



### IEA ANNUAL CONFERENCE

#### 101<sup>ST</sup> ANNUAL CONFERENCE OF THE INDIAN ECONOMIC ASSOCIATION December 14–16, 2018

The 101<sup>st</sup> Annual Conference of the Indian Economic Association was hosted by ISID, New Delhi, from December 14–16, 2018. Prof. V.K. Malhotra, President, presided over the IEA Annual Conference with Prof. D.K. Madaan as the Secretary and Prof. S.K. Mishra as the Chief Conference Coordinator. The local organising committee comprised Prof. M.R. Murthy (Organising Secretary), Dr Surya Tewari, Dr Akhilesh K. Sharma, Shri Yash Pal Yadav and Shri B. Dhanunjai Kumar.

Research papers were invited on four key themes: Theme 1: Health Economics and Policies; Theme 2: Rural Economy and Agricultural Distress: Issues and Challenges; Theme 3: Strategies for External Economic Sector; and Theme 4: Economic Thoughts of Kautilya and Its Contemporary Relevance.

The Inaugural Session was chaired by Prof. S.K. Goyal, Vice-Chairman and Founder, ISID. Prof. Kirit S. Parikh, former member of the erstwhile Planning Commission, was the Chief Guest. Prof. D.K. Madaan presented an introduction to the IEA and also elaborated on the themes of the conference. Prof. V.K. Malhotra delivered the presidential address and Prof.

M.R. Murthy, Director, ISID, presented a detailed background of ISID and the conference.

Prof. P.R. Brahamananada Memorial Lecture was delivered by Prof. Swaminathan Gurumurthy, Member, Central Board of Directors, Reserve Bank of India. The Valedictory Session was chaired by Prof. Ramesh Chand, Member, NITI Aayog. Prof. Ramesh Chand was awarded the Atal Bihari Bajpai Memorial Award in Economic Development.

Dr. (Mrs.) Asha Sablok Memorial Gold Medal was awarded to Dr. N.K. Dashora's paper on "The External Value of Rupee: Balance of Payments Approach". The Silver and Bronze medals were awarded to Dr. Shailender Kumar Hooda and Dr. Swati Verma & Ms Ruchika Rungta's papers, respectively.

The conference offered an opportunity to share views on issues of contemporary relevance to the Indian economy and society. It further provided a platform to find solutions to problems keeping in mind the opportunities and challenges posed by the global developments. The papers presented at the conference helped better understand the policies relating to, and issues affecting and the challenges outlined in the selected themes.

More than 350 participants from different parts of the country participated in the conference. The conference was widely appreciated; particularly, the efforts of the local organising team and the IEA.



1. Prof. Kirit S. Parikh delivering the Inaugural Address also seen are Prof. M.R. Murthy, Prof. V.K. Malhotra & Prof. S.K. Goyal. 2. Prof. Ramesh Chand was awarded the Atal Bihari Bajpai Memorial Award in Economic Development

## WORKSHOP & TRAINING PROGRAMME

### ORIENTATION PROGRAMME IN SOCIAL SCIENCE RESEARCH

*For Research Scholars and Teachers Belonging to Scheduled Castes and Scheduled Tribes*

*ISID & ICSSR*

*November 26–December 06, 2018*

The Institute for Studies in Industrial Development organised a Ten-day Orientation Programme in Social Science Research for research scholars and teachers belonging to Scheduled Castes (SCs) and Scheduled Tribes (STs) from November 26 to December 06, 2018. The programme was sponsored by the Indian Council of Social Science Research (ICSSR). The objective of the programme was to develop research capabilities of young research scholars belonging to the aforementioned social categories and to enable them to conduct research scientifically. A total of 38 applicants were selected for the programme. Participants were selected from across the country belonging to various social science disciplines.



Prof. Ravi Srivastava, CSRD, JNU delivering the Inaugural Address of the Orientation Programme

The programme was designed with a multidisciplinary approach. It covered various aspects of qualitative and quantitative research, from research design to writing and dissemination of research output. It also exposed the participating research scholars to emerging conceptual issues in social science research. The inaugural session was held on 26th November, 2018. Prof. M.R. Murthy, Director, ISID welcomed the participants and briefed on the background of the programme. The inaugural session was chaired by Prof. S.K. Goyal, Vice Chairman, ISID, and the inaugural address was delivered by the chief guest, Prof. Ravi S. Srivastava, Professor, CSRD, JNU, New Delhi.

The valedictory address was delivered by Prof. Pulin Nayak, Former Director, Delhi School of Economics. Prof. S.K. Goyal, Vice Chairman, ISID, and Prof. M.R. Murthy, Director, ISID, also addressed the participants. The valedictory session

concluded with the distribution of certificates to participants by the dignitaries.

Apart from subject experts from ISID, eminent academics from various institutions and universities delivered lectures. The Orientation Programme is coordinated by Dr. Santosah Kumar Das.

### SIX-DAYS RESEARCH METHODOLOGY WORKSHOP ON AUDIO VISUAL MEDIA AS A TOOL IN RESEARCH

*for M.Phil./Ph.D./PDF Scholars in Social Sciences*

*ISID & ICSSR*

*March 25–30, 2019*

The Institute organised a Six-Days Research Methodology Workshop on Audio Visual Media as a Tool in Research for M.Phil./Ph.D./PDF Scholars in Social Sciences from March 25-30, 2019. The workshop was sponsored by Indian Council of Social Science Research (ICSSR), New Delhi. 30 participants from across India from varied social science fields attended the workshop.

The workshop was inaugurated by Dr. Iftekhar Ahmed, Former Director, Mass Communication Research Centre, Jamia Millia Islamia. Dr. Ahmed in his inaugural address emphasised the importance and relevance of visual data and information as well as the importance of basic visual and media literacy.

This workshop is designed to familiarise the participants with AVM tools and motivate researchers and academics to use this medium as a tool, to not only enhance the content, but also to reach wider audience and to have greater impact on their research and its outreach. This was the sixth time that ISID successfully conducted this workshop. Based on previous feedbacks, the practical hands-on training in production of audio-video material was emphasised. The programme covered the following: (i) basic understanding of the AVM, (ii) role and importance of AVM as a tool in research, (iii) effective presentation and dissemination using AVM, (iv) AVM production techniques and understanding the technology, basic camera equipment, editing software, streaming video, and (v) hands-on production of audio visual output.

The participants were given two specified topics from the development arena to work on during the workshop, namely: a) role and responsibility of media during crisis (keeping in view the Pulwama attack); and b) role of media in political campaigning (keeping in view the forthcoming election).

