

4th Winter School on Economics of Competition Law

12th – 15th December 2018, New Delhi

CUTS Institute for Regulation & Competition (CIRC) 1A, First Floor, Khehar Singh Estate, Saidulajab, New Delhi - 110030, India Tel: +91 11 40197995 Web: www.circ.in Email: circ@circ.in

Report

4th Winter School Economics of Competition Law

Objective of the Winter School

Markets are becoming increasingly global and the approaches to regulate them more economics based. Modern competition law differs from traditional competition law in that it now reflects the dominance of the economic model of analysing the market structures and behaviour. Competition Economics assumes importance as regulatory and competition authorities have moved to adopt more economics based approaches in analysing business practices and determining anti-competitive behaviour. The aim of the winter school was to familiarize participants with economic literature in the field of competition law and equip them with globally applied economic principles and techniques. It was intended for the benefit of competition lawyers, academicians, professionals, economic or law consultancies and students. With this objective in mind, a four-day Winter School on 'Economics of Competition Law' was organised by CIRC and Economics Partners during 12th to 15th December 2018 at India Habitat Centre, New Delhi, India. See Annexure 1 for information on organizers.

Structure and Pedagogy

The winter school was spread over four days and the topics covered included basic economic concepts, introduction to oligopoly and game theory, econometrics, economics of horizontal agreements, exclusionary behavior and vertical agreements, defining market through relevant economic tools, market power, case study analysis, economics of networks and platform markets, merger analysis, antitrust damages and interface between IPR and Competition Law. Detailed agenda with information on sessions is provided in Annexure II.

Participants were provided with a training kit and a reference list of related books and journal articles by each faculty. Participants were given all the presentations and lecture material in pen drives. Provision was also made for facilitating participants' regular feedback on the conduct of the sessions. At the end of the training, participants were awarded certificates for the successful completion of the course.

All the training sessions began with introduction of the concept at hand to facilitate clarity among the participants on competition law cases. Lectures were interactive that stimulated interest among the participants and fostered interesting question and answers. The idea was to promote strategic understanding and in depth analysis of the topics that were discussed.

Presentations, graphical representations, discussions, and information exchange happened during the sessions with examples from decided and hypothetical case studies. Faculty was supportive

and answered the queries and questions during the sessions. Further, the sessions were planned to give adequate time to discuss the basic, advanced and applied aspects of the economics. The breaks after sessions were allocated to give all the participants as well as the faculty time for more informal discussions.

Faculty and Participants

The faculty consisted of following experts from the field:

- 1) Derek Ritzmann, Director, Economics Partners
- 2) Saattvic Saattvic, Senior Consultant, Economics Partners
- 3) Payal Malik, Economic Advisor, CCI
- 4) Gaurav Jhaku, Ph.D. Economics, Indian Statistical Institute

5) Yugank Goyal, Associate Professor and Assistant Dean (Research), Jindal School of Liberal Arts & Humanities Deputy Director, International Institute for Higher Education Research & Capacity Building Honorary Research Fellow, Jindal Global Law School

Ms Garima Sodhi, Fellow, CIRC and Ms Rinki Singh, Research Assistant, CIRC were the school coordinators. The participants were a focussed group consisting of legal practitioners, representatives from law firms, representatives from corporates and students.

Day 1: December 12, 2018

SESSION 1: Regulating Markets through Competition Law and Policy - Derek Ritzmann

Dr. Derek Ritzmann engaged the first session of the four-day long winter school on economics of competition law. He started with a basic introduction to the competition policy, the consequences of lack of competition, and the advantages of competition in a general market. Considering the majority of participants belonged to law background, he first familiarized the students with the general economic concepts like definition of economic welfare, monopoly, oligopoly, market model, etc. He then marked a line of difference between 'competition policies' and 'regulations' followed by a discussion on the various sources of market failure. The participants were taught about the evolution and approaches of different economic schools of thoughts on competition Law principles.

As an overview, the first session introduced the candidates to the basic idea of a market and the role of competition law and policies in regulating that market.

