Editorial note

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Since it was founded in 1952, the *Indian Economic Review*, the journal of the Delhi School of Economics, has been fortunate in being able to publish contributions by internationally renowned economists, including several Nobel laureates. Many of these scholars have had a close connection with the Delhi School of Economics either as faculty or as former students. In this volume, we highlight some of these contributions by reprinting papers that have been published over the long history of the journal. The earliest of the papers dates back to the early 1960s and the latest to 2001. The reader will, however, realise the timeless appeal of these papers. Most of them resonate with current economic concerns and debates such as globalisation, protectionism, sustainable development, unemployment, fiscal federalism and decentralisation.

It has indeed been difficult to select only fifteen papers given the breadth and eminence of scholarship that has been published in the journal over the years. It is inevitable some key contributions have been left out. Our aim in showcasing the past is to emphasise the wide range of topics the *IER* has covered. It is natural, therefore, no single unifying theme ties these papers together. We present below brief summaries of the papers in the context of the times in which they were written.

We start with two papers that resonate with current concerns (Nordhaus 1986; Dasgupta 1981) around sustainable development. Both papers address depletion of common pool natural resources and interestingly enough arrive at conclusions that are far from pessimistic. In Nordhaus (op. cit.), published while he was visiting the Delhi School of Economics, we see glimpses of his engagement with the existential challenge of climate change. By the time Nordhaus wrote this paper he had already developed the rudiments of his celebrated DICE model. In his paper, in this volume, Nordhaus analyses economic interdependence at the level of nations in the context of natural resources. Beginning with a retrospective view he asks whether countries that industrialised earlier have consumed a disproportionate share of the planet's non-renewable resources such as fossil fuels and minerals leaving little for those countries that started later, and thus diminished their economic prospects. By examining empirical evidence over three decades (1955–1985) and factoring in technical change (Solow residual to be precise) Nordhaus arrives at the somewhat optimistic and definitive conclusion “the negative drag to economic growth from resources is two orders of magnitude smaller than the positive contribution from total factor productivity” (Nordhaus 1986, p. 87). In sum, Nordhaus does not believe consumption

of non-renewable resources by early industrialisers is a major threat to the growth prospects of developing countries given technological progress and substitution possibilities.

But the optimistic note of earlier sections of the paper is tempered by a recognition that economic growth in the North has caused global warming carbon which could hamper growth prospects in the South. What is not made explicit in the paper but can be motivated from its title is that the table of carbon space if not empty has indeed been significantly depleted by the advanced countries.

Dasgupta (op. cit.) paper builds on the seminal contributions by Hardin (1968) among others. Dasgupta uses the dynamic model of a fishery to analyse over-exploitation and extinction as possible consequences of Hardin's tragedy of the commons. In a set of interesting results, Dasgupta shows these outcomes are not inevitable. In particular, as long as the rate of return on the species equals the competitive market rate of interest it would be optimal to maintain that stock size and "the goal of intertemporal profit maximization is not necessarily inconsistent with the conservationist's aims" (Dasgupta op. cit. p. 183). Perhaps the most striking result of this paper is that under a wide set of circumstances, maximization of present value of profits of an industry will dictate total temporary ban on the exploitation of a seriously depleted renewable resource. Dasgupta goes on to illustrate this result using data from the blue whale industry and shows there is a compelling economic logic for a ban on whaling.

Moving on to other papers in this volume, Baumol and Willig (1981) characterise the growth of industrialised economies in a free market environment and provide a framework to analyse the successive transfer of industrial leadership from one country to another. The dominant economy is aggregated as a single incumbent firm. Using a one- good and two-period model, the paper analyses whether an incumbent firm (an intertemporal natural monopoly) can choose a pair of prices for the two periods which prevents entry in both periods. Based on the assumptions of decreasing unit cost in the construction of sunk capacity and with growth of demand over time, their analysis shows that despite a cost advantage the incumbent firm can be driven out from the market in the second period. They draw a parallel between this stylised model and a change in industrial leadership among countries over the course of industrialisation.

