

INDUSTRIAL CLUSTERS: A NEW IDEA OR AN OLD ONE?

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The notion that industrial development is most likely to succeed if it takes place in a cluster and that such clusters should somehow be promoted by those who have responsibility for regional economic development has become very fashionable in recent years. The idea stems from the seminal work of Porter, but is well explained in the two articles by Botham and Downes in this journal¹¹. It is put forward as a much more promising approach for regional development than indiscriminate promotion of economic activity, which is said to typify past policies. Two questions seem to arise: first, is this really a new idea, and, second and more importantly, does it offer a greater chance of success than past policies? The two questions are related. In regional policy, as in other areas of economic policy, what is sometimes presented as a new and promising approach is sometimes, for those with longer memories, no more than the rediscovery of an idea that has been tried before. If so, it is important to ask what happened last time round and why it went out of fashion if it really promises so much. Porter's concept is that the competitive advantage of a region or a nation depends more on the strength of a complex of related industries and activities (a cluster) than on any one of them

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¹¹Porter, Michael E. (1990), *The Competitive Advantage of Nations*, London: Macmillan, see especially Chapters 3 and 4.

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individually. Such clusters may, and often do, involve activities being in close proximity to each other, but the need for tight geographical concentration varies depending on the industry. A cluster may depend on a key natural resource: locally produced timber or agricultural produce, for example; access to a deep water port; or availability of cheap energy. But more often little more than chance explains the location of a group of related industries in a particular area. What matters in both cases is the extent to which the related industries reinforce each other's strength and the ability of various authorities to provide the educational support, training, research and infrastructure necessary for success. Weakness in any part of this may undermine the competitive position of the cluster as a whole. Scotland's economy, both past and present, provides good examples of this pattern. The clearest case was perhaps the shipbuilding industry. Shipbuilding is largely an assembly industry, with at least half the value added in a ship being contributed in activities outside shipbuilding itself. In its heyday the Clyde was one of the largest shipbuilding centres in the world with in excess of twenty shipbuilding yards. The related industries extended to marine engines, general engineering including firms like Weirs and Howdens, machine tools, cranes, joinery and a host of other activities. The output of the steel industry was dominated by the need for plate for ships, with heavy high quality plate produced at Dalziel, general plate at Clydebridge and universal flats at Glengarnock. Even Shanks sanitary ware was heavily dependent on shipbuilding for an important part of its market. And of course Glasgow's two universities were oriented towards providing the sort of engineers that these industries required. But while these linkages are important for the success of a group of industries, they can have a devastating effect when the central industry round which they are grouped goes into decline.

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Because of the vulnerability that this kind of concentration entails, policy in the immediate post war years put emphasis on the need for diversification. Assistance to new industries did not, and generally still does not, attempt to discriminate. It used to be said that for an area in need of development any industry was welcome except a glueworks. In reality it was felt that so long as unemployment was too high anything that provided jobs should be encouraged; one did not have the luxury of choice except in so far as environmental considerations might rule a particular activity out.

In the 1960s, however, this approach began to be questioned, especially in France. There, stemming largely from the work of François Perroux, the idea of the *pôle de croissance* (growth pole) was developed and was central to thinking on regional development policy¹². French policy was always approached more from the angle of economic planning, no doubt because of the system of national indicative plans, than was the practice in Britain, and the growth pole approach as a basis for planning was therefore attractive. British Conservative governments, on the other hand, even in the 1960s when interest in indicative planning was at its highest, always found this difficult.

The French concept of growth poles was not dissimilar from the present notion of clusters. It laid emphasis on inter-industry linkages, on the external economies that arose from geographical proximity and concentration and usually there was one industry in the pole, the *industrie motrice*, which was the driver for the related complex and on whose continued success the fate of the others depended. The idea gained considerable support in other Continental countries, and the European Economic Commission published a report by Professor Tosco of Italconsult setting out a plan for development in the

¹²Perroux, F (1955). 'Note sur la Notion de Pôle de Croissance', *Economie Appliquée*, and set out more extensively in his (1964), *L'Economie du XX ème Siècle*, part 2, 2nd edition enlarged, Presses Universitaires de France: Paris.

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Bari/Brindisi area of Italy, part of the Mezzogiomo, based upon it¹³. Puglia seems today to be one of the stronger parts of the Italian Mezzogiomo economically, and it may be that the thinking in this report contributed to that. But generally it does not seem that this approach to economic development has been developed further and, as the 1960s gave way to the economic turbulence of the 1970s, interest in it seems to have waned, not only in Italy but even in France. The problem for the 1980s and 1990s is how to reconcile an approach that relied heavily on economic planning with the realities of an increasingly liberalised world market, and a more strongly market oriented style of economic thinking. Looking back, the weakness in this approach seems to be that while a growth pole is certainly a plausible idea, there was never much information on how the inter-industry linkages worked, the scale that was necessary to make a complex viable or the importance of distance as an economic variable. And of course, as the difficult conditions of the 1970s showed both in this country and in Italy, attempts to promote an industry in an area for which it turned out to be unsuited, such as the steel mill at Taranto or the motor plant at Linwood, would not only fail to stimulate the growth of related activities, resulting in 'cathedrals in the desert', but might end in the closure of the industry itself.

