Fractured Global Value Chains post COVID-19: Can India gain its missed Glory?

New Delhi
Friday, May 29, 2020

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Read Rajesh Chadha’s blog here:


Watch the event video here:

https://www.youtube.com/watch?v=XFung8Djvjw

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PROCEEDINGS

Female: We’re live now, Professor Chadha. We can begin.

Rajesh Chadha: Thank you. Okay. Good morning. Good afternoon. Good evening. Whichever time zone people who are attending are. And a very warm welcome to this webinar today. The webinar on ‘Fractured Global Value Chains Post COVID19: Can India Gain its Missed Glory?’ And as you can see, we have a wonderful group of expert and esteemed panellists with us, and that is the reason why I started thinking of this. What I’ll do is I will quickly run through the idea behind it.

And what interested me is in the Economic Survey, this time Chapter 5, talks about creating jobs and growth by specializing through exports in network products. And that reminded me of a piece on which I was a discussant for Professor Athukorala some years back. And the backdrop for those who would like to know a little bit, it is very much intertwined with international trade. Starting with the absolute advantage discussions, to comparative advantage by David Ricardo. And one of the economists that I read a lot and discuss a lot is Kaname Akamatsu. He was a Japanese economist who talked about the flying geese paradigm; that is, the production platforms keep shifting from the high wage economies to the low wage economies for producing. And later, the process of splintering of the production process, when production is now being conducted at multiple stages. So, our panellists would be enlightening us on the global value chains.

On January the 12th this year, we had a very good panel discussion at Brookings India, where our friend Dr. Aaditya Mattoo had made a presentation on the World Development Report, which is, “Trading for Development in the Age of Global Value Chains”. Interestingly, that was a pre-COVID period, as it’s being called nowadays, and we were having Dr. Harsha Vardhana Singh and Dr. Amita Batra as two discussants on that day. Later, when this COVID issue came, I did a small blog on Brookings India website, that is ‘Fractured Global Value Chains’, the topic of today. And that’s the reason that we are having this webinar today. After that, I actually went through the literature and Dr. Aaditya Mattoo is obviously there because he had presented the wonderful report, that World Development Report World Bank has produced.

Then I also thought of Dr. Harsha Vardhana Singh and I read through one of his very good papers, very brief, short but very nice paper on “India's trade policy reform for a competitive evolving global trade regime, April 2019.” It was done for Pune International Centre, and I was sure that I am going to have Dr. Harsha
in the discussion. With Prof. Prema-chandra Athukorala, I go a long way; maybe more than two decades that we know each other, and I know his work. I was a discussant on one of his very famous papers on “How India fits into Global Production Sharing: Experience Prospects and Policy Options.” It was an IFP paper, 2013/2014. I was a discussant along with Mihir Desai on that. And then I also saw his recent paper on joining global production networks, published in Asia Economic Policy Review.

And I also went through Dr. Rana Hasan’s write-up, and one of the articles that attracted my attention immediately was, ‘Do Asian Countries Upgrade in Global Value Chains? A Novel Approach and Empirical Evidence’, on which he is a co-author in the Asian Economic Journal. And he’s currently doing work on, ‘Realizing India’s Manufacturing Potential: The Role of Coastal Corridors’, and he would be making some remarks and comments on that.

So, first of all, please join me in welcoming Dr. Aaditya Mattoo, Dr. Harsha Singh, Prof. Prema-Chandra Athukorala, Dr. Rana Hassan to this very important discussion today, which is even more important in the post-COVID fractured global value chains. It is also my pleasant duty to introduce- because I understand that we know each other well for many years, but many of the participants would not know but those who are working on trade and from economics, could definitely know. But I would take another couple of minutes for each introduction, so that you know who you are listening to.

I’ll begin with Dr. Harsha Singh. He is Chairman IKDHVAJ Advisers LLP, a consulting firm on trade policy, industrial policy and regulatory issues. He is also Senior Fellow at the Council on Emerging Market Enterprises at the Fletcher School, and Non-resident Senior Fellow at the Atlantic Council, Washington DC. In India, he has been Executive Director of Brookings India itself. And earlier, the Economic Advisor and then Secretary TRA (Telecom Regulatory Authority). For about 20 years over two stints, he worked at the GATT/WTO secretariat. The second one from 2005 to 2013 as Deputy Director-General of WTO. At GATT/WTO, he worked in several areas such as economic research, trade policy reviews, GATT rules, agriculture, services, trade and environment, technical barriers to trade, sanitary and phytosanitary measures, and electronic commerce. He has been Senior Fellow at Think Tanks in India and abroad, taught at the universities in the US and China, been a Member of high-level expert groups, and Chairperson of WTO dispute settlement panels. A very warm welcome to you, Dr. Harsha Vardhana and a pleasure that you are with us.

And then I move over to Dr. Aaditya Mattoo, a long-time friend and we had co-organized a big conference in Delhi, which was published later in a book. Dr.
Aaditya Mattoo is Chief Economist at the East Asia and Pacific Region of the World Bank. He specializes in development, trade and international cooperation, and provides policy advice to governments. He is also, Co-director of the World Development Report 2020 on Global Value Chains. Before this, he was the Research Manager, Trade and Integration at the World Bank. Before he joined the bank, Aaditya was Economic Counsellor at the World Trade Organization and taught Economics at the University of Sussex and Churchill College, Cambridge University. He holds a PhD in Economics from University of Cambridge and an MPhil in Economics from University of Oxford. He has published on development trade, trading services and international trade agreements in academic and other journals, and his work has been cited in the Economist, Financial Times, New York Times and The Times’ Time magazine. Very warm welcome to you, Dr. Mattoo. And thank you very much for agreeing to join us this evening.

Professor Prema-chandra Athukorala. Again, a long-time friend. He is the Professor of Economics at Arndt-Corden Department of Economics, Crawford School of Public Policy at Australian National University, Australia, Canberra. He is also Honorary Professorial Research Fellow at the School of Environment and Development, University of Manchester, UK. And a Fellow of the Academy of Social Sciences in Australia. Professor Athukorala’s research interests are multiple and works on macroeconomics and international trade. And his publication count is 10 books, 7 edited volumes, 120 papers, 80 chapters and obviously, a lot more. He has served at various times as a Consultant to the World Bank, Asian Development Bank, Asian Development Bank Institute, International Labour Organization, UNIDO, WTO, UNCTAD, and so on and so forth. So, these assignments have resulted in work on multiple countries, which include Bangladesh, Cambodia, Ethiopia, Georgia, India, Sri Lanka, Nepal, to count a few. A very warm welcome to you, Prof. Athukorala.

Dr. Rana Hassan, probably the youngest in the group. Again, he is a Director in the Asian Development Bank's Economic Research and Regional Coordination Department. His research areas and interests include Industrial Development, Labour Economics, Poverty and Inequality, and Urban Economics. His previous positions have included serving as Principal Economist in ADB’s India, India Resident Mission, which is very close to Brookings, by the way. And as a Fellow at the East-West Centre, USA. His research has been published in various journals, including the Journal of Development Economics, the Review of Economics and Statistics, and World Development. He has also co-edited two volumes on trade and labour related issues. He holds a PhD in Economics from the University of Maryland, and a Master's in Economics from the Delhi School.
of Economics, University of Delhi. A very warm welcome to you, Rana, for joining us and thank you very much.

With this, I think I have tried briefly introducing the topic and also introducing the esteemed panellists for the day today. And the order of the discussion, as we have thought about, is that about 10 minutes in the initial remarks, we will be starting with Aaditya. Aaditya, you are the first speaker; and 10 minutes to you, 12 is the upper limit. And Chandra, Prof. Athukorala, you will be after Aaditya. And after that, Rana will be joining. So, Dr. Hassan, you will be then on. And then Dr. Harsha Vardhana Singh would be speaking towards the end. And ideally, if we finish by about 50 minutes from now, or 40 minutes from now, we will have some very good half an hour left for discussion, which I will really appreciate. Please don't mind if I stop you in between if you cross 11 minutes. Over to you, Aaditya.

