Public Investment and Regional Economic Development (2001) Edited by Daniel Felsenstein, Ronald McQuaid, Philip McCann and Daniel Shefer Cheltenham: Edward Elgar Hardback ISBN 1 –84064 715 9 pp 271

The introduction by the editors nicely sets out the book's territory: that is the task of re-assessing the relationship between public investment and regional growth. The task is both theoretical and empirical. The analytical tool which the editors espouse is endogenous growth theory. They argue (page 1) that, ' By stressing endogeneity to the growth process of those factors traditionally treated as exogenous in neoclassical models (such as human capital and technology), this approach underlines the way in which some regions create an internal mechanism for promoting or perpetuating their growth'. In practical terms, the book sets out, not to (re)solve the issues of whether public investments should be 'hard' (investment in physical infrastructures) or 'soft' (services, technology, human resources etc) or whether investment should be direct or indirect, but to present a variety of perspectives on the issues. The introduction explains the book's origins in the Israeli-British and Irish Regional Science workshop held in Jerusalem in February 2000, and Moss Madden's contribution to organising the series of bi-national regional science meetings and who died shortly after this workshop was held.

The body of the book is in four sections, each preceded by a short introduction which summarises the section's contribution to the topic. Part one, Modelling and Planning, has three chapters. The first, by John B Parr, discusses regional economic planning and how to learn from past experience, but from failures rather successes. In the context of the current politically charged debate about clusters and regions, this chapter provides a useful reminder of the different ways that the concept of region has been defined and used in the last hundred years. Parr addresses the question of which scale of government is the most appropriate for identifying the regional problem and implementing regional economic policy. The second two chapters deal with models applied to regional economic development. The first, written by Peter Batey, Fatemeh Bazzazan and Moss Madden presents a discussion of a dynamic form of the extended input-output model. This is a development in modelling the linkage between industrial and household activity. The introduction to this section of the book argues that the principal advantage of the dynamic form of the extended input-output model lies in the calculation of more realistic impact of multipliers and forecasts. The second, written by Michael Sonis and Geoffrey Hewings, contains Miyazawa's scheme of the matrix inter-relational income multiplier.

Part Two's theme is Innovation and Knowledge Creation. Its chapters examine the way that innovative activity has an impact on regional growth and discusses the efficacy of the public policy instruments that have been used. Peter Maskell addresses the way that knowledge as a building block for regional change is produced and transmitted. The argument made is that proximity might be helpful when transmitting certain kinds of knowledge between and among firms as it reduces the investments needed prior to the exchange. Stephen Roper then compares the performance of public policy to promote innovation in three countries: Israel, the UK and Ireland. The indicators used are patent registrations, product innovation and world market shares in electronic products. David Jacobson, Kevin Heanue and Ziene Mottiar continue with the examination of targeted public policy. The case study used is the Irish furniture industry. The last chapter, by Daniel Shefer, Amnon Frenkel and Stephen Roper, examines the determinants of innovation on the basis of a survey of a sample of high-technology plants in Israel and Ireland.

Part Three is on Human Capital and the relationship between educational investments and the geography of growth. This section has three chapters. The first by Philip McCann and Stephen Shepherd examines the role of UK higher education on regional labour markets, particularly the ability of regions to retain as well as attract high quality students. The chapter maps some interesting data from the UK Higher Education Statistics Agency (HESA) on graduate employment patterns between six and twelve months after graduation. Boris Portnov discusses the determinants of interregional labour flows using examples from Israel, Japan and Norway. He explains modelling migration behaviour, and obtaining curves of migration neutrality. Joseph Persky and Daniel Felsenstein discuss the hierarchical relationships which exist between employment changes and human capital acquisitions. They discuss the contribution of the job chains model to estimate the welfare effects arising from job chains set in motion and demonstrate how the model works. They argue that the model shows how targeting one group in the population will always affect other sub-groups as they are all interconnected via job chains. Therefore, at the very least, targeting economic developments must take account of the ramifications generated through labour chains.

