



भारतीय प्रतिस्पर्धा आयोग
Competition Commission of India



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National Conference on Economics of Competition Law

March 5, 2021
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Proceedings

**Competition Commission of India
Economics Division**

**Summary of the Proceedings
National Conference on Economics of Competition Law
March 5, 2021**

1. The Competition Commission of India (CCI) organized the National Conference on Economics of Competition Law on March 5, 2021. This was the sixth edition of the Conference, which the CCI has been organizing since 2016, with the aim of bringing together scholars, practitioners, academicians and experts working in the area of economics of competition law. Owing to the ongoing pandemic, the Conference was organized in virtual mode this year.
2. The one-day Conference is an endeavour to develop and sustain interest in economics of competition law and create a critical mass of antitrust economists in the country. The objectives of the Conference include (a) to stimulate research and debate on contemporary issues in the field of economics of competition law, (b) to develop a better understanding of competition issues relevant to the Indian context and (c) to draw inferences for enforcement of competition law in India, among others.
3. The 2021 edition of the Conference comprised of an Inaugural Session, a Plenary session and two Technical Sessions. The theme of this year's Plenary was 'Policy Design in Digital Markets – Harnessing Technology for Economic Development'. The Conference had two Technical Sessions on Antitrust Toolkit for Platform Markets and Assessment of Market Power: Approaches and Challenges. Three papers selected by the Conference Paper Selection Committee were presented in each session. The first session included papers dealing with specific issues in platform markets whereas the papers in the second session focused on alternate methods for empirical assessment of market power. A summary of the deliberations at the Conference is presented below.

INAUGURAL SESSION

4. Dr. Sangeeta Verma, Member, Competition Commission of India opened the Conference with her opening remarks. Mr. Ashok Kumar Gupta, Chairperson, CCI, delivered the Special Address. Mr. N. K. Singh, Chairman, Fifteenth Finance Commission was the Keynote Speaker.
5. In her opening remarks, **Dr. Sangeeta Verma, Member, Competition Commission of India** said that the Conference was an opportunity for the Commission to reach out to and engage with scholars and researchers. Over the six editions of the Conference, 42 papers on a diverse range of current antitrust issues by more than 60 researchers from India and abroad have been presented, she apprised. Highlighting the imperative of efficient harnessing of new technologies, she emphasized the role that antitrust enforcement ought to play in this respect. She outlined certain points that merit deliberation in this context, such as the need for new competition tools, *ex ante* regulation to complement *ex post* antitrust and the trade-offs that policy or regulatory design would have to balance- to deal with challenges in the digital space.
6. In his Special Address, **Mr. Ashok Kumar Gupta, Chairperson, CCI**, emphasized that for markets to become an instrument of growth, it was imperative that markets were well functioning, undergirded by healthy competition. Alluding to the Commission's dynamic and economics-based approach to antitrust enforcement, Mr. Gupta said that economic analysis of evidence guaranteed that anti-competitive behaviour did not outwit legal provisions. Drawing attention to the Commission's focus areas besides enforcement, he mentioned the emphasis that the Commission is placing on market studies, which have the element of stakeholder engagement prominently embedded in them. In this context, the Chairperson discussed the CCI's market studies on telecom sector, pharmaceutical sector and the issue of common ownership. The Chairperson mentioned the State Resource Person Scheme initiated by the Commission to train State and PSU procurement officials and equip them with competitive tender design tools and competition assessment of bids and tender outcomes. Chairperson announced the Journal on Competition Law and Policy that the CCI is bringing out to stimulate research and scholarship on competition law and policy, the first issue of which is slated to be released soon.

