Perspectives on Efficiency, Growth, and Inequality
Abstract

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An important way to analyze institutions, rules, policies etc. is to ask what kind of outcomes can be expected under them if purposive and self-regarding individuals are constrained to act within their framework. Such an analysis can be used for positive as well as normative purposes. If one is interested in explaining the raison d'etre of a particular institution, rule or policy then one possible approach is to look at the characteristics of the outcomes which are obtained under it as a result of interaction of rational individuals. If it turns out that the outcomes under the institution, rule or poliy in question have certain desirable characteristics then these could constitute a possible explanation why the particular institution, rule or policy exists. The same analysis could of course be used for normative purposes. If one is interested in a particular normative criterion one could ask whether the fulfilment of the criterion could be expected under the institution, rule or policy in question. If the answer to the question is in the affirmative then the institution, rule or policy would be found satisfactory; if not a case could be made for a change. The essays in this volume are in the main concerned with the relationship between institutions, rules and policies on the one hand and growth, efficiency and inequality on the other. As growth, efficiency and lessening of inequality are among the most important objectives of the economic domain, the essays have both positive and normative implications of relevance.

In 'Intersectoral Disparities and Growth' Amitava Bose is concerned with the dynamics of growth disparities within the framework of dual economy models of development. Among other questions, the paper explores as to which variable holds the key to explaining the dynamics of growth disparities in dual economy models; whether the growth rates of different sectors converge over time or whether disparities persist; and whether growth in the 'advanced' sector pulls up the 'backward' sector, i.e., whether the growth trickles down. In view of the fact that in recent times the composition of India's GDP has changed significantly and continues to do so the concerns of the paper are of particular relevance for the country.

The paper titled ‘Cycles and Crises in a Model of Debt-Financed Investment-Led Growth’ by Soumya Datta investigates whether the macrodynamics of debt-financing investment can provide an endogenous explanation for emergence of growth cycles in demand-constrained closed economies. The paper demonstrates possibilities of both convergence to the steady state and emergence of stable growth cycles around it in a simple macrodynamic model of debt-financed investment-led growth. The growth cycles are robust and are generated endogenously. The emergence of multiple limit cycles is also observed under certain conditions. The possibility of a deterioration of financial variables during a boom with the resulting financial crisis providing an endogenous ceiling to a business cycle is examined in this context.

In ‘Policy-Induced Changes in Income Distribution and Profit-Led Growth in A Developing Economy’ Gogol Mitra Thakur is concerned with the following problem. Over the last three decades most of the developing countries have adopted in varying degrees the neo-liberal policies. As these policies aim at liberating the market from government intervention so as to achieve allocative efficiency, particular significance is attached to restricting the size of budget deficit. Assuming that this has resulted in worsening of income inequality in these countries, the post-Keynesian/Kaleckian growth literature then would seem to suggest that these economies would stagnate unless they managed to continuously increase their trade surplus. However, some of these economies have put up very decent growth performance in the face of decreasing budget deficits; and at the same time failing to consistently maintain trade surplus and even experiencing increasing trade deficit. The post-1991 Indian growth experience, particularly of the the last decade, being a stand-out example. The author shows that a developing country can experience a positive equilibrium growth rate of investment and surplus as long as investment in the economy is responsive to the aspirations of the richer section of the population to match the consumption level of the developed world and imitation of foreign production technology is not very expensive. Also, the growth process can be stable under certain conditions. Moreover worsening of income distribution is not required to sustain this kind of growth process; a sufficiently unequal initial distribution of income is enough to propel it. But the technologically dynamic sector producing for the rich is incapable of generating much employment.

Amarjyoti Mahanta’s paper titled ‘A Simple Dynamic Bargaining Model’ is concerned with the problem of division of a cake between two persons or players. The importance of the problem arises from its applicability to bargaining over a surplus; the bargaining over surplus being quiet common in transactions. Bargaining takes place whenever agents think that they can influence the end outcome in their favour. Mahanta represents the process of bargaining through a dynamic system. The players announce their plans simultaneously and continuously until they agree upon a division. He shows that the outcome depends on the initial claims as well as on the rates of adjustment. If the range over which each player can choose his rate of adjustment is the same then the outcome is division with equal shares. If the players' capacities to wait or levels of patience are not similar then the outcome is division with unequal shares. The player with a higher level of patience or capacity to wait gets the higher share.

In 'Increasing Returns, Non-Traded Goods, and Wage Inequality' Brati Sankar Chakraborty and Abhirup Sarkar are concerned with the phenomenon of increasing wage inequality. The phenomenon of the rising wage gap between skilled and unskilled labour is being observed in different parts of the world. The increase in wage dispersion has been most pronounced in the United States where the skill premium has been consistently increasing since the late seventies. For other OECD countries, there has either been a fall in the relative wage of the unskilled or an increase in their rate of unemployment or both, though the degree has varied from country to country. However, the evidence on rising wage inequality is somewhat mixed for developing countries. Chakraborty and Sarkar provide a theoretical explanation of the rising wage premium in terms of trade liberalization. The paper makes the point that in a world of increasing returns productivity of skilled labour can be enhanced through trade by expanding the size of the market in all countries participating in world trade. Three models in succession are built to provide an explanation for trade driven rise in wage inequality for the trading partners.