Participants worked in groups to produce short presentations on these topics in multimedia format, incorporating audio visual material generated and compiled during the workshop. These presentations were shown by respective groups in the concluding session of the workshop. In addition to hands-on field production, each participant opened a Twitter account and



Workshop participants are very keen in the Mobile Journalism Session conducted by Shri Parimal Kumar, NDTV

started a blog during the workshop. They also learnt camera and video editing skills with practical hands-on training.

Resource persons were invited from premier media institutes and media organisations. The workshop received encouraging and positive feedback from the participants and was widely appreciated. Prof. Seema Goyal is the Course Director.

## ACADEMIC ACTIVITIES

### RESEARCH PROJECTS/STUDIES COMPLETED

- **Liberalisation, Technology Import and Industrial Development: A Study of Organised Manufacturing Sector in India**

This study examined the nature and impact of technology import on Indian manufacturing using firm level data from Prowess IQ (CMIE). The basic objective was to examine the impact of technology import in the form of embodied (capital goods) and disembodied (foreign exchange spend on royalties, technical fees, licencing, etc.) on manufacturing output, productivity and exports during 1995–2016. The empirical estimation is based on panel regression analysis for the overall manufacturing as well as four use-based classifications of industries. In general, the study reported evidence of dynamic gains in manufacturing from the import of technology. The research project (minor) was submitted to the ICSSR in November 2018. The study is sponsored by ICSSR and Dr R. Rijesh is the Principal Researcher.

- **Financialisation in India: Nature and Implications with Special Focus on Corporate Sector**

The study locates financialisation as a process that increasingly mediates transactions in the economy at various levels. Notable is the fact that in a financialised economy, growth of profit seems to move faster than the growth of investment and a trade-off between growth and profitability constraints the decision-making process

of an individual firm. It has wider ramifications, giving rise to a puzzle at the macro level, which is that profit making increasingly gets disconnected from the activity of production, as a result of which accumulation occurs without commensurate increase in productive employment. In this context, the current study primarily aims to understand the nature and extent of financialisation in India. It identifies the major macro level trends and discusses the findings in reference to stylized facts of financialisation relating to advanced countries. Besides the broad trends of weakening link between growth and investment, financial landscape in India is undergoing change, evincing early signals of growing importance of nonbanking financial entities, non-banking activities of banks, increased resource mobilisation through capital markets and bank's increased focus on household financing. It then closely dwells with the emerging patterns of financialisation within the corporate sector of India, arguing that growth of profit has been, on an average, higher for financial companies compared to non-financial companies; there has been a decline in the growth rate of investment in plant and machinery although it hardly affected the operating margin of corporate firms, particularly in the manufacturing sector. Furthermore, in the case of advanced countries, decline in aggregate demand caused by a declining share of wages was partially and temporarily mended by debt-financed and wealth based consumption of the working class that are largely integrated with the financial market. In case of India, the slowing down of demand caused by a repression of wages together with not so high degree of financialisation of household income was expected to be temporarily displaced through wealth based and debt financed consumption of the middle class. In the end, the study analytically puts the identified trends in the perspective of globalised finance and discusses how the current trends are driven by the imperatives of global capital. The research project was sponsored by the ICSSR and Dr. Satyaki Roy, Associate Professor is the Principal Researcher.

- **FDI in R&D and Development of National Innovation Capabilities: A Case Study of India**

This study was undertaken in the light of data showing that FDI in R&D (RDFDI) constitutes a significant share of FDI inflows to India and that India has emerged as a major destination among developing countries for offshore corporate R&D. The study aimed at examining the significance of RDFDI in FDI inflows to India and the impact of RDFDI on innovation capability. It is found that RDFDI constitutes only a minuscule share (less than 0.5 per cent) in total FDI inflows. Information & Communication Technology, Natural Sciences & Engineering, and Pharmaceuticals are the major sectors receiving RDFDI inflows. Much of the RDFDI inflows to these three sectors were to subsidiaries of foreign firms. While subsidiaries of foreign firms received investments from their parent firms, other firms preferred to receive investments from private equity investors and individual investors. Foreign subsidiaries operate as support labs providing R&D services

to the parent firms. There is no transfer of technology to the subsidiaries and no adoption of technology by them. There is no linkage with the domestic production system or academia except a few cases of collaboration with higher education institutions by a few firms in the Information & Communication Technology sector. Most of the Indian RFDI firms are also engaged in providing R&D services. But a few of them make an attempt to develop new technologies in their area of specialisation. The study was sponsored by ICSSR and Dr. Reji K. Joseph is the Principal Researcher.

▪ **Penetration and Effectiveness of Health Insurance Schemes in India**

The study examines the role of government-funded health insurance schemes in providing financial risk protection against medical cost and improving access to healthcare in India and the state of Rajasthan using secondary and field survey data. The results are presented around accessibility, availability, acceptability, affordability, and financial protection indicators to show the effectiveness of the insurance-based system. The study finds positive impact of insurance in improving the access to medical care use and reducing inpatient spending burden of households. Access to healthcare is found to be high in high provider network areas/districts. Given the intrinsic market failure in the insurance-based system, the study suggests establishing national, nodal, and regulatory agencies across states. These should be highly competent and efficient purchasing agencies, particularly with respect to (i) selecting qualified providers to contract services, (ii) negotiating with providers for price and the mode of payment, and (iii) contracting to provide quality care. For this purpose, a system needs to be developed to collect proper market information and accurate information on cost/price. If the government decides the package rate on the basis of current high-priced privately dominated market, it will cost more to the government in the form of premium payment. The project is sponsored by ICSSR and Dr. Shailender Kumar Hooda is the Principal Researcher.

▪ **Garment Cluster in Kolkata: The Untold Story of Expansion Relying on Low-end Domestic Demand**

A persistent delinking of growth and employment during the high growth phase of Indian economy followed by sluggish growth in the aftermath of global financial crisis together with alarming signs of absolute decline in manufacturing employment is the pretext for a quest towards a growth trajectory that facilitates gainful employment. This paper focuses on an industrial cluster producing readymade garments in Kolkata, West Bengal. It hardly attracted attention hitherto by policymakers, mostly unnoticed in the huge gamut of cluster studies, possibly because this cluster has a low share in exports of garments despite having the largest share in domestic readymade garments market. Since it provides employment to a huge workforce in different layers, products of this cluster are being sold

across India, and more importantly, the producers hardly face any constraint in demand barring discrete episodes of short-term shocks. It primarily offers a case that once again reasserts the importance of domestic market particularly in the context of large countries like India. Even though it emerged as an artisanal cluster largely populated by small and tiny producers, mostly job workers, we find contesting trends of fragmentation on the one hand, and vertical growth on the other. The paper argues that entrepreneurial skills, capabilities of labour and institutions that emerged from within the cluster gave rise to a production organisation that had shown immense capability in responding to changing demand over time, but it largely remained confined to the low-end of the garments market. The study is submitted as part of the multi-institutional collaborative project with IGIDR titled “Manufacturing Matters: A Research Proposal for Employment Oriented Industrialisation,” funded by Ford Foundation. Dr. Satyaki Roy is the principal researcher.