**Aaditya Mattoo:** Thank you very much, Rajesh. I didn't expect this. I expected Harsh to begin but let me share my screen. Okay. Can you see it already, my screen?

**Rajesh:** Yes, if you wish to maximise. Yes, now it is perfect.

**Aaditya:** Thank you very much, Rajesh for inviting me and for your warm introduction. I have the happiest memories of our joint work together. Today, I propose to address four questions: one, what do we learn from past shocks to the global economy? How has India engaged so far in global value chains and why? Third, how is the COVID19 shock different from previous shocks? And finally, how should India approach the post-COVID world? I had expected Harsh would have set out a context, so I was trying to differentiate my presentation from what I expected him to say, and the more insightful comments that would come from him and from Rana. But let me try and show you a few elements from new research in a way that I hope will complement the more textured presentations that will come from my co-panellists.

I think one big shock that the world economy suffered was the 2011 Tohoku earthquake in Japan. I picked this as an example because Japan was deeply integrated into global value chains for both automobile components and electronics, two of the sectors which have seen the fastest growth in global value chains in recent years. And the question that many people are asking today is, are we likely to see in response to a shock reshoring, diversifying, restocking, or switching away from certain countries? The Tohoku earthquake was qualitatively different from the COVID shock but it is very interesting to see that when you look at the period after the 2011 shock, there was no sign of reshore. In fact,
global imports of automotive components continued to grow. I'm showing you pictures but even if you do more rigorous econometric work, we see that there is absolutely no sign of a retreat from global value chains. What you do see is very interesting that countries chose to switch away from Japan, where they were highly dependent. So, where there were components, let's say like engines, where they depended a lot on Japan, they switched away after 2011. But where they were less dependent, in the sense that Japan had a small share of their imports, like for example, let's say in car batteries, those are the areas where there wasn't much change. This suggests that in areas of high dependence, other competitive suppliers seem to have gained the market lost by Japan.

Also interesting is we don't see any sign of diversification. When we calculate indicators of concentration, trade remained concentrated, which means that the switch wasn't to a magnitude that were, for example, lower the Herfindahl Index. By and large, countries switched away to other major suppliers. The final interesting element from this past shock is that there was, in fact, the switch away from industrial country sources and towards developing countries. As you see in the left, there is this picture which shows a steady increase in the share of developing countries and a steady continued decline. Again, these are actual data shares, but when you try and do it econometrically, controlling for other elements, you still find this robust result. But surprisingly, one country which did not benefit, which had in fact seen a significant growth in its share of automated components still the point of the shock, in that post-crisis period, India's share remained more or less flat.

So, this brings me to the first lesson: reconfiguration in response to shocks still respects fundamentals. Countries switch where production costs are low, trade costs are low and countries which are reliable, stable and have good, strong institutions. In light of this first shock, which I recognize that is very different from the COVID shock, I think the point is, we must be careful about what we are anticipating in terms of the post-COVID world; how will it be different, and how far do the challenges that we face remain primarily domestic challenges?

Now, when it comes to India, it has already participated in global value chains. Some people think that India is out of it, that's not true. When you look at India's major exports and imports, they very clearly suggest quite deep engagement in global value chains. For example, India imports crude petroleum and processes it, works with it to export to other countries petrochemicals. Rough diamonds become polished stones and jewellery. Bulk chemicals become part of the formulations of medicines that they export. And components of automobiles, especially for larger cars, are then built into automobiles, which India exports.
Similarly, in services, for example, India exports computers, India exports services. But India’s participation is relatively low. If you see this chart on the left, global value chain participation, in terms of some simple measures, steadily had increased and then flattened around the period of the great crisis. India similarly grew and flattened but at about a quarter less than global levels.

Now, one key point I want to make is that India has both under achieved and over-achieved in global value chains. In the world development, we talk of different transitions and what is striking is that the first transition from commodities to labour-intensive manufacturing, India failed to take full advantage of that. Instead, we see a precocious second transition which usually happens at a later stage of development, where India has actually demonstrated comparative advantage in both basic manufacturing and in more advanced manufacturing, and services. This is work from the previous economic survey, which validates or confirms this point that India's growth in labour-intensive manufacturers, like apparel and leather in the post-take off phase in India, which started in the late 80’s, has been significantly lower than comparable growth in other countries. For example, in Southeast Asia, which saw growth rates in excess of 20-25 percent in these sectors, India's was powering around 12 percent in apparel and five percent in vehicles. But like I said, the interesting thing is that India has revealed a powerful comparative advantage, especially in categories of business services, this you all know about.

Why do we see this precocious transition? And this I feel like my co-panellists will cover, but let me say that this puzzle really is explained by the relative rigidity of the market for low-skilled labour, so there are interesting developments of how firms are being able to circumvent these regulations to contractual changes. The relative slow improvement in the hard infrastructure, which there is growth relative to services, a relatively restrictive trade policy – and this is perhaps the central problem that I would like to highlight in a trade policy context. Nothing is clearer that an attempt to do everything means that you do nothing well. Countries like Bangladesh and Cambodia, which were not blessed or cursed with a domestic textile industry, have now faster growth – and in Bangladesh case, a higher share of global apparel than India – precisely, because they are importing textiles and exporting garments. India's high tariffs and relatively weak condition of the domestic textile industry has inhibited its ability to participate in global value chains. Similarly, India's poor access, because it doesn't have trade agreements or preferential access, gives it a competitive disadvantage. And even in services, reform remains incomplete. But let's turn now to the COVID shock.
What makes this strikingly different is that it's not a shock that originated in one part of the world, like the tsunami, or the mortgage crisis in the United States, it simultaneously hit some of the most important countries – not exactly simultaneously – but in a very short period of time, the most important hubs in the global economy. At some point in March, 17 important hubs where the largest number of COVID cases were there, accounted for 70% of the world trade. This is also leading to this mutually reinforcing contagion through both demand and supply channels. I’d like to focus on two aspects of this shock, which are relevant not so much towards happening today but what might happen in future. One is that trade policy is changing; the protectionist trend that we had begun to see is being accentuated. Second, that firms and households are being obliged to accelerate their investments in new technologies, to try and overcome rigid social distancing requirements. And this matters because these are going to be the lasting legacies of the COVID shock.

First, on policy, we have seen this very sharply in medical goods, where countries, including India, have imposed export restrictions. But beyond that, we are also going to see huge recourse to subsidies and other forms of assistance to firms that are struggling. And finally, we are also seeing an asynchronous recovery. Many people say, “oh, how can we take advantage of China’s difficulties?” The irony is that China is one country that's recovered faster than most others. And in fact, one challenge perhaps other countries will face, is coping with Chinese competition, because Chinese industries have recovered and I feel that that might also lead to strong protectionist response, which will hurt all countries.

On technology, one trend might well be reliance on automation, which exposes country is less or to dependence on foreign sources. But research in the WDR shows that we don't need to worry so much about it. Because precisely, the sectors that have become more automated, like car production, are the ones that have seen the fastest growth in imports from developing countries. This is because the scale and productivity effects of automation had dwarfed the labour substitution effects and also, the import substitution effect. So, at this stage, automation has turned out to be more of boom than a curse. But as I said, in parallel, we are seeing investments which – and this is perhaps one of the more important developments because of COVID – because in the past, a large number of transactions in areas, most obviously like education and health, could take place face to face within countries. Today, we're seeing both firms and households investing in new technologies, whether it's computers, or Zoom, or WebEx to overcome the burdens of communication, or face-to-face transactions. But that investment is a sunk cost and it's having the dramatic effect of lowering the relative trade costs of transacting internationally relative to domestic. And those sunk costs mean that
that rebalancing of domestic trade costs and international trade costs will persist, and that's likely to provide a big boost to services trade. Now, already it’s interesting. If you look at what's happening to services trade within the world today, you see three periods; January, February, March. And here, you see relative resilience, not of travel and transport, which have fallen dramatically, but a lot of digitally delivered services. From business services, to telecommunications, and financial services have continued to grow, not just in China, which has recovered early, but even in the United States. I think this is a sign of basically services globalization first being resilient during the crisis and then being boosted post-crisis.