In 'Equality, Priority, and Distributional Judgments' S. Subramanian undertakes an assessment of the substantive significance of Derek Parfit's distinction between Prioritarianism and Egalitarianism. The paper considers issues relating to the 'levelling down objection', the 'Divided World example', and the distinction between 'absolute' and 'relative' valuations of individual benefit. The author argues that 'levelling down' presents a difficulty only for 'pure telic egalitarianism', not for 'pluralist telic egalitarianism'; that one can have an egalitarian rationalization for favouring equality in the distribution of a smaller sum of wellbeing over inequality in the distribution of a larger sum even in a 'Divided World'; and that, while a particular 'absolute'/'relative' dichotomy is relevant for a particular 'distribution-invariance'/'distribution-sensitivity' dichotomy, the resulting distinction is useful for differentiating two types of Egalitarianisms rather than for differentiating a non-Egalitarian principle such as Prioritarianism from Egalitarianism.

In 'Contest with Interdependent Valuations' Rittwik Chatterjee looks at contests when valuations are independent. Valuations are interdependent if the valuation of any contestant not only depends on one's own type, but also on the types of all the other contestants. The author discusses the question whether it is optimal for the contest designer to give a single 'winner take all' first prize or multiple prizes. The author concludes that it may be the case that even with linear cost and performance functions, offering multiple prizes is optimal. This stands in contrast to the private value case.

In 'Auctions with Synergy' Srobonti Chattopadhyay and Rittwik Chatterjee discuss auctions in the presence of synergies. There is positive synergy if values are superadditive, i.e., when having objects together yields a value greater than the sum of individual values. There is negative synergy if values are subadditive, i.e., when having objects together yields a value less than the sum of individual values. The paper analyzes Vickrey auction separately for positive and negative synergies involving two bidders and two units of a homogeneous commodity. Assuming the valuations of each bidder for a single unit to be distributed uniformly over the unit interval and the synergy parameters for both the bidders to be the same, they compare the expected revenues from Vickrey auction, discriminatory auction and uniform price auction for the case of positive synergy. For the case considered, the uniform price auction fetches the highest expected revenue while the Vickrey auction fetches the lowest expected revenue, and the discriminatory auction ranks in between. Next they consider the case when the valuation of each bidder for a single unit is distributed uniformly over the unit interval and the synergy parameters are different for the two bidders. They compare the expected revenue from a second price sealed bid auction for the package consisting of both the units with that from a Vickrey auction, separately for positive and negative synergies. The results suggest that for positive synergy, the second price sealed bid package auction yields a higher expected revenue than the Vickrey auction. For negative synergy, other than for values of the synergy parameter very close to 1, the package auction yields a higher expected revenue than the Vickrey auction.

The paper titled 'Negligence as Existence of a Cost-Justified Untaken Precaution and the Efficiency of Liability Rules' by Satish Jain investigates the efficiency of liability rules with a particular notion of negligence. Courts employ the notion of negligence in at least two different senses. At times the courts hold a party to be negligent because its care level falls short of what the courts deem to be the due care for that party; and at times they hold a party to be negligent on account of its failure to take some cost-justified precaution. Thus, one way to define the idea of negligence is to declare a party to be negligent if and only if its care level is less than the due care specified by the courts for the party in question. Another way to define negligence is to deem a party to be negligent if and only if there exists a precaution which the party could have taken but did not and which would have cost less than the reduction in expected loss that it would have brought about. If negligence is defined as failure to take at least the due care then the efficient liability rules are characterized by the condition of negligence liability. However, if negligence is defined as existence of a cost-justified untaken precaution then there is no liability rule which is efficient. The paper investgates the robustness of this impossibility theorem. The way the proof of the impossibility theorem has been constructed, complementarity in the care levels of the parties seems to play an important role in rendering liability rules inefficient when the notion of negligence is defined in terms of cost-justified untaken precautions. Thus an interesting question that arises is whether there are any liability rules which are efficient if we rule out complementarity in care levels. It is shown in the paper that even when complementarities are ruled out there are no liability rules which are efficient, given that negligence is defined as existence of a cost-justified untaken precaution. Thus the impossibility theorem regarding efficient liability rules when negligence is defined as existence of a cost-justified untaken precaution is quite robust.

In 'The 11-20 Money Request Game and the Level-k Model: Some Experimental Results' Sugato Dasgupta, Sanmitra Ghosh, and Rajendra P. Kundu present and discuss their experimental results on the 11-20 money game introduced by Arad and Rubinstein in their paper 'The 11-20 Money Request Game: Evaluating the Upper Bound of k-level Reasoning,' published in American Economic Review, Vol. 102, 2012. The 11-20 is a simultaneous-move two-player game. Each player requests an amount of money, where the amount is restricted to be an integer between 11 and 20 units. A player receives the amount that he requests; furthermore, a bonus of 20 units is received if he asks for exactly one unit less than the other player. The game has a unique Nash equilibrium. In equilibrium, players randomize over the numbers 15 to 20, with probability weights that are weakly decreasing as the numbers increase. The experimental findings of Arad and Rubinstein, however, could not be explained in terms of the Nash equilibrium. Arad and Rubinstein rationalize the behaviour of the subjects in their experiment by an appeal to the level-k model. The experimental results obtained by the authors confirm the robustness of the results obtained by Arad and Rubinstein. They also discuss whether the level-k model can be used to explain subjects' behavior. They find that a subject's Cognitive Reflection Test score, viewed as a measure of cognitive ability, predicts his behavior in their experiment. Specifically, subjects with high Cognitive Reflection Test scores ask for less money and are classified as higher level-k types than subjects with low Cognitive Reflection Test scores. This then provides an independent justification for using the level-k model to rationalize subjects' behavior in the 11-20 game. The authors also recorded for each subject both the money amount requested and the time taken to submit the request. They found that that subjects asking for the maximal amount of 20 units (deemed to be the most instinctive action according to the level-k model), have higher mean and median response times than the subjects with money requests in the 17-19 range. Thus the level-k model fails a decisive test. The authors therefore advocate caution in using the level-k model to interpret subjects' behavior in the 11-20 game.