▪ **Import and Performance of Indian Manufacturing Firms: Empirical Analysis**

The study was undertaken under a research project titled, “India’s Import from China: An Analysis of Impact on Indian Manufacturing Sector”, sponsored by the Ministry of Commerce & Industry, Government of India. Dr. R. Rijesh is the principal researcher.

## RESEARCH PROJECTS/STUDIES ONGOING

### a) Research Programmes:

1) “Industrial, Trade and Investment Policies: Pathways to India’s Industrialisation.” The study is undertaken by a team of the Institute’s faculty. The study is divided into five major sub-themes covering various facets of industrialisation issues namely;

- Structure and Growth Performance
- Trade, Technology and FDI
- Industrial Investment and Finance
- Regional Dimension: Agglomerations, SEZ and State Level Policies
- Participation of India in Global Production Network: Nature and Implications

The programme is sponsored by the ICSSR and Prof. M.R. Murthy Programme Director and Prof. T.P. Bhat as Co-director.

2) Portrayal of Women: An Empirical Study of Advertising Content – Issues and Concerns for Policy Intervention”, the programme is sponsored by the ICSSR and Prof. Jaishri Jethwaney, Programme Director and Prof. Seema Goyal as Co-director.

- 3) Urbanisation and Human Capital Development in Assam”, the programme is sponsored by the ICSSR and Prof H. Ramachandran is the Programme Director and Dr Poonam Sharma is the Co-Director.

#### b) Research Projects:

1. Understanding Criticality of Flow of Funds for Robust Growth of MSMEs, sponsored by PSE Banks (SBI, BOI, UCO Bank, Canara Bank, Corporation Bank and United Bank of India). Mr. Pradyuman Singh. Rawat is the Principal Researcher and Dr. Akhilesh Sharma is the Co-researcher.
2. Performance of India’s Banking Sector: A Critical Focus on Non-Performing Advances (NPAs), a research study sponsored under IMPRESS, an initiative of the Ministry of Human Resource Development, Government of India and implemented by the Indian Council of Social Science Research. Dr. Santosh Kumar Das is the Project Director.
3. Measuring the Changes in Factor Proportions vis-à-vis Factor Endowments of the Indian Economy – An Inter-temporal Study, a research project sponsored under IMPRESS, an initiative of the Ministry of Human Resource Development, Government of India and implemented by the Indian Council of Social Science Research, Dr. Anjali Tandon is the Project Director.
4. Global Value Chain Engagement and Industrial Restructuring: A Study of the Indian Electronics Industry, sponsored by ICSSR. Dr. Smitha Francis is the Project Director.
5. Understanding FDI Linked Trade Through Related Party Transactions: A Study of Manufacturing Foreign Subsidiaries in India, sponsored by ICSSR, Dr. Swati Verma is the Project Director.
6. Changing Business Group Strategies in India: An Inquiry from the Lens of Mergers and Acquisitions, sponsored by the ICSSR, Dr. Beena Saraswathy is the Project Director.
7. Impact of GST on the MSME Sector, sponsored by PSBs, Dr. Sangeeta Ghosh is the Principal Researcher
8. Integrating Indian Handicrafts into the Global Value Chain of Home Décor Industry: Prospects and Challenges, sponsored by PSBs, Dr. Mitali Gupta is the Principal Researcher.

#### c) Internal Studies:

1. Impact of Digital Technologies on the Manufacturing Sector: Emerging Trends and Challenges for India, Smitha Francis

## PUBLICATIONS

### BOOKS

- Atul Sarma (2018), *String of Thoughts on North East India: An Economist’s Perspectives*, Aakar Books.
- Jaishri Jethwaney (2018), *Corporate Communication: Principles and Practice*, Sage Publications.
- Akhilesh Kumar Sharma and Dev Nathan (Eds.) (2018), *Employment, Social Protection and Inclusive Growth in South Asia*, South Asia Press, New Delhi.
- Atul Sarma (Ed.) (2019), *Demonetisation: Claims and Reality*, Aakar Books.
- Jaishri Jethwaney and Samir Kapur (2019), *When India Votes: The Dynamics of Successful Election Campaigning*, Rupa Publications.
- Smitha Francis (2019), *Industrial Policy Challenges for India: Global Value Chains and Free Trade Agreements*, Routledge India.

### CHAPTERS IN BOOKS

- Atul Sarma (2018), “Foreword” in T. Satyanarayana, Chandan Hazarika, and Dipanjan Kashyap’s (Eds.) *Agribusiness Potential of Assam*, Indian Society of Agricultural Marketing (IASM), Hyderabad.
- Santosh Kumar Das (2019), “Aftermath of Demonetisation: Claims and Reality” in Atul Sarma (Ed.) *Demonetisation: Claims and Reality*, Aakar Books, Delhi, pp. 77–94.
- Santosh Kumar Das and Pradyuman Singh Rawat (2019), “Demonetisation and the Indian Economy: Some Macroeconomic Challenges” in Atul Sarma (Ed.) *Demonetisation: Claims and Reality*, Aakar Books, Delhi, pp. 30–68.
- Satyaki Roy (2019), “Parable of Demonetisation and the Optical Illusion of ‘Class War’” in Atul Sarma (Ed.) *Demonetisation: Claims and Reality*, Aakar Books, Delhi, pp. 69–76.
- Reji K. Joseph (2019), “Investment Facilitation Agreement in WTO: Where is it headed?” in Lisa Sachs, Lise Johnson, and Jesse Coleman’s (Eds.) *Yearbook on International Investment Law & Policy 2017*, Oxford University Press, pp. 65–76.
- Surya Tewari (2019), “Level of Basic Infrastructure in the Slums: A Case Study of West Bengal from General to Specific,” in Vishwa Raj Sharma and Chandrakanta’s (Eds.) *Making Cities Resilient*, Springer International Publishing, Switzerland, pp. 75–93.