In this country, although there was some interest in the growth pole idea, it never became incorporated in policy. The nearest approach to it was the adoption in the two White Papers of 1963 of 'growth points' as an objective of policy in Scotland and a

¹³EEC (1966), *Studio per la creation di un polo industriale de sviluppo in Italia Meridionale*, Serie Economia e Finanza No. 5, Brussels. The application of the growth pole approach in both Italy and France is described in MacLennan, M and Allen, K. (1970), *Regional Problems and Policies in Italy and France*, George Allen and Unwin: London.

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'growth zone' in North East England¹⁴. These have often been regarded as a British application of the growth pole idea. But in reality they were quite different¹⁵. They stemmed from the recommendations of the Toothill Committee that rather than try to steer economic development to areas of the highest unemployment, which were often unattractive, efforts should be made to promote areas that had a real chance of success in attracting industry, such as new towns¹⁶. Industrial incentives should be available for such areas even if their unemployment was below average and they should be given priority in infrastructure investment, on the understanding that some population movement out of the more disadvantaged areas towards those with better prospects not only had to be accepted but was actually desirable. The growth point policy was therefore about locational priorities; it said nothing about inter-industry linkages which were central to the notion of the *pôle de croissance* or Porter's concept of clusters.

That is not to say, however, that the approach involved in industrial clusters has been entirely absent from Scottish policy over the last thirty years. In the 1960s when the two motor plants at Linwood and Bathgate were established, it was clearly the hope and expectation that they would lead to the growth of a range of related industries to form some kind of Scottish motor industry cluster; and the decision to bring the steel strip mill to Ravenseraig was considered important not simply because it was a major development in its own right but because it was thought that the motor industry development, and hoped for

¹⁴Scottish Office (1963), *Central Scotland: A Programme for Development and Growth*, Cmnd. 2188, HMSO: Edinburgh; and Board of Trade (1963), *The North-East: A Programme for Development and Growth*, Cmnd. 2206, HMSO: London.

¹⁵For a fuller discussion see my (1969) *Regional Policy in Britain*, George Allen and Unwin: London, Chapter 9.

¹⁶Scottish Council (Development and Industry) (1961), *Report of the Committee of Inquiry into the Scottish Economy (Toothill Committee)*, Edinburgh.

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development of white goods (refrigerators, washing machines etc), would be handicapped without it. In the event these hoped for developments did not take place. For various reasons (which do not concern us here) the motor industry proved not to be securely rooted in Scotland, though it did stay for approximately 20 years, and Ravenscraig ended up selling most of its strip steel to firms in England.

Later, with the setting up of the Scottish Development Agency in 1975 and its subsequent transformation into Scottish Enterprise, a more successful approach to inter-industry linkages has been adopted. As Botham and Downes make clear in their article in this issue of **Scottish Affairs** there are Scottish industrial clusters in electronics, in oil and gas related activities, in finance, chemicals and forest products. To a large extent this has been spontaneous, which is as it should be, but there has also been some help from government and its agencies. In inward investment promotion, in particular, it is necessary to prioritise effort towards firms and industries that are most likely to succeed in Scotland and that may mean those that fit best with those already there. Efforts have also been made to develop links with universities and other institutions providing training and research. With the growing maturity of Scottish forests, particular efforts were made to find firms that could benefit from this resource. And the establishment of Scottish Financial Enterprise was originally conceived as a way of strengthening and promoting the strong Scottish financial cluster.

According to Botham and Downes the industrial cluster approach is now more explicitly adopted by Scottish Enterprise. That is to be welcomed. But it is necessary to avoid the disappointments that followed the attempts to implement the *pôle de croissance* in other countries. It must not be regarded as an attempt to impose some kind of economic blue print on an area. Public agencies are fallible, as past experience clearly demonstrates; entrepreneurship is best left to entrepreneurs. But

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the clusters approach could be a useful guide to policy priorities. It helps to understand that the strength of an industry depends on the strength of related activities in a cluster of which it forms a part; and inward investment promotion needs to be targeted at particular types of industry if it is to be effective. There may be circumstances where it becomes very clear, as with forest products and the electronics industry, that there is a gap that needs to be filled. Public bodies also have a role to play in providing support through education, research and infrastructure.

But the greatest weakness of the Scottish economy remains the disappointing growth of indigenous companies and the low birth rate of new businesses. It is indigenous growth that forms the basis of the successful clusters in the United States, not inward investment. If Scottish Enterprise can find ways of replicating that here, then the clusters approach will be truly seen to be a success.

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