SESSION 2: Introduction to Basic Economic Concepts and Role of Economics - Saattvic Saattvic

The second session was delivered by Mr. Saattvic on the topic Introduction to Basic Economic Concepts and Role of Economics. He bagan by defining a market model and then explaining how to prepare a market model and what its essentials elements are. He explained the concepts of demand and supply with the help of demand curve and supply curve, as what leads to creation of these curves and what would be the effects of a change in price or quantity over these curves. He also explained the reason behind the movements and shifts in the curves and the difference between them. He concluded the session by explaining the concept of 'Welfare and Total Welfare'. The second session introduced the candidates to the important concepts of economics which were necessary to build an understanding for the upcoming sessions.

SESSION 3: Market Structures & Competition Law and Policy Introduction to Oligopoly and Game Theory - Derek Ritzmann

The third lecture for the day was delivered by Dr. Derek Ritzmann, he explained the definition and characteristics of the various types of markets like Monopoly, Oligopoly, Perfect competition and Differentiated Product Markets. Then, with the help of graphs, he explained the difference between the points of equilibriums in a monopoly and a perfectly competitive market, and the reasons for the differences. He explained the concept of market power in relation to perfectly competitive market and monopoly. He further explained a few concepts from game theory like prisoners' dilemma, nash equilibrium, etc. with the help of real life examples and how they are outcomes of existence of market power in the market. He also explained how these theories apply differently in different types of markets.

SESSION 4: Introduction to Econometrics - Yugank Goyal

The last session of the first day was delivered by Dr. Yugank Goyal, who taught the basic concepts of econometrics and regression to the participants. He gave an example of Pollution and factors affecting the level of it in a given area and how one can use regression and econometrics in finding the interrelation between various factors. He explained how various factors are dependent on some independent factor and how this relationship is used to arrive at various outcomes. The participants were sensitized about the use of econometrics in competition law cases and intricacies involved. He further explained how economists use these techniques in finding the relationship between demand, supply, increase and decrease in price, with various factors, and to do the competition assessment.

DAY 2: December 13, 2018

SESSION 5: Economics of horizontal agreements: Cartels and other Coordinated Effects -Saattvic Saattvic

In the first session on day 2, the participants were taught about the economics involved in coordinated effects and horizontal agreements. Mr. Saattvic started this session by demarcating the difference between the legal definition of cartels and economic definition of collusion. He

discussed finite and infinite games that firms would play in a given market. The economic theories like game theory, prisoner's dilemma and Stigler's conditions for collusion to exist were discussed. He further discussed legal and illegal collusions and how to detect a collusion with the help of economic evidences and relevance of the same in prosecution of cartels. He discussed the concepts of price level analysis, price parallelism, parallelism plus, price wars and econometrics used in detecting cartels. He concluded the session by discussing the importance and usage of economics in ex ante and ex post policies against collusion, designing auctions appropriately to deter collusion, identifying industries susceptible to collusion, identifying appropriate levels of fines & estimating cartel damage. He also discussed the leniency regime and economic justifications for colluding in this session.

SESSION 6: Exclusionary Behaviour and Vertical Agreements - Derek Ritzmann

In this session, Dr. Ritzmann covered the antitrust issues concerning the resale price maintenance (RPM), exclusive dealing agreements, exclusive supply agreements; price reference agreements and MFNs; and possible pro-competitive justifications. He began with explaining the object and effects based approach used across jurisdictions in detecting the anti-competitive activities concerning the vertical agreements. He discussed whether resale price maintenance and exclusive dealing are inherently anti-competitive. With the help of case laws like Sylavnia case and concepts like error-cost framework, Dr. Ritzmann explained the intricacies of anti-competitive analysis of vertical agreements. He further discussed concepts of inter and intra brand competitions and explained one profit monopoly theorem and theory of harm. He concluded this session by discussing the free rider problem and its possible solutions.

SESSION 7: Delineating Relevant Market and Measurement of Market Power - Derek Ritzmann

"Market definition is one of the most important analytical tools for the competition authorities to examine and to evaluate competition concerns"

The third lecture of day two was delivered by Derek Ritzmann. He started the session by discussing the relevance of defining relevant market in competition law. He discussed economic definition as well as legal definition of a relevant market. He discussed various tools used for identifying the relevant market. He explained the concept of demand-side substitutability, supply-side substitutability and hypothetical monopolist test. The united brands case and cellophane fallacy case was discussed with participants for better understanding of the concepts. With the help of a few EU case laws, Dr. Ritzmann further explained the concepts of price correlation analysis, shock analysis and natural experiments to the participants. He concluded this session with a brief discussion on Market Power, assessment of market power, sources of market power, measures of market power and traditional approach in assessment of market power.