7. **Mr. N.K. Singh, Chairman, Fifteenth Finance Commission**, started his Keynote Address by referring to the pandemic and how it necessitated the fast tracking of many features of economic reforms in India, which were long overdue. The disinvestment and privatisation programme, he said, would free valuable financial resources, creating fiscal space for the government for its priority capital expenditure on both physical and social infrastructure while also generating enhanced competition. Competitive markets and democratic governments, he said, was complementary and needed to interact in a manner that maximized the larger public interest. Competition policy is critical for economic framework as markets are imperfect, he added. Regulations are needed to overcome market imperfections and also to control unbridled competition and in this context, he underlined the role of regulators and the need for building capacity to remain ahead of the changes in markets. In this context, Mr. Singh highlighted the challenges that multiplicity of regulators may give rise to and suggested possible mechanisms and organisational forms that could ensure a harmonious and coordinated regulatory response to market infirmities. He emphasized that interaction between the sectoral regulators and the competition authority was vital and a common platform could be created for formal and informal exchanges, training and referrals.

**PLENARY - POLICY DESIGN IN DIGITAL MARKETS – HARNESSING
TECHNOLOGY FOR ECONOMIC DEVELOPMENT**

8. The Plenary Session was moderated by Dr. Arghya Sengupta, Founder and Research Director, Vidhi Centre for Legal Policy. The Plenary had a distinguished panel that included Mr. Ajay Prakash Sawhney, Secretary, Ministry of Electronics and Information Technology (MeiTY), Government of India; Dr. R S Sharma, Chief Executive Officer, National Health Authority, Mr. Kris Gopalakrishnan, Chairman, Axilor Ventures, Co-founder, Infosys; Dr. V Sridhar, Professor, Centre for IT and Public Policy, IIT Bangalore; Dr. Mike Walker, Chief Economic Advisor, UK Competition and Markets Authority; Dr. Pierre Régibeau, Chief Economist, DG Comp; and Dr. Cristina Caffarra, Vice President, Head of European Competition Practice, Charles River Associate.

9. **Dr. Arghya Sengupta, Founder and Research Director, Vidhi Centre for Legal Policy, and** the moderator for the session, started the session by highlighting the challenges for regulators in digital markets and a range of policy responses that have been witnessed recently. For instance, he cited the tenth amendment to the German Act against restraint of competition, particularly targeting large intermediaries and the draft e-commerce policy in India. At the same time, he said there were questions around enforcement by competition regulators, and the kind of tools they would need to have in their armory to be able to perform this task. He divided the session into the following three segments – (i) the standards of dominance (ii) the issue of free product and the understanding of price in the digital economy; and (iii) a general overview of how we can make markets fair and contestable.

10. **Dr. Pierre Régibeau, Chief Economist, DG Comp,** expressed his views in relation to the issue of dominance in digital markets. He pointed out that while this directly depends on the ability of the firm to behave independently of constraints from consumers and competitors, however, in practice, market definition and market shares are taken into consideration. Clearly, the issue of dominance is linked to how we define markets in the digital world. He then remarked that in this background, a number of other issues arise. The first one relates to the understanding of prices in the digital economy and how does the SSNIP test apply in such a scenario. The second issue is that of multi-sided platforms and the controversy as to whether market is

defined by a set of relevant markets that are on the relevant side of the platform or whether each side in itself is a relevant market. He cited the example of Google and Facebook to highlight the importance of taking each market separately. While Google and Facebook both compete in online advertising, they are very different markets in terms of getting the information and the feeder traffic (i.e. they feed on traffic on two separate platforms - Google is a search engine while Facebook is a social media platform). He then highlighted that on another level, what these two platforms are really trying to do is to get eyeballs and they compete with other players who are not competing in online advertising but compete for these eyeballs that may be monetized in a different way. He drew attention to the fact that if we define markets per platform and not per goods and services, we miss out on its complexity.