Why this matters is because India has, as I demonstrated earlier, revealed comparative advantage. As I also said, it is a little bit perverse why we have a comparative advantage but looking ahead, a key question, which I won't labour because I've gone on too long already, is that the big challenge for India to continue to use services as an engine of not just growth but employment is not so much the skill intensity of services, but skill scarcity. Services can potentially generate a lot of direct and indirect unskilled employment. In fact, India’s services, $1000 of Indian exports generate absolutely more unskilled employment than not just Indian manufacturing, but even Chinese manufacturing. So, but what inhibits the growth in unskilled employment is the scarcity of skills. So, if we are to take advantage of these new opportunities, nothing is more important than fixing the dysfunctional skill production function in India. The quality of universities and opening up that to reform is vital. At the same time, deep integration agreements are going to have a powerful role. A new database that we were able to gather shows very strong links in both goods and services value chains, not just because you accelerate reform at home and secure access to markets abroad, but the kind of deeper regulatory reassurance that is going to be needed in a post-COVID world, both in terms of good standards in areas like agriculture, but also in services standards when it comes to data flows, are going to be vital for India’s growth but employment generating growth.

So, to conclude, India has both overachieved and underachieved in global value chains. It hasn't really taken at one labour-intensive manufacturing, and it has made this precocious transition. But the concern is that the current model isn’t generating jobs. We need to walk on two legs, but the COVID19 challenge will be accelerated technological change and protectionist expressions. But as I argued, the technological change can, in fact, play to India’s advantages and protectionism is not inevitable if India were to engage both in deeper domestic reform, on the one hand, to remedy weaknesses in manufacturing, which my panellists will speak of, but also to reinforce its strength in services, especially
through improvements in education, and both types of steps that the government is already taking. And finally, and this is what I want Dr. Harsh to tell us more about, how this recalcitrant participation in both regional and multilateral negotiations has to be abandoned, and India has to take more of a proactive leadership role in international trade negotiations, both to spur domestic reform and secure access to foreign markets. Thank you, Rajesh. I'm sorry if it went on longer than you had wanted it to.

**Rajesh:** No, I think it was perfect. And I think a lot of discussion would come up when others have spoken, particularly when you speak of moving back to international cooperation. And given the way the countries across the globe have been suffering post COVID, many of the countries would like to become self-reliant and atmanirbhar. So, this is going to be a very good discussion, following when others have spoken. I am not going to ask questions at the moment, but I will be waiting for discussion amongst all of you, and if I have any, I would raise. But I think we will have a number of questions from the people who are at the moment listening to us. Thank you very much, Aaditya, for a wonderful presentation and the context of the job creation, as well as what you have mentioned about the issue of new technologies because of social distancing. I had probably not given much thought to it but that's a view, and that what you are saying is that it might entrench, or it might be there for a long time to come. So, very good discussion points that you have raised. Thank you very much. Can we move on to Prof. Athukorala as the next panellist, please?

**Prema-chandra Athukorala:** Yeah. I'm having some problem in getting my PowerPoint. Can you see the PowerPoint?

**Rajesh:** yes, yes, we can see.

**Athukorala:** Yeah, I can't see it.

**Rajesh:** hope you are using the ‘share screen’ option?

**Athukorala:** Yeah, I did. Yeah.

**Rajesh:** that's why we are seeing it. We're seeing a blank Google screen, Chandra.

**Athukorala:** yeah, yeah, just a minute.

**Rajesh:** we can see your screen, Chandra. You are muted. Please unmute. Please unmute. Can you see now?

**Athukorala:** yeah, I can see. I'll start actually. I can see the screen on the other one of my computers. Rajesh, thank you very much for the opportunity to
participate in this interesting discussion. I enjoyed very much Aaditya’s presentation. In his presentation, he made the interesting point that economic shock naturally opens up opportunities but whether a given country benefits or not from the changes depend very much on economic fundamentals. I'm going to build on that important inference by placing India's experience in global production share, in global production networks by placing India's experience in the wider East-Asian context.

Now, I will start with a few figures and a few tables to indicate India's relative performance in global value chains, particularly in manufacturing compared to other countries. In this diagram, I compare developing countries’ manufactured goods exports and the importance of total exports within manufacturing value chains on the left-hand diagram, and India's performance on the right-hand diagram. What you can see is that out of total manufactured goods exports from developing countries – here I use the standard UN definition of developing countries – out of total manufactured trade, closer to two-thirds take place within global value chains. Whereas, in India, out of total manufactured exports, only about 35% take place within this value chain. Again, you can see in the next figures, the first part of the figures indicates share of total world exports of manufactured goods of each country, and the share of GVC within manufactured goods. What you can see is that India's share in manufactured export has increased following the reform, from about 0.5 percent to about 2. But other countries in the region during that period have experienced much higher growth rate within world market penetration in manufacturing trade. Staggering increasing China's share from 1.8 to over 23 percent during that period. Again, a newcomer in this area, Vietnam, is experiencing very rapid market penetration. When you look at the next part of the figure, which indicates GVC share in exports, India has one of the lowest shares of GVC export in the region. Actually, it is comparable somewhat to Indonesia. But all the other countries have increased significantly their share within global value chain. In other words, the rapid market penetration of these countries has been underpinned by their integration into global value chain in manufacturing trade.

Now, the issue we are discussing in this webinar is whether India can benefit from shifting production bases from China, propelled by the Covid crisis. Now, we should not forget the fact that shifting production bases from China has been happening over the last two decades with the increase in wages in the country, as well as other factors like more recently, trans-trade war. Industrialists and global manufacturers have been shifting production bases from China to other countries in the region and beyond. As Aaditya mentioned actually, there has not been reshoring, that means shifting production bases from China to US and other
countries, but this restructuring is happening within the Asian region and to some extent, concentrated within the East-Asian region. Therefore, as Aaditya mentioned, we need to look at the issues from a long-term perspective. COVID crisis will create opportunities but this has been a long-term trend. When China achieve maturity in manufacturing production and trade, naturally there’ll be shifting production bases from China to other countries in the region.

Now, to discuss why India has not benefited and what have been the main drivers of performance, I think a good starting point would be to use Samsung smartphone network story. I think I can use this story to highlight the relevant point.

Now, smartphone production networks, basically the production locations are in six countries. Of course, Korea. Korea produces only parts and component and final assembly only for the domestic market. Out of total shipment of Samsung, only 10% take place from Korea. Then until about 2010, bulk of the final assembly of smartphone was in China, over 95%. However, in 2019, Samsung closed down operations in China. Why? Mainly because production bases have shifted to Vietnam. The first opening of a Samsung Factory in Hanoi occurred in 2011. Most of the smartphones are now made in Vietnam. I put the word “made”, in fact, it is really assembled in Vietnam. Samsung produces more than 120 million units per year. It directly employs 150,000; the largest employer in Vietnam. Samsung accounts for 14% of total manufacturing exports from Vietnam. Look at India, Samsung opened a factory in Noida in Uttar Pradesh in 2018. Current production capacity, which is not fully utilized, is only 68 million units per year, compared to 120 million in Vietnam. Direct employment of this product plant is just 5000, compared to 150,000 in Vietnam. Production is entirely for the domestic market; no handphone is exported from India. Now, compare India with Indonesia and Brazil. Actually, these two countries are much similar to India in terms of reaping gains from shifting Samsung production bases from China to other countries. The biggest gainer has been Vietnam. And again, you can clearly see the difference, still there are protectionist tendencies in India, Indonesia and Brazil. And Samsung is located in these countries purely to produce for the protected domestic market.

