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## Book Review

SEÁN Ó RIAIN, 2004. *The Politics of High-Tech Growth: Developmental Network States in the Global Economy*, Cambridge University Press.

“Sticky places in slippery space” is one of the best-known phrases from the literature on economic geography. The “slippery space” is the globalised world of highly mobile capital, labour and technology. The “sticky places” are the successful regions in which these factors agglomerate. This book is, *inter alia*, an analysis of how Ireland became sticky over the course of the 1990s.

The author, Seán Ó Riain, has recently returned from a faculty position at UC Davis to become Professor of Sociology at Maynooth. His best-known work thus far has been on the evolution of the indigenous computer software sector in Ireland, a topic that has also attracted the attention of geographers such as Mike Crone at The Economic Research Institute of Northern Ireland, Seamus Grimes at The National University of Ireland, Galway and Neil Coe of the University of Manchester.

The dynamism of this sector seems to have gone largely unnoticed by economists, perhaps because data on services are still much less codified than is the case for manufacturing. Indigenous software employment grew from under 4,000 in 1991 to over 11,000 in 2004, with revenues increasing from 200 million euro to almost 1.5 billion (of which 70 per cent come from exports).<sup>1</sup> The sector is unique among high-tech activities in that the indigenous segment almost matches the size and export-orientation of its foreign-owned counterpart.

The book usefully draws together much of this earlier material. The sectoral analysis is then used as a launching pad for discussion of the changes in state-agency participation in the economy over the last decade. These changes are argued to have been crucial to the turnaround in Ireland’s economic fortunes. The third and overarching theme of the book is the exploration of parallels and contrasts between Irish economic governance and the policies, practices and institutions of other “developmental states”, primarily in East Asia. This discussion elucidates how a developmental agenda can be maintained in the face of clientalist pressures and the distributive demands of entrenched interest groups, one of the single most important issues in economic development.

The indigenous software sector initially emerged as an unanticipated by-product of Ireland’s FDI-oriented development strategy. Foreign multinationals located in Ireland hired local software developers to carry out locally-required tasks. With agency encouragement (for which I will use the term Enterprise Ireland (EI), though the

<sup>1</sup> [www.nsd.ie](http://www.nsd.ie)

relevant agencies have undergone numerous name changes) these services metamorphosed into internationally-tradable software products. The resources directed – at the behest of the IDA – to the expansion of third-level education in electronics and computing gave rise to the “technical communities” from which further indigenous innovation emerged. (The term refers to the social organisations within which knowledge spillovers occur. To economists these spillovers are of course the third of Marshall’s agglomeration-generating processes).

The agencies played a far more active role than might be implied by the notion of “getting the conditions right”. In particular EI virtually established the venture capital industry in Ireland, channelling funds and advice to emerging firms that met its stringent conditions. (EI has earned a substantial rate of return on its venture capital investments!) Only much later, after the sector had taken off, did private capital start to pour in. One of the conditions for access to EI capital was that the firm show a willingness to move from non-traded or body-shopping services into export-oriented products. EI also worked directly with firms to develop their capacities, focusing grants on areas such as marketing, management development, training and R&D.

Ó Riain focuses on the role of EI in this story, pointing out that it has been substantially more interventionist than the “neo-liberal” prescriptions of the Washington Consensus that drives the IMF and, until recently, the World Bank. (The World Bank has lately become more open to “new industrial policy” ideas such as those that guide Irish state-agency behaviour). While I agree strongly with the author that the development of indigenous enterprise is crucial to development, I do not share his apparent hostility to the FDI-oriented development strategy, on which indigenous development has piggy-backed.

He is too quick, to my mind, to offer political/sociological explanations for failures to deal with difficult economic problems. Thus (page 212) he writes that “the dismal failure to mobilize the domestic bourgeoisie in the interests of development left Ireland seeking FDI”. In fact, as we know from Krugman’s work on economic geography, it is extremely difficult to reverse a region’s peripheral status when the periphery labour force is free to migrate to the core. As Cormac Ó Gráda (1997, page 217) writes, easy access to the British labour market meant historically that “cheaper labour could do little to compensate for Ireland’s relative backwardness and isolation, or to generate the investment necessary for faster economic growth”. This suggests that the low corporation tax strategy ultimately adopted may have been one of the few policies that could have reversed this process.

