Unedited

The Indian Economy: Prospects and Challenges

Arvind Subramanian (Chief Economic Advisor to the Government of India)

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Adam Posen: Okay, good afternoon, everyone. And welcome back to the Peterson Institute for International Economics. I am Adam Posen, the institute's president. We get the fortune, the good fortune of hosting many distinguished people, many very smart people, many very eloquent and engaging people, and many people who are doing some good in the world. We are extremely fortunate that we occasionally get to have people who do combine two, three or four of those traits.

Today is a particular bonus. We are having our dear colleague, Arvind Subramanian, who, of course, is Chief Economic Adviser to the Government of India. But as I hope everyone knows, is also on leave from the Peterson Institute, as our Dennis Weatherstone Senior Fellow, on leave for public service, as we put it on the website, and he truly is a public servant. And he truly does do all four of those things.

He is distinguished, he is doing good, he's eloquent and engaging and he's wicked smart, as we used to say in Boston. We are hoping that his literally millions of fans in India and around the world are watching on the web or will catch this on tape, or on the web on our website. Just to remind you, Dr. Subramanian was appointed by the Finance Minister as Chief Economic Adviser to the Government of India in October 2014. It is, I think, fair to say, that perhaps there's never been a more influential economic adviser, nor one as grounded in substance.

Many of us, I will admit, had not read the equivalent of the *Economic Report of the President*, the *Economic Survey*, from the India CEA in past years. Under Arvind's leadership, it has become a must read. It is, like our colleague, Jason Furman, did at the White House here, it is an incredible combination of genuinely applied research, innovative thinking, and a real picture of what is going on in the Indian economy.

Arvind, I noticed this on his Twitter feed, that book, the *Economic Survey of India*, is now replacing the basic economics textbooks at Mumbai University. Sorry, Olivier, fewer sales for you. It's quite an accomplishment, and we've passed out today, a very nice profile of Arvind, from India's *Business Standard*, titled Meet Arvind Subramanian, Chief Economic Advisor and a professor at heart.

I think the fact that he has done so much with the publications and the research of his group in the Indian government and is so proud of the university impact, speaks to that. But I think you all recognize that Arvind is not an abstract academic. There have been some incredible innovations that the Modi government has undertaken and experimented with in economic affairs in the recent years. And Arvind may not have been the cause of all of them, but his intellectual imprint is on all of them and was the cause of many. And so, it is my pleasure to welcome Arvind back to what we think of as his Washington home, and I hope he does, the Peterson Institute. Dr. Subramanian, please.

Arvind Subramanian: Good afternoon, everyone. It's, it's such a pleasure to be back here. And I'm pleased to be back for many, many reasons. One of them being, you know, I've always maintained that the most scintillating times I've spent anywhere are the Friday lunches at the Peterson Institute. There's just incandescent to it, you know, brilliance, ideas. Not to mention friendly and sometimes no-so-friendly disagreements amongst this wonderful staff.

So, it's great to be back here. Adam, thank you so much for having me, and for that very kind introduction. I'm also delighted to be back because, you know, I do want to get into the juice of some real macroeconomics today, rather than, you know, I often have to do a lot of speaking, which is kind of, a little more general variety, and today I am hoping to get into the kind of nuts and bolts of the macro situation in India.

I have to say, that although I've been, physically, I'm away, I do follow what's happening here, and I'm so impressed with, you know, the kind of discussions that have been taking place here. Lots of changes have taken place in the US and, you know, the Peterson Institute is at the center of so many debates. So it' s just wonderful to follow that debate, which I have privilege to, but now to come back and be a part of this today is just really wonderful.

So, I also want to say, by way of prefatory remark that this is actually going to be my first public macroeconomic update of the Indian economy after the *Economic Survey* came out, so, it's going to have - I do hope I'm going to say something a little bit new and maybe even different from the narrative that's taken hold on the Indian economy.

So without further ado, let me just give you a sense of the overview. I'll give you - take you through the macro outlook. I want to outline, highlight, some of the reforms, key reforms, that have taken place under the government over the last two and a half years, three years almost. And, of course, nowadays I can't escape without saying a few words demonetization, which I will do so. And then, I want to, if we have time, talk a little bit about what I think our, some of the key challenges facing the Indian economy are.

I want to start with, you know, the macro outlook, and spend a little bit of time on this. Essentially now we've moved into an inflation targeting framework in India and these arrangements have been codified in terms of legislation and agreement between the Ministry of Finance and the RBI. And what you see here is headline inflation, which is the object that is, you know, what is targeted by the RBI.

And you can see that there was a target for 2017 of 5%. There is a medium term target to be kind of achieved 2018, and perhaps beyond. And people said to have tended to have miss the fact that we've kind of overshot or undershot that medium term target of next year. And we've been below that for about seven months, six to seven months. Now headline inflation is about 3.8%, I think.