Now, why is there a difference? What are the key determinants of GVC participation of a given country? GVC participation is driven by the phenomena called ‘global production sharing’; the breakup of the production process of a given product into vertically separated stages or tasks carried out in several countries. Now, global production sharing open up opportunities for countries to specialize different segments in the production process, depending on its relative
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cost advantage. Particularly, when it comes to final assembly, a country with large labour force like India had the advantage. As all of you know, until China emerged as the production centre within global production network, in countries like Malaysia, even Singapore and Thailand, there were some final assembly like TVs, handphones and so on. But when China started becoming an assembly centre in the world, these assembly activities shifted to China. Now, these Asian countries specialize in mostly component assembly, mostly to China, as well as to the rest of the world. Now, India with a huge labour pool, has advantage in final assembly. Like in China, once final assembly start in a country, it can lead to development of a strong component base and a strong export within the global value chain.

Now, since capital, managerial know-how and technology are mobile within GVCs, relative labour cost is a key determinant of a country's attractiveness. However, successful participation in global value chain will occur only if labour cost advantage is met by service link cost advantage, which I am going to explain in the next slide. At the same time, domestic investment climate needs to be conducive for the operation of private sector firms, particularly multinational participation in the production base. Simply because in most of the manufacturing value chains, multinationals are the lead firms. Local firms get the opportunity to enter the production network by linking with multinational operations.

**Rajesh: **Chandra, another two minutes please.

**Athukorala:** yeah. The three key points I highlighted: firstly, labour and human capital; services link cost, which is cost involved in coordination production blocks located across countries; and thirdly, proactive investment promotion or selling the country to foreign investment, promoting the country. Now, India has relative labour cost advantage compared to other countries in the region, particularly China, South Korea, Taiwan and so on. But at the initial stage, availability of trainable unskilled labour and middle-level manpower combination is the key to get into production network. In the medium-to-long run, availability of high-level technical and managerial manpower become important. But overall, I think the human capital constraint is a little bit exaggerated in the current Indian policy debate. What we need is trainable unskilled workers and middle-level manpower. In any case, human capital development is partly endogenous to the process as well.

Then service link costs depend on whole range of factors impacting on the overall business environment. Trade-related infrastructure and logistics; and again, when it comes to electronic, air transport is vital for penetrating international markets. According to my estimate, in Malaysia, out of total electronic export, 80% is air
cargo. Then other points are clear to you: political stability; institution equality; law and order; liberal trade; and investment regimes, and so on. Then market in the country, promoting foreign direct investment, actually bringing big players into the country is a long-term investment. Vietnam has tried hard to bring Samsung to the country, Intel and other big players that set up the stage for their electronic revolution.

Finally, one minute, how India meet this requirement, labour market condition. I think in terms of labour cost, India is in a good position. Again, for final assembly, India has huge amount of surplus labour. However, other precondition, actually I am not an expert about Indian labour market situation, perhaps we can discuss it later. It is not scarcity of top-level engineers but basically, middle-rank supervisory manpower. And again, labour laws and other things are important. There too, India is not doing well compared to Vietnam. Then service link costs, India lag behind China and other East Asian countries in terms of various indicators, like the standard World Bank Doing Business indicator. And again, the new index of logistics performance, linear shipping connectivity and air connectivity, India is not doing well compared to China, even Vietnam, particularly relating to some of these indicators.

Then foreign direct investment regime, a lot has been written about it. There are various problems about lack of certainty in the policy regime. And special economic zones which have played a very important role in Vietnam and other countries are not operating well in India. To sum up my discussion, my presentation, not only COVID crisis but the basic changes in the overall economic setting in China is opening up opportunities for other countries. But so far, India has not benefited from these opportunities particularly because, even though the labour cost is low, other preconditions related to meeting services link cost requirement and providing an investment climate for the participation of the private sector, particularly foreign direct investment, has not been that conducive. Thank you very much.

Rajesh: Thank you very much, Chandra. That sets the tone for the next presentation if you can take your- yes. I think what you said is that a lot more needs to be done in facilitating the operations of global value chains coming in India or the flying geese paradigm getting rectified. And you said that labour market issues are- So, we do have Dr. Rana Hasan, who does know the Indian labour market quite well. So, I am passing it on to Rana. Rana, all yours for 10 minutes, max 12.

Rana Hasan: thank you very much, Rajesh. It's really a pleasure to be a part of this panel and we've had two excellent presentations by Aaditya and Chandra. I'm
actually no trade expert and even less so on global value chains, but I'll basically take four or five minutes, I'll try to stick to four or five minutes and just make a few points on this issue of manufacturing potential because I think that's really implicit in the way you've structured this. When you say, can India gain its missed glory? I think it's really this missing of the whole manufacturing engine that you're probably referring to.

Rajesh: Yes.

Rana: So, key messages really, are I think India absolutely needs making India to succeed. It in fact needs to make Make in India succeed, and it's a big challenge. Chandra mentioned a number of things. You have this whole issue with all sorts of infrastructure, logistics, the power side, etc. And essentially, we have a regulatory framework that really doesn't allow successful entrepreneurs to scale up, and it doesn't let unsuccessful ones exit as fast as you would like. And it's really an issue of problems in the land market, in the labour market, and to some extent, even in the capital market side.

Now, certainly, the agenda is demanding but I would appeal to everyone who has any sane senses, don't let two concerns distract. One is this standard thing of trade pessimism. So, it keeps on coming back in in one shape or the other, and I always worry that COVID-19 might be this new ground for pessimism about trade. I think Aaditya put it nicely in the beginning, we've had all sorts of trade shocks they do go away. I think COVID, fine, vaccine takes two to three years, herd immunity takes a longer time to come in but trade is going to be there. You can chop off maybe even a couple of trillion, India’s share is so small; it has lots of room to grow.

The second thing that I would really urge people is not to let this technology and jobs pessimism issue interfere. So, let me just show a few slides. When it comes to this issue of the manufacturing sector and jobs, we know it's not the quantum of jobs. In a lot of our discussions, we get bound up on this amount of direct employment that's being generated, etc. but it's not really just the quantum, it's the quality of jobs matter. And we know that larger firms tend to pay much better than smaller firms. And just a bit deeper into some of the numbers, you know, Aaditya, one of the slides he had, he talked about 80 percent of Indian firms being less than 50 workers, compared to about 15 percent for the Chinese. The situation, as you dig into the data, it's even more alarming. A vast majority of our manufacturing firms are these own account enterprises, you've got firms at six to nine workers, even 10 to 19 workers. And when you are operating at that scale, you can never take advantage of technology. And here, I've got this photograph of the spreading machine. It's a simple machine used in the apparel sector; it
spreads cloth, allows cloth to be cut quickly, efficiently, etc. And we did a study where we asked an industrial engineer to just cost out all these different types of technologies. We're not even talking about super sophisticated computer, numerically controlled technologies, just standard technologies. And the bottom line is, small firms just are operating at scales where they cannot adopt these types of technologies. Small firms cannot adopt the kinds of managerial technologies that are needed really in the modern workplace.

So, what holds firms back? It's a long list of constraints: we've talked about infrastructure; the regulatory environment; this whole difficulty with entry and exit. It's also about administrative processes and inspection regimes. In the study that we had done on apparel, one of the interesting things was we interviewed about 25 key stakeholders in the sector. And I remember talking to one person, who I was trying to push him on this issue of labour laws and just regulation, and his point was a good one. He said the issue is not so much a particular law, it's the entire process that we have, where there's just uncertainties about the law, uncertain about the application of the law and penalties, which tend to be open-ended etc. And it's these long delays that really, we cannot handle. So, it's not more than just any regulation, it's really these processes, the regimes.

