

Is India overestimating its economic growth?

PARLEY

The new GDP series has some methodological and sampling problems

Former Chief Economic Adviser Arvind Subramanian recently claimed in a paper that India's GDP growth from 2011-12 to 2016-17 was likely to have been overestimated. The Prime Minister's Economic Advisory Council has rejected this claim, stating that his paper would "not stand the scrutiny of academic or policy research standards". In a conversation moderated by T.C.A. Sharad Raghavan, Pronab Sen and R. Nagaraj discuss the methodology in calculation of GDP growth. Edited excerpts:

Professor Nagaraj, was economic growth overestimated from 2011-12 to 2016-17? If so, by how much? In other words, which is more accurate: 7% growth, as estimated by the government, or 4.5%, as estimated by Dr. Subramanian?

R. Nagaraj: Ever since the 2015 GDP rebasing, there have been many concerns about the veracity of the GDP estimates. With the debate progressing, more and more issues have come to light. Many of us who have intervened in this debate have looked at the specific issues with the revised methodology and revised databases. And we have been trying to say how these could have affected the output estimates.

However, most critics have refrained from giving an alternative estimate given the complexities involved in the changes in the methodology and databases used. Therefore, most of us have only pointed out the problems with the methodology and the database, but have refrained from giving an alternative estimate of the GDP. We all agree that there is an overestimate, but by how much is something that we have refrained from estimating.

Dr. Subramanian has given a very drastic estimate. He has said that GDP growth was 4.5% per year for six years from 2011-12. This is less than the official estimate by 2.5 percentage points, and has caused a lot of uproar in the media. Whether GDP growth was really lower by 2.5 percentage points, or lower by less than that or more than that, is something we are unable to be very

specific about. This is because the methodology used by Dr. Subramanian can be questioned on many grounds. He has not addressed the methodological issues, but he has used the covariates of GDP and a regression methodology to arrive at this alternative estimate.

Therefore, this number, though it is drastic and catches public imagination, can be questioned on many grounds. That's the reason why there has been a lot of scepticism. If you ask me whether I agree with him, I won't comment because I really don't know. Unless I go into the details of the methodology, I would not be able to assess the merit of his claims. But what I would definitely say is that the growth rate seems overestimated. But by how much, I would not be able to give you an alternative number.

Dr. Sen, would you agree that growth is overestimated? And if it is, do you think it is by an amount that should be taken note of?

Pronab Sen: I don't even know whether growth is overestimated. This is a technical debate. It is a debate where people like Professor Nagaraj, who are critics, have written papers and the CSO [Central Statistics Office] has formally replied to them. It is a technical debate and it is healthy.

The real issue is that most of them really say nothing about how the growth rate will be affected. The question that is being asked is whether the level of GDP was overestimated or not. So, when Professor Nagaraj says that there was an overestimation, my sense of the criticism that he and others have levelled seems to suggest that they are really talking about the levels and not the growth rate. I don't think one can make a categorical statement about the growth rate.

Dr. Subramanian's paper is a different matter altogether. What he has done is that he has taken 17 indicators and found that they were very closely correlated with the GDP in the first period, that is, prior to 2011-12, and that most correlations broke down in the second period. This does not come as a surprise be-



cause a lot of the indicators that he has taken were used earlier in calculating GDP. They are no longer used now.

When we use the corporate value figures now, that relationship seems to have broken down. Then he assumes that that relationship, had it continued into the second period, would have given a 4.5% growth, and then says that therefore there is a 2.5 percentage points overestimation. That is conceptually wrong. I don't think it stands scrutiny theoretically.

He then does a cross-country regression and shows that India was pretty much on the average of 70 countries in the earlier period. But in the second period, India is off. There are two problems with that argument. One, in the cross-country regression that he does, he doesn't give us the confidence interval because we know you are not going to all be on a straight line. You are going to be off it by a certain amount and so there are confidence intervals. He has not actually told us whether in the second period we are beyond, outside the confidence zone. Until that information is given, we cannot say that it is an outlier.