It's always fashionable to be anxious about inflation, and I think when this is presented, people say, but "You know, core inflation, underlying inflation pressures are very high." And it turns out that if you look at what we call true core inflation, which is you strip out food and fuel and transports of this, which basically move with oil prices, you find that the red line, in fact, even true core, has been heading towards, has been declining for now, a long time. About eight to nine months, and is also headed towards the medium term target.

So, not only is actual, what is targeted well below the you know, the objective, but also underlying pressures, I think, are easing considerably. And if you look at the outlook, for example, I think contrary to perceptions that has gained hold that, you know, that maybe the inflation outlook is a bit worrisome, my own view is that it's actually relatively benign.

First because, you know, the exchange, the normal effective exchange rate, has been, has appreciated significantly, which is going to put downward pressure on inflation going forward. It's appreciation of about 4 - 5%. And, I mean, the anxiety that all emerging markets have about Fed actions like that and US policy in general, I think now it's fair to say that there is less anxiety about capital flowing out of the emerging markets and so, the need to take, factor that into account in domestic policy, I think now, I think is a little less unnerving in some ways.

And, in India, the monsoon is always crucial for both the inflation and the activity outlook, and the Indian official bureau has just come out saying that the monsoon is likely to be, to be normal, so that, so my own view is that the external outlook, inflation outlook, is actually quite benign.

Headline well below the target of, you know, 12 months later. Underlying core inflation easing and the outlook also relatively benign. I mean, of course, this also means that the government themselves have done a good job of keeping inflation under control.

Now, so on the activity side, I think that I am a little bit more, you know, worried about that. Because if you look at, this is value-added growth, core value added growth [inaudible 0:10:33.6] about agriculture and government services, it's actually been slowing quite a bit. Headline gross value added about 6-1/2%. GDP growth is about 7%, but if you strip out some of these, you know, kind of exogenous things, you find that activity is slowing to some extent.

One of the, you know, indicators of this, I mean, kind of, manifestations of the slowing activity, is that real credit growth to industry is at a kind of growth, is at an all-time low. So it's like real credit growth to industry is minus 10%. And this is kind of, I'm going to talk a little bit about why that is the case. We have what's called this twin balance sheet problem, I think, still. Very much placing a damper on investment in India, but you can see that this is down.

It's also the case that, you know, the index of a kind of manufacturing index that we track, it's been growing at about, a volume index, basically it's flat. You know, no growth in the manufacturing index. Now, having said credit growth decline has been sharp, what has happened, to some extent, is that, you know, non-bank financing of the corporate sector has picked up to some extent. We have a lot more corporate bond issuance now in India, so that's making up for some part of it, but underlying financing to credit to industry is down considerably.

I think the one bright spot in Indian economy is that, you know, suddenly, you know, reflecting what's happening, the recovery in the world economy for the last few quarters, non-oil export volume growth. After languishing in negative territory for a long time, for about, you know, two to three quarters has started rising, and I think this is perhaps what is the one really bright spot about the Indian economy.

You come to the Peterson Institute and you have to talk about exchange rates, and in this case, the exchange rate development in India are quite worrying. We have, you know, the rupee has appreciated relative to the dollar, to the Yuan by about 10 - 12%. And the red line you see on the right is the official real effective exchange rate.

But I have, you know, in the *Economic Survey*, I've constructed just, you know, changing the rates to give more weight to Asia, because we do compete now more and more with countries like Vietnam, Indonesia, Philippines, Bangladesh, especially in the manufacturing sector, and if you do that, you do see that, you know, India has lost competitiveness quite a bit since actually the government took over. It's about 12 - 15% loss in competitiveness. And recently it's strengthened quite a bit.

How has policy responded? I think that this, if fiscal consolidation has continued apace, the central government fiscal deficit has come down steadily by about 1% point over the last three years. You see that's the red line. It's again down by about 0.2, 0.25. So essentially what the government has done at the Centre, is to adopt a policy of, you know, just steady fiscal consolidation.

We've just had a report submitted by an expert committee on, you know, what should be the fiscal policy framework. I was a member of that and I have, you know, a very, I have a dissent note to the main committee report, which I will urge all of you to read, both the dissent note and the rejoinder to it. Essentially that the committee in fact recommended a very sharp consolidation this year to go from 3.5 to 3%. The dissent note that I wrote had a more gradual glide part for consolidation. And the government, I think, preferred the gradual glide part to the very sharp and abrupt consolidation so far.

But, you know, so on the one hand, the government, I think, it's credentials of being fiscally prudent, are borne out by policy actions. The question is, you know, the way I'd like to put it, is that, you know, "Is the government being extraordinarily responsible or not?" And I put extraordinarily in quotation marks. I mean that's the kind of question that arises if you just look at the outlook, the fact that inflation is under control. And it turns out that public investment, actually, after having increased two years, at the general economic level this year is also going to come down, so, in that sense I think government is, to some extent, going to be a drag on growth going forward.

Similarly, monetary policy. This is, the real rate, the real repo rate, a policy rate, which is, the red line is based on headline inflation, and also, you know, increasing steadily.