Let me just go ahead and skip a bit more. Just one point on skills. A lot of people say, okay, skills are the problem. Certainly, skills are very important but they surely cannot be the binding constraint everywhere. In fact, coming back to apparel, we asked firms, we showed them these three charts and we said look, this is basically depictions of how fast people acquire skills. So, which of these three pictures does it look like? Is it the top one, where you acquire skills very slowly? Is it the bottom one, where skill acquisition is important, its ongoing? Or is it something like the middle one? And every single person basically circled this. So, in other words, for these sewing machine operators, you take about four to six weeks to get trained, you learn it quickly and then you plateau. So, it's just an example to show, yes, skills are important, it's not the binding constraint everywhere. In fact, we have to distinguish between foundational cognitive/non-cognitive skills – that is stuff that is best delivered by the government, or certainly paid for by the government for those who can't afford it – and then, you've got sector-specific skills and firm-specific skills.

I just want to say one thing on this issue of skills. Too often people tend to think about skills as something you acquire in schools or universities and that's it. But if you look at some of the very detailed evidence from the US, you find that a lot of human capital is actually accumulated in the firm and on the job. But not any job will do; the type of firm you work in matters. And typically, larger more
dynamic firms, if you're working in one of those, you're going to learn a lot more. I mean, each of us can think about that from our own experiences working in different types of firms and institutions. The type of firm you work in matters and this is where, again, the Indian policy environment tends to encourage a type of firm, which is very small. It's not requiring much technology. It's not experimenting with things. And the result is you've got human capital that is stagnating. I am running out of time.

Fortunately, the reform process has begun. We do see various types of state-led reforms. We see an attempt to take these 45 central laws on labour and push them into four umbrella regulations. I think in terms of the big challenge moving ahead is, it's really about moving the locus of safety nets from the firm to the state. Because I think everyone will agree that when you give firms the flexibility to adjust labour, we also need a system whereby the workers are getting minimum wages and they do have various mechanisms of social protection to rely upon. And I think that that is a challenge but that's really something we have to address head-on.

On global value chains, again, so much has been said. And Aaditya and Chandra are experts in this field and I think they've made these points. I just wanted to show one slide, where you've got Chinese exports and Indian exports in two sectors – apparel and transport. And it's interesting, if you compare the red and blue lines, you'll notice that India is not that different from China when it comes to, let's say, transport equipment. It's apparel, where we're just totally left behind. Now, these are older numbers, things are changing, China is getting out of it. But again, it's this big puzzle and I think the only way you can explain this puzzle, whereby we're doing worse off in something that a labour-abundant country should be doing well, and it's a sector where, my goodness, 200-300 years ago, we were the leaders. And again, now when you dig into the firm size issues, you see this very stark difference. When it comes to firm size, in motor vehicles, our firm size and the Chinese firm size is not all that different. You look at apparel on the left-hand side, extremely difficult. And to me, this is really something about the policy environment that is holding us back.

I'll try to take just a minute more. I want to say something about automation anxiety because this always comes back, and people say, “oh, you know, forget about manufacturing, it's not going to develop jobs”. I think this is wrong on two fronts. Number one, if anything, the global value chains literature really tells us that jobs are interconnected. In fact, our former Chief Economist Shang-Jin Wei had done this really interesting study, where he found that the big service export in Asia is, again, not India, it's China. And it's China not because of its direct
exports of services, let's say, the way India does it in terms of IT services. It's because of all the services that are embedded in Chinese manufacturing exports. So, let's not get carried away with the technology story. Yes, I recognize that talking about the automatic fabric spreader is one thing, and then you have this zero-worker Adidas factory on the other hand, but I think we're far from that situation. Also, we have to remember that in a country like India, you may have a displacement effect where automation reduces the number of workers required to produce a given level of output, but the scope for scaling up is so huge that essentially, you can really ramp up output so much that your total employment will go up.

And in fact, I'm just going to give you a chart from history. This is from James Bessen's work for the United States, and he makes a very interesting point. And he says that if you look at the employment trajectories in both textiles and automobiles, you see a sort of inverted ‘U’. And what's interesting is, you look at this upward sloping part, this is employment going up exactly at the time when firms were introducing new labour-saving technologies. And the reason employment goes up is because the market expands. And in India, I mean if we just think about the number of apparel pieces that people own, etc. the types of products they have, there really is so much scope to expand that I don't think we should let these things be slowing us down and really, trying to unlock the manufacturing industry.

Now, I'm pretty much going to stop here. I just want to end with a couple of points on special economic zones, and it's very useful for me because Chandra actually ended on this issue of special economic zones. We talked about having special economic zones and yes, we had one of the first economic zones, I think started in Kandla in the late 60’s. But the fact of the matter is that when we talk about our economic zones and the kinds of economic zones we've seen in other places; you really see a lot of differences. And I think a couple of key ones are, number one, scale. The scale at which you need these things to work is huge. Having small zones and expecting some big changes to take place, positive changes to take place I think is unrealistic. And that's why at ADB, we've been working quite closely with the Government of India, in particular Andhra Pradesh and also Tamil Nadu, trying to develop zones across these transport corridors, where we also invest in ports, expressways, power and the private sector comes in and sets up these economic zones. So, anyways, let me stop there. Rajesh, thank you very much for this opportunity.

**Rajesh:** Thank You, Rana, for a wonderful presentation. And the issues that you have raised about the special economic zones have been discussed for a long time,
I think it's time to say that post-COVID, like other stimulus packages that have been announced, we look forward to. So, what I am taking now that we have discussed about the issues of trade cooperation, that India still has the opportunity to move to global value chains, the issue of scale, that technology in various ways is helpful. And finally, I think another issue that I have picked up, Rana, from your presentation, is the discussion of special economic zones, where Chandra had left. Now, over to Harsha.

**Harsha Vardhana Singh:** Thank you very much and thank you for the invitation. I think we've had three very, very good high-quality presentations. A lot of very important points were made. I'll try and stick to the question of global value chains, but what I want to take up is the point you made about “atmanirbharta”, you know, which basically is interpreted normally as an inward-looking economic policy. But even when the Prime Minister was announcing about “atmanirbharta”, he talked about India playing a strong role in global value chains. Similarly, when the Trade and Industry Minister tried to explain that further, global value chains are a very important part of that. And I think, especially in the current context, it is very important to keep global value chains in mind because you cannot be part of a global value chain without a strategic perspective, without good coordination, and policy which makes you competitive. While the focus primarily has been on domestic policies and not necessarily domestic policies at the border, but there is a link between the two. And as Aaditya talked about, the market access abroad, that's something that also plays a good role. So, if we need to be an active increasing part of global value chains, it has to be a comprehensive effort.

For that, one of the things which Aaditya pointed out and then, again, the following two presentations also emphasized, is that countries actually switch to reliable and low-cost players or locations, and uncertainty about law, implementation of law, open-ended penalties, which Rana, you talked about. These are actually about stability and reliability of policy, which was mentioned by Aaditya. Then another very important point which Aaditya made is an attempt to do everything means low success everywhere. This is something, as a policymaker, I think becomes very important. Because as a policymaker, you cannot really look after 100 different things at the same time. You have to prioritize; you have to prioritize sectors, you have to prioritize policies. I'll say a little bit more about that.

As far as COVID is concerned, yes, protectionist trend is accelerating. The trend is not in favour of more global value chain linkages, but it's expected to be less. What Aaditya showed is that perhaps the nature of the global value chain linkages
is likely to change fundamentally due to technology. Then as far as improvement of skills, and I completely agree with Rana about one to one-and-a-half months. It is not just apparel. Even in mobile phones, the feedback I got from firms in India is, it takes them one month to train a completely novice labour. And the other input I got is that the firms are finding that Indian labour is 30 percent more productive than the Chinese labour. So, the labour productivity- and in my mind, there is some difference of opinion about the wages in Vietnam and India. Actually, wages in Vietnam are slightly higher than India. It was the labour productivity which made effective wages lower in Vietnam, especially for apparel sector. But now if you go to mobile kind of activities, then it is really surprising that the labour is showing higher productivity than even China.

