

The numbers game

A structural break can be observed in the GDP back series before and after the year 2011-12



PUJA MEHRA

India's national income statistics are under a cloud. The Central Statistics Office (CSO) has released official revisions of the GDP estimates for the years 2004-05 to 2013-14 in the Manmohan Singh-led government's tenure. The revisions make the Narendra Modi government's performance on the economic front appear better than that of its predecessor.

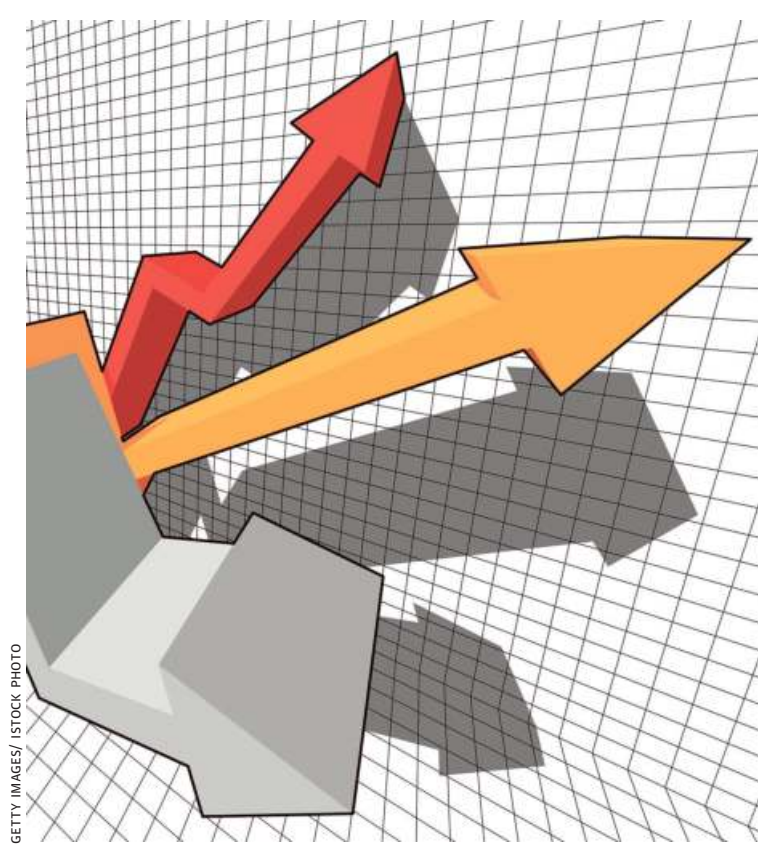
In 2015, when the CSO had first computed this set of estimates, the growth rates for the years in Dr. Singh's tenure were higher. The NITI Aayog rejected those numbers and blocked their release. Whether the CSO should have yielded to the NITI Aayog on a purely statistical matter is not clear.

In the recomputed estimates, which were released last month by the CSO under the guidance of the NITI Aayog, GDP growth does not exceed 9% even once during Dr. Singh's tenure. The fastest growth rate reached was in the year 2010-11 (8.5%). The growth rate for this year, before this revision, was estimated at 10.3%. The best year in Mr. Modi's term so far has been 2015-16 (when GDP growth reached 8.2%). In fact, the growth rates for the majority of years in Dr. Singh's term have been cut drastically. Besides 2010-11, the growth rate was slashed quite sharply for 2007-08, from 9.8% to 7.7%.

Naturally, these revisions have stoked a controversy. Besides the political duel between former Finance Minister P. Chidambaram and his successor Arun Jaitley, eminent statisticians have posed questions over the technical issues at hand. The CSO has offered no satisfactory answers. Even the Chairman of the Prime Minister's Economic Advisory Council, Bibek Debroy, is concerned about what he calls the use of "less than perfect" deflators by the CSO.

Statistical stunts

Mr. Jaitley is at pains to stress the CSO's credibility, and has emphasised that the revisions are compliant with the international guidelines, the System of National Accounts (SNA),



2008. The truth is, many of the proxies and techniques that the CSO has used are, in fact, not recommended by the SNA. At best, they are tolerated under the SNA system.

One particular statistical stunt that the CSO has introduced is a structural break in its back series in 2011-12. Let us understand this in detail.

Macroeconomic aggregates such as GDP and GVA (gross value added) are estimated every year at the prices of a selected year, the base year. Base years are periodically updated, and the GDP for every year all the way back to 1950-51 is then re-estimated. In 2015, the base year was updated from 2004-05 to 2011-12. Improvements in estimation methodology were also carried out. But there was a problem: non-availability of appropriate databases complicated the re-estimation backwards.