So, if you look at it, you know, fiscal policy is extraordinarily responsible. Monetary policy is extraordinarily responsible. And the real effective exchange rate is appreciating very strongly. So, to me, therefore, the growth outlook is that, while the economy is recovering, I think that, you know, exports, I can see providing some impetus. Policy is perhaps not providing the impetus that may be necessary.

So, I forecast a kind of steady, gentle recovery, from the, you know, what's happened after demonetization. And not the kind of robust recovery that is creating anxieties, even relating to output gaps closing very quickly. And inflationary pressures building up.

So, that's broadly, so, to cut a long story short, you know, inflation under control, activity slowing, but core activity slowing, but with recovery happening at the gentle, steady pace, rather than at a very torrid pace. With not a lot of, not a whole lot of support from policy.

Now, now turning to reforms. I think that if I were to, you know, kind of highlight a few major reforms that happened under this government, I think the big difference with what happened, what preceded the era, what preceded the current government's tenure, there was the sense that, especially the auctioning of public assets, you know, land, coal, spectrum, it was seen as very, very, you know, underhanded. And there was a lot of corruption. I think now there's much more transparency of the auctioning of public assets, so, the credibility that the government has acquired by seeming to be, you know, by being less, much more transparent, in dealing with public assets. And therefore, you know, reduced levels of high-level corruption, I think is a big plus that the government has achieved.

Also, a number of legislative things have happened, especially there's a bankruptcy code that's been passed. The institutional arrangements with the RBI have been codified. And, really, and there are other legislative actions as well, which I think have really been very solid and supporting the reform effort.

I think, the two major achievements I would see of this government, really have been to, you know, build upon this architecture, bringing together financial inclusion, biometric identification and mobile, we call that JAM, because [inaudible 0:18:57.8] in Hindi stands for financial accounts, A stands for Aadhaar the biometric identification, and the mobile, and really, this architecture is really being strengthened considerably to improve the delivery of government services.

For example, we have probably the world's largest cash transfer program, which is the cooking gas subsidy in India, which is, it's actually bigger than Bolsa Familia. And, you know, the estimates that we did, are that, at full implementation, it probably results in a saving of about 20% just by eliminating ghost beneficiaries, reduplicating, you know, all the benefits that you get from having this biometric identification.

Of course, and I think that, the mother of all reforms, and something I had the good fortune to be associated with, is the Goods and Services Tax. And here, for, you know, all those India watchers, I want to stress two things about the GST.

One, of course, is that it's a most ambitious tax reform. I mean, it's something that is simply inconceivable in the United States. It's just simply inconceivable. Not just because it's a value-added tax, which, you know, people here on the left and right hate, but also because it's actually a tax that has to be coordinated between the Centre and the State.

So now, instead of, you know, the Centre levying indirect taxes, the State's levying a multiplicity of taxes, taxes on the movement of goods between states - all this is going to be eliminated and going to have one uniform rate of taxes.

And I think that the benefits are going to be quite substantive, substantial. Firstly, creating a common market in India by eliminating barriers between states. I think also the big, big benefit is kind of the compliance benefits that I envisage will happen. I mean, this is the kind of mind-boggling number that, you know, kind of, kind of turns me on, which is that when it's fully implemented, every month the IT backbone here is going to be matching three billion invoices. You know, what I say I bought from a gentleman and what gentleman says he sold to me. That's going to be automatically matched by the IT system, and so, once people know that, I think the prospects of voluntary compliance also will increase tremendously.

So I think the goods themselves, so that's one aspect of the GST. But for me, I think as exciting, the aspect about the GST, is that it is truly an ambitious and bold experiment in what I call an innovation in what I call the governance of cooperative federalism in India. Because now, every issue relating to indirect taxes, everything, you know, exemption limit going up by two rupees, tobacco at 10 rupees or 15 rupees. Everything, procedure, has to be done cooperatively between the Centre and the States.

So there's something, this mechanism is called the GST council, and I've sat in on these meetings for the last six, seven months, so you have the Union Finance Minister and 29 State Finance Ministers. I mean, maybe the European Union, you're kind of used to all of this happening, but now it's going to happen in India as well, that everything has to be decided cooperatively. And I think that's really, so far, it's, I think, worked quite well.

So it's something that's really, really very bold and kind of big bang reform has been the GST.

Now, this is the point at which I think I should talk a little bit about demonetization. Let me make three propositions about demonetization. In kind of increasing order of humility, as both an economist and as someone who pretends to do political economy as well, I think proposition number one, which is what we said in the *Economic Survey*, is that there were, I think, short-term costs, because of demonetization. These costs were largely felt by the informal sector, with the cash intensive parts of the economy. And by definition, because many of these things were in the informal sector, we will never have a good, you know macro estimate of these short-term costs. That's almost the nature of the beast.

I think, luckily, those costs, I think, are now well behind us, because it's related to essentially a shortage of cash and now that cash has kind of come back, the economy has been remonetized, and so there should be no lingering costs from that.