So, I just want to say that in a post-COVID period our first priority, of course, is to address the social situation. And in that context, some policy framework has to be devised which addresses social situation, but economics also has an impact on social situation. That is why the concern about opening factories, enabling transactions, domestic and even for exports, the airport's, etc. were kept open. The problem is, in a situation like post-COVID, what people don't remember is that global values- we normally think in terms of goods and services. Actually, as far as a global value chain is concerned, it is far more than just goods and services. It's also technology. It is labour. One of the reasons why firms could not export from India, and these are regular large exporting firms, who use the air freight route, is because the laborers or the officers were not coming because of COVID. So, you have the whole system open but it's not functioning, and that becomes a major constraint. And normally, people don't think about these kinds of things in global value chains.

We talk about FDI, inviting FDI, but when we are trying to attract the company, we must actually formulate a policy in a very timely manner. If you try and see how much time has elapsed between when US-China first began the trade tension, and when the policies on three sectors were announced on 21st March this year, so it's a long period of time. And within that time, other countries are trying to attract that FDI. Similarly, if people want to come and see the condition in India, the Senior Executives require visas. It has to be part of our policy chain which goes with the value chain. So, together with every global value chain is a policy chain. And that means that you have different departments, you have different ministries, the goods and services which go in, as well as the centre and the state. So, very high-level coordination committees have to be established because many of these departments have very different objectives. Exports have to be made a national objective but so is the objective for a custom official to get revenue. And often, the implementation policy for revenue – by that, I mean Department of
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Customs – focuses on earning more revenue irrespective of the impact on exports. So, there is a need to better coordinate and get a balanced kind of approach to different conflicting objectives, and you need high level decision-making for that. So, coordination has to be a major part of it.

Then, the thing is that actually the chain – we keep talking about global value chain – it is a web. Because in the chain you see different links; each one of those has this own value chain, and within that, each one of them has its own value chain. Just imagine the kind of inventory policy which you have to manage if you are trying to be the lead firm which is managing the firm. One particular firm in the area of mobile, for example, gets 1500 parts from 200 different firms; small and medium and large. It's a mind-boggling exercise. Any policy change, any delay in policy has an impact on operational cost, has an impact on existing contracts in the export market. And the export market is finicky; you bring delay, you change conditions, which have an impact on operational costs, that implies a difficulty for global value chain. So, we have to be very, very sensitive of the impact of policies on working capital, not just overall cost because an integral part of value chain or value web is managing inventories. And which means timely response, consistent quality, cost-efficient kind of thing. And moreover, these value chains – I will continue to call them chains – are managed by lead firms.

Now, lead firms may be very different in different industries. For example, if I take the mobile sector, the lead firms are international firms. The top three account for 70% of the global market. There is no major lead firm from India. You go to Two-wheelers; the major firms are Indian. The value chain is dominantly Indian. You go to automobiles, they are a mixture; they are Indian and they are foreign. And you go to apparel or textiles, a large number of Indian firms; you can't even identify the main firms there. So, when you have to have a policy, you have to identify which sector do I want to have the policy for. Once you prioritize the sector, the policy and strategy has to be sector-specific. And when you do a list of problems these industries face, you will get about 100 different policies. You can’t manage it. You have to identify what are the policies with the largest impact which can be addressed in the shortest time period. And there are two categories in this, and this means you have to consult and discuss with the industry. One is that actually, the Government of India has put in place a lot of very good policies. The problem, from my interaction with various industry players, is that in several cases, it's not the policy which is missing, it's the implementation which is not taking place. Sometimes, it takes place in such a manner that it becomes retrogressive and therefore, a focus on implementation of the policy has to be there. So, policy has to be, in a post-COVID situation, we
don't have the luxury of taking our time to decide what needs to be done in a manner which is highly effective and efficient in a short period. Because when the market starts taking off, there'll be many who will be there in the game trying to get market strength, and that game has begun even now.

So, you have to have a specific institutional mechanism to monitor implementation. You can come up with hundreds of policies, all brilliant policies. If they are not implemented, they are useless; you have done nothing. And this is true, whether it is for giving subsidies, or whether it's to clear customs in a fast manner. So, the implementation part becomes very important. After that, if you have a dynamic kind of perspective, because a domestic ecosystem, we keep talking about global value chains but a global value chain cannot be sustained in a domestic context without a domestic ecosystem. That's the way China has come up. That's the way Vietnam is trying to come up. That's the way Bangladesh is trying to come up. That's the way any country, which connects with global value chains, has to come up. And an ecosystem means that there has to be effective policies to address skills. There has to be an identification of where hand-holding is required, and errors made in past policies, because we are not new to the game. So, in this, it's easiest to go forward if we learn from experience of successful countries.

The government recently, has done exactly that in the case of three different industries for which it announced policies on 21st March; production-linked incentives. And it has now got a framework for analysing relative visibilities of India due to policies which are followed by the success cases. And here, let's not focus on China. China, one can learn from but emulating China is not easy. We were talking about air freight, there's one particularly large player which produces mobile phones. The Chinese built an airstrip for that company when it was established, now they are building the fourth airstrip. So, it's in a different world altogether. Some of their companies start making profits even before they have produced one single unit of the product. So, we have to try and see if we want to get market access in a GVC context, which are the players which are there. In some cases, these are domestic players. In some cases, these are foreign players. So, if you got to invite FDI, you have to really talk to them and see what is required, and India has started doing that. India has put aside land. Rana, the Sagar mala thing, I was fascinated when I got to know that you are working with these various mechanisms in India also. We can piggyback on existing kind of efforts and just have a multiplier effect from there.

So, as I said, in addition to that, we got to maintain the dynamic advantage. One thing which when we look at dynamic advantage, we always think of R&D. R&D
defined in a technical manner is not the only thing you need. There is a softer kind of R&D called ‘design capacities’ or ‘design capabilities’. The content of design is very different in textiles apparel, where it's almost an everyday affair. And in mobile phones, it's a different matter. But one of the demands of domestic major firms in mobiles in India is to have a design ecosystem. Because that's what gives them an edge and a continued capability enhancement over time. So, in addition to plug-and-play, you must have this kind of synergy also.

I have already said that complementary with the global value chain is a policy chain.

Rajesh: Two more minutes please.

Harsha: okay, very quickly, I'll try and finish it. It’s a policy chain. And one of the models of good coordination is the National Committee on Trade Facilitation, where the trade facilitation issues are taken up through joint effort in a very tangible manner. Similarly, so I've talked about priority sectors, priority policies. There are examples you have. The monopolistic rates at ports, charges for certification. Why should Indian ports have charges which are three to four times the international ports? That's a direct area of intervention to fix it. Similarly, why should even our- leave alone standards which are very difficult. Even marking and labelling requirements domestically imposed be different from those which are required for our main export markets, and they are. That means they have to then, when they leave the border in India, they have to change it somewhere before they actually clear it in the international border elsewhere. It could be high seas. It could be somewhere at the airport abroad, whatever. But it is unnecessary; where should I put a label? Is that something we have to insist on? So, there are areas which are immediately apparent.

Similarly, short and medium-term strategy should be clear, and importance of digital, importance of virtual inspections, stocking arrangements. There are tools available with international organizations. ITC has tools for these, we can use it. Similarly, World Bank could have tools.

Now, I am going to address one other thing, which is the point which Aaditya raised about FTAs. We have a fear of FTAs because of the kind of experience which we have focused on with Japan, Korea and ASEAN. These are countries with much higher and non-tariff barriers than India. In our FTAs, we have not really engaged to develop a mechanism, such as in CPTPP, they have this provision 2.9.2, where if you have a problem with your exports, whether it be tariffs or non-tariff measures, you have a bilateral discussion where the other party should address your problem in a timely manner. We can do that. That is
something which the review of the FTAs would have to do. But at the same time, there is a possibility for bilateral discussion mechanism. We don't need to go through an FTA. There are ways in which you can actually develop certain mechanisms bilaterally. So, that should be done, especially for NTPs or standards, and it is actually done in the case of agriculture products. So, we have to just expand that.

