of GDP analysis, the amount which is contributed by the producers towards the economy in the form of Taxes and the amount which government gives subsidies to promote the small and tiny units are also meant to be considered. Currently, these puzzled sides of the evaluations and analysis has been solved by adding and subtracting the Taxes and Subsidies.

Subsequently, this method has not only considered the quantity amount of production. In other words, this method is not only concerned about the amount of the production but the value. The value here signifies that how efficiently we are doing our task say earlier, we used to produce 200 units from 10 machines, now if we are producing the same from 8 machines. With the help of GVA (gross value added) method we can assess that improved value. Same task helps to inculcate the skill of specialization of completing the assessment effectively and efficiently. Our former RBI governor said, "the net effect on the economy is questionable we have to be little careful about how we count GDP because sometimes we get growth.

Because of people moving into different areas they are doing something which is adding value. We do lose some, we do gain some and what is the net, let us be careful about we count that.

4. Wide sources of data collection

4.1 Introduction

More the sources, more would be the availability of information. We can figure out more relevancy between the variable with the help of wide information. In other words, we can get more diverse considerations with huge amount of knowledge. In brief, generalization about the growth of industrial sector includes manufacturing units etc. on the basis of 2500 large units only. Since, it is not possible to have comprehensive data on every units of economy. Further, many of the units are not legally displayed in documents. Even if displayed, they have not shown their real balance sheet in attempt to evade from taxation. Only on the basis of small proportion say 2500 units, this is not possible to reveal a truer picture from such small sample for this sector.

Today, MCA-21 has taken a very stupendous step to analyze data nearly about 5 lakh units which not only include large units but also the small and medium units which

include truer scenario about the growth in comparison to previous analysis. Generalization which we are making now that is meant to be revamped on the basis of e-filling of documents by these huge numbers of units.

To understand the methodological changes and their implications, it is important to understand a bit of history first. In the earlier series, the estimates for the private corporate sector were based on a sample survey of companies conducted by RBI. This sample consisted of only a few thousand companies, and hence the estimates were blown up (or multiplied) in proportion to the coverage of the paid up capital of the sample companies to the total number of companies registered with the ministry of company affairs (MCA).[1]

The first structural change in the new series has been in the coverage of the organized corporate sector (essentially covering the manufacturing and services sector) which has been made much larger by shifting from the use of RBI corporate data base confined to 2,500 units to the Ministry of Corporate Affairs (MCA) database of more than 5,00,000 entities in the manufacturing and services sectors. For the manufacturing sector, the source of data for computing gross value addition (GVA) has been shifted from the establishment (or plants and factories) as collected from the Annual Survey of Industries (ASI) to the corporate profit and loss accounts submitted to the Ministry of Corporate Affairs (MCA) under their e-governance initiative. The latter, it can be argued, better captures the growth impact of changes in productivity, embodied technology and brand equity and hence a methodological improvement.

Second, in the case of Wholesale and Retail Trade (WRT) the estimation of GVA is now being done on the basis of sales tax returns rather than on the basis of the growth of wages and employment in these sectors. These estimates came from data provided by the successive NSSO rounds, which as we know are not held annually and require extrapolation over years. Sales tax data on the other hand is more regularly available and covers a much larger population. The noteworthy feature of the new methodology is the much larger universe now being covered for estimating GVA in both the manufacturing and trade sectors.[2]

The two changes are, of course, an improvement over the earlier methodology. The nagging question which remains unanswered is whether the new estimates reflect a once for all change that comes about by capturing a larger set of economic activity. While it may have yielded a higher growth rate in the two years (FY 13 and FY 14), this will simply not be comparable to the earlier series. The CSO would have done far better to

[1] Bhattacharya Pramit, The truth behind India's New Number, livemint, Friday April 03,2015. http://www.livemint.com/Politics/jKTdOc5DMlJs7QuaoZdLtN/The-truth-behind-Indias-new-GDP-numbers.html

[2] At the industry level, changes have affected the year-on-year growth rates in the case of mining and manufacturing due to the adoption of MCA21 database, and in the case of non-financial services due to the use of sales/service tax as an indicator for nominal growth. – MOSPI (Ministry of Statistics and Program Implementation) Press Note on new GDP series.

give us a longer series of estimates going backward based on the new methodology to offset these genuine fears.