I forgot to say that, you know, I just, if I'm repeating myself, my apologies. Essentially what happened was that on November 8th, 86% of the currency in circulation, the two highest denomination notes, ceased to be kind of legal tender, and we estimate that, you know, if you do the arithmetic correctly, with all the assumptions about what was liquid, what was not liquid, in the survey we calculate that in that quarter, you know, cash declined by something like 20%. And for the year as a whole, cash is going to decline, cash growth, is going to decline from about 17% to 1%. So, it's a pretty big cash shock.

The one thing for aficionados of, you know, money and stuff, one of the I think the most fascinating things, which I kind of learned as I went along, is that it's been a very unusual monetary shock. Because on the one hand, cash declined enormously, but it was intrinsic to that, that that cash came back as deposits back into the banking system.

So, a broader aggregate of money, as it were, didn't decline by as much. So, there are all these kind of salivating possibilities about, for research, in terms of the substitutability between cash and other forms of money, that I think are really worth exploring. Because it's fascinating and I'll give you one example of that in just a second. So it's been a very unusual kind of random experiment in monetary economics and about different forms of money and what they mean and what they don't. You know, what matters, what doesn't matter. How substitutable they are and so.

So that's point number one. So, short-term costs behind us because there was a lack of cash; now the cash has come back.

Point number two is that, you know, while I think the overall costs are, we'll still waiting to see the data in terms of the impact on the formal sector GDP, it's going, you know, the data will come in, in two to three months' time, so we'll get a better handle. And maybe the actual impact will be a little bit greater than what the headline numbers are indicating, but that we have to wait and see.

But I think I've been really, really surprised by how attenuated the impact has been, even relative to what I expected, and even relative to what you would think, given the numbers that I just said. You know, if cash declines from 20% to 1%, you think it's a huge monetary shock, but, you know, that hasn't been borne out. And I don't know why that's the case. I'll give you one or two tentative explanations.

You take agriculture for example. This happened in the middle of the sowing season, so there's a shortage of cash, and a lot of agricultural operations are pretty cash intensive. You have to pay labor with cash. You buy your inputs with cash. But it turned out that the planting, in agriculture was, not just, not affected, it boomed. I mean, you know, it was completely unaffected by demonetization.

So the question is why and what was going on? And now there are some preliminary surveys that have been done, but essentially, you know, two, three things might have happened. One, you know, there was much more, the informal credit arrangements were extended, were increased. That's one possibility. In agriculture people substituted self-employed labor for formal labor. And there was a surge in the use of plastic and digital as a result of this.

So a number of these things, but they're not at all watertight explanations. But in fact, the fact that the impacts were much more attenuated, is something that was quite, has been quite revealing to me, at least.

And proposition number three, I would say, of course, is that, you know, it has, where it's humbled me the most, is in my understanding of political economy. You know, I like, I think the analogy I have is it's kind of the what's wrong with Kansas argument here, that, you know, why do Trump voters, supporters, are the ones who are most open to repealing ObamaCare, something of that is kind of going on here, with a vengeance.

And, you know, Robert Fuller once famously said that, you know, all these discussions of economics begin with great rigor and end in a blaze of amateur sociology, so, you know, I'm going to do some amateur armchair psychologizing, but essentially I think that, you know, people have, you know, been willing to, you know, take part, or be actively sacrificed for what they thought was a much greater good, which is a greater good that, you know, the corrupt and the people who had the black money, were actually being gone after. And so, they were happy to participate in this, even though, they felt the cost.

You know, if you were in India, in November and December, everyone you met would come to you and tell you the story about how he was standing in line to collect cash, because there were limits on how much you could get, and everyone would say, "No, I spoke to someone in the line and that person said that 'Yes, it's hurting me, but it's hurting someone else much more and those are the rich guys, those are the corrupt guys, and so I'm willing to kind of pay for that.'"

But, you know, I think this is going to be a fascinating area of political economy going forward, but I think it has been quite, quite surprising in terms of what happened with demonetization.

Now, last few slides before I shut up. On the challenges, I think the major, major macroeconomic challenge now is the fact that we have a corporate sector that's really over, over indebted and correspondingly the banking system, especially the public sector banks, are pretty, also pretty weak. You know, two numbers. On the corporate side, I mean, let me be careful and say that most of it is kind of a legacy problem. It's a consequence of the rah rah years of the 2000s when there was a lot of you know, exuberance about Indian growth, and infrastructure investment took off.

But, the numbers that I think bring home what the situation is today, 40% of corporate debt is with firms who are not able to earn enough to repay interest. The interest coverage ratio is less than one; 40% of firms stressed assets as a share of loan portfolio for the public sector banks. Some private sector estimates are that it's close to 20%.

Now, let me just make a small comparison with China. I'm not an expert on China, but I think that one way to think about India in trouble, because China has a similar twin balance sheet problem, I think perhaps there are two differences between India and China.

One, the numbers are much bigger in China. When I last read the IMF, you know, whatever, report on this, Chinese private sector debt to GDP is something like 160 to 170%, is that broadly about 170%. The Indian thing is 56, about 55-56%, so in that sense I think the Indian situation is not large enough to, you know, create serious, you know, financial kind of distress or panic. Because if you think about it, if you do, if you work through the numbers, you know, in the worst case scenario, with 2-3% extra recapitalization, you know, you at least solve the problem.