Dr Pierre also pointed out that there are situations where we have to care about the platform as a whole, which is essentially the case of “competition between ecosystems”. If there are two ecosystems providing a similar set of services (for instance, Apple’s iOS and Android), then there are only a couple of such ecosystems available. In this case, competition between ecosystems becomes relevant. Even if each of those platforms only gets 20% market share in each of the services that they supply, to the extent that there are significant switching costs, people see ‘platform as an ecosystem’ as a different product. He stressed that we may say that a platform is dominant if it has at least 40-50% of the market share, but as we see from digital marketplaces, merchants can be dependent on the marketplace even if the marketplace has a smaller market share and clearly this dependence is a mirror image of the platform’s ability to behave without the constraints of customers. Therefore, he suggested that more emphasis must be placed on a direct analysis of this kind of dependence irrespective of or at least complementary with an analysis of market share.

He concluded by highlighting the relevance of information in defining market shares and thus, dominance in the digital area. He pointed out that if one platform knows a lot about a category of people ‘A’ and the other knows a lot about another category of People ‘B’, then how can they be in the same market, even if it is assumed that the two categories of people are substitutable. He added that the importance of information also shows up in some of the abuses or potential abuses, for instance, an

investigation into Amazon getting information from re-sellers on its online platform. In response to another question regarding which alternatives he would consider for traditional dominance, Dr. Pierre stated that the Digital Markets Act (DMA) would be a feasible option where ‘sectors’ are defined instead of ‘markets’ and ‘important players are identified rather than ‘dominant’ players.

11. Dr. Cristina Caffarra, Vice President, Head of European Competition Practice, Charles River Associate, pointed out that we are still holding on to the view that dominance is the condition for intervention. This approach creates scope for companies to effectively wriggle out of regulation or enforcement by making implausible arguments. She emphasized that we should not make intervention conditional upon the need to establish market power and that precise definition of market boundaries and market shares need not be ascertained. She went on to highlight that in various jurisdictions in Europe, it is becoming clear that we cannot proceed on the basis of the old notions of dominance and that the threshold of intervention is no longer conditional on dominance. The idea is that there would be a preliminary step in which firms subject to regulation would be identified as gatekeepers. This notion of gate-keeping is the idea that the platform, as a gatekeeper, has control over a sizeable proportion of business/consumer users. There are criteria, quantitative in nature, such as number of monthly active users, turnover, capitalization, etc. that are intended to define some of the first thresholds or the point at which the firm is exposed to intervention.

She also pointed out that the UK has proceeded to introduce proposals in which the first step will be defined as the ‘strategic market significance’, which is partly quantitative and partly qualitative in nature. Similarly, Germany has introduced a form of its competition law, not ex-ante regulation, to expand their scope for intervention through what they call as ‘companies of paramount significance’. She reasoned that all of this embodies the notion of dependencies, as outlined by Dr. Pierre, because the concern is essentially about the imbalance of power between platforms and business/consumer users, data advantage, and data/information asymmetry.

In her response on how to deal with the fear of over-enforcement owing to changing thresholds, Dr. Cristina emphasised that it is untrue that fear of over intervention would stifle innovation and there is no evidence to back it up. She also stressed that such arguments should not create any doubts/apprehensions in the mind of regulators. On the issue of determining ‘significance’ of players in digital markets, Dr. Cristina averred that the aim is to look at very large platforms which have significant entrenchment of market power and business model such that we do not delay/waste time in determining who is the significant player.

12. **Dr. R.S. Sharma, Chief Executive Officer, National Health Authority**, provided a regulator’s perspective on the issue of dominance in digital markets and as to when would intervention be required. He remarked that the digital market is controlled by a few players (for instance, Facebook in social media, Amazon in e-commerce, etc.) due to lack of interoperability which prevents portability of data from one market to another creating high network effects and thereby making the market an example of “winner takes all”. These players continue to exercise their dominance by copying, killing or acquiring their competition. He stated, however, that most aspects of digital markets do not apply to the telecom sector. Competition is ensured in the telecom industry given inter-connection is at its heart, thus ensuring that players work in collaboration. He attributed the fluid nature of the telecom industry to the convergence prevalent therein.