Markets for essential commodities in India were commonly subject to price controls. These in turn led to the diversion of output to the free market. Mukherji et al. (1980) consider policy tools to minimise such diversion. They analyse the implications of both fixed quantity and proportional quantity rationing rules imposed on the seller and their interaction with the enforcement system of government vigilance. They conclude that an increase in the penalty or increase in policy vigilance need not necessarily reduce the amount of outputs diverted to the free market.

Most countries pursue policies that restrict free trade in some way. It often follows that domestic resources are not optimally allocated across different traded and non-traded goods or across different economic activities in an economy. There has been a great deal of interest among economists in evaluating the impact of trade distortions as captured by the concept of Domestic Resource Cost (DRC). The paper by Bhagwati and Srinivasan (1979) included in this volume analyses the impact of

DRC on different economic activities. They propose an amended concept of DRC that adjusts primary factor costs using shadow factor prices, and use a tariff-distorted goods price ratio and a production possibility curve to understand how trade distorted equilibrium differs from an optimal free trade equilibrium in a small economy. The authors go on to examine a situation where there is a factor market imperfection along with trade distortion, as is the case with many developing countries. In this context, they show the conventional DRC index may not be an appropriate measure for resource allocation changes as compared to the free trade outcome. They go on to suggest the use of second best shadow prices even in the presence of perfect factor markets. Finally, they demonstrate the role of public sector projects for welfare improvement in such contexts.

By promoting international flows of goods, capital and professional labour globalisation can often be a severe constraint for a government trying to implement redistributive policies using conventional taxes and transfers. In his paper, Bowles (2001) starts with some successful examples of redistributive policies such as Nordic social democracy and East Asian land reform which have occurred in small open economies. He explores “what programs of egalitarian redistribution and social insurance are implementable by democratic nation states acting independently” in a liberalized world economy. While some conventional redistributive policies have a very limited role in a globalised world, he argues a class of redistribution policies through transfer of assets is still feasible. In particular, Bowles focuses on governmental and other collective interventions that ensure an efficient solution to incentive problems in principal agent relationships such as wage employment, farm and residential tenancy and also the provision of environmental and social public good in the context of local commons.

Krueger (1996) examines how urbanisation, introduction of modern technologies and reduced dependence on exports of primary commodities, supplemented by globalisation, has changed the policy environment in developing countries. She begins with a review of import substitution policies and how they have influenced economic performance. This is followed by a discussion of how globalisation and a surge in private capital flows have altered patterns of growth. At the same time globalisation limits the ability of governments to enforce and regulate their domestic economic policies since it is now difficult to insulate the domestic economy from international markets. She notes in particular that increased capital mobility has complicated the issue of exchange rate management and sustainability of growth in the developing world; issues that continue to be relevant today.

Klein (1992) provides a brief overview of the changes in econometric practice since Haavelmo's pioneering approach that integrated mathematical formulation of economic models with their statistical representation. Klein focuses in particular on time series methods that were becoming increasingly popular at that time. He notes that in part, the popularity of vector autoregression (VAR) models was driven by easy availability of data. Eschewing a data-driven versus model-driven dichotomy, Klein focuses on the need to pay attention to the statistical properties of errors embedded in model structures. He suggests there is a need to pay particular attention to data quality and measurement error; to modelling and testing for structural change and an explicit recognition of joint (multiple) confidence intervals to capture

the inherent uncertainty in decision making on part of policy makers. Nearly three decades on, Klein's advice continues to be relevant, as another kind of (big) data revolution and its attendant methodological tools is underway.

While Nagar made several seminal contributions to econometrics he is perhaps best known for his pioneering work on k -class estimators of simultaneous equation models (Nagar 1959, 1960). His paper in this volume (Nagar and Ullah 1973) is co-authored with his doctoral student Ullah, a pioneer in econometrics in his own right with contributions in several areas including non-parametrics and shrinkage estimators. Extending the papers of Nagar cited above, they focus in particular on the two-stage least squares estimator (a subset of the k -class) and derive exact moments and also approximations to the skewness and kurtosis of the distribution of this estimator. This is an early contribution to a literature that has otherwise tended to focus largely on asymptotic characterisations of such estimators.