So, so in that sense, the magnitude -- what it is taking a toll off is in investment. Private investment growth has been negative. Private growths have been negative for several quarters now. And you saw the credit growth numbers, so it's taking, it's more like a slow bleed, than a kind of financial panic situation.

So that’s, I think, one, the government is, you know, grappling with this, very seriously. You know, there are lots of discussions on how to deal with this. But, I think, at the heart of the difficulty, it's very simple. How does a political system, in which concerns about, you know, cronyism, crony capitalism are so strong, how does that system, how is it able, to forgive, is the public sector, taxpayer, on the hook, and forgive private sector debts? I think that's the heart of the political problem and we're still kind of grappling with how to do that.

I think the second proximate challenge, recently emerging, is fiscal, you know, I spoke about the Centre consolidating, but, you know, now the Centre and the States are pretty much almost 50/50. The thing I'm using here is that, you know, is Penelope during the day, stitching and the States are Penelope at night, unraveling what's just during the day. And a little bit of that is going on.

So, the worry is that fiscal consolidated Centre could be undermined by what's happening in the State. And of course, we've had a spate of announcements recently about agriculture loans being waived off. You know this could cost, if it were to spread, this could cost something like 2% of GDP. Add to the deficit. If that is a kind of, if this thing spreads, as is possible.

So, I think that's a kind of a big challenge. Now, I think we have two more minutes, or shall I stop? Oh, three minutes, you are very generous.

So, I want to talk about now, I want to go from the kind of macro and the cyclical to really the 40,000 big picture. This is, you know, my favorite chapter in the *Economic Survey*, Chapter 2. I'd love, I'd like all of you to read it. Martin Wolf wrote a column on this chapter. I think that if you step back and asked me what are really the meta challenges facing the Indian economy, I think that, and this is nothing to do with any one government and nothing to do with, it is, I think, part of the broader Indian ecosphere.

One, there's extensive and inefficient redistribution. Largely in the form of subsidies, but much more. And, we're still kind of not, it's not proving easy to dismantle it. I mean, we're chipping away at it, via this Aadhaar business. But that's addressing more, you know, the wastage and the duplication. It's not getting to the problem of, you know, consumers facing market prices. That, we're not able to, you know, whether it's fertilizer, food, subsidy, water, power, you know, all subsidized.

One of the, I guess this is a, please take it in the right spirit, I mean, rarely, you know, in an economy, would fertilizer be a macro issue, you know. That's one of the charms of the Indian economy, that the fertilizer sector is in fact, because the fertilizer subsidy is almost 1% of GDP. So, you know, you need to understand the fertilizer sector to understand redistribution in India.

The second, I think, meta challenge, which I think is really this ambivalence about the private sector more broadly. I think, one of the areas where much more progress has not been as rapid as it should is in the strategic disinvestment program. Not just of this government, but for all governments. Very few governments have been able to do this.

So, in a sense, you know, my one liner on the Indian economy here, which is my throw-away line, if you want to summarize what's happened over the last 45-50 years, basically that India has gone from socialism with limited entry to capitalism without exit. I mean, that's kind of, you know, one way of capturing the Indian economy. Exit is very difficult and that's true of about the public sector as well.

And the way we've shrunk, basically, we've shrunk the public sector, basically, to use that horrible American word, grow, by growing the private sector, you know. We've grown the private sector through entry and that's the way shouldn't. But we've not actually frontally addressed this public sector problem.

I guess, finally, India/China comparison always comes up and I think if there's one thing that, you know, why is China, India not as rich as China? You know, the ability of the Chinese state to deliver infrastructure, health and education, just these three things, is just extraordinary. And India is just lagging considerably behind on that.

To me, the puzzle here is the folly and I'll end with this, kind of very, very deep political economy puzzle, which I don't understand in India. On the one hand we say the State hasn't delivered all these things, especially health and education. But the puzzle is why is it that over 50-60-70 years, democratic politics has not created a political opportunity in actually doing this? I mean, if scores, if millions and tens of millions of children are uneducated, or not very healthy, there is clearly a political opportunity here. You know, politicians should be able to say, look, vote for me because I have transformed health and education, but that somehow seem, doesn't seem to have happened. And it's forming a deep puzzle. Especially given that people know that the private returns to education now are very high. So, the private value of education is high, despite that we have not seen corresponding commensurative pressure on the State.

So I'll just end with this anecdote. In the last election, the recent election [inaudible 0:38:19.9], 200 million people, world's fifth largest country, we just had an election there, and in the run-up to the election, the incumbent, obviously a really, really smart politician, you know, if you followed the campaign, every day, all the newspapers, blanketed with his pitch, basically. "I built a highway from New Delhi to Agra." Kind of, you know, I've been so efficient I've built this highway. Why don't you vote for me? And so the question, the question was, why couldn't he have said, or why didn't he think of saying, or why didn't he do, and say, "I educated 10s of millions of children. Vote for me on that." But, you know, he said, "I built the road, so vote for me."