Two, what he should have mentioned is that almost all the countries in the 70 he has used are using volume indicators to calculate their GDP. And in doing that, they would be closely correlated with what we were doing earlier because we were also using volume indicators and would not be correlated in the second period.

So, I think there are issues.

Post-demonetisation, the non-corporate sector was affected more adversely than the corporate sector. If you continue to assume that the two sectors are behaving similarly, you are probably seriously overestimating the growth of the non-corporate sector.

Whether growth was being overestimated or not... my sense is that growth was not being overestimated earlier. That is, up to 2016-17. Subsequent to that, I think it is being overestimated. But by how much, I have no call.

Dr. Sen, you had mentioned that growth after 2016-17 might be overestimated. Why would this be the case after 2016-17, and is it a significant amount?

PS: The reason for this is very simple. It is that we do not have direct data on the non-corporate sector. A critical assumption that is made in GDP calculations is that sector-wise growth rates are similar for the corporate and non-corporate sectors. So, you calculate corporate growth rates for each sector and you assume that for that sector, the same growth rate applies for the non-corporate side as well.

Post-demonetisation, the non-corporate sector was known to have been affected much more adversely than the corporate sector. If you continue to use the same assumption that the two are behaving simi-

larly, you are probably seriously overestimating the growth of the non-corporate sector. But this was not the case prior to demonetisation.

There are known issues with the way we are trying to estimate the size of the non-corporate sector. Do you feel that there are ways by which we can do things better?

RN: One thing which has been ignored in the recent past in the debate is that with the introduction of the new GDP series, two things happened. One is that the size of the corporate sector got enlarged and, correspondingly, the size of the household or informal sector got reduced. A good part of this change was on account of shifting partnerships and proprietary firms from the unorganised sector to the corporate sector.

Another thing that happened in the changed methodology is that earlier they would get estimates of the value added per worker using the NSSO [National Sample Survey Office] surveys and multiply it by the number of workers as estimated by some other NSSO surveys and get the value added in the unorganised sector. This old method was supposed to have been leading to underestimation, as many earlier committees had suggested, including C. Rangarajan's National Statistical Commission.

But in the new GDP series, the size of this has further reduced because they have used what they call the effective labour input method, where they have estimated a production function instead of using the average productivity. This has reduced the value added per worker in the unorganised sector. This again seems to have contributed to the reduction in the unorganised sector's share. Whether production function should be used or not is debatable.

Second, even if one uses the production function, it has to be used with care, because the production function is technically more complicated. And why one uses a particular production function and not something else is a very technical matter. And it appears to us that this was decided without adequate investigation into alternative methodologies.

Therefore, the size of the household sector got reduced in this process. Both these issues together have contributed to the distortions in the new GDP series. So, this part is something that has not been very much in the current debate because the MCA issue seems much bigger and has dominated the current discussion.

The unorganised sector also has problems but we know less about it, so we have not been talking too much about it.

Dr. Subramanian asked for a committee to be set up to take a relook at the methodology of the new series. Professor Nagaraj, would you agree that such a committee needs to be created?

RN: Yes, this is a welcome suggestion. In fact, this is what I have been arguing since 2016. The late professor T.N. Srinivasan and I had a paper where we have argued that there must be an international expert committee to look into the entire thing. We also said that there should be a statistical audit of the revision process. Because we don't know where the problems have cropped up.

Dr. Sen, do you feel that a complete overhaul is needed or do you feel that if certain issues are fixed, that would make the system robust?

PS: Let me first get to the question of whether the statistical system is aware of the infirmities. By and large, I think they are. As far as having an expert committee is concerned, we have a system called the Advisory Committee on National Accounts Statistics, which is in fact a very high-level expert body. Professor Nagaraj is a member of this body. It is the empowered body for all decisions regarding national accounts in India. If you actually leave out the members of these, you are not going to find too many Indian experts left to form this expert group that Dr. Subramanian is talking about. Then what you are effectively saying is that you have to get an international body of experts to come in. And this is not a statistical issue, this is more an issue of the politics of international relations. So, one needs to be a little careful on this account.