Similarly, there are industries in India which actually want FTAs. I'll give you two examples. Automobiles, they want FTAs with countries we are not even focusing on; in Africa, Latin America, etc. There isn't the same kind of concern as with the larger markets which want huge reduction in tariffs, etc. Although, I must share that the free trade area for Africa, that agreement has a 90 percent tariff line reduction, so you can't avoid tariff line reduction but there are very many innovative safeguard mechanisms, flexibilities which have been used by the US itself. You take a look at the snapback safeguard, which US had agreed with Japan in the auto kind of bilateral thing under TPP. Similarly, there's something which it has in the bilateral US-China kind of agreement. And there are some examples in WTO also. So, we have to really be prepared, identify where are our concerns are and see how we can delay it, or get more of oxygen if we are being strangled etc. with the problems there.

But at the same time, now US has begun a new method of addressing FTAs, which is that I will get an agreement in a limited number of areas – early harvest kind of thing. We can do that also. The second example in FTAs was apparel wants FTAs with EU and US. US, of course, will be a completely new FTA but the few sticking points we have with Europe, can we have some kind of an early harvest there? Which it may include one of their sectors, which is difficult for us, but as well as apparel exports from us. That will level the playing field vis a vis Bangladesh or even now, Vietnam. So, there are different ways to find solutions to FTAs but we have to change our approach because if we want to be linked with global value chains, we can't just always keep relying on FDI. Certain sectors, it might be okay, like mobiles. These are large companies with presence in major markets, with high quality products, so the market actually is available to them more easily. In several other sectors, we have to look at creating similar or at least move in the direction of market access which our competitors have.

So, these are some of the ideas I wanted to share with you. Sorry if I have shot over the time, but I had more to say but I realized that time is of essence. Thank you very much, Rajesh.

Rajesh: Thank you, Harsha. This was really enlightening, and I agree with you that I did notice that in the stimulus package, the global value chains have been
discussed many times. So, global value chains and make in India, assemble in India, so they are all kind of tied up with each other. Now, we have run over time but I do have questions. If the participants have the patience and if the panellists agree with me, can I just raise few of them? So, that there can be some interesting discussion from- so, maybe each of you can take the way you’ll like to take the questions. Well, the first one is that if India is, you know, this is a question that comes to us so many times, if India is doing well in services, why should GVCs-led manufacturing sector be given- you know, is there any special benefit from manufacturing-led GVC? So, that's a standard question that is posed to us. I am not naming because some of the questions have come as anonymous, so I am not naming anybody. So, if India is doing well in services, what is the need for GVC in manufacturing?

The second kind of questions that I have got is that post-COVID, it is the employment generation which is of essence is important, that would help in poverty reduction. So, obviously, directly asking the question: what happens when people have lost employment and how do we kind of take care of that?

The third one is that, what other particular sectors in which GVCs can be more relevant than other sectors?

The fourth kind of questions that I have got is about MSMEs and their role. We suffer from the problem of missing middle-sized forms here, and a question that comes is: the basic message from all panellists is that COVID19 changes nothing – and so this is an important question – and that market access has not fundamentally changed. This is not the conclusion that our Prime Minister has reached. Why is this government so negative on RTA's? How important are those for India's engagement in GVCs compared with domestic reforms? So, basically, a question of Regional Trade Agreements and their importance.

Lastly, I think there is a question on, is it possible for India to be the next factory of the world after China? I think a lot has been discussed already. But lastly, what does government need to do to enable the growth of these sectors? Which means, I think the same person asking that, which other sectors, and how can the government address. Even though, I think there is a lot that has been discussed and said. Would five minutes each be fine? Can we start in the same order that we started? Aaditya, with you.

**Aaditya:** we should do it in reverse order now, Rajesh.

**Rajesh:** yeah, because Harsha made you first and him last. So, I’ll give Harsha the first slot then.

**Harsha:** So, I’ll address four of these questions which I wrote down.
Rajesh: five minutes, right?

Harsha: okay, five minutes. You tell me when my five minutes are over.

Why have manufacturing in GVCs? By definition, GVCs include services and manufacturing, so you can't separate the two. It's a chain which comprises both. So, to say that, that's why the one lesson of GVCs was that, even manufacturing production actually includes services. So, if you start saying, have no manufacturing in GVCs, then what you are saying is, don't emphasize GVCs. So, that is not correct. If you are saying don't emphasize manufacturing exports, then just imagine how much is going to be the reduction in opportunity which you are giving up, or the reduction if you don't mind emphasize manufacturing, in terms of jobs, in terms of incomes earned, etc. So, no, you must give emphasis to the system as a whole and within that, manufacturing and services. And then, the industry will see opportunities and take whatever is possible.

So, poverty reduction drawing on experience of NICs. The NICs actually, from my understanding and reading of their experiences is, they prepared their population through education, skills, etc. They provided good social network services. By network I mean health, education, the possibility of- except China, China was weak on that- of pensions after you retire, etc. And they focused on growth and productivity enhancement through international trade. So, if we want that, then that is the path. In India, the situation is far more complex both because of politics, as well as the different levels at which decision-making takes place. And often, you have to actually focus on poverty reduction through safety nets, namely some kind of direct income transfer, etc. So, India has begun on that and India has also begun looking at GVCs very seriously. And Rajesh, not just in the production link initiative, which you mentioned, even in the atmanirbharta announcement, the Prime Minister has emphasized GVCs. That's something which I was struck by.

Then, the other question is, post-COVID nothing has changed. No. Post-COVID tremendous things have happened. One, you have major problems to deal with. Your system today, for all practical purposes, is actually broken; it needs to be repaired. Countries are going to look more towards themselves or towards regions closer to them. Value chains, actually global value chains are primarily regional value chains; most of them are within the region itself, whether it be Asia, whether it be Europe, whether it be Americas. And RTAs and India's and GVCs, the new RTAs are being developed in such a way that the members actually are able to have easier possibilities of developing just the RTA-specific GVCs. So, if you want to be part of GVCs, these RTAs are very important. Second, if we want to be part of GVCs in the sense of being able to sell our products, then we need to
also have market access. That is if the initiative is from us. But if we want to be part of GVCs by having a low-value participation in GVCs, where each RTA has a local content requirement for the product which is being exported, so if you have a high value addition in the value chain of a product, and you don't have an RTA, then your product will face a higher tariff. So, if you just want to piggyback on somebody else who has an RTA, and just be in the lower echelons of the GVCs, that's a possibility. Otherwise, we have to have RTAs in order to get larger value from the GVC, which we are a part of.

What does government need to do to enable the sectors? Which sectors? The government has already announced several sectors. So, in that context, you have your six superstar sectors which were announced in ‘make in India’ context; there are two services sectors there and four manufacturing sectors. There are other priority sectors which have been announced. Recently, the policy which was announced on 21st March was pharmaceuticals with a focus on some basic products, which are the basis for creating medicines. Medical devices and electronics, in which they looked at mobile phones and they looked at other electronic products, parts and components. So, these are obviously priority items. In addition, there are automotive products, there are textiles and apparels. So, criteria can be technology, potential for exports, employment, etc. but the government has already announced those.

And how you need to enable those sectors? As I said, you have certain regular policies which apply across the board to sectors. And that means, for example, sometimes when there is a re-evaluation by customs of a product category and they announce a change, they often say the change applies retrospectively.

Rajesh: That’s your five minutes.

Harsha: I just need half a minute more. So, this really disturbs your value chain, it disturbs your contracts, even if it's a product in which there is no value chain. If you have to sell abroad and you have a contract, you can't change the terms and conditions. So, stability and predictability of policies are very, very important. In this context, these are across the sector but some of these policies, which are the lead firms, what are the shortages which they face, what are the key obstacles, those kinds of policies could be sector-specific. Thank you,

Rajesh: Thank you very much. And now to Rana.