Three years ago, at the time of re-basing the GDP series, the forward computation was done using data sourced from the Ministry of Corporate Affairs' MCA-21 database of balance sheets. Its use led to growth getting revised upwards substantially for the years after 2011-12, including

for the last two years of Dr. Singh's term. But the MCA data are available only 2011-12 onwards. So, what was to be done for computing the series before 2011-12? This was the principal difficulty in backcasting the rebased series.

The CSO worked out a proxy. Its use would have led to growth rates getting revised upwards in the years before 2011-12. This was not agreeable to the NITI Aayog, and the back series computed with it was withheld. For three years, the CSO and the NITI Aayog could not resolve the problem. Now, the CSO, under the rather controversial guidance of the NITI Aayog, has for a proxy used data extracted from the Annual Survey of Industries (ASI), the database that was used for the earlier 2004-05 base year series. Combining MCA data with the ASI data is technically problematic. There is no statistically robust way of seamlessly linking these two datasets. Their coverage differs significantly.

Complications

Consider one of the complications introduced by the ASI's relatively

smaller coverage than the MCA's. Take a company that has manufacturing establishments across the country. Such a company may also have non-manufacturing establishments as part of its set-up. The total corporate GVA should ideally be the sum of manufacturing and non-manufacturing establishments. While the MCA would cover both the manufacturing and non-manufacturing GVA of this company from 2011-12 onwards, the ASI has been found to cover only manufacturing establishments in such cases. Non-manufacturing GVA inside a manufacturing corporate enterprise is not captured by it. This GVA, in fact, does not get covered at all as the service sector surveys also leave it out.

Some of the GVA in the years before 2011-12 in the back series has escaped estimation altogether due to such holes in the ASI's coverage, making the year 2011-12 a point of discontinuity.

A structural break can be observed in the back series before and after the year 2011-12. The upgradation to MCA from ASI data 2011-12 onwards had led to upward revisions. Going backwards, the revisions are by and large sharply downwards.

Glossing over challenges

The statistical challenge before the CSO is to estimate the GVA that remained uncaptured by the ASI. This is a complex problem with no clear solution. Whether the holes led to an underestimation or overestimation and what the impact was on the growth rates is difficult to judge. Service offshoots can lead a conglomerate or can be a drag. The now-defunct Kingfisher Airlines associated with the business group United Breweries illustrates how a service establishment can ensure that a conglomerate's GVA goes up but it may also drag it down. The trouble is, rather than admitting to these challenges transparently, the CSO has sought to gloss over them.

One of India's most well-regarded statisticians, T.C.A. Anant, was not willing to replace the MCA database with the ASI database in the back casting exercise when he was Chief Statistician of India. Months after his retirement, the CSO went ahead and did exactly that.

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FROM THE READERS' EDITOR

Reflections of readers

News cannot wait, but an informed editorial can



A.S. PANNEERSELVAN

A gathering of journalists, academics and the public at "Fourth Pillar: India Journalism Week" turned out to be another open house. This was an initiative by Academe India and the University of Chicago Center in Delhi to examine the role of journalism in democracies. Along with Pamela Philipose, Public Editor of The Wire, and C. Rammanohar Reddy, Readers' Editor of Scroll till recently, I was asked to reflect on this crucial institution. Questions were posed about the growing trust deficit in the media, the differences between various media houses, and the plurality of views in the public sphere, among other things.

While the participating news ombudsmen had different perceptions on the role of the Readers' Editor, there seemed to be some consensus. One, we agreed that a good public editor is one who will take your criticism and fairly examine whether it is correct or not. And two, we agreed on the importance of accommodating questions from social media, which is a new and growing trend. Having an internal critic is not only important to enhance the quality of journalism and hold journalists accountable for their reportage, but also to have a constant dialogue with the readers. I must confess that personal interactions of ten work better for me than a virtual exchange of ideas.

Some suggestions

During the lunch break on December 16, we heard that Ranil Wickremesinghe had been reinstated as Sri Lanka's Prime Minister. One of the participants referred to some of my columns such as "The RE is an inversion of the Rashomon effect" (November 12), "Reporting is not parroting" (November 5), "Discussing an editorial" (December 3) and "The numbers don't add up" (July 9) and said that they stood testimony to the effectiveness of the Readers' Editor's office.

"Your criticism of the critics of the newspaper in the case of reporting and editorialising on the developments in Sri Lanka was vindicated by the subsequent Supreme Court ruling in the country. Your disagreement with the newspaper with reference to

official numbers was not restricted to the single column on the editorial on GDP back series but was a continuum of your reading on metadata over a period of five years. I think the RE should do a half-yearly report card on issues where later developments either vindicated the RE's stance or proved his contentions wrong," he said.