Pronab Sen is a former Chief Statistician of India



R. Nagaraj is professor at the Indira Gandhi Institute of Development Research



Scan the QR code to listen to the full podcast online

SINGLE FILE

Tension in the Persian Gulf

The U.S. and Iran are muddying the waters with accusations and counter-accusations

EJAZ AHMED



The U.S. administration's strategy to counter Iran on the nuclear front is being met with an alleged new strategy that has left the global security community baffled in more ways than one. It is being suggested that shipping vessels be provided naval escorts through the Persian Gulf and the Strait of

Hormuz, something reminiscent of World War II when most merchant ships would be provided with naval security.

Two oil tankers, one belonging to the Norwegian shipping company Frontline and the other a Japanese vessel, Kokuka Courageous, were sabotaged in the Strait of Hormuz by what the American central command calls limpet mines, apparently manufactured in Iran. Speculation has been rife over who may have conducted such a sophisticated attack in a sea route through which 40% of the world's traded oil passes. The U.S. blames Iran for the sabotage attacks, even releasing videos and photographs of the incident in an attempt to prove Iranian involvement, something Tehran has vehemently denied.

The situation in the Gulf has been brewing for a few months now and there can be multiple ways to read it. Japanese Prime Minister Shinzo Abe was on a state visit to Tehran, hoping to mediate between the two rivals, when the Japanese tanker was attacked.

To believe either side of the story, without evidence, would be misleading. However, geopolitics in most instances does not come in black or white - rather, it's all grey. The U.S.'s decision to unilaterally pull out of the Iran nuclear deal and impose sanctions on Iran for its nuclear programme has not gone down well with Tehran; the global community too has not appreciated the move. The American side of the story is that Iran is meeting economic and diplomatic manoeuvres with violent attacks by pulling off sophisticated sabotage on the seas. Iranians, on the other hand, proclaim that it is the American intelligence apparatus that is conducting such moves to escalate the situation to the brink of war, thus paving the way for yet another 'promotion of democracy' in West Asia.

Iran has been at the wrong end of American sanctions for decades now, and it has learned to negotiate its way each time with creative new strategies. However, the recent U.S. pressure on countries such as India, Japan and Turkey to reduce their oil imports from Iran to zero has hit Tehran where it hurts most. And this new strategy of sabotaging oil supply routes in the Persian Gulf may be Iran's 'creative' way of dealing with American absolutism. It might well be Iran's way of looking at the adverse situation created by the U.S.: 'If we can't ship oil, might as well let no one else do it too.'

Ejaz Ahmed is a researcher with Observer Research Foundation, New Delhi



NOTEBOOK

A dilemma during a humanitarian crisis

Should relief workers do their job or give access to journalists?

SUHASINI HAIDAR

"What's your weight," asked the Indian Air Force (IAF) officer, visibly irritated by my persistence. He was responsible for ensuring that much-needed fuel and rations reached the Andaman and Nicobar Islands in the days following the deadly tsunami of 2004, and I had been trying to get a ride on one of the helicopters or AN-32s flying between the islands all day. These aircraft would set out carrying food and fuel for people stranded on the islands, and return carrying the injured and homeless to shelters in Port Blair. So, when I asked again to be allowed to fly to Car Nicobar, which was among the most devastated, he snapped and told me, "I can either send a bag of rice or you on this flight. Which one should it be?" Cowed into silence by his words, I sat down and waited for the next flight

that could carry me out.

Relief workers in any humanitarian situation face the same dilemma: should they deliver all the relief they can or give journalists access to the affected areas so the world can be informed about the crisis? This is a choice that must be made responsibly. Officials must consider whether journalists are hampering or aiding relief efforts, with the understanding that the media has a responsibility in bringing information to the public.