He further mentioned that the players operating in the digital markets try to evade the law due to the multiplicity of regulators. He averred that these players amass and misuse data. They own the market and compete in the same market which is a cause for concern. He clarified that the laws were framed keeping in mind physical business players. While net neutrality ensured that networks are neutral to platforms, the platforms/operating systems dominated by a few players (like Android, Apple iOS, Windows, etc.) have to now be made neutral. He stressed on the need for a new comprehensive policy to regulate these markets and on creation of open, inclusive, non-discriminatory platforms. Penalising these digital players is not a permanent solution, he added.

13. **Dr. Mike Walker, Chief Economic Advisor, UK Competition and Markets Authority**, spoke on the issue of free product and the understanding of prices in the digital economy. He stressed on the need to understand the business strategy as to where the market power is ascertained while analysing free product. For instance, Google is able to charge higher prices for online advertising as compared to its competitors due to its market power, and Facebook paid a huge premium to acquire Instagram which it sees as an avenue to monetize through advertising. He suggested that an ex-post analysis of past mergers is required to understand, for instance, what incentivized Facebook to acquire Instagram. He further emphasized that consumers need to be made aware of the data collected by these digital firms and it is the duty of the competition regulators to ensure that excessive data is not collected similar to the way it is ensured that a product is not excessively priced. He cited the example of the German Facebook case as a step that has been taken in the right direction.

Replying to a query on how to understand ‘significance’ in the context of digital markets, Dr. Walker highlighted the importance of market power, which is entrenched and unlikely to be undermined in the near future. Such market power, he averred, affects other businesses, for instance, Google’s higher advertising prices will be factored in by businesses in pricing their products given these businesses depend on Google for advertising. In response to another question on how to quantify the data he said that it was important to enable consumers to have the freedom and ability to exercise a choice in terms of how much of their data they provide for availing the platform’s services. A consumer may not wish to provide some data that he may regard as being private and hence, he/she should be given an option by the digital platform to provide consent for the details that he wishes to provide and those that he does not consent to provide. Regarding the interface of competition law and data and various regulators, he noted that it is important for regulators to work together and understand each other’s goals while dealing with any issue.

14. **Dr. V Sridhar, Professor, Centre for IT and Public Policy, IIT Bangalore**, spoke on how network effects help digital players to grow in size. Data collected by these firms is non-perishable and accumulation of data leads to increased accuracy of the services provided. He remarked that these network effects turn digital market players into a near monopoly and in case of a monopoly; there is no cap on price. He

suggested that given data collected is being monetized by digital firms; hence there must be a check on the data so collected. One way to tackle it is to make non-personal data a digital commodity and a public good. Further, consumers should be able to exercise an option to not give personal information for a digital product.

15. In response to a question on whether it is time to shift back to an effective competition structure from a purely consumer welfare approach, Dr. Sridhar pointed out that it is difficult to return to the traditional structure and the need of the hour is to look at a suitable competition structure, for instance, one that focuses on analysing significance of the concerned player and value of the data collected.

16. **Mr. Ajay Prakash Sawhney, Secretary, Ministry of Electronics and Information Technology (MeiTY), Government of India**, spoke on how Indian e-commerce could be made fair and contestable and the role of regulators in India's digital economy. He averred that the digital space is witnessing the "winner takes all" syndrome across geographies and policy and regulation are struggling to keep up. Dominance in one area has been abused to generate dominance in other areas in order to force competition out. He stressed that the issue of access to market (especially large markets like India) and the issue of access to data (both non-personal and meta-data) are of tremendous significance.

We need deep insights into the world of technology and competition law and then should be able to apply those insights even when a new situation is taking shape, he said. He pointed out that the e-commerce sector benefits most from ease of entry. He said that it was exceedingly important to understand the dimensions of dominance in the digital space and how to deal with it.