### BOOK REVIEW

- Reji K. Joseph (2018), “Nature of Indian Growth,” The Book Review, Vol. 42, No. 10, pp. 29–30. Review of Pulapre Balakrishnan’s (Ed.) *Economic Growth and its Distribution in India*, Economic and Political Weekly and Orient Blackswan Pvt. Ltd., New Delhi, 2015.

- Smitha Francis (2018), “Setting the Record Straight on Trade,” *The Book Review*, Vol. 42, No. 10, pp. 08–09. Review of Dani Rodrik’s *Straight Talk on Trade: Ideas for a Sane World Economy*, Princeton University Press, 2017.

## ARTICLES/PAPERS IN JOURNALS

- Seenaiah Kale and Badri Narayan Rath (2018), “Does Innovation Matter for Total Factor Productivity Growth in India? Evidence from ARDL Bound Testing Approach,” *International Journal of Emerging Markets*, Vol. 13, No. 5, pp.1311–1329.
- Mahua Paul and Arup Mitra (2018), “Poverty Targeting and Economic Growth in India,” *Journal of Income and Wealth*, Vol. 40, No. 2, July–December, pp. 133–145.
- Rabiul Ansary and Shailender Kumar Hooda (2019), “Mapping Malnutrition amongst Children in India,” *Geography and You*, Vol. 19, Iss. 14, No. 125, January 16–31.
- Beena Saraswathy (2019), “The Flipkart-Walmart Deal in India: A Look into Competition and Other Related Issues,” *The Antitrust Bulletin: The Journal of American and Foreign Antitrust and Trade Regulation*, Vol. 64, No. 1, pp. 136–147.

## MEDIA & NEWSPAPER ARTICLES

- Ajit Kumar Jha and Ashish Kumar (2018), “Prospects and Challenges of Industrial Development in Mithila Region of Northern Bihar,” *Simhavalokana*, October–December (in Maithili).
- Shailender Kumar Hooda (2018), “Will ‘Modicare’ be a Game Changer for India?” Interview by knowledge@wharton magazine, Wharton University of Pennsylvania, October 08.
- Shailender Kumar Hooda and Rabiul Ansary (2018), “Setting a Proper Diet Plan,” *The Hindu*, November 15.
- Shailender Kumar Hooda (2018), “With Inadequate Health Infrastructure, Can Ayushman Bharat Really Work?” *The Wire*, November 26.
- Shailender Kumar Hooda (2018), “Coverage without Care,” *The Tribune*, December 10.
- Santosh Kumar Das (2018), “Transparency Challenge to Surmount,” *The Orissa Post*, Guest Column, December 16.
- Smitha Francis (2019), “Playing Catch-up in the Digital Economy,” *Business Today*, January 11.
- Ajit Kumar Jha and Shishu Ranjan (2019), “North Koel Reservoir Project: Benefits to Farmers of Bihar-Jharkhand,” *E-Charcha*, January 18 (in Hindi).
- Shailender Kumar Hooda (2019), “Reservation in India: High Limit of EWS Quota Will Bring Entire General Category under Ambit,” *Financial Express*, February 16.
- Santosh Kumar Das (2019), “Corporate Performance and NPAs,” *Vikalp*, March 02.
- Shailender Kumar Hooda and Santosh Kumar Das (2019), “A Policy Roadmap to End Farmer’s Distress,” *The Wire*, March 20.

## WORKING PAPERS

- Trade Liberalisation, Technology Import and Industrial Productivity: Evidence from Indian Manufacturing Firms, R. Rijesh, ISID Working Paper No. 203, October 2018

The present study is an attempt to examine the impact of technology import on the productivity of Indian manufacturing firms for the period 1995-2016. The study estimated an augmented Cobb-Douglas production function incorporating technology import, both embodied technology (capital goods import) and disembodied technology (spending on royalties, technical fees, etc.) as additional output determinants. The production function is estimated using the semi-parametric algorithm of Levinsohn and Petrin (LP) that tries to correct the simultaneity bias resulting from input choices and productivity shocks. In order to assess the robustness of the baseline model, a productivity determinant model is also estimated using the standard panel estimation method. The empirical analysis is based on an unbalanced sample of 4616 manufacturing firms, which are further segregated into firms that produce basic goods, intermediate goods, capital goods and consumer goods, representing various use-based categories of manufacturing production. The descriptive statistics reveal the considerable expansion of manufacturing, especially the trade linkage through import and export, during the sample period. However, some growth deceleration is evident post-crisis period of 2008. Most firms have been found to occasionally engage in the import of technology and the preferred mode of acquisition is embodied technology. Compared to the internal technological effort (domestic R&D), the preference is towards acquiring technology from abroad. The consumer goods and intermediate producing segments are the major consumers of foreign technology inputs. The econometric results based on the direct estimation of the production function and the productivity determinant model for the entire manufacturing, as well as use-based categories largely substantiate the conjecture that technology import has a positive and statistically significant impact on Indian manufacturing output. This supports the predictions of new trade and growth theories that international trade is a significant vehicle of technology transfer that provides dynamic productivity benefits in manufacturing.

- Lakshmi Machine Works and Sectoral System of Innovation in India’s Spinning Machinery Manufacturing Sector, Sanjaya Kumar Malik, ISID Working Paper No. 204, November 2018

This paper examines the technological change in India’s spinning machinery manufacturing sector. This is accomplished by employing the sectoral system of innovation framework that identifies three important building blocks—technological regimes, demand regimes and the lead actor—in the spinning machinery manufacturing sector. The paper underscores that Lakshmi

Machine Works Limited (LMW)—the leading producer of spinning machinery—explains most of innovations occurred in the spinning machinery manufacturing sector of the country. The favourable demand conditions and the access to external knowledge base through the long-term international collaborations are very crucial complements to the innovation-accomplishment by the leading actor. Nevertheless, because of the imports of advanced spinning machineries and the second-hand spinning machineries in particular, the technological success of the sector is restricted to the conventional spinning machinery, i.e. ring spinning machinery, not to the advanced spinning machineries (e.g., rotor and air-jet spinning).