Ó Riain presumes (e.g. page 200) that FDI typically contributes little more than low-skill assembly. He fails to note however, even on the basis of the Irish experience and current US outsourcing of software development to India, that the skill-intensity of offshored activities changes along with the educational attainment of the host population. Furthermore, as this year’s forthcoming UNCTAD World Investment Report makes clear, offshoring of R&D work is increasing rapidly.

To me, the indigenous software story shows that infant industries can emerge through linkages with MNCs under free-trade conditions. (Singapore provides further examples). These are crucial antidotes to traditional infant-industry arguments advocating protectionism. I see this as a more valuable model for developing countries than the interventionist success stories of Japan and Korea. These latter types of policies are much more likely to be withered by corruption and clientalism if adopted in developing countries.

Undoubtedly, however, climbing the ladder of comparative advantage – whether or not on the back of FDI as in the cases of Ireland and Singapore – requires diligent governance and appropriate institutions, factors which, as Joseph Stiglitz (2002) emphasises, are largely ignored by the Washington Consensus. Stiglitz (page 21) points to the fact, for example, that the US authorities, during that country's development phase, “promoted some industries (the first telegraph line, for example, was laid by the federal government...) and encouraged others, like agriculture, not just helping set up universities to do research but providing extension services to train farmers in the new technologies”.

In contrast to Ó Riain, whose view on this seems to be shared by most other sociologists whom I have read, my impression is that most economists recognise the ubiquity of market failure, spillovers, information gaps, co-ordination issues and so on, particularly in developing economies. That said, economists are probably equally attuned to the ubiquity of rent seeking, interest-group capture of the policymaking process, and what Anne Krueger (1990) has termed “government failure”. Ó Riain approvingly quotes an analyst of the East Asian experience, for example, to the effect that “nationalist ideological commitments and external security pressures forced the state to avoid the worst of predatory state behaviour.” Most economists would probably ask whether these conditions did not equally prevail in most African countries upon independence.

Ó Riain's analysis, however – and Stiglitz would undoubtedly agree – shows that an appropriate institutional/public administration environment is required to create the conditions that growth regressions such as those of Barro and Sala-i-Martin (1995) identify as being crucial to economic success. MacSharry and White's (2000) account shows how important the Irish state agencies have been in ensuring that preconditions such as good telecommunications, high educational throughput etc., have been met. Ó Riain's book adds further detail on how the agencies, particularly EI, have operated. It fills out Eoin O'Malley's (1998) brief remarks on the role that the changes in industrial policy played in the resurgence of Irish indigenous manufacturing. As such, it is an important addition to the record of why precisely the broad “IDA family” is regarded internationally, by the Foreign Investment Advisory Service of the World Bank among others, as a prime example of best practice in its field.

I am less convinced by his presumption that the increased state-agency focus on indigenous firms is the key to the Celtic Tiger phenomenon. Ó Riain pays little attention to the beneficial consequences of fiscal stabilisation, which is a critical determinant of the overall investment climate; there is no mention of the Single Market, which proved such a boon to Ireland's ability to draw in FDI, and, in contrast to his selective citations of Sean Barrett on the causes of the tourism boom, I suspect Barrett himself would accord pride of place to the 1986 decision to deregulate airline access into the country.

It is also methodologically problematic of course to focus on a single successful sector as evidence of the appropriateness of a new approach to policy, much as a well-known textbook on the Irish economy is surely on shaky ground – arguing from the opposite position – in disparaging Japanese interventionism because MITI attempted to dissuade Honda from entering the automobile market. It is perhaps telling that software does not appear to have been a priority in Enterprise Ireland's National Linkages Programme and yet has been the most successful sector to emerge, ultimately, through such linkages.