So, that I think is where we are, at a kind of 50,000 feet level. Sorry, for, you know, taking up too much time, and thank you, Adam. Thanks, everyone for listening. Happy to take questions.

Adam Posen: So thank you, Arvind, for figuratively but not literally dropping the mike. These are expensive. It wouldn't be you and it wouldn't have the same effect - I dropped the mike.

It wouldn't be you and it wouldn't have the same influence if it didn't have the 45,000 foot meta thinking and I'm not quite brave enough to do that. So, before we open it up to public questions, I'm going to ask you just a couple more straight up macro things.

So, India is coasting along with very little credit growth or even credit shrinkage. Somehow survived demonetization. I agree, it's, we really don't know what happened. Let's leave that.

Arvind Subramanian: Sorry I would say demonetization is so yesterday, you know.

Adam Posen: That's a great way to avoid questions. Very low inflation. So, is the Bank of India right to keep such a low inflation target? I mean, thankfully, India is not looking at a zero lower bound problem like the rich countries, but you know, we used to think it was okay to have a little more inflation and that, a little more credit growth than that. Do you think the RBI is maybe missing a trick here? Or, I mean, talk about the regime if you don't want to talk about specific decisions.

Arvind Subramanian: Adam, you realize you're going to get me into trouble for answering that question, but see, the inflation target is 4, plus or minus 2. So, I think it kind of passes the Olivier Bouchard, kind of, test, maybe not. You know. But I think that, I just think that, what has happened, it's more something that's happened around the world, I think, that this narrative that, you know, you're not, seen to be credible or responsible unless you're kind of always, you know, inferring that inflation is around the corner.

Because in this case, of course, it's not so much a question of the target, it's just that, you know, where we are, even relative to that target, that you know, we've been, over performing, undershooting the target. And, you know credit goes to them for having achieved this, but the question is, "What does it mean for policy going forward?" And I think especially when the economy is soft, you know, both fiscal and monetary policy, could they be doing more is the question that, you know, I'd like to pose.

Adam Posen: Thank you. One other question, I mean, you mentioned the obligatory exchange rates issue, but let me take it a slightly different way. Depending on which 7 people get appointed to the Fed in the next 12 months, most of us are expecting a Fed tightening cycle. And last time we had the taper tantrum, India was hit, a number of major emerging markets were hit, India, rightly and thankfully did not get repeatedly hit, the way some more deserving countries did. But, how do you feel about the tightening cycle this time through, both for India and for other major emerging markets? Is it all priced in? We don't need to worry about. Are you worried about strange capital flows?

Arvind Subramanian: Yeah, I think a lot of it has been priced in one. Second, I worry less this time around, at least for India, for two reasons. I think that, you know, all the macro fundamentals are, you know. But when it happened last time, our inflation was, you know oil prices were very high. Inflation was double digit. Fiscal deficit getting out of control and our reserves - we didn't have as much reserves. But I also worry less about India is because our corporate sector then had a lot of foreign currency denominated borrowing.

This time around, it's kind of much less, so, you know, the whole, interest rates go up, capital flows out, exchange rates come down and you have these balance sheet defects. That I think India is relatively better cushioned against. But, as far as other emerging markets are concerned, I just follow what the IMF, and you know, they're always saying, you know, lots of foreign countries, [inaudible 0:44:01.3] emerging markets. But India, I think is relatively well cushioned on that.

Adam Posen: Last question, just following up. Is there anything the government you serve did to encourage that deleveraging of foreign debt by businesses or was it just they got smart after the last go round?

Arvind Subramanian: I think that's a really good question, Adam. I think what happened was that given, after the global financial crisis, when growth slowed down, and you know, you have all this over indebtedness, so the desire for firms to borrow to finance investment also came down. So, on the one hand, government kept the borrowing limits reasonably tight, but on the other hand, they never really felt the pressure because, you know, firms were just not in the position to invest and therefore to want to borrow to invest. So, both these factors kept this in check.

Adam Posen: Thank you very much. Let me open it up. We have a great group of people here who came to hear Dr. Subramanian. These are on the record questions. Please identify yourself and try to pretend you're asking a question, if you are. We have a roving mike in front and a standing mike at back. Jessica, if you could go to the front here, please?

Susan Lund: From the McKinsey Global Institute. Two questions on labor markets. Here in the US and in Europe, there's a lot of concern about automation, robots, artificial intelligence and the future of employment, whether there will be structurally higher unemployment. On the other hand, we have new ways of working through independent work, freelancing, the gig economy. So one question is, is that a concern in India? And the second is you've got a very low female participation rate in the labor force. So what's your outlook for female participation?

Adam Posen: Thank you.

Arvind Subramanian: What's the outlook for --

Adam Posen: Female labor force

Susan Lund: Female labor force participation.