- Trade and Current Account Impact of FDI: A Study of Select FDI Manufacturing firms in India, Swati Verma, ISID Working Paper No. 205, December 2018

In view of the significantly positive impact of FDI on the capital account of BoP of India since 1991, the current account impact of FDI is largely assumed to be positive or is given much less policy attention. However, through high foreign exchange outflows via imports and other expenses involving profit repatriation and a range of service payments, FDI invested firms can substantially contribute to current account deficit and trade deficit in any developing economy. In Indian case, where substantive trade liberalization measures introduced under reform years and intensification of transfer mispricing practices can considerably influence this adverse pattern of foreign exchange use, a high domestic market orientation of FDI may ensure limited earnings through exports. The paper looks at some recent evidence on the foreign exchange use behaviour of FDI invested manufacturing firms in India. The large sample surveys of FDI firms by RBI indicate a predominantly negative trade account and current account net impact of these firms on an aggregate basis since 1991. A closer appraisal of foreign exchange use pattern of about 500 listed and unlisted manufacturing FDI firms over two recent years indicates that a majority of these firms are associated with net foreign exchange losses on current and trade account of BoP. Such a pattern is noted for FDI firms across several manufacturing sub-sectors. A tendency towards substantially rising net foreign exchange losses is observed for a consistent set of select listed manufacturing FDI firms over the post-reform phase. The results emphasize the need for a closer scrutiny of various foreign transactions of FDI firms from a BoP management as well as transfer pricing audit perspective in the current Indian context.

- Employment Effect of Foreign Direct Investment in Indian Manufacturing Industries, Sanjaya Kumar Malik, ISID Working Paper No. 206, February 2019

This paper examines the employment effect of Foreign Direct Investment (FDI) in India's manufacturing industries. It

also examines whether the nature of employees mediates the employment effect of FDI in manufacturing industries. The paper employs a balanced panel data of 54 three-digit industries from the Annual Survey of Industries for the period 2008-09 to 2015-16. Estimating a dynamic labour demand model through the System-Generalised Method of Moment estimator, it does not underscore any considerable effect of FDI on employment in India's manufacturing industries. Even after controlling for the nature of employees, FDI is not found to have any significant impact on domestic demand for labour in Indian manufacturing industries. This study thus does not consider FDI as an important channel for employment generation in the manufacturing industries in India.

- Industry Level Analysis of Productivity Growth under Market Imperfections, Ramaa Arun Kumar & Mahua Paul, ISID Working Paper No. 207, March 2019

The study estimated TFP growth for the post-2008 period for selected industries in the manufacturing sector at NIC 3-digit. TFPG estimates are based on the theoretical framework provided by studies such Hall (1988), Abraham et al. (2009), Crepon et al. (2005) that incorporate market imperfection in labour and product market, thereby, modifying the traditional TFP estimation as Solow Residual. The study finds three distinct trends: firstly, there is considerable industrial disparities in productivity growth in terms of TFP. The estimates have been found to be higher than the conventional Solow Residual for most industries indicating the role played by market imperfections in affecting the conventional measure of productivity growth. Secondly, estimates of bargaining power are found to be lower than those compared to the earlier estimates in Maiti (2013) for the Indian organised manufacturing case for 1998-2005. This observation is commensurate with the observation in recent years of a falling share in labour wage in total output in organized manufacturing sector. Lastly, the study also found a statistically significant contribution of greater mechanization on TFPG while an adverse effect of the rising dependence of organised manufacturing on contractual labour.

## DISCUSSION NOTES

- Europe Will Continue to be the Number One Destination for Chinese Investment, M.M.K. Sardana, DN2018/08

There has been a surge of Chinese investment in Europe, particularly since 2010, because Chinese entities are aware of the broad range of assets of European economies such as cutting-edge technologies, the market, and vast corporate networks. For Europe, too, Chinese investors are a source of opportunity and growth, with the promotion of investment relations gaining top position on many bilateral agendas. The total Chinese investment in Europe between 2008

and 2017 has been of the order of \$318 billion—45 per cent more than the Chinese investment in the US. China's investment in Europe is geographically well spread and the largest countries in the European Union have been major recipients of the investment. China eyes technologies in Europe to further the objectives of its Made in China 2025 strategy, devised to make China the possessor of key technologies. The growing scale of Chinese investments has given rise to a number of concerns as the Chinese continue to buy critical infrastructure and technologies. While some member countries of the European Union have suggested instituting a screening mechanism for Chinese investments, the other members are not favourably inclined. Until a screening mechanism is put in place in the European Union, Chinese investment in Europe will remain strong.

- India Must Develop AI Technology for Future Economic and Strategic Security, M.M.K. Sardana, DN2018/09

Artificial intelligence is poised to become central to economic growth and strategic security. At present, the bulk of artificial intelligence research is conducted and financed by American or Chinese companies which is why their respective governments control access to technology. India lacks the basic infrastructure for doing meaningful research development in artificial intelligence. Taking cue from other countries, policymakers in India may consider public funding of research on artificial intelligence in a policy framework whereby direct funding to selected companies, start-ups and research institutions is made feasible. But, artificial intelligence has the potential to impact employment adversely in manufacturing and other sectors and thus may face political challenges against its use. Therefore, the challenges and opportunities in artificial intelligence call for urgent response from policymakers. India would need to have short-, medium- and long-term action plans for responding to the challenges and opportunities in artificial intelligence.

- An Overview of the Draft Data Protection Bill, 2018, M.M.K. Sardana, DN2018/10, December 2018

Data protection law refers to practices, safeguards, and binding rules put in place to protect one's personal information and ensure that one remains in control of it. In India, the data protection regime, as on date, is applicable to specific sectors. The all-encompassing reach of digital revolution requires a comprehensive law to address the concerns that are associated with the need of data protection and right to privacy of individuals while balancing it with the concerns of the state in meeting its duties of internal and external challenges. Further, data protection law has to pass the adequacy test of being in accordance with international law providing data safety. Government of India has with it a draft of the Personal Data Bill prepared by an expert group on which more than six

hundred feedbacks have been received from stakeholders. This note examines the concepts enunciated in the draft Bill and offers comments on these concepts, particularly in regard to their implementation. It is recommended that the government should finalise its draft after weighing the inputs received and place the finalised draft in public domain to obtain further inputs before the draft is finally referred to the parliament for its consideration.

- Catching-up in the Digital Economy: The Need for Rapid Policy Evolution, Smitha Francis, DN2019/01, February

Each of the new digital technology systems driven by Big Data, the Internet of Things, robotics, online platforms, and artificial intelligence presents significant opportunities to firms from developing countries like India to catch up. But several strategies adopted by leading firms to sustain their competitive advantages and consolidate their monopoly positions—including their proprietary ownership of platforms and data—become barriers to entry for follower firms. Meanwhile, lead firms are integrating new digital technologies into the production of goods and services in myriad ways. The Indian economy, therefore, faces new challenges in its ability to remain competitive and survive against the onslaught of import of digitalised products and services across sectors. Without improving its capabilities in electronics hardware production rapidly to forge synergies with the country's software capabilities, India faces the risk of witnessing another wave of import surge. While data is the prime driver of these new technologies, the increased use of sensors in devices and application-driven machines, and the growth in networked devices are continuously increasing the scale and scope of real time data extraction by the lead firms. The convergence that these data-based technologies are driving across sectors has national security implications, too. Therefore, India's "digital development trajectory" needs to be guided by the government by quickly putting in place adequate regulatory systems and policies related to data ownership and security standards. Reformulating competition/anti-trust policies and trade and investment policies to reflect the emergent concerns all come within the ambit of the regulatory shake-up that is urgently needed to allow secure and sustainable digital transformation and catching up by India.