SESSION 8: Dominant Position and Exclusionary & Exploitative Practices - Saattvic Saattvic

The last lecture of the second day was delivered by Saattvic, he started with the concept of Predatory pricing under which he covered 'The Theory of Predation', 'Mc Gee's Criticisms Of Predation Arguments', 'Counter-Objections To Mcgee', 'Predation with imperfect information' and 'Sacrifice of short-run profits or incurring losses'. He discussed the concept of 'tying' and 'bundling' and the various efficiency justifications for tying and bundling. He further discussed the effects of price discrimination, conditional rebates and other exploitative practices like refusal to deal and excessive pricing and concluded the lecture.

DAY 3: December 14, 2018

SESSION 9: Case Studies on Anticompetitive Agreements and Abuse of Dominance - Gaurav Jakhu & Saattvic Saattvic

Mr. Gaurav Jakhu discussed the Indian Google case with the participants. He discussed the facts, arguments of the parties, analysis & decision of the parties and the economics applied in the case. Mr. Jakhu also discussed the EU google case in comparison with the Indian Google Case. He discussed various economics concepts relating to platform markets and analysis of dominance in multi - sided markets.

The second case was discussed by Mr. Saattvic in this session was the Cement Cartel Case. He introduced the participants to the case by briefing them about the facts, analysis and the decisions at CCI, NCLAT and Supreme Court. He discussed the key economic evidences that were employed by the CCI in deciding the case, analysis of the economic evidences and conclusion drawn from them. Saattvic concluded this session by discussing what other evidences, arguments, defences could have been raised by the parties and analysis employed by the Commission.

SESSION 10: Economics of Merger Analysis - Derek Ritzmann

In this session, the participants were sensitized about the economic concepts involved in the Competitive Assessment of a Merger. Dr. Ritzmann started the session by explaining the competitive assessment of a merger/ Joint Venture as an act of balancing the pro- competitive and anti- competitive effects of the merger/JV. He then discussed the horizontal mergers and their effects: unilateral effects & coordinated effects. He taught about the Herfindal Hirschamn Index analysis and role of market power in competitive assessment of proposed mergers. Dr. Rtitzmann then moved on to the Price Pressure Tests/Upward Pricing Pressure Test (UPP) as direct measure of competitive effects as HHI is insufficient tool. He discussed other Merger simulation models involving more complex econometrics which CCI might employ in their merger analysis in future. Dr. Ritzmann further discussed the Vertical and Conglomerate Mergers and rational for vertical integration, concept of double marginalization and standards of merger efficiencies.

SESSION 11: Case Studies on Combinations/Mergers - Gaurav Jakhu & Saattvic Saattvic

Mr. Gaurav Jhaku discussed the famous merger/ combination concerning the Etihad Airways PJSC and Jet Airways (India) Ltd. He discussed the analysis followed by the commission in identifying and defining the relevant market concerning domestic and international airlines by taking into account their point of origin and point of destination. Mr. Jakhu briefed the facts of the case, analysis employed by the commission and decision of the commission. He discussed and explained the HHI analysis, economic theory of assessing the potential benefits and networks effects to the participants.

The next case which was discussed by Saattvic was the Bayer/Monsanto Combination. He discussed the facts, analysis and commission's decision. He also discussed the portfolio effects and innovation aspects attached to this case.

SESSION 12: Antitrust Damages - Derek Ritzmann

In the last session of the day, the participants were taught about various economic techniques and methods that commission can employ in identifying the quantum of damages and fines to be imposed on the defaulting firms. Dr. Ritzmann explained the methods used by antitrust authorities in other jurisdictions. At first, he discussed the economic approach to the damages analysis and stages of damages estimation. He further discussed the conceptual frameworks in estimating harm from cartels and exclusionary conduct, counterfactuals to final damage value, challenges of constructing a "but-for" world, the causation and economic evidences analysis used in quantification of damages. The participants were sensitized about different Damages Models and approaches for evaluating the damages. They were taught about Comparator-based approach, Financial analysis-based and Market structure based approach.