According to R Nagraj, an Independent member of the sub-committee that examined the new methodology to estimate output, the version adopted by the Central Statistical Organisation dodders dramatically from the report finalized by the sub-committee in September 2014. The difference between the estimates of GVA in manufacturing (FY 2012-13) highlighted by the two version of the sub-committee report is as high as 108%. This obviously raises doubt about the growth numbers unless a rational justification is put forward.[1]

Conclusion

The time when the GDP went up to 6.9 per cent in 2013-14 from 4.9 per cent in 2012-13 started arising various questions than the statements or the compliments for acquiring such a high rate growth. Initially what has been realized is that have these been really grown up or have these been grown that fast making sense of India's new GDP numbers. These numbers completely seem in conflict with other economic indicators, such as growth in agriculture and allied services, poor corporate performance, rising non-performing assets (NPAs) and a shrinking index of industrial productions includes the declining trends in manufacturing sector which is meant to be core part of industrial sector. If let's look at the service sector which is supposed to be highest contributor for the GDP, analysis reflected that trade, hotel, and restaurants saw a growth of 1.2 per cent and 4.4 per cent in fiscal year 2012 and 2013, respectively. They grew by nearly 12 per cent in fiscal year 2011. This is not the end here about estimates which are taken as base now on the basis of 2011-12, are very much lower in numbers. It implies that it was easier to revive from those indicators. Besides these factors, if we look at the most prominent factors say savings from 33.9 per cent, 31.8 per cent and 30.6 percent in 2011-12, 2012-13 and 2013-14 or on other hand, investment has shown sluggish trend as shown above in table-8 for example, investment has declined in service sector from 19.5 per cent, 18 per cent and 17.1 per cent in fiscal year 2011-12, 2012-13 and 2013-14.

All these variables made the economists in India puzzled and forced to think that how could such a blow come in growth rate inspite of having these flaws described in above paragraph. I was in my 2nd year of UG degree I could not give much thought that time but now from all the prevailing picture. Questions like have we acquired that betterment in variables even in transitory basis, yes on the basis of change occurring in GDP formula, shift in base year and the broad based or wider sources from 2500 units to assessment of 500,000 units through ministry of corporate affairs from e-filing. But

[1] Ajaz Taufeeq, The Reality of India's Rising GDP Numbers, thewire.in, Economy, economic growth, GDP, R Nagraj, RBI
http;//www.google.co.in/amp/s/thewire.in/22519/the-reality-of-indias-rising-gdp-numbers/amp/

no in case of reality of economic scenario except per capita income from Rs.80,388 in 2013-14 to Rs.88,538 in 2014-15 up that PCI has shown increment of 10.1 per cent.[1] Actual increment in per capita income has come out to be 6.1 per cent (inspite of 10.1 percent) at constant price which eliminates the inflationary effect. All these changes in methodology are meant to be known for betterment of accountability, assessment, evaluation of data analysis and scrutinizing the economic variable to an efficient approach in the economy. Apparently all the changes in method were a kind of requirement for our economy in some or the other way. These alterations have come up with the positive predictions for alien investors.

First of all, I have talked about shifting in base year since we all are familiar with the fact that shifting in base year has to take place on a regular basis. But what clinked me is the time lag from 2004-05 to 2011-12 is very much smaller than the time lag between all other changes occurred in previous shifting in base years since independence.[2] Since this change is only for clear picture in other words it helps to mitigate the effect of inflationary trends. The structure of the economic activities changes over time due to changes in structure of production and demand in the economy. On production side, the production pattern changes along with changes in technology and innovation in the system and in this process some production become obsolete and other comes in vogue.

So, first of all, the data has been shown that the fiscal year 2014 growth rate was just 4.9 lifted from 4.5 in fiscal year 2013 but anyhow these same numbers have been shown 6.6 per cent growth in the fiscal year 2014 from 4.7 per cent in 2013. Shifting in base year is meant to be for eliminating the increment occurring due to increase in prices. So, we used to evaluate data by including the inflationary trends from the time 2004-05 to 2011-12. In brief, larger the gap between the base year and chosen year, lower would be the growth. For example, if the food grain price are increasing from Rs.150 to Rs. 250 from 2004-05 to 2011-12[3] and we are making comparison from Rs. 150 or Rs.250. it is definitely going to differ because data 2011-12 is mitigating the evasive picture occurring due to Rs 100 increment in food grain prices(Rs.250-Rs150). Hence, we are now evaluating on the basis of 250 instead of Rs. 150 to avoid inappropriate accountability. Therefore, the growth rate was low from the base year 2004-05 and lifted sharply by adapting 2011-12 as base year. Along with this, revised base can lower tax on various taxes among these; tax on capital gain is there[4] which also

[1] Express News Services, GDP growth at 7.4% but questions remain over calculation, new Delhi, February 10,2015 3.43Pm. http://indianexpress.com/article/business/economy/gdp-growth-at-7-4-pc-but-questions-over-calculation/

[2] the base year of the national accounts statistics series have been shifted from 1948-49 to 1960-61in august 1967; from 1960-61 to1970-71 in January 1978; from 1970-71 to 1980-81 in Febuary 1988; and from 1980-81 to 1993-94 in Febuary 1999. Thereafter it was changed 2004-06 and recently 2011-12 in 2012-13, retrieved on 18.04.2017

[3] $$*(base year price index/chosen year price index)

[4] Market value of the asset*(CII of the chosen year/CII of the base year)

helps growth rate to go up in one or the other way by increasing the productivity or can say willingness.