## LECTURES DELIVERED AT ACADEMIC BODIES

- Satyaki Roy delivered an invited lecture on "Political Economy of Inequality" during the Global Classroom Lecture Series at TERI University, October 05, 2018.
- Surya Tewari delivered a lecture on "Peaceful Diwali: Air, Sound & Water Pollution" at Delhi Public Library (under Ministry of Culture, Government of India), November 02, 2018.



- Ajit Kumar Jha delivered a lecture on “Challenges and Prospects of Economic Development in Bihar,” organised by and held at the Centre for Studies of Regional Aspirations (CSRA), Patna, November 05, 2018.
- Shailender K. Hooda delivered an invited lecture on “Healthcare Financing and Delivery System in Haryana: Issues and Challenges” during the Capacity Building Programme for Officers of Haryana Government, held at Jindal School of Government and Public Policy, Jindal Global University, Sonapat, Haryana, November 12–15, 2018.
- Shailender K. Hooda delivered an invited lecture on “Issues in Data and Research Methods for Social Science Research” during the ICSSR sponsored *Two-week Capacity Building Programme for Faculty Members of Social Sciences*, held at Maharshi Dayanand University Centre for Professional and Allied Studies, Gurugram, November 12–25, 2018.
- Anjali Tandon delivered a lecture on “The Growth-Energy Nexus in Indian Economy: A Study of Technological Changes in Energy Use” during the Training Programme for Civil Service and Armed Forces Officers at the Indian Institute of Public Administration, December 05, 2018.
- Beena Saraswathy took a practical session on “Microsoft Excel” during the *Ten-Day Orientation Programme in Social Science Research for Teachers and Research Scholars belonging to Scheduled Castes (SCs) and Scheduled Tribes (STs)*, organised by and held at ISID, November 24 to December 06, 2018.
- Jaishri Jethwaney delivered a series of ten lectures on “Corporate Communication” to students pursuing Postgraduate Diploma in Advertising and Corporate Communication at Sri Aurobindo Centre for Arts and Communication (SACAC), New Delhi, January 2019.
- Anjali Tandon delivered a lecture on “Using Sectoral Interdependency to Measure Structural Change in the Economy: An Application of Input-Output Model” during the *2<sup>nd</sup> Phase Training Programme for Senior Officials and Entrepreneurs on Business Intelligence, Artificial Intelligence and Economic Data Modelling for SMEs*, jointly organised by National Institute for Micro, Small and medium Enterprises (NI-MSME), Hyderabad, and All India Management Association (AIMA), New Delhi, and held at AIMA, New Delhi, January 14–18, 2019.
- Reji K. Joseph delivered a lecture on “Innovation, Patents and Competition: An Economic Perspective” during the 6<sup>th</sup> Annual Rethinking Intellectual Property Rights Workshop on *Intellectual Property Rights and Competition: A Social Perspective*, organised by and held at Inter University Centre for Intellectual Property Rights Studies (IUCIPRS), Cochin University of Science and Technology (CUSAT), Cochin, January 18–20, 2019.
- Anjali Tandon delivered two lectures titled “Structural Coherence with Factor Proportions – A Study with Focus on Tradable Sectors in Indian Economy” and “Using Sectoral Interdependency to Measure Structural Change in the Economy: An Application of Input-Output Model” during the Training Programme for Governing Council Service Officers of NITI Aayog, held at Indian Institute of Public Administration (IIPA), New Delhi, February 05, 2019.
- Smitha Francis delivered two lectures on “India’s FDI Policy Framework” to Indian Telecom Officers, at the Haryana Institute of Public Administration (HIPA), Gurugram, February 06, 2019.
- Shailender K. Hooda delivered an invited lecture on “How to Write and Publish Research Papers in Peer-reviewed Social Science Journals” during the *Ten-day Faculty Development Programme*, under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), Ministry of Human Resource Development, Government of India, organised by Faculty Development Centre, Maharishi Dayanand University, Rohtak, Haryana, February 09–18, 2019.
- Satyaki Roy delivered a special lecture on “Revisiting the Employment Challenges for India” at the Department of Economics, Deshbandhu College, Delhi University, February 15, 2019.
- Atul Sarma delivered the *13<sup>th</sup> Dr B.S. Minhas Memorial Lecture* on “NITI Aayog: An Alternate Institution for Policy Aid” at A.S. College, Khanna, Ludhiana, February 15, 2019.
- Satyaki Roy gave an invited talk on “Importance of Public Sector Financial Institution,” organised by All India Insurance Employees’ Association (AIIEA), at Rabindra Bhavan, Jalpaiguri, West Bengal, March 17, 2019.
- Shailender K. Hooda delivered an Invited Lecture on “Measuring Financial Risk Protection,” during the Workshop on *Measuring Health Systems Performance*, organised by Health Systems Transformation Platform in association with Harvard School of Public Health, and held at Ambassador Hotel, New Delhi, March 18–19, 2019.

## PRESENTATIONS IN NATIONAL/ INTERNATIONAL SEMINARS AND CONFERENCES

- R. Rijesh presented a paper titled “Trade Liberalisation and Export Competitiveness of Indian Manufacturing Sector: An Empirical Study” during the Two-day National Conference on *India after a Quarter Century of Economic Reforms – The Benefits and Costs*, at the Department of Economics, Sikkim University, October 05–06, 2018.
- K.S. Chalapati Rao made a presentation on “Making of India’s FDI Policy in the Reform Era” during the International Seminar on *Inclusive Development: Issues and Challenges*, organised in honour of Prof. R. Radhakrishna by the Centre for Economic and Social Studies (CESS), Hyderabad, in partnership with Institute of Public Enterprise (IPE), Hyderabad, October 08–10, 2018.
- Reji K. Joseph made a presentation on “Globalisation of R&D and Challenges for Competence Building: The Case of India” during the Workshop on *Socio-economic Impact of New Technologies: Policy Implications for India*, organised by and held at National Institute of Science, Technology and

Development Studies (NISTADS), New Delhi, October 10, 2018.