Rana: Rajesh, thank you very much. So, there were I think a couple of questions addressed me. And perhaps this question on, you know, if we're doing well in services, why do we care about the manufacturing-led? So, two points for this. One is, it's almost as if, you know, you've got this huge potential market out there.
Like, you know, as I'd mentioned, I think these might be numbers that are one or two years old, but India's share in merchandise exports is 1.7 percent, China is 13 percent. India's really underperforming. Why leave this opportunity untouched? And I think the things that have been preventing us from exploiting these export market, really so many of these are related to the domestic policy environment. So, I don't see what one gets from keeping a system that is not working in place. There's nothing to be gained.

The second point is, if one of the interesting things that the global value chain literature and analysis does is it shows how interconnected things are. So, as I'd mentioned, when you look at the service exports that China is able to actually make, working indirectly through its manufacturers, you see the inter-linkages. So, frankly, thinking in terms of manufacturing versus services, I don't think we need to do that at all. The way I see it, I see a big policy barrier on the manufacturing side, and my point is, unleash it. You'll just get much more employment, much more output, much more productivity.

I think that was probably- there was maybe another question or two. There was something about repeating the points mentioned about the fact that manufacturing doesn't create jobs. Again, I think that was in the context of the point I was making about technology. That yes, technology does mean that you produce the same amount of output with fewer workers, but the real world is not static. You expand in terms of scale. And like those charts I’d shown for the United States in the 19th century, India is very similar. This is a very big country. The amount of potential demand that is there, whether in apparel, whether it’s all sorts of light consumer goods, is really huge. So, I just don't see that much of an issue of the per unit employment generation coming down being a huge problem, because I really see the possibility of just expanding the scale of production to be quite large. Let me stop there.

Rajesh: thank you. And now you, Chandra.

Athukorala: yeah, quick. I would like to add few things related to what rana said about the role of manufacturing value chains in employment generation and poverty reduction. The very concept of global production sharing, which is the driving force of global value chain means that countries can specialize in different segments of the production process in line with their relative comparative advantage. In a labour-abundant country, therefore, manufacturing within global production network tend to be more labour-intensive. And labour is the only resource owned by the poor. Therefore, creating jobs is the sure-fire way to reduce poverty. Compare India and China. China started the reforms with a poverty rate of 49 percent. 49 percent of their population was below the poverty
line. Now, the poverty rate has declined to less than one percent. In India, poverty rate has declined, still one-third of the world’s poor live in this country, and the poverty rate has not declined as in China. A number of very good recent studies like Arvind Panagariya and Vijay Joshi said they have clearly highlighted that poverty outcome has not been impressive in India mainly because one of the reasons is that India has not got into specialization in manufacturing value chains.

The second quick point is the comparison between services and manufacturing. That’s a beautiful discussion in Vijay Joshi’s new book, ‘India’s Long Road’. It is true that there are certain examples like software industry generating high-paid jobs, but most of the jobs in the services sectors are very low-paid, low-quality jobs. Manufacturing sector is the only sector in a country which can hire unskilled workers and train them on the job for relatively better jobs. This is a well-known point. Thank you.

Rajesh: thank you very much. And Aaditya, as you wished, you are the next.

Aaditya: Thank you very much. I'd like to thank you, again, Rajesh and the panellists, for deeply insightful contributions. In response to the questions, I’ll highlight three points. One, the distinction between goods and services matters because given the current state of trade ability and relative skill intensity, India cannot reduce poverty and generate jobs through services alone. I think the key problem has been, and in this respect, as Prema-chandra said, India resembles Indonesia. The domestic market continues to lure India into this sense that we can grow and be self-sufficient. I think it's imperative that India exploits the kind of economies of scale and the kind of technology benefits that come from harnessing the global market. And it's interesting, one point that Rana made, it's true that China sells perhaps more services indirectly because it has a flourishing manufacturing sector. India is an outlier in business services in that it sells most of its services directly rather than embodied in its manufacturing sector, and you need growth in manufacturing precisely for the reason that Prem-chandra said. That that is the sector apparel and leather goods and other labour-intensive sectors, which generate jobs. As I said, services also generate a lot of unskilled jobs. But the kind of complementary skills that are needed in services would require an implausibly rapid growth in India's skilled production, and that I don't see happening in the near future.

The second point is really, what does COVID do? COVID, as I said, is really changing and going to change technologies. One, it is going to encourage automation. And here, I think Rana and I are on the same page, in manufacturing that automation, does not immediately threaten prospects for labour-intensive production because the scale benefits dwarf the substitution away from labour.
Then the digitalization is creating remarkable opportunities and services which India must continue to exploit. But given the importance of manufacturing, and this is my final point. There is a narrow window today for India. This is a window between rising real wages in China and falling prices of robots. If the robot prices fall faster than real wages rise, Foxconn, which is based in China, will not move production away from China; it will choose a robot over an Indian worker.

How do you exploit that? I think it's really the reforms that my co-panellists have emphasized, and there are subtle aspects. You see, when people talk about labour market rigidity, I have a colleague, Pritam Banerjee, who said many firms like Maruti in Gurgaon has 80% contractual labour and very few employees who are subject to these laws. But there is a subtle point which relates to something that Rana said. If learning by doing on the job is really important, insecurity of contract can lead to slower higher turnover and less learning on the job, because the willingness of the firm to invest in training workers gets diluted. I think that is number one. Number two, this whole idea where people are debating on whether self-sufficiency and global value chains in the same speech add up? The problem is the actions, and the problem is the protection in inputs. When you look at this very nice example of Vietnam that Prema-chandra talked about, Vietnam, 70 percent of its GDP are manufacturing exports, but 70 percent of its GDP are also manufacturing imports. It's recognizing that you cannot do everything. The cheaper access- and this is the puzzle. India imposes high tariffs on imports of yarns and fiber, and that has inhibited the development of its apparel sector, where it's losing out to countries like Cambodia, Bangladesh and Vietnam.

And the final point I want to make is that corporate taxes are not a substitute for reform. That it is really important to make these deeper reforms which enhance the competitiveness. And here, a secret ingredient, which is becoming even more transparent in the world, is the quality of institutions and state institutions. That same Vietnam, which is taking away market share and which is becoming the destination of choice for people leaving China, is also a country which has contained COVID without a single death. And that's why we have to take an integrated view of policy. And I think it has to be a priority in the world, to try not just remedy the acute health costs and human pain, but also create the conditions for recovery which would alleviate the deep economic distress that all countries are going to face now. Thank you, Rajesh.

**Rajesh:** Thank you, Aaditya. And I would really wish to thank all of you, my panellists today. Sincere thanks to Dr. Aaditya Mattoo, Prof. Prema-chandra Athukorala, Dr. Rana Hasan and Dr Harsha Vardhana Singh. Thanks for providing such a- you know, we are already half an hour over time but we still
have a good number of participants still with us, some of them have left but I think this is one thing which is post-COVID, that we could have all of you and we could have about 70 or maybe 80 participants who listened to this discussion. And this discussion is going to probably go to the website, so that anybody who would like to see it later would also be able to. And obviously, with this discussion, we get, at least I got, enriched much more than I was at 5.30pm. So, thank you very much to all of you for joining and have a very nice day for those in the US. And good night to Manila and Canberra. Obviously, for you Chandra, it's quite late, I understand. It must be around midnight, 12:12 if I'm not wrong. And a very good evening and best wishes to all those who stayed with us. And all those who joined from different places, I have already wished them to have a nice day and good night and so and so forth. So, thanks once again.

My sincere heartfelt warm thanks to Harsha, Aaditya, Chandra and Rana. And with this, I think we close. And thanks very much to the participants who have still stayed with us, despite our being half an hour late because then discussion was- So, thank you very much, participants. And thank you very much those from my team, Brookings India, who are behind the scene but have managed everything so well that nothing went wrong during the discussion. Thanks to my team at Brookings India. Thanks to all of you. And I look forward to much more interaction with you. Aaditya please do visit us when you come next. And Chandra, it’s a long time that I have seen you. Rana, likewise. So, Harsha Singh, thank you. And I think we close here, unless anyone wants to make any comments.

All: thank you very much.