Secondly, change in GDP formula has also been adopted at the same time period. The growth rate at market price in fiscal year 2014 was revealed as 6.9 per cent from 5.1 percent the fiscal year 2013 while it was not that high in case of factor cost, it was just 4.7 per cent in FY 2013 and 6.6 per cent in FY 2014. Nonetheless, even more so in manufacturing sector from (-) 0.7 per cent to 5.3 per cent surprised most analysts. This acceleration is in sharp contrast to all other observed high frequency data such as car sales, heavy vehicles sales, credit deposits growth, projects under implementation, coal production, cement-steel production, petroleum consumption, non-oil-non-gold imports, corporate taxes, excise duty collections etc. The year FY2013-14 also had witnessed significant currency volatility as a result of the US fed Taper talk that prompted RBI to raise rates three times, seriously dampening both consumer and business sentiments.[1] Growth in non-agricultural credit off take in FY 2014 was a mere 14 per cent compared to more than 20 per cent in good years. It has further come down to even lower around 12 per cent in March 2015, which will signify an even lower rate of growth of the manufacturing sector in FY 15, contrary to CSO's rosy forecasts[2]. It was reflected that the two structural changes in the new series represent significant improvement and have consequently resulted in the marked upward estimated of GDP growth for FY 2014-15 and 2015-16 as well.

Therefore, on the basis of analyzed data, change in GDP formula has played a significant role in lifting growth rate for industrial sector specially. This is only the reason, numbers are showing contradictory number in Index of Industrial Production (IIP) and the Corporate sales. New formula is concerned with the efficiency or the value, instead of with the increase in quantity factor only.

And the third change that has been undertaken by shifting from the use of RBI corporate data base confined to 2500 units to the ministry of Corporate Affairs (MCA) data base of more than 500,000 entities in the manufacturing and services sectors. This wider base helps to analyze better study of economy's ups and down. More the data, more diverse would be the information and ultimately it could make more comprehensive and appropriate generalisation.

The economic Survey, 2014-15, pointed out that this growth surge is accompanied by dramatic declines in savings and investment ratios. 'the data show that private

[1] Kumar Rajiv and Krishnna Geetima Das, curious case of GDP growth, centre for policy research. New GDP Series_May2015.pdf

[2] Advance estimates for 2014-15 have pegged manufacturing sector growth at 6.8%. However, the available corporate profitability data do not reflect this buoyancy in GVA in the manufacturing sector. According media reports, aggregate net profit of 2,941 companies in the third quarter declined by 16.9%- the worst in five quarters. Therefore, the acceleration in GVA in the manufacturing sector in 2014-15 as reflected in the advance estimates, cannot be explained by corporate profitability.

corporate investment increased robustly in 2013-14 which seems at odds with stressed balance sheets and the phenomenon of stalled projects, until a longer data series is available for analysis and comparison, and until the changes can be plausibly ascribed to the respective roles of the new base, new data and improved methodology, the growth narrative of the last few years may elude a fuller understanding.

This is not end here; the base from which economic variables are being compared is lower than even from the trends occurred in economic crisis. In other words, A great decline in the level of GDP in 2011-12 and 2012-13, has given an upward push to the growth rate in the 2013-14, measured by the GDP deflator, gave a downward push the growth, but not to the extent of nullifying the positive effect of the relative revision in absolute levels. In 2013-14, the downward revision in the deflator pushed up the real growth in the new series.

Therefore, it can be concluded that alterations which have been adopted, all are lifting the growth rate up whether it's being change in method or being consideration of GDP deflators. In contrast, declining trends of saving and investment, the food grain production (265.6 million tonnes in 2013-14 to 257.1 million tonnes in 2014-15), scheduled commercial bank credits (14.1 per cent, 13.9 per cent and 10.7 per cent in 2012-13, 2013-14 and 2014-15) and import growth (from (-)8.3 to 3.6 per cent. On the basis of these variables in the later half, economic growth should have shown the downward trends. Fortunately, simultaneously occurrence of alterations in methodology has played a major role in lifting the growth rate to go up. This has also been analysed from various calculation analysis. Beside these factors there are also some improvement seen in the economy, this research has not been conducted to deny those betterments but only to make aware by the fact that economy did not mirror the image of scenerio which can be reveal through more than 40 per cent change. This is just to inform that these changes which are now making compatibility with the international standards have played a vulnerable role in forming positive prospective for the economy.

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