DAY 4: December 15, 2018

SESSION 13: Economics of Platform Markets - Payal Malik

The first session of the last day was engaged by Ms. Payal Malik (Advisor – Competition Commission of India). She started the session by giving background of markets with networks effects enumerating it's features and market structure. Through several examples and case discussions, Ms. Malik described in detail the aspects of cross-externality and inefficiency of perfect competition, a feature that leads to profit inequality between firms in platform markets. Ms. Malik also introduced to the participants the idea of Schumpeterian race of market dominance that suggests that monopolies are only the end outcome of fierce competition that takes place between firms for the market. Participants were also sensitized about the key challenges like big data, surge pricing, algorithm collusion etc. that are faced by antitrust authority in the digital economy.

SESSION 14: Intellectual Property Rights and Anti-Competitive Practices - Derek Ritzmann

The second session of the fourth day was conducted by Dr. Derek Ritzmann. He taught the participants about the concept of Standard Essential Patents (SEP) and discussed anti-competitive issues associated with SEPs. He started the lecture by first establishing the commonalities between IP law and competition law followed by enumerating the concept of technological standards, Standard Setting Organizations (SSO), SEPs, associated hold-up problem, and licensing at FRAND rate. While discussing the FRAND rates, Dr. Ritzmann talked about the Georgia Specific Factors in the U.S. to decide the reasonable licensing rate and modifications in the factors that were adopted after *Microsoft v. Motorola* case. The session was ended with brief discussion of exceptional circumstances in which 'compulsory licensing' can be issued.

SESSION 15: Interface between IP, Innovation and Competition Law - Payal Malik

In this session, participants were sensitized about linkages between IP law, Competition law and also about their importance in building innovation ecosystem of a country. Ms. Malik described the problem associated with market structure where some degree of allocative inefficiency (P>MC) is evident to get the rate of return for risky R&D investment. This creates a tension between antitrust and IP protection. Detailed discussion was also held on licensing of IP, when and why do firms license, competition assessment of licensing arrangements, how to analyze licensing terms, what is the anti-competitive harm and pro-competitive benefits, and lastly on antitrust challenges in online platforms.

SESSION 16: Panel discussion on *Economics of common ownership and competition law/* Economic analysis of innovative / high technology mergers

Two panel discussions were held at the end of the Winter School.

Moderator: Saattvic Saattvic, Senior Consultant, Economic Partners

Panel:

Payal Malik, Advisor – Competition Commission of IndiaDr. Derek Ritzmann, Director – Economics PartnersG. R. Bhatia, Partner and Head of the Competition Law Practice Group, L&L Partners

Topic I : Economics of common ownership and competition law

The panelists discussed anti-competitive implications of common ownership by investment funds in multiple competing companies in the same industry. Discussion began by laying out the foundation of growth of common ownership by investment funds and gradually proceeded to discuss the anticompetitive implications of it. Key questions that panelist pondered upon are: Whether or not intervention and what kind of intervention or remedied these antitrust authorities provide? Are the remedies at counter-purpose to the objectives of the stability of financial market? What are the channels of institutional investor's influence?

Topic II : Economic analysis of innovative / high technology mergers

The panel discussion started with the question of how the possession of large amount of data on consumers lead to competitive harm. It was discussed that ownership and control over the data is being considered as a power as far as dominance is concerned. There was also a debate about the public good nature of data that changes the analysis of dominance. It was held that regarding mergers and acquisition, there is a statutory lacuna, because there is no valuation of the data. Unstructured data that has not been worked upon is not considered so valuable as per the current regulation that leads to undervaluation of acquired firm.

Valedictory Session & Certificate Distribution

Ms.Payal Malik, Economic Advisor of CCI and member of Governing Council of CIRC, Ms Nidhi Maheshwari, and the lead mentors- Dr.Derek Ritzmann, Director- Economics Partners and Saattvic, Senior Consultant- Economics Partners were present for the valedictory session and certificate distribution to the participants.

Ms Garima Sodhi delivered a vote of thanks to the participants on behalf of CIRC and to Economics Partners for collaborating and successfully leading the lectures in Winter School. It was followed by a vote of thanks from Economics Partners to the participants for their active participation and interaction during the Winter School. Certificates of participation to all the participants were issued jointly by CIRC and Economics Partners to all the participants.

Annexure I: About Organisers

CUTS Institute for Regulation & Competition (CIRC) and Economics Partners jointly organised this Winter School.

