## Introduction

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One of the most strongly felt challenges facing the Western European economies today is the increased competition from low-wage countries. Western Europe has been relatively open to such competition for a long time, but the Eastern enlargement of the European Union along with the emergence of large Asian economies such as China and India as major exporters of manufacturing products have created a sense that the current situation is indeed a new one. Well-publicized cases of plant closures in connection with firms expanding in Central and Eastern Europe have added to the fear that manufacturing activities are being relocated from high-wage to low-wage regions. Underlying these fears is the realization that firms decide where to locate production based on economic fundamentals, such as where the cost of production is low and where the return on sales is high. They are compounded by the fact that firms' location decisions have important consequences not only for employment and wages, but also for the size of the tax base and the ability to maintain a welfare state of the European type.

In the fall of 2004, the Swedish Economic Council organized a conference on "Industry Location in an Integrated Europe". The conference brought together some of the most prominent researchers in the area to answer, among others, the following questions:

- How do location choices of firms shape the economic landscape?
- How does the economic geography of a region shape its economy?
- How does economic integration affect industry location?
- To what extent may regional polices affect location choice and help mitigate unequal development of regions and inequality between individuals?
- To what extent does the mobility of firms create pressure on governments to compete for investment by lowering taxes?

Issues related to economic integration and industry location have been particularly relevant from a European perspective because of

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European integration. Maybe because of this, the academic interest in these issues has been especially strong for European academics, or academics working in Europe. Recent important contributions to theory as well as empirical analysis have, to a large part, been undertaken by researchers based in Europe, in particular the contributors to this issue.

In the first paper, Richard Baldwin provides an introduction to the recent theoretical literature on integration and industry location. Baldwin has written extensively on this topic and recently published a text book on economic geography and public policy together with some of the other contributors (Baldwin et al., 2003). The paper provides the reader with an easily accessible and pedagogical explanation of how first and second nature geography affect industry location; first nature being the physical geography and second nature the balance of agglomeration and dispersion forces arising from the interaction of economic agents. He also argues that "one and a half" nature geography matters. This term would serve to capture factors that are endogenously determined in the long run, but which only change slowly, for example the transport network and knowledge networks determining how information is transmitted and spread in society.

The distinction between first and second nature geography is picked up in the second paper, written by Stephen Redding. Redding deals with the empirical literature on explaining the spatial variation in factor income. Manufacturing wages do not only differ across countries, but also within countries. This spatial variation in factor income is to a large extent explained by differences in institutions affecting incentives to innovate and invest along with first nature geography factors such as climate, availability of natural resources etc. Redding, however, shows that second nature geography is very important in explaining the variation in factor income within as well as between countries. A region's location vis-à-vis large markets determines local firms' access to consumers and to intermediate inputs suppliers, thereby determining how much they can afford to pay in wages. Redding shows that the finding that market and supplier access are important factors explaining the spatial variation in factor income is robust to a number of differences in empirical specification and choice of dataset.

The paper by *Jozef Konings* also deals with spatial variation in wages, although from a slightly different perspective. Konings examines to what extent firms respond to wage differentials across European

countries in their employment decisions. He starts out by showing that although the wage differentials between Western and Eastern Europe are large—wages are about five times as high in countries such as Belgium and Germany as in Estonia, Hungary and the Czech Republic—they are completely accounted for by productivity differences measured at the firm level.

Konings then proceeds to analyze the employment response to wage differentials at the firm level. In a sample of European multinationals, he finds some evidence of employment substitution between home and host countries; that is, evidence that firms tend to decrease their employment in the parent firms in response to lowered wage costs in countries in which they have foreign affiliates. However, this only happens for wage decreases in other high-wage countries, not for wage decreases in low-wage countries such as those in Central and Eastern Europe. He thus concludes that there is not yet much evidence of firms relocating jobs from Western to Eastern Europe in response to lower wage costs in the East. In his data, firms expanding in Central and Eastern Europe seem to maintain operations at a stable level in the West.