17. **Mr. Kris Gopalakrishnan Chairman, Axilor Ventures, Co-founder, Infosys**, expressed his views in relation to whether a single entity or multiple regulators are required to regulate the digital space. He suggested that we need a forum for multiple regulators to coordinate their actions and to enable harmonious enforcement of laws. Regulatory arbitrage is where businesses thrive and it is posing a new set of challenges. He further pointed out that digital companies are able to leverage their market capitalization to buy out potential competitors who can threaten their market

position, which in turn enables their entry into new markets, while eliminating competition. He stressed on the need to limit their expansion and make these come under the purview of regulation.

He emphasized that digital markets are different from their traditional counterparts. The technology market is layered and in order to tackle it, new architecture, new standards or rebuilding the industry is required (as witnessed in the financial services sector). This would reduce the advantages the incumbents possess. Transparency must be enabled in majority of the services offered on the internet, the way Apple has introduced in their app store as to what kind of data is collected. Any business that collects data should inform the consumers as to why the data is being collected, what it is being used for and who it is being shared with (as in the case of food/medicine labelling).

18. The Conference concluded with the 'Vote of Thanks' by **Ms. Payal Malik, Advisor, CCI**. She highlighted key learning from the Conference and extended sincere thanks to the Commission, Chairs, Paper Presenters, Speakers and participants for making the Conference a success.

TECHNICAL SESSION-I - ANTITRUST TOOLKIT FOR PLATFORM MARKETS

19. Technical Session I on ‘Antitrust Toolkit for Platform Markets’ was chaired by Dr. Aditya Bhattacharjea, Professor, Delhi School of Economics, who introduced the presenters and highlighted the role and relevance of platform markets in different sectors. Dr. Kadambari Prasad, Vice President, Compass Lexecon was the discussant in the Session. The following three papers were presented in this session:

- I. **On the Economics of E-Pharmacies: Potential Issues for Anti-Trust Analysis** by *Dr. Debdatta Saha, Ms. Samridhi Verma and Mr. Varun Agarwal*
- II. **Predation or Competition: Demystifying the Dilemma in Platform Markets** by *Ms. Bhawna Gulati and Mr. Vipul Puri*
- III. **Two Sides to the Story: An Economic Critique of Ohio vs Amex** by *Mr. Harishankar Jagadeesh and Dr. Ramji Tamarappoo*

20. **Dr. Debdatta Saha, Faculty of Economics, South Asian University** presented her paper on **Economics of E-Pharmacies: Potential Issues for Anti-Trust Analysis**. She presented five stylized facts about e-pharmacies in India from an antitrust point of view:

- E-pharmacies have mandatory controls (registration with Central Licensing Authority) which are absent in standard e-commerce.
- The sale of medicines by e-pharmacies in India have strict geographical jurisdiction and do not sell beyond national boundaries.
- Dynamic pricing is almost absent in e-pharmacies in India.
- Strategic advertising for medicines is absent for most e-pharmacies in India.
- E-pharmacies sell many offline services like diagnostics and add-on online services like doctor’s consultations.

21. The author explained that the central concern observed in e-pharmacies in India from an antitrust perspective was the discount passed on to the consumers by e-pharmacies. The authors used hedonic pricing methodology to model pricing issues in e-pharmacies. Discount shown online was depicted as: $D_p = P_u - P_d$ where P_u is the online price announced before discount and P_d is online price after discount. However

it was said that the ideal discount should be $D_i = P_0 - P_d$ where P_0 is the MRP. The authors found that there is no significant difference in the price formation process for online and offline pharmacies. One of the major concerns observed was that the discount D_p appears to be set to create the notion of a lower price rather than the actual online discount passed on to the consumers. In almost one third of the cases, the discounted online price was even higher than the MRP of the medicine. The presentation was concluded by stating how bundling offline services and co-ownership of e-pharmacies remain a point of concern in this market.