About CIRC: CUTS Institute for Regulation & Competition (CIRC) was established in 2008 by CUTS International (www.cuts-international.org). With the mission to be a Centre of Excellence on Regulatory and Competition Issues, CIRC primarily focuses on economic regulation in infrastructure sectors, and competition policy and law with an objective of reaching out to the target audience in India and other developing countries in Asia and Africa. CIRC offers practical focus on educational and training programmes on economic regulation, and competition policy and law. The Institute aims to facilitate research to enhance understanding and explore inter-disciplinary linkages among the identified subjects. CIRC is striving hard in its endeavour to generate and disseminate knowledge on its thrust areas. Further, since its inception CIRC has taken varied initiatives to impart knowledge and train various stakeholders on these areas with aim to build capacity of these stakeholders, thus contributing to the economy in this knowledge intensive era. For further details on our initiatives, please visit website: www.circ.in

<u>About Economics Partners:</u> Economics Partners is a firm of economic and finance specialists. From our base in Hong Kong, we serve clients across the Asia-Pacific region. Founded in 2018, we are the first specialist economic consulting firm dedicated to the Asia-Pacific region.

We work with clients in all areas of law where economic and finance questions matter to the outcome. Our practices areas include competition, regulation of industries, telecommunications and energy markets, arbitration, and economic policy. We provide independent expert reports and act as expert witnesses in front of regulatory authorities, courts, and tribunals. We regularly work behind the scenes with clients and law firms to craft strategic approaches to legal and regulatory issues, and to prepare submissions to regulators and arbitrators. We assist governments and multilateral organizations with policy and legal frameworks. For further details, please visit website: https://economics-partners.com/

Annexure II: Detailed Agenda

ECONOMICS of COMPETITION LAW Organised jointly by CIRC and Economics Partners 12th – 15th December, 2018 at New Delhi

Venue:

India Habitat Centre (IHC) Lodhi Road Near Airforce Bal Bharati School New Delhi, 110003

Course Coordinators:

Ms Garima Sodhi Fellow, CIRC Email ID: gms@circ.in

Ms Rinki Singh Research Assistant, CIRC Email ID: <u>rs@circ.in</u>

Agenda Sessions: Day 1 **Registration** (09.00 AM – 09.30 AM) Welcome Remarks & Course Introduction (09.30 AM - 10.00 AM) **TEA BREAK** Sessions Faculty **Topics Covered** > Introduction to **Competition Policy** Sources of Market **SESSION 1** Failure (10.30 AM – 11.45 AM) \geq Competition Policy Derek Ritzmann versus Regulation Regulating Markets through > Evolution of Economic Competition Law and Policy Schools of thought on Competition Law Principles Dimensions of **SESSION 2** Competition (11.45 AM – 01.00 PM) Saattvic Saattvic Static v. Dynamic Introduction to Basic Economic Concepts and Competition Theory of Demand and Role of Economics \geq

		Supply➤Consumer and ProducerSurplus➤Consumer Welfare &Total Welfare➤Cost- Effective Analysis➤The Error-CostFramework➤Economics ofCompetition Law
	LUNCH BREAK	1
SESSION 3 (02.00 PM – 03.30 PM) Market Structures & Competition Law and Policy Introduction to Oligopoly and Game Theory	Derek Ritzmann	 Types of markets: Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly etc. Firm Behaviour and Profit Maximisation Effect of Market Structure on Pricing Oligopoly and Game Theory Static Games, Dynamic Games Cournot and Bertrand models of oligopoly Solving a Game & Nash Equilibrium Emerging Economies Market Structure and Competition Law
	TEA BREAK	
SESSION 4 (03.45 PM – 05.00 PM) Introduction to Econometrics	Yugank Goyal	 Multiple Regression, Linear Regression and Non-Linear Regression. Interpreting Regression Results Modelling Errors Data Limitations Application to Competition Law