Arvind Subramanian: So, on female labor force participation, you know, it's one of those very, you know, important subjects, which I don't get involved in too much. But I think that, you know, within India, there is a kind of a debate and serious pushback, against, even the diagnostic as it were, that you know, female labor force participation, is low and declining. In fact, I read a paper yesterday, which I think challenged the view that female labor force participation is low because lots of activities that women do don't get counted in the survey. But this is kind of statistical kind of quibbling.

But the broader point, I think, it's a good one. I think the way the government has been trying to deal with this is to address the kind of the gender thing broadly, not just in terms of, you know, the female labor force participation, and the Prime Minister, for example, is very keen that, you know, women's safety, all these things, you know, all the things that contribute to getting women into the labor force, you know providing hostels, safety and so on.

Now the interesting thing what's happening is that in some sectors, firms are actually relocating. For example, the clothing sector. Firms are relocating to places where they can be close to female labor. So, that's a kind of interesting trend that's happening, which could address some of these issues. But I think this is little bit above my pay grade, because I don't deal with this objective very closely.

On the first point, I think that, it's frightening everyone. I think, the World Bank recently did a study which showed that even in the textile and clothing sector, robotics could kind of displace 10s of millions of jobs. I mean the notion that now a robot can cut soft cloth, for example, which, you know, would think was very labor intensive. I mean, that's a pretty frightening thought, so it's something we're worrying about quite seriously.

But, with employment, I'll be honest with you, it's easy to diagnose the problem. It's much more difficult to know what exact levers to pull to kind of address this on a macro level. I mean, apart from the usual get the growth up, get investment growing, you know, give incentives to some labor intensive sectors, which we've done. I think we've done a lot for the clothing sector. We want to do a lot more for the footwear sector also. Part of it also has to be also, for example, negotiating agreements with countries where there are high barriers to exports of these labor intensive goods.

For example, the European union has pretty high tariffs on clothing and footwear and that's something that's affecting us, so we are trying to be active on that score as well.

Adam Posen: Thank you. At the back mike, please.

Jack Caporal: *Inside U.S. Trade*. Obviously I have a question about trade and in your remarks you mentioned that the export growth India has seen is a bright spot. It's an impetus for growth overall. I was wondering if you could maybe expand on this comment in the context of India's trade relationship with the US, general trends that you see, and also if the government is India, views some of the more America First rhetoric that's come out of the US, some of the reviews of, you know, US trade deficits, which the US has with India, at least in goods and overall. Whether or not that's something that's on the government's radar in terms of broader economic planning.

Arvind Subramanian: I think that, you know, anything that is going to interfere with our export growth, I mean, creates anxiety. And in the context of the United States, I mean, we're all watching very carefully the H1B situation, the visa situation, because I think that's both in symbolism and substance, I think it could be quite important. At the moment, I'm, all of you know this better than I do, maybe the rhetoric has been ahead of the actual action. On the visa side, I don't know. But as long as we can keep this thing manageable, well, you know, it should be okay.

But if there are serious actions taken, it's something that's going to, you know, kind of worry us a lot. Because, remember that our exports of services are about 40-45% of total exports. And about, I think something like 50-60% of all our exports of services goes to the United States. So it would worry us quite a bit.

Adam Posen: Great. Thank you. Over here, please.

unidentified: I just wanted to pick up on the question that was posed earlier about robotics and automation

Adam Posen: Sorry, did you identify yourself?

Christian Aguha: Forgive me, I'm sorry, Christian Aguha, [inaudible 0:51:09.5]. I wanted to just pick up on the question that had been asked earlier about robotics and automation. To look in the sort of, in the more macro sense. There is this concern, as you know, that India may have missed the boat, in terms of the opportunity to develop, for a period, through labor intensive manufacturing. To what extent do you subscribe to that and if there is at least some diminished opportunity to leverage that growth model going forward, where will the future of employment and productivity gains lie in the new model that India may have to chart for itself?

Arvind Subramanian: You know, as I said, India kind of missed the manufacturing, low-scale manufacturing boat, you know, decades ago. And now, I think the Prime Minister's Making in India program is kind of an attempt to, I think, reclaim at least a tenth part of it. And to some extent, you know. There is an opportunity, even though it might be slightly diminished. I mean, there is an opportunity created by the fact that, you know, Chinese wages are rising and the fact, you know, many of those labor intensive sectors are moving out, it's just that they're not coming to India as much as they've gone, say, to Vietnam and Bangladesh and even Ethiopia.

So, that's, I think, where, you know, we're trying to focus our attention. Can we attract some of this, you know, displaced manufacturing. But to the extent that it doesn't happen, I think we are going to rely a lot on services for our growth going forward. I think there, the way I think about it, is that, look we missed the manufacturing boat long ago, but what we need to do on services in to make sure that, you know, we don't reach the lowest turning point in services for another 25-30 years.

You know, China's lowest turning point, it turned after about 25-30 years of manufacturing. It, can we do the same thing in services? And that means, you know, just increasing the supply of, you know, medium skill labor, the IT sector, across the border. I think that's what we need to do. It worries me a little bit that even there for example, the Philippines attracts the call centers that we used to 10 and 15 years ago, so, but I think that's, I think, the challenge.