22. **Mr. Harishankar Jagadeesh, Economist, Nathan India** presented a paper on **Two Sides to the Story: An Economic Critique of Ohio vs Amex**. The speaker examined the Amex vs Ohio case where it was decided that price increase on one side of the market cannot be construed as anti-competitive. He highlighted the grounds on which the US Supreme Court confirmed the Second Circuit court case and presented a critique of the US Supreme Court (SC) decision based on the following arguments:

- The SC included merchants and cardholders in same relevant market which violates principles of demand substitutability
- Relevant harm and benefits accrue to the market as a whole - higher merchant fees on all transaction cannot be offset by better rewards to Amex cardholders alone.
- Absolute growth in credit card transaction is not sufficient to prove lack of harm. As per the authors, market growth should be evaluated in comparison to counterfactual.
- Merchants leaving Amex network following price increase is not proof of competition in market, rather it indicates supra competitive pricing by Amex.
- While competitors could offer lower merchant fees or other promotions, merchants had no way to steer customers in response to such incentives.

The conclusion of the paper was that the Supreme Court's decision was a template-based application of economic theory rather than sound economic reasoning. Anti-steering provisions are an artificial barrier that separates merchant demand from the price of network services. If they are removed, merchants would attempt to steer customer towards the card that offered them the lowest merchant fees through a variety of methods including discounts, free shipping, a free day for services such as

hotel or car rentals. Given the popularity of platform markets, Indian antitrust authorities will often have to deal with the conduct of platform operators and they should analyse the theoretical underpinnings of the decisions of advanced jurisdictions to enable their appropriate application to the Indian context.

23. **Mr. Vipul Puri and Ms. Bhawna Gulati** presented a paper on **Predation or Competition: Demystifying the Dilemma in Platform Markets**. The paper provided a critical analysis of predatory pricing strategy and assessment in platform markets. Arguing that low prices or very low prices could be a result of hyper competitive market or characteristics of market platforms, the authors discussed the conceptual issues with rationality of predatory pricing as:

- costs of predator being larger and real (by virtue of dominant position);
- anticipated future gains needed to be discounted for both Present Value (PV) and uncertainty;
- factoring the competitive response from prey which can complicate life for predator and cause delay in achievement of desired outcome adding to the already uncertain strategy; and
- the fact of alternative strategies such as mergers being legal and better in terms of process and outcomes, predatory pricing is not a viable and rational strategy.

The analysis of predatory pricing, according to the authors, can be tackled by adding a specific examination of rationality before rule based analysis. Since predatory pricing focuses so much on pricing and costs, it may require evolving novel theories of harm to see how we can include such assessment in platform markets. The authors concluded by suggesting various ways to deal with the issues of predatory pricing specifically in platform markets including the need to work on ex ante prevention of predatory pricing abuse.

The Discussant summarised the points of the speakers and provided insightful comments on each paper.

TECHNICAL SESSION-II- ASSESSMENT OF MARKET POWER: APPROACHES AND CHALLENGES

24. The session started with the opening remarks by the session chair **Dr. Geeta Singh, Partner, Genesis India**. She stated that appropriate choice of market power measures is critical for competition assessment. Market power analysis evolves over time and the need to go beyond market concentration measures for market power assessment is now well accepted, she added. She introduced the topics of all the three papers and welcomed the discussant Dr. Pulak Mishra, Professor, IIT Kharagpur.
25. The following three Papers were presented in this session:
- I. **‘Aggregate Markups, Market Power and Redistribution of Income’** by *Dr. Sunil Paul, Mr. Tinu Iype Jacob and Dr. Neelanjan Sen*
 - II. **‘The Challenges of Using Return on Capital as an Indicator of Monopoly Power’** by *Dr. Divya Mathur, Mr. Laurits R. Christensen, Mr. Aaron C. Yeater and Dr. Laszlo Jakab*
 - III. **‘An Empirical Study on Market Power and Macroeconomic Implications of Indian Telecom Industry’** by *Dr Deepa Soni*.
26. The first paper on **‘Aggregate Markups, Market Power and Redistribution of Income’** was presented by **Dr. Sunil Paul**. He stated that usually market power is studied from an industrial organisation perspective. There are many studies that highlight that rising aggregate market power may lead to fall in investments, misallocation of resources, lower innovation etc. It is thus important to be careful about the macroeconomic effect of this rise in market power while designing and implementing policy. He said that this study was an attempt to bridge the gap in existing literature on aggregate market power in the Indian context.