		Case study
0 .	Sessions: Day 2	
Sessions	Faculty	Topics Covered
SESSION 5 (09.30 AM – 11.15 AM) Economics of horizontal agreements: Cartels and other Coordinated Effects	Saattvic Saattvic	 Economics Theory of Collusion Parallel Behaviour or Collusion Identifying collusive behaviour Theory of Unilateral and Coordinated Effects Measuring closeness to competition Detecting Cartels: Role of Economic Evidences Leniency and Optimal Penalties for Cartels Calculating Cartel Damage The Risk of Deterring Pro-competitive Behaviour Bid-Rigging & other horizontal agreements.
	TEA BREAK	
SESSION 6 (11.30 AM – 1.00 PM) Exclusionary Behaviour and Vertical Agreements	Derek Ritzmann	 Exclusionary Pricing Behaviour Tying, bundling, Resale Price Maintenance Refusal to Deal Exclusive Supply Agreements Exclusive Dealing Agreements Price reference agreements and MFNs Possible procompetitive justifications
	LUNCH BREAK	1.00000000

SESSION 7 (2.00 AM – 3.45 PM) Delineating Relevant Market and Measurement of Market Power	Derek Ritzmann	 Market definition Legislative definitions Tools for identifying Relevant Market Demand and Supply Substitution Hypothetical monopoly test Critical Loss Analysis Market Power & Dominance Market Share and Market Power The Lerner index
	TEA BREAK	
SESSION 8 (04.00 PM – 05.30 PM) Dominant Position and Exclusionary & Exploitative Practices	Saattvic Saattvic	 Refusal to Deal Economics of Unilateral Effects Empirical Evidence and tests for Exclusionary Practices Unfair Pricing Unfair Trade Conditions Price Discrimination Other Exploitative Practices

Sessions: Day 3		
Sessions	Faculty	Topics Covered
SESSION 9 (09.30 AM – 11.15 AM) Case Studies on Anticompetitive Agreements and Abuse of Dominance	Gaurav Jhaku & Derek Ritzamann	 Case Studies on Indian Case Laws on Anticompetitive Agreements and Abuse of Dominance
	TEA BREAK	
SESSION 10 (11.30 AM – 01.00 PM) Economics of Merger Analysis	Derek Ritzmann	 Price pressure tests Merger Simulation Efficiencies HHI Input foreclosure Diagonal Mergers Minority Share Holdings Merger Remedies Regression (in

		continuation with session 5)
SESSION 11 (02.00 PM – 03.45 PM) Case Studies on Combinations/Mergers	LUNCH BREAK Gaurav Jhaku & Derek Ritzamann	 Case Studies on Indian Combinations/Mergers Case Laws
	TEA BREAK	
SESSION 12 (04.00 PM – 05.30 PM) Antitrust Damages	Derek Ritzmann/	 Economic approach to damages analysis Conceptual frameworks in estimating harm from cartels and exclusionary conduct Challenges of constructing a "but-for" world Causation Quantification of damages Comparator based approaches to estimating damages

Sessions: Day 4		
Sessions	Faculty	Topics Covered
SESSION 13 (09.30 AM – 11.15 AM) Economics of Platform Markets	Payal Malik	 Network Effects and Online Markets Introduction to Multi-Sided Markets Dynamics of Multi-Sided Markets Implications for Competition Policy
	TEA BREAK	
SESSION 14 (11.30 AM – 01.00 PM) Intellectual Property Rights and Anti Competitive Practices	Derek Ritzmann	 Patenting process and unreasonable patent exclusion (refusal to license, anticompetitive abuse of IP systems) Innovation commons (patent pools, cross licensing, standard

SESSION 15 (02.00 PM – 03.45 PM) Interface between IP, Innovation and Competition Law	LUNCH BREAK Payal Malik	 setting and other forms of technology sharing, FRAND licensing obligations, price fixing and horizontal market restraints, joint ventures) ➤ Tying & interoperability (patent ties, technological tying, package licensing) ➢ Pricing IPRs and competition law (royalty staking, excessive royalty, price discrimination, resale price maintenance of IP protected goods ➢ The Economics of innovation, licensing and IPR in India – past trends and future roadmap ➢ Competition & Innovation – Lessons for India ➢ The Evolving Jurisdiction for Innovation Ecosystem in India
		 Trade, innovation and IPR international perspective
TEA BREAK		
SESSION 16 (04.00 PM – 05.30 PM)		
Panel discussion on	G R Bhatia, Payal	
J	Malik, Derek	
ownership and competition law/ Economic analysis of	Ritzmann &	
innovative / high technology mergers	Saattvic Saattvic	
	Valedictory	4