As a battle rages on about whether journalists should have access to wards at the hospital in Muzaffarpur, Bihar, where more than 100 children have died, questions must also be asked about whether the officials who allowed them had weighed these options carefully. There is a public purpose served in ensuring that the State Health Department is held to account even as the cur-

rent epidemic of acute encephalitis syndrome continues. Having been granted that access, however, it is for the journalist to cover the story with what UNESCO-framed media guidelines call "a personal ethical consciousness", where information is seen as a "social good, not a commodity", and in a way that doesn't obstruct health workers and doctors from doing their job. The dignity and privacy of all patients, victims and their families must also be maintained, note the UNESCO guidelines that were adopted in 1983.

Notwithstanding the point made by the IAF officer in Port Blair, facilitating the media in humanitarian situations does serve a larger purpose. One famous study titled 'Media Coverage and Charitable Giving after the 2004 Tsunami', published in the *Southern Economic Journal*, found that "each additional mi-

nute of international news coverage raised donations worldwide by about 2.5%". Millions of dollars poured into the affected areas in the months after the tsunami.

Sometimes, the impact is even more immediate. I once covered a school project in a large slum in Delhi, and interviewed a little boy who didn't speak much. When I asked him what he wanted the most, he simply pointed to his bare feet. A staff member explained that he and his brothers had one pair of shoes between them, and would take turns to wear them to school. Some days after the story aired on the international channel I worked for, I heard from a woman in the U.S. She wanted to know how she could reach the boy. Imagine our joy when we heard that a consignment of 500 shoes had arrived for not only the boy, but for every student in the school!

FROM THE HINDU ARCHIVES

FIFTY YEARS AGO JUNE 21, 1969

Bihar's Ministry falls

The history of defection was repeated in Bihar to-day [June 19] when the 115-day old Congress-led coalition Government headed by Mr. Harihar Singh was defeated in the Bihar Assembly by the combined Opposition in a dramatic trial of strength on a budget demand for Animal Husbandry. Just before the showdown all the six members of the Soshit Dal, a constituent of the coalition, including Mr. Jagdeo Prasad, Minister for River Valley Projects and Mr. Mahavir Prasad, Minister of State, defected to the Opposition. The 69-year-old Chief Minister, Mr. Harihar Singh, later submitted the resignation of his Government to the Governor, Mr. Nityananda Kanungo. The Governor is understood to have accepted Mr. Harihar Singh's resignation but asked him to continue till alternative arrangements were made.

A HUNDRED YEARS AGO JUNE 21, 1919.

The Congress Deputation in England.

(By Mr. S. Satyamurti) We landed in London on Sunday, the 25th, after having been detained near Folkestone, London, for nearly 12 hours by a thick fog in the Channel. We were received at St. Pancras station by Indian friends who gave us a truly Indian welcome, with garlands, rose water, etc. I must say at once that Indian friends here are very helpful and we cannot be too thankful to them. The next day after our arrival, we went to the rooms of the British Congress Committee and met Mr. Polak there. We asked him for the co-operation of the Committee in the work of the Deputation and the use of their rooms for our office. He informed us that the Committee was meeting on the 30th to consider the whole question and that then they would let us know. Mr. Patel then wrote to the Chairman and asked for an opportunity for the Deputation to see him and the Committee and we are to meet them next Monday at 4 P.M., when we shall know something about it definitely.

CONCEPTUAL Cognitive miser

PSYCHOLOGY

This refers to a theory of human behaviour which states that the human brain tries to expend the least amount of energy to solve the various problems that it encounters in daily life. Such tendency to conserve energy causes human beings to arrive at simplistic, and often wrong, solutions to issues that might actually require a sophisticated solution requiring a significant amount of energy. Thus the human brain, according to the cognitive miser theory, is similar to a miser who economises when it comes to expending money. The term was coined by American social psychologists Susan Fiske and Shelley Taylor in their 1984 book *Social Cognition*.

MORE ON THE WEB

Cinema quiz | A tribute to 'Crazy' Mohan

<http://bit.ly/CrazyMohanQuiz>