Standing by journalists

A young reporter said that it is important for the newspaper to stand by its journalists when they are unjustly attacked. An endorsement by an independent Readers' Editor during these difficult times can be a morale booster for the journalist, he said. "When the media was under attack from [those with] political and other vested interests, an unambiguous column that stood by a foreign correspondent for a sensitive story involving the President of a country was a reiteration of the importance of independent and accountable journalism," another participant

said. She added that the data presented in the column "The RE is an inversion of the Rashomon effect" should be subject to further number crunching. Some columns, she pointed out, lent themselves to further quantitative interpretation. For instance, if one column carried some assumptions, she wanted the Readers' Editor to check if these assumptions were proven right or wrong later. If they were proven wrong, she said she would like us to examine the factors that contributed to the misreading of facts or misinterpretation of data. She also wanted the office of the Readers' Editor to neatly integrate the salient features of legacy media with the new tools of data journalism while assessing the complaints.

Some readers felt that a newspaper should wait at least 24 hours before spelling out its opinion on major developments. The discussion was around the Supreme Court's rejection of public interest litigations for the Rafale deal probe. In less than 24 hours of the Supreme Court's Rafale judgment, the government moved the court for a correction in the judgment, saying that the court had erred in grammar to "misinterpret" information submitted to it in a sealed cover about the pricing of the 36 fighter jet deal. They felt that even the editorial on the GDP back series would have been different if the newspaper had taken more time to reflect on the issue and its nuances. Readers do have a point: news cannot wait, but an informed editorial can wait.

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SINGLE FILE

A different rating

It's time to think of unique ways to make Bollywood films more gender sensitive

MATHANGI SWAMINATHAN



Soon after the #MeToo revelations began pouring out on social media this year, the organisers of the Jio MAMI Mumbai film festival struck off two features and three shorts after allegations were levelled against key people involved in the making of these films. Festival director Anupama Chopra said that she hoped that the decision would lead to an environment that is "constructive, inclusive and just". While this is a welcome move, our focus should be not only on those accused of inappropriate behaviour but also on filmmakers who churn out sexist films that influence such behaviour.

Bollywood films influence negative societal attitudes towards women in India. If we are to make progress, we must reverse these narratives through better storytelling, for storytelling influences behaviour. A study by Elizabeth Levy of Harvard University showed how a reconciliation-themed radio soap opera changed social norms and behaviour in Rwanda after the 1994 genocide. We also know storytelling works because multilateral agencies around the world spend billions of dollars on advertisements and informational campaigns to reach the public. Yet, in India, we ignore or simply don't accept the impact of storytelling on social behaviour. Last year, IBM India conducted a research study analysing gender stereotypes in 4,000 Bollywood movies released between 1970 and 2017. Among these, the researchers identified only 30 movies where these stereotypes were broken. While filmmakers are attempting to break this mould, they are still few and far between.

One way of initiating change could be for the Central Board of Film Certification (CBFC) to introduce a gender equity certification among the categories of film certification that we have today. This will empower the public to make a choice before heading to the theatres. It will signal to the industry that a gender lens is important and necessary.

Granted, big brother attitudes are dangerous and we need to constantly push for less state regulation. But given the nature of sexual allegations against powerful members of the film industry, who can we trust to be responsible for shaping the narrative around gender stereotypes in India? Are future generations going to continue living in a world where they are encouraged to harass and rape women? Will sexist behaviour be tolerated and, if yes, for how long? Or can we start shaping the narrative around how we view various genders by being more responsible in how we depict them? The answer is, we can. It's time to think of unique ways of making films more gender sensitive, for this is a medium that has a huge impact on social behaviour as studies time and again have shown.