But productive gains there are huge. I mean, you know, wages are still very, very low in India, so the scope for, I mean, my own optimistic view on India is that, you know, we are still only, you know, 10% of the frontier in terms of standards of living and wages. So, we have this convergence, catch up play to do for another 20 years, easily. You know, as long as we don't do anything seriously wrong. I mean, there's major scope there. Manufacturing, but perhaps much more in services.

Adam Posen: Thank you. Another question? So here, please, the lady in the pink jacket.

Mahady Holm: From Moody's. I was interested in your point on the twin challenge, the balance sheets, corporate and banks and how do you see, what would it take to resolve that? It is a complex challenge that a lot of governments are facing, too.

Arvind Subramanian: See, I think there are lots of proposals that have been made in India, and you know, the governor, the Deputy Governor of the RBI, you know, a month ago, made a speech, talking about, you know, whether we could have a bad bank kind of solution in the *Economic Survey*, also, we've proposed, a kind of bad bank type thing. So, clearly something of that nature has to happen, either by a bad bank or by empowering the public sector banks to kind of take actions to write off these loans.

I think that's the problem. You remember public sector banks, public sector officials, they're subject to all these rules. And they're very cautious because they feel if they write off these loans to the private sector, these investigative institutions will come after them. So that's the heart of the problem. So the question is whether do you empower the banks, you know, as they are, or do you kind of centralize everything by creating a bad bank? Or centralize everything, confer some authority on that. And that's where the discussions are at the moment. So, which way we come out, let's see what happens.

Adam Posen: We have time for one more question.

Arvind Subramanian: Caroline had a question here.

Adam Posen: Oh, please.

Caroline Freund: Caroline Freund, Peterson Institute. I had a question about GST. So, I think it's being implemented in this coming summer, and what are the, how is the government preparing for it, in terms of, is it expected to affect prices and any reaction to it. And whether you can give any advice to the US, as we try to undergo our own tax reform.

Arvind Subramanian: Yeah. So, on the price impact, Caroline, I think that the explicit aim of the new structure of taxes is that it has to be revenue neutral, irrelative to the past. So, in that sense, it's being designed and the rates are being set in a way that the average level of taxes will not go up.

In fact, I've been arguing very strongly that because of all these compliance benefits that could come in, I think we should kind of err on the side of setting, you know, having lower rates rather than higher rates, so that will [inaudible 0:56:55.2] any concerns about inflation. And I don't worry about inflation also because, you know the logic of the new rate structure is going to be that you don't want new rates to be, you know, subtly higher than existing rates, and so you want to keep it that way, so that's why you don't want to.

I think in terms of, I think there are going to be challenges, but, you know, the preparations have been going on for, you know, years. This has been a tax that's kind of 10 years, 15 years in the making. And so, that kind of segues into the last question. I mean, if you, it takes a lot of political preparation. A lot. Apart from all the technical work, which would probably be easier here. It needs a lot of political preparation. I think, it's a miracle how we forced this political consensus in India to get the GST because it's like, you know, 30 sovereign entities, basically, you know, giving up their sovereignty to levy taxes on indirect taxes.

And so, you know, the correct way to think about this, and our European friends have this lovely term about pooling sovereignty, not giving up sovereignty, and you know, that's I guess what it really is. But, it's, can you imagine, you know, 30 different, you know, sovereign entities, saying "Yeah, we'll give up our powers and we'll do it collectively." It's, you know, in this era of, you know, when everyone is getting cynical about cooperation, I think this is a great example of, you know, a counter example, of good cooperation.

Adam Posen: Can I ask you one last question, picking up on your eternal optimism and belief in cooperation? So, we have another former Chief Economic Adviser, Jeromin Zettelmeyer, is with us now from Germany. I've mentioned Jason Furman. Without any disrespect to my dear friends, currently and formerly in those jobs, the ability of you to come in and make a difference, at least from the outside, is extraordinary. And you've done it, mostly by doing good economics. Perhaps reflecting imperial mindsets and other horrible mentalities, I had thought it would be a little more difficult to do that in Delhi than it would be in Washington. But you have made a difference, and now it's looking quite difficult to have good economics make a difference in Washington. What guidance or inspirational words can you give us for how to be 1/10th as effective as you?

Arvind Subramanian: I think, Adam, you're being far too, far too, generous on the one hand and far too pessimistic about things here as well. I love, this is a totally, I love the last line of Martin Wolf's last column. You know, the world doesn't end in four years. I mean, there is life, you know, beyond, what, I think there's a famous Hegel line, the owl of Minerva flies only at dusk, you know. So, I think, you know, things are bound to look up, I think. So, I'm optimistic.

Adam Posen: Cool. Thank you, Arvind. As always, you mentioned, you joked about India as moving from socialism without entry to capitalism without exit. For India's sake, we're not looking for you to exit any time soon, that you always have free entry here.

Arvind Subramanian: Okay.

Adam Posen: So we'll look forward to having you back.