The paper by Tobin (1985) reviews ideas about unemployment, inflation, business cycles, equilibrium and welfare as they evolved since the days of Smith to the early 1980s. The paper has a broad sweep, elucidating the give and take between the real world and the field of macroeconomics. Tobin relates the influence of real world events and practices to revolutions and counter-revolutions within economics. For example, Mercantilism, the Corn Laws, the Great Depression, the stagflation of the 1970s were, respectively, instrumental in giving direction to the work of Smith, Ricardo, Keynes, and to the neo-Keynesian school). Tobin also describes the ways in which the then new economic paradigms shaped economic policy and society. At the same time the paper also discusses specifics of the economics that was spawned by the different schools of thought and the how syntheses of their ideas took shape.

Turnovsky's (1996) paper is a differently oriented review of the macroeconomic literature, and was written about a decade later. It details how dynamic methods were incorporated over time, starting with the "demand-side" models of Samuelson and Hicks, and the growth models of Harrod, Domar, and Solow and Swan. It discusses how the IS-LM model got dynamized once it was extended to have a financial sector. It goes on to the forward-looking dynamics of rational expectations models, and to macroeconomic models with representative agent microfoundations. Turnovsky provides a critique of trends that were in fashion, such as calibration, and expounding his own philosophy of what a formal model is meant for, and what issues he expected macroeconomists to work on in the future.

Sen (1957) is an analytical piece on Nurkse's idea of saving potential: that in a poor economy with a large amount of rural unemployment or underemployment, the fact that the unemployed were supported by the savings of those who *were* employed, this was actually a form of "disguised saving". In Nurkse's view, if the unemployed were moved to a modern urban sector, this had no cost to society as the people who supported their consumption earlier could, in effect, continue to feed them. The article is a critique of this idea, and argues that a substantial amount of this saving potential may in fact not exist. However, in a dual-sector setting, Sen analyses the extent to which a change in the terms of trade between the sectors can initiate such rural-urban migration, and augment any surplus that does exist, thus starting the process of structural transformation.

Included also is a book review of Amartya Sen's "Choice of Techniques" (1957) by Mirrlees (1962). While the review appreciates the book, which is in the mould of theories of planning that were in vogue then, it also contains several substantive criticisms and arguments. Written in the early 1960s, these presage a number of trends that took shape a few years later in the 1960s and 1970s when the mathematical apparatus of optimal control became available, and an awareness of the need for more fully spelt-out general equilibrium treatments of dual sector models became salient.

Akerlof's (1969) piece on centre-state fiscal relations in India was written when he was visiting India for a year in the late 1960s. In the first part, he models centre-state relations by drawing an analogy between a social planner allocating goods to maximize a social welfare function that aggregates utilities of agents and a benevolent centre that allocates funds keeping in mind an aggregation of utilities or welfare of the states. While externalities across agents (spillovers across states) are important in this analysis, Akerlof restricts the setting to a static one, and one involving utilities from private goods only. The second part discusses various considerations that were abstracted away in the first: the dynamic nature of the problem, incentives in the generation of revenues, the existence of a large rural sector, agricultural risk, and the politics of states.

Akerlof's paper was written in an era in which central planning was dominant in India, and unitary features of its constitution gave federalism a pronounced centripetal tilt. In his modelling analogy, however, it is clear that substantial information and incentives could lie with the states. This and other issues take centre stage in Bardhan's (1996) paper, "Decentralized Development". This paper was written at a time when the discourse across the world including India had shifted to devolution of power to local governments. At the same time a substantial amount of work on the theory of the firm and other topics had spawned a literature on who to assign control rights in settings of incomplete contracts. Bardhan's paper discusses a number of issues related to costs and benefits of decentralisation: assigning control rights where there is more information and greater incentives, the dangers of local capture, coordination and spillovers across jurisdictions, to name a few. The paper is a forerunner of a substantial body of research that took place in subsequent decades including Bardhan's own theoretical and empirical contributions, for example, Bardhan and Mookherjee (2005).

It has been an enriching and exciting experience for us to delve into the archives of *IER* and cull out these contributions that have not only helped shape the discipline but the manner in which we perceive and practice economic policy. We hope it will be an equally enriching experience for the reader to go through the papers. We would like to thank the Springer team especially Sagarika Ghosh without whose encouragement, support and nudging this volume would not have been possible. We would also like to thank our colleague Archana Dang who ably managed the logistics.

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