The fourth paper, written by *Philippe Martin*, deals with regional policies in Europe. Martin criticizes European regional policies on theoretical as well as empirical grounds. He argues that regional convergence is not necessary for social cohesion, since the transfer systems in place may very well be sufficient for equalizing incomes between individuals. So far, European integration has been associated with convergence in per capita GDP across countries but, if anything, divergence in per capita GDP across regions within countries. A possible explanation for this development is, according to Martin, that European institutions regarding, for example, wage-setting prevent lagging regions from fully exploiting their comparative advantages *visà-vis* other regions within the same country.

In reviewing the evidence on a possible trade-off between growth and regional inequality, Martin finds that regional policies are most likely detrimental from an efficiency point of view. If there are significant agglomeration economies, using regional policies to maintain a dispersed production structure will be associated with economic losses. Thus, Martin paints a picture of European regional policies where they reduce efficiency without bringing any clear benefits in terms of reduced income inequality between individuals.

In the fifth paper, *Rikard Forslid* reviews the literature on tax competition in the presence of agglomeration forces. He mainly focuses on the theoretical predictions—showing how these predictions differ from the more well-known ones based on the standard tax-competition literature—but he also shows that the empirical literature on tax competition typically does not properly take these predictions into account.

Forslid argues that an important insight from the theoretical literature is that it is important to distinguish between two different cases of tax competition, called "symmetric" and "core-periphery". In the symmetric case, the regions competing for investment are relatively similar and firms are, on the margin, indifferent between investing in one or the other. In this case, marginal changes in the tax rate will affect the firms' investment decisions and regions may end up competing for investment setting sub-optimally low tax rates. In the "coreperiphery" case, firms are agglomerated in one region; the "core". This region enjoys "agglomeration rents", enabling it to maintain a higher tax rate without inducing any relocation of capital. In this case, firms will not respond to marginal changes in the tax rate, and governments have little incentives to compete for investment through tax rates. The stronger the agglomeration forces, the less sensitive is the location of capital to changes in the tax rates, suggesting that the strength of incentives for tax competition may vary across sectors of the economy.

The last paper is written by Anthony Venables; one of the founding fathers of the recent body of theory often referred to as the "new economic geography". In his paper, he uses this theory to assess the economic effects of European integration. He starts out by explaining how mechanisms creating incentives for clustering, on the one hand, and fragmentation, on the other, may produce different long-term outcomes in terms of industry location. He then shows that regional specialization has increased somewhat in Europe over time, but only slowly and not sufficiently for making Europe as regionally specialized as the US; the natural comparison since it is a large already integrated region. There are several possible reasons why regional specialization has changed only slowly in Europe; one being that historydependence creates the possibility of multiple long-run equilibria. In other words, European integration may never bring us the same degree of regional specialization as in the US, simply because we start out from a different situation.

Venables then proceeds to address the issue of whether there is any evidence of income convergence across European regions. The evidence suggests that there is some tendency of catching up by lagging countries and regions, but no evidence of a diminished role for the distance to the European core in explaining variations in per capita incomes. He also shows that regional inequality within countries has increased somewhat and that this is explained by an increasing importance of variations in the density of economic activity. This suggests that per capita income growth has been especially high in European cities. The last section of the paper deals with cities. Venables shows that if we use the size distribution of US cities as an indicator for what we might expect the long-run size distribution of European cities to be, we should expect a trend towards an outcome with some larger diversified cities and many smaller specialized cities.

All in all, these six papers give a good overview of what the research literature to date has to say about the impact of European integration on industry location. Almost all papers take as their starting point the "new economic geography" framework, but they also discuss results in view of more traditional theory. Furthermore, they point to new directions for research in this area; the need to deal properly with firm heterogeneity and the need to address issues of fragmentation of activities, leading to outsourcing and offshoring of manufacturing production and services. Hopefully, readers of this issue will find the contributions insightful and informative as well as stimulating and thought-provoking.

## References

Baldwin, R., Forslid, R., Martin, P., Ottaviano, G. and Robert-Nicoud, F. (2003), Economic Geography and Public Policy, Princeton University Press, Princeton.