LSE Spatial Economics Research Centre

Rewarding Good Firms

Ed Miliband tells us he wants to reward good families and firms. Where there are details, they raise as many questions as answers. Allocating housing on the basis of criteria other than needs throws up big questions. It's not clear to me why we want people to do apprenticeships in firms that have government contracts, etc. Stepping back from the details, Ed Milliband says that what they will do is change the regulatory and tax framework to carefully reward good firms. Fine in principle, but in practice I worry that this sort of thing vastly overestimates the ability of government to intervene in a way that actually achieves it's objectives. Two analogies spring to mind - one concerns the role of the Basel regulations on capital requirements that sought to ensure good behaviour but ended up encouraging banks to hold mortgage backed assets (and derivatives of those assets). The second is a little more in line with my expertise and concerns what policy might do to 'reward innovative firms located in clusters'. For those of you that want the headline message - it turns out to be incredibly difficult to know what we should do (if anything) to reward innovative clusters of firms. For those of you that like the details, read on for a more careful analysis (based on my contribution to the Manchester Independent Economic Review)

There is an extensive policy literature on clusters that uses the existence of agglomeration economies to justify a whole range of policy interventions. Such an approach could be used to develop policy options for encouraging innovative clusters of firms. Policy makers like this approach because it argues for a strong role for active policy and usually involves the introduction of a range of 'innovative' policy measures. A significant number of academics like it too, for similar reasons. In contrast, most mainstream economists, and a number of leading economic geographers, are sceptical, if n hostile, to this approach and thus cautious about the policy conclusions that this literature reaches.

The first, well documented problem, is one of definition. Just what is meant by a cluster? The literature provides a large number of rather vague answe to this question. Even if this objection could be met by tightening the definition, much more significant problems remain. As noted by Gilles Duranton, " [main] problem with the cluster policy literature is one of a lack of well-articulated theory: what is the 'problem' that cluster initiatives are trying to fix?" This problem lies at the heart of economist's objections to this approach.

A common answer to the question about the role of cluster policy is that it aims to improve local "competitiveness" or productivity. The problem with this answer is that it does not clearly set out the source of any possible inefficiencies (or inequities) and thus cannot explain how to correct for them. Porter famous diamond attempts to map out the underlying sources of competitiveness. The resulting model appears to be complex with many different elements all feeding in to one another. But this complexity is actually rather superficial as all of the different elements feedback positively to other elements. A complex policy mix is called for, but fortunately, in Porter's model, all policy actions on any component of the diamond will help strengthen the cluster.

Of course, in reality this will not be the case because of the presence of negative feedback. For example, in many cases, reducing barriers to entry in a sector which is already reasonably competitive, may hamper the development of new products (because firms offset the cost of innovating against the profits that they make once they innovate; entry drives down these profits and reduces incentives to innovate all else equal). Yet clusters policies often advocate increasing both entry and new product development as mutually reinforcing elements in strengthening a cluster. It would be possible to identi many other examples where carefully specified economic models and available empirical evidence actually point to a negative feedback between different elements of the diamond.

The second problem with the diamond model is that, despite its apparent complexity, it pays no attention to some fundamental drivers. For example, what is being assumed about labour mobility? If firms are mobile, but workers are not, how can one be sure that encouraging larger clusters in a particular place is a good idea? Similarly, what is being assumed about the functioning of the land market? It is quite possible that any surplus generate by increasing the size of the cluster just translates in to higher rents for owners of land. Models of urban economics show that the answers to such questions are fundamentally important in understanding the functioning of the spatial economy and in assessing the role, if any, for policy. Yet the diamond model is silent on these issues. This is particularly important in the UK context, where planning for housing and commercial land use is one o the key policy levers available at the sub-national level.

Finally, even if there is positive feedback between the different elements of the diamond model, this does not actually provide a justification for policy intervention. Such a justification needs to be based on carefully identifying reasons why the market ignores these positive feedbacks and produces an inefficient outcome. That is, we need to look for market failures and construct policy to address them accordingly. Unfortunately for the clusters policy approach, simple models that do this, suggest that market failures can lead to clusters being too big as well as too small. In other words, effective clusters policy might actually call for a reduction in the size of clusters.

The simplest way to think about the benefits of clustering is to assume that, because of the existence of agglomeration economies, the productivity of firms and thus the wages that they pay are increasing with cluster size. Offsetting this are rising costs (e.g. increased land prices) as the cluster increases in size. At small cluster sizes, we might expect increased benefits to outweigh increased costs as the size of the cluster increases. That is, th "competitiveness" of the cluster (as measured by the wages that its firms can pay to workers) is increasing in cluster size. At some size, however, the rate at which costs increase will begin to outweigh the rate at which benefits increase. That is, there is likely to be an optimal cluster size at which the wages that firms can pay are maximized. Encouraging expansion beyond this size will lead firms and workers to be worse off.

In the absence of government intervention would we expect cluster sizes to be above or below this optimal size? The answer depends on the mobility workers and firms. If firms are reasonably mobile (which is likely to be the case) then clusters tend to be too large. This is because when firms enter th cluster they take account of the benefit to them (of being able to pay a higher wage as a result of agglomeration economies), but they ignore the increased costs to all the other firms. This is an example of a coordination failure. One way to solve this coordination problem is to have some large agent come along and help firms recognise the additional costs that they impose on other firms or else restrict the size of clusters. In other words, in th

simple world, government should be working to decrease the size of clusters, not increase them.

Of course, this explanation is too simple, because there are externalities on both the benefit and cost side of cluster formation. Firms ignore both types externalities when making their decisions. Cluster advocates focus on the unexploited benefits to argue that clusters will be smaller than optimal. In reality, there are cost externalities as well as agglomeration externalities which may make the social optimum for the cluster bigger or smaller than the private optimum. However, even if the social optimum is bigger than the private optimum this doesn't necessarily mean government policy needs to expand the size of the cluster because private decisions may have already led to the cluster being too big relative to the private optimum.

In short, as is so often the case, the existence of several un-priced externalities make it very difficult to know what policy should be seeking to do in practice. Cluster advocates essentially only think about one of the three types of externalities present here (agglomeration externalities) while ignoring the other two (cost externalities and coordination failures). Oddly, when it comes to the overall size of our cities, advocates of strong land use controls the opposite. They focus only on cost externalities and coordination failures, generally ignoring agglomeration benefits, to reach the conclusion that larger cities are too big relative to some optimum. As should be clear by now, both of these approaches only represent a very partial view of even the simplest models of cluster and city size formation. We would argue strongly that this is not a good basis for policy.

Of course, these conceptual issues might not matter at all if cluster advocates could point to a large number of cases where carefully designed public policies have had significant effect on both the size of clusters and their competitiveness. Unfortunately, a recent meta-survey of more than 750 cluster finds evidence that government policy does not do this. For example, van der Linde (2003, p.144) finds that "Random events or government influence […] are the least important determinants in competitive clusters, while they play a much more important role in uncompetitive clusters". Cluster creation policies perform even worse. For the over 750 clusters that van der Linde (2003) studies, only one competitive cluster has been established as a result a specific government policy to attract it. In short, even if we wanted to, simplistic implementation of cluster policies appears to do essentially nothing to create or increase the competitiveness of clusters.

As I said at the very beginning, Ed Milliband's idea may sound good in theory but it will certainly be very difficult to implement in practice.

Posted by Prof Henry G. Overman on Wednesday, September 28, 2011   G+1 Recommend this on Google

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