- Anjali Tandon (with Roopali Aggarwal) presented a paper titled, “Are We Really Subsidising for a Sustainable Agriculture?” during the 6<sup>th</sup> International Conference on *WTO, Trade and Agriculture: Issues and Challenges for Developing Countries*, organised by and held at Centre for WTO Studies, Indian Institute of Foreign Trade, New Delhi, October 11–12, 2018.
- Mahua Paul (with Arup Mitra) presented a paper titled, “Poverty Targeting and Economic Growth in India” during the 5<sup>th</sup> International Conference on *Poverty and Sustainable Development (ICPSD 2018)*, held in Colombo, Sri Lanka, December 06–07, 2018.
- Smitha Francis presented a paper titled, “Creeping Financialisation through the FDI Route: An Exploration of the Indian Manufacturing Sector” during the 6<sup>th</sup> Conference on *Empirical Issues in International Trade and Finance*, organised by and held at Indian Institute of Foreign Trade (IIFT), New Delhi, December 13–14, 2018.
- Anjali Tandon (with Ashwani Bishnoi) presented a paper titled, “Trade Sophistication and Economic Growth: An Investigative Analysis” during the 6<sup>th</sup> Conference on *Empirical Issues in International Trade and Finance*, organised by and held at Indian Institute of Foreign Trade (IIFT), New Delhi, December 13–14, 2018.
- Ramaa Arun Kumar and Mahua Paul made a presentation on “State-Industry Level Analysis of Productivity Growth under Market Imperfections” at the 9<sup>th</sup> *National Seminar on Industrial Statistics*, organised by Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, Kolkata, December 14, 2018.
- Shailender K. Hooda presented a paper titled, “Health Payment Burden in India: Role of Demand and Supply Side Healthcare Financing Strategies” during the 101<sup>st</sup> *Annual Conference of the Indian Economic Association*, hosted by ISID, New Delhi, December 14–16, 2018.
- Swati Verma and Ruchika Rungta presented a paper titled, “Trade and Current Account Impact of FDI: A Case Study of Indian Manufacturing firms” during the 101<sup>st</sup> *Annual Conference of the Indian Economic Association*, hosted by ISID, New Delhi, December 14–16, 2018.
- Swati Verma presented a paper titled, “Transfer Pricing Audits and Litigations in India: An Evaluative Review” during the *Fourth International Conference on Law and Economics – 2018*, jointly organised by Gokhale Institute of Politics & Economics, IIM Ahmedabad, IIM Bangalore, IIT Kanpur, and Gujarat National Law University, held at Gokhale Institute of Politics & Economics, Pune, December 15–16, 2018.
- Sangeeta Ghosh presented a paper titled, “Small Businesses in the GST Regime,” at the 60<sup>th</sup> *Annual Conference of the Indian Society for Labour Economics (ISLE)*, December 19–21, 2018 at Indira Gandhi Institute of Development Research (IGIDR), Mumbai.
- Mitali Gupta presented a paper titled, “Assessment of Skill Mismatch in India,” at the 60<sup>th</sup> *Annual Conference of the Indian Society of Labour Economics (ISLE)*, December 19–21, 2018, at Indira Gandhi Institute of Development Research (IGIDR), Mumbai.
- Mahua Paul presented a paper titled “Relationship between Domestic Output and Exports – A disaggregated Level Analysis” during the 2<sup>nd</sup> *International Conference on Business, Economics and Sustainable Development*, organised by and held at TERI School of Advanced Studies, New Delhi, January 17–18, 2019.
- Ramaa Arun Kumar presented a paper titled “Sectoral Productivity and Trade Performance” during the 2<sup>nd</sup> *International Conference on Business, Economics and Sustainable Development*, organised by and held at TERI School of Advanced Studies, New Delhi, January 17–18, 2019.
- Swati Verma and Ruchika Rungta presented a paper titled “FDI and Foreign Exchange Outflows in Manufacturing Sector: Some Recent Evidence” at the *International Conference on Economics and Finance, 2019*, on the theme “Economics and Finance in the Globalised World: The Dilemmas,” organised by The Indian Econometric Society and SVKM’S Narsee Monjee Institute of Management Studies (NMIMS) Bengaluru, and held at the NMIMS School for Business Management, Bengaluru, February 09–10, 2019.
- Jaishri Jethwaney(i) visited Tezpur University, Assam, to attend the Massive Open Online Course (MOOC) meeting and record four lectures, February 2019, (ii) took a session with the faculty under MOOC on qualitative research techniques at Indraprastha University, February 2019, and (iii) delivered a talk on “Preparing Research Proposals in Social Sciences” at the *Annual Research Conclave: A Step Towards Collaborative Research*, organised by GD Goenka Research and Development Centre, GD Goenka University, Gurugram, February 22–23, 2019.

## PARTICIPATION IN SEMINARS, CONFERENCES AND WORKSHOPS

- Atul Sarma chaired the session on “Development Issues” during the International Seminar on *Inclusive Development: Issues and Challenges*, organised in honour of Prof. R. Radhakrishna by the Centre for Economic and Social Studies (CESS), Hyderabad, in partnership with Institute of Public Enterprise (IPE), Hyderabad, October 08–10, 2018.
- Satyaki Roy was a Panellist during the session on “FTAs and Value Capture in Global Supply Chains” at the Briefing Session on *Free Trade, Foreign Investment and Rise of E-commerce: New challenges for the Labour Movement*, jointly organised by Public Services International (PSI), Forum against FTA, TWN Trust India, Transnational Institute (TNI) and IT for Change, and held at Constitution Club, New Delhi, October 23, 2018.
- Atul Sarma participated in the *Seventh Delhi Macroeconomics Workshop*, organised by and held at Indian Statistical Institute, Delhi Centre, October 25–26, 2018.
- Reji K. Joseph participated in the Key Experts and Civil Society meeting on “accessibsa Project on Pharma

Patents – Grants, Errors & Rejections in India & Related Developments” to discuss the findings from the project *accessibsa: Innovation & Access to Medicines in India*, Brazil & South Africa, sponsored by Shuttleworth Foundation, South Africa, December 02–03, 2018.