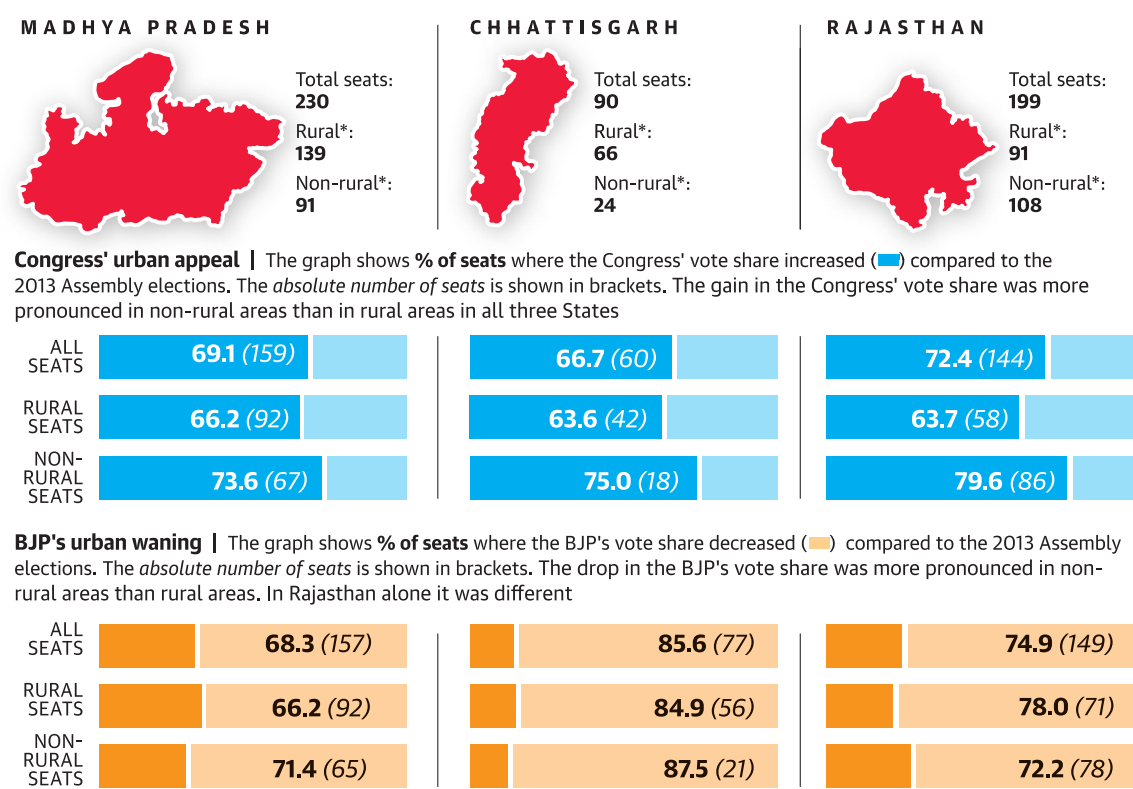
The writer is a graduate student of public administration at the John F. Kennedy School of Government, Harvard University



DATA POINT

The BJP's urban slide

The Assembly election results in Madhya Pradesh, Chhattisgarh and Rajasthan have thrown up a surprising statistic. Unlike the results in Gujarat in late 2017, where the Congress made most of its gains in rural areas, the party flipped the script by winning more votes in urban areas at the BJP's cost. **Vignesh Radhakrishnan** and **Srinivasan Ramani** find the numbers



*Rural-urban classifications were drawn from Raphael Susewind's data set that relies on NASA's MODIS satellite data which uses luminosity and building density information, among others, to delineate urban and rural areas

FROM THE HINDU ARCHIVES

FIFTY YEARS AGO DECEMBER 17, 1968

C.M. can advise Assembly dissolution

The Home Minister, Mr. Y.B. Chavan said in the Lok Sabha today [December 16, New Delhi] that they had the greatest respect for the decisions of the Speakers' Conference, that when a Chief Minister's majority was in doubt the Assembly must be convened within a week to decide the fate of the Ministry, but pleaded 'helplessness' to implement them. Mr. Chavan also said that what a Governor should do in a constitutional situation was 'none of the business of the Central Government'. The Home Minister was replying to a volley of questions on a call attention motion by Mr. A.B. Vajpayee (J.S.) and four others. Mr. Vajpayee said that All India Radio broadcast on December 10 the view of a Home Ministry spokesman that the Chief Minister of Haryana, who had lost the majority in the Assembly, was within his rights to advise the Governor to dissolve the State Assembly.

A HUNDRED YEARS AGO DECEMBER 17, 1918.

Sir George Lloyd. First Speech in India.

Sir George Ambrose Lloyd, the Governor-Designate of Bombay, accompanied by Lady Lloyd and their little son, arrived in Bombay this morning [December 16] landing at the Apollo Bunder at 8-30 amidst the usual ceremonial and scenes of considerable animation and enthusiasm. The shamiana erected on the bunder to give the new Governor and Lady Lloyd a warm reception was fully packed with ruling Indian Chiefs and Sardars, Naval, Military and Civil Officials and leading citizens. Seats in the shamiana had been arranged so as to leave a gangway from the bunder steps to the road. Chairs were arranged on both sides of the gangway and blocks marked out for accommodation of those who had come to give a hearty reception to the new Governor. The block nearest the landing place and to its left was reserved for the accommodation of ruling Indian Chiefs and Sardars.

CONCEPTUAL

Two-part tariff

ECONOMICS

This refers to an unconventional pricing technique where a business first charges an upfront fee from consumers for its product and later charges them additional fees based on their per unit usage. A club, for instance, might charge its members a standard membership fee for basic entry privileges and then charge additional fees if members choose to use individual services that are offered by it. The two-part tariff system is considered to be a form of price discrimination that is often employed by profit-seeking businesses trying to maximise their total revenue by the means of fully capturing any consumer surplus that may be available.

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