The objective of the study was (a) to measure firm level Markups and examine the possibility of abuse of dominant position by the firms, (b) to measure industry wise HHI’s and Markups and compare the trends, (c) to compute aggregate measure of market power and analyse the evolution of aggregate markups in India and (d) to analyse the association between aggregate Markups and factor share. While doing the analysis data between 1995-2019 regarding firm level data, wholesale price index and

annual aggregate labour & capital share was considered. The study found that the average Markup of the top decile firms was higher than the bottom decile firms. The study also found declining trend in aggregate Markups from 1995-2011, sharp fall during 2012 and 2013 but a slight rise since 2013. Thus, the speaker concluded that there is evidence for disparities in the trends of HHI and Markups but it demands a detailed analysis. There seems contradicting movement in HHI and Markups in many industries. There is no evidence of association between aggregate Markups and factor shares in Indian context, therefore it needs to be explored further.

27. The second paper on ‘**The Challenges of Using Return on Capital as an Indicator of Monopoly Power**’ was presented by **Dr. Laszlo Jakab**. He mentioned that various competition authorities in Asia, US and Europe have launched investigations in sectors particularly technology and pharmaceuticals, which are characterized by large profits, high R&D expenditures, rapid innovation and high risk. In these sectors, profits are necessary as it incentivizes firms to innovate. In this situation any firm would expect profit to exist. Nevertheless, the question is for how long and how the firms can make sure that profits persist. This is the area where economic literature does not really provide any clarity. Successful companies can sustain profits through innovation in competitive industries. Talking about return on capital (ROC) he explained that ROC calculated from accounting data can be misleading as it measures profitability at a company level and not on a product market level. Thus, it can be a misleading indicator of monopoly power. The speaker concluded by stating that both the academic literature and empirical findings suggest that ROC can be a misleading indicator of monopoly power. He suggested using caution while approaching these tests as the indicators of monopoly power. Some factors to consider are: (a) Is the industry in long-run equilibrium? (b) Are excess return a product of successful innovation? and (c) Can excess return be estimated reliably from available accounting data?

28. The third Paper on the topic ‘**An Empirical Study on Market Power and Macroeconomic Implications of Indian Telecom Industry**’ was presented by **Dr Deepa Soni**. The major objectives of the study were: (a) to attempt to estimate the Markups of telecom industry as a whole and various telecom service players in particular so as to examine the trend and paradigm shift in the market power (based

on Markup) in the telecom market over a period of time; (b) to consider another measure of market power *i.e.* profitability of individual firm and to examine its underlying synergy with Markups; and (c) to evaluate briefly the macroeconomic implications of changing Markups on share of various factors of production (labour, capital and material). The study documented the trend in Markups over a period of 2006-2020 for the telecom industry in India. Results showed that the aggregate Markup in this industry fell down from 2005 to 2019 but took a jump in 2020. Disaggregated Markups of Reliance-Jio and Airtel are mainly driven by higher Markups in capital and technical growth, whereas Markups in wages are more or less similar in Reliance Jio, Airtel and Vodafone-Idea but declining in case of BSNL. The author argued that it is needed on the part of regulatory authority to decide the ceiling on floor price or tariff taking into consideration minimum profit level and not on the basis of their Markups.

29. The discussant of the session **Dr. Pulak Mishra, Professor, IIT Kharagpur**, posed pertinent questions and provided useful inputs to all paper presenters. He stated that all the three papers addressed important issues related to market power, markup and competition. There is a need for inclusion of more studies in Indian context, he opined. He also highlighted the need for taking into consideration the strategic conjectures of the firms in different industries, as it is important to understand the policy/regulation and strategic interface in a dynamic context. Further, he suggested inclusion of directions for policies, regulations and scope for further research in the papers.