His Olsonian analysis of how this increased focus on indigenous development came about within the state agencies is interesting. Its flavour can be gleaned from the following quote:

The hegemony of the FDI strategy and the IDA within the national policy regime was shaken by the events of the early and mid-1980s. This space allowed an alliance among marginalized state agencies, technical professionals and university constituencies to emerge (page 64).

He also provides very useful material on subterranean developments over the decades in the emergence of an Irish national innovation system. The interview technique, generally eschewed by economists, throws up many insightful nuggets, such as the comment of the senior civil servant in explaining how the science and technology (S&T) lobby historically used the wrong approach in dealing with government:

A minister has a set of instruments; it's to the extent that you can show that your instruments, if they get resources, will realise the objectives...They needed to do that for S&T. Looking for money for S&T as an end in itself was never going to work. The percentage of GNP indicator is an outcome of that, not a cause (page 185).

Given that Science Foundation Ireland is now the key body tasked with the further development of the national innovation system, it would have been of interest to hear Ó Riain's speculations as to whether the areas chosen as its primary focus – biotechnology and ICT – were driven more by the FDI or the indigenous-development agenda. To me the areas and sub-areas chosen would seem to suggest the continued dominance of the focus on FDI – which would not seem to accord with his Olsonian thesis – though Mary Harney, in her time as Minister for Enterprise, Trade and Employment, suggested that “... in the future we will have to put a greater emphasis on creating our own Michael Dell or Bill Gates rather than importing them” (*Irish Times*, April 2, 2004).

The final theme of the book concerns the nature of the developmental state itself. A question of tremendous importance for developing economies is how such states insulate “the developmental project” from clientalism and interest-group pressures. Here, following Evans (1995), the concept of the “embedded autonomy” of state agencies and the civil service is emphasised as key.

Embeddedness – in agency clients and constituencies – is necessary to be able to mobilise the private sector to support the developmental project. Agency autonomy, in the form of performance requirements, constant informal monitoring and formal evaluations (typically carried out by external consultants, often published, and with relatively easy availability) is necessary to prevent the overembeddedness associated with clientalism and corruption. It is difficult to get the balance right of course. “Governance”, as one writer on Africa wittily puts it, “equals government minus politics”. Ó Riain's analysis of how the balance was achieved in Ireland makes fascinating reading, though he fails to point out that the sectors investigated by the various tribunals and inquiries of recent times – property, retail banking, beef, domestic telecommunications, etc. – have not been the ones dominated by export-oriented foreign MNCs, which is interesting from a political-economy perspective.

In terms of developmental states, he distinguishes between “developmental

bureaucratic states” such as Japan and Korea, which focused on the support of national champions, and a new breed, the “developmental network state”, of which Ireland, Taiwan and Israel are presented as examples. These latter states appear best suited to create the “sticky places” that attract today’s high-tech industries.

Network externalities in technology development mean that simply emulating dominant models of growth in such industries or mobilizing massive resources is no longer enough. Effective integration into these industries requires that both firms and technical communities, although locally embedded, must have close ties to global technology networks of innovation and learning.....Network states attempt to create specific kinds of firms: those that are oriented towards learning, R&D and high-value-added competition.

To an economist, however, Chapter 10 on “Developmental Bureaucratic and Network States in Comparative Perspective” is by far the least appealing in the book. It is based mostly on secondary sources which appear to me to have been accepted too uncritically. Policies that leave most economists aghast, such as “vagueness in (Korean) tax laws such that politically uncooperative firms could be threatened with audits” and state ownership of banks “which proved to be a critical instrument for channelling increasingly high Taiwanese savings into the economy”, are cited approvingly.

There is much therefore that is fascinating, important and useful in this book – particularly the primary research on the origins of the indigenous software sector and the modus operandi of the Irish state agencies – but elements too, and particularly these types of unguarded comments, that unfortunately leave room for criticism.

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