Part Four on physical infrastructure has four chapters. The first is by Raphael Bar-El who looks at regional underdevelopment using the case of a peripheral region in Israel. The general approach is the comparative analysis of infrastructure time series data against changes in population in different regions. Ronald McQuaid, Scott Leitham and John D Nelson consider public investment in physical infrastructure and inward investment locational choice. The chapter presents a stated preference (SP) experiment considering the ex-ante choice of industrial and commercial firms concerning their future location using the case study of the Strathclyde region of Scotland. The authors found that responses varied depending on types of firms, whether they had UK or non-UK parents for example. The technique used was deemed to be helpful in disaggregating responses. Next Yoram Shitan asked the question, ‘Can land use policies reduce regional travel?’ The author uses a combination of residential choice model with a newly developed set of activity-based travel demand models to answer the question. He found that the move of households from suburban to urban locations does not really affect travel and does not contribute to reduced auto use, or may even increase it. The final chapter by Elia Werczberger is about public versus private rental housing in Israel. The chapter examines three facets of the Israeli rental market: changing government policy, the main characteristics of rental housing and the demand for renting. On the basis of empirical data, he makes a series of recommendations on expanding and stabilising the new private rental sector.

Each chapter ends with a section on policy conclusions. For example, Parr considers the failure of policy makers to commit to goals because of the problem of conflict of goals and national differences in preoccupations in regional economic goals. These include place prosperity versus people prosperity, spatial and sectoral emphases (contributing to the debate on clusters) and the tendency to imitate. The last substantive part of his chapter discusses three neglected issues in regional economic planning: transmission mechanisms (a technical issue), transfer payments (the form of regional planning) and compensation mechanisms (design issues). He advocates the design of a mixed strategy in spatial and sectoral terms. He warns of an inbuilt danger of the developing world replicating the mistakes of the developed world.

Maskell discusses the consequences of the dispersion of knowledge for further generation between firms; the building of networks among firms as a means to reassemble useful knowledge residing in independent firms; and the special case of knowledge creation and diffusion in geographical clusters with accumulated social capital. His position is to challenge the competence of regional policy makers to interfere directly with markets and firms and argues that they should confine themselves to the important task of securing the institutional framework for market exchange that favours knowledge exchange (p.69). His argument is that if business managers make the wrong choice of market strategies in the face of their accumulated knowledge and expertise, what chance have regional policy makers got in advising them. Therefore good regional policy is context-specific, is market-led, supporting activities already selected by the market, and responds to the process of globalisation by focusing on learning and helping accumulating and protecting social capital needed for inter-firm co-operation and exchange of partly tacit knowledge. However, there are interesting resource allocation issues in this strategy. One only has to look at the West Midlands in the UK to see the huge number of initiatives created to solve the problems of the region, a classic example of multi-agency competition' (see Roberts and Lloyd 2000, 76).

Roper concludes that Ireland and the UK have much to learn from Israel in developing strong indigenous capabilities. Israel's consistent programmes of institutional developments for bilateral and multilateral R&D agreements and attempts by both the Israeli governments to increase the availability of venture capital have challenged the UK's historical advantage over these countries. Israel's superior internal dynamic for innovation has its roots in the flow of research trained manpower coming from the Israeli university network, from immigration and from R&D undertaken in Israeli higher education institutions and sustained by high levels of public commitment to supporting commercial R&D and innovative activity. Compare this with the conclusions in the 2002 Roberts' Report for HM Treasury on *Productivity, R&D and the Supply of scientists and Engineers* which warns of the problems caused by the UK's shortages of scientists and mathematicians. The importance of the development of a large pool of trained labour in Israel is echoed in the chapter by Jacobson et al. Bar-El argues that regional infrastructure expenditure as a response to demand pressures may lead to a process of polarisation and therefore impose a serious publicly-generated constraint on the ability of peripheral regions to develop and compete. Therefore a more normative policy of allocation of infrastructure should be considered. This is in contrast to the prevailing rule of thumb which is to respond to revealed needs for infrastructure.

To sum up, the book contains some very interesting material but it is disappointing in that it is not more than a collection of articles. It would have been strengthened by a concluding chapter which did two related things. First reviewed the contents, conclusions and the policy implications of the various chapters. As a non-modeller, I would like to have it explained to me the importance of the various modelling techniques. They are of no interest to me as a reader if I have no idea what an expanded Miyazawa Framework, for example, is for. Certainly the chapter doesn't tell me neither does the introduction to the section. Second, the book started with a reference to endogenous growth theory. A very useful addition to the literature would have been to review the theory's utility in the light of the contributions made by the authors. In some chapters, endogenous growth theory is mentioned explicitly others it is there implicitly. A model for this kind of book is *Towards Global Localisation* edited by Cooke et al. 1992.

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