- Smitha Francis participated in *Analysing India’s Experience with Free Trade Agreements: A Book Launch and Discussion*, organised by Third World Network and TWN Trust India, at Constitution Club, New Delhi, December 11, 2018.
- Smitha Francis attended the soft launch of Pruthvi-3, world’s first and most advanced multi-standard Next Generation TV Receiver chip, indigenously designed and developed by domestic electronics manufacturing company Saankhya Labs, held at Hotel Shangri-La, New Delhi, December 27, 2018.
- Jaishri Jethwaney participated in the session on “Advocacy in Health Communication for Young Adults on Cervical Cancer Prevention” at the INCLen workshop, held at Hotel Lemon Tree, Sohna Road, Haryana, February 26, 2019.
- Akhilesh Kumar Sharma & Ajit Kumar Jha participated in the Seminar cum National Dialogue on *Farm Suicides Across Selected States in India – Issues and Complexities*, jointly organised by ICSSR and the Centre for Research in Rural and Industrial Development (CRRID), Chandigarh, and held at ICSSR, New Delhi, January 21–22, 2019.
- Ramaa Arun Kumar was a discussant for a paper on “Agglomeration and Productivity: Evidence from Indian Manufacturing” by R. Ranjith (Indian Institute of Technology, Madras) during the Two-day National Workshop on *Growth and Productivity of Indian Economy: Contemporary Issues*, organised by Department of Economics, Delhi School of Economics, University of Delhi, February 11–12, 2019.
- Atul Sarma participated in the Panel Discussion on Interim Budget 2019–20, held at Council for Social Development (CSD), February 19, 2019.
- Akhilesh Kumar Sharma participated in the *Town Hall Meeting for MSME Entrepreneurs* of Peera Garhi Industrial Area, held at Cherish Forever Banquet Hall, Udhayog Nagar, Peera Garhi, Delhi, February 19, 2019.
- Mahua Paul participated in the *First Annual Conference in Economics*, organised by the Department of Humanities and Social Sciences, Indian Institute of Technology (IIT) Delhi, and held at IRD Conference Room, IIT Delhi, February 21–22, 2019.
- Beena Saraswathy participated in the *4<sup>th</sup> National Conference on Economics of Competition Law*, organised by the Competition Commission of India, and held at India Habitat Centre, New Delhi, March 01, 2019.
- Akhilesh Kumar Sharma attended the *2<sup>nd</sup> Meeting of the Task Force for Revisiting the Methodology for Compilation of Index of Industrial Production for MSME Sector (IIP-MSME)*, held under Chairmanship of DDG(S&D), DCMSME, March 14, 2018.
- T.P. Bhat gave a talk on “Creation of Employment in Industrial Sector” during the One-day Conference on *Indian Economy: Prospect and Retrospect – A Dialogue on the Current*

*Status of the Indian Economy*, organised by the ICSSR, and held at New Maharashtra Sadan, KG Marg, New Delhi, March 19, 2019.

- Shailender K. Hooda, Keynote Speaker, gave a talk on “Contemporary Health Issues in India” at the One-day National Seminar on *Contemporary Issues and Challenges in Indian Economy*, organised by the Department of Economics, Indira Gandhi University, Meerpur, Haryana, March 28, 2019.
- Sangeeta Ghosh participated in the conference, “Economic Theory and Policy,” organized by Ambedkar University, Delhi at India International Centre, New Delhi, March 29–31, 2019.
- Atul Sarma, Invited Speaker, gave a talk at the Conclave on *When Nationalism is an Election Issue*, jointly organised by News Vanguard and Tripura Times, and held at Sukanta Academy, Agartala, March 31, 2019.

## COURSES ORGANISED

- Jaishri Jethwaney designed and anchored a *Two-day Media Relations Conclave on Skill Development for CEOs and Spokespersons in PSEs* on behalf of SCOPE, held at SCOPE Convention Centre, Lodhi Road, New Delhi, October 08–09, 2018.

## INVITED TALKS

- The Combined Impact of Trade Wars and ‘Make in India’ on Indian Economy, by Badri Narayanan Goplakrishna, January 18, 2019

“Make in India” is a flagship programme of the current government in India. It has two broad features: one is business-friendly that helps reduce transaction costs and improve the ease of doing business in India and the other involves protectionism against imports. The combined effect of these two is ambiguous, partly because these are not very clearly laid out in one document, and partly because they have been captured by a slew of policy measures and announcements over a period of the past four years. Some of them have been proactive while others have been reactive to global policies. The reactive policies have been mainly shaped in the last couple of years, in response to the global trade wars being triggered by the US tariff hikes in several commodities. Therefore, we may observe a link between the global trade wars and Make in India, though both of them have their own separate effects on the Indian economy. Global trade wars may affect India’s trade positively or negatively because of the combination of adverse global supply shocks and trade diversions that may positively favour India. The Make in India programme’s positive measures may have a favourable effect on the industries and people at large, while its protectionist measures may have an ambiguous effect. Our study explores the effects of all these policy measures in global trade wars and Make in

India in a combined way using the GTAP model, after updating the data to 2016 and splitting the auto industry into automobiles and auto parts. This is a unique attempt on two counts; first, we put together the details relevant for global trade wars and Make in India, which in itself is a fresh attempt; and second, this is the first time that we will capture all these contemporary policies in an economy-wide global modeling framework.

- Challenges of Industrialisation and Employment – Global and Indian Perspectives, by Prof. Naushad Ali Azad, March 11, 2019

“Technological disruption” of contemporary times and “slowdown in world economy” are posing serious challenge for employment generation globally. After automation under 3.0, the world is gradually moving towards Industry 4.0 where real (production) and virtual (advanced information and communications technology) spaces are to merge based on Cyber Physical Production Systems, putting further pressure on the employment elasticity of growth and, thus, on the sustainability of the growth process. For India, too, available evidence on GDP growth and employment is indicative of a disconnect between them. The stagnant industrial sector is additional cause for this disconnect. With the lowest share of manufacturing in GDP among key Asian countries, India’s industrial policy needs to

focus on boosting manufacturing in different sectors and regions of the country based on the principles of comparative and competitive advantage.

- The Use of Blockchain and Distributed Ledger Technologies in Humanitarian Work, by Prof. Ser-Huang Poon, March 27, 2019

Dr Ser Huang Poon outlined the vision of establishing a consortium of distributed ledger nodes in 194 states for the collection and sharing of intelligence among child and forced labour support agencies. The global blockchain and all sub-chains within a country and/or state are open, real-time distributed database operated, based on agreed principles. All participants keep a replica of the ledger and updates through consensus protocol. Transactions are secured with cryptography, making it difficult to falsify records. The ledger is replicated on all nodes, which ensures no single point of failure. The most powerful feature of this blockchain is that it does not have an “owner” or a central administrator. This makes the proposed blockchain neutral to political regimes and immune to human mortality. Its longevity and widespread adoption can be secured only if a public consensus is reached. The charity Enduring Net is committed to supporting such a cause worldwide.

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