Journal of International Economics 52 (2000) 331–357
www.elsevier.nl/locate/econbase

Economic geography and the fiscal effects of regional integration

Rodney D. Ludema[a,*], Ian Wooton[b,c]

[a]Department of Economics, Georgetown University, Washington, DC 20057, USA
[b]Department of Economics, Adam Smith Building, University of Glasgow, Glasgow G12 8RT, UK
[c]Centre for Economic Policy Research, London, UK

Received 12 October 1997; received in revised form 8 June 1999; accepted 30 August 1999

Abstract

In models of economic geography, plant-level scale economies and trade costs create incentives for spatial agglomeration of production into a manufacturing core and agricultural periphery, creating regional income differentials. We examine tax competition between national governments to influence the location of manufacturing activity. Labor is imperfectly mobile and governments impose redistributive taxes. Regional integration is modeled as either increased labor mobility or lower trade costs. We show that either type of integration may result in a decrease in the intensity of tax competition, and thus higher equilibrium taxes. Moreover, economic integration must increase taxes when the forces of agglomeration are the strongest.

Keywords: Economic geography; Integration; Factor mobility; Tax competition

JEL classification: F12; F15; F22; H73

1. Introduction

Two related issues arise frequently in discussions of economic integration. One is the erosion of fiscal autonomy that countries may experience when economic integration leads to a more mobile tax base. The other is the possibility of

*Corresponding author. Tel.: +1-202-687-1429; fax: +1-202-687-6102.
E-mail address: ludemar@gunet.georgetown.edu (R.D. Ludema).

0022-1996/00/$ – see front matter
PII: S0022-1996(99)00050-1

integration leading to spatial agglomeration of economic activity with divergent economic structures and incomes across the integrating countries. The former issue touches upon an extensive theoretical literature on tax competition, begun by Oates (1972), Wilson (1987), Wildasin (1988), and others, and applied to economic integration by Persson and Tabellini (1992).[1] The latter issue stems from the recent literature known as the 'new economic geography', pioneered by Krugman (for example, Krugman, 1991a,b, 1993; Venables, 1994; Martin and Rogers, 1995).[2] The two issues are related by the idea that economic integration may give rise to a greater propensity for factors of production to relocate and take advantage of international differences in taxation or real incomes. To our knowledge, however, the relationship between these two issues has never been examined formally. This paper attempts to fill this gap.

The new geography literature relies heavily on Krugman (1991a), which develops a two-location, two-good model involving labor mobility, plant-level scale economies, and trade (e.g. transport) costs. Scale economies in manufacturing (the other sector is agriculture) lead each firm to concentrate its production in a single location from which it exports. The firm's preferred location will tend to be the larger of the two markets, as locating there minimizes its trade costs. These trade costs also mean that workers (who are also consumers) prefer to live in the country with more firms, as it offers better access to manufactured goods. Together, these two aspects, which Krugman identifies as 'backward' and 'forward' linkages, respectively, work to produce the spatial agglomeration of activity into a manufacturing 'core' and an agricultural 'periphery'. The only brake on this process comes from the demand for manufactures by immobile agricultural factors left behind in the periphery. Remarkably, lowering (but not eliminating) trade costs increases the tendency for the core–periphery pattern to emerge.

Arising from these results is the implication that economic integration is likely to be a politically charged issue, being particularly unpopular with immobile factors stranded in the periphery. Consequently, such factors will have an incentive to compete for the core, using whatever policies they have available. Krugman (1991b) has interpreted Canada's National Policy of the late-19th century in these terms, arguing that it was successful in creating a Canadian manufacturing core. While Canada's National Policy relied heavily on tariffs, there are many settings where trade restrictions are infeasible, such as the European Union or NAFTA. Indeed, trade barrier reductions are at the heart of the economic integration efforts of these regions. However, countries usually have access to other policies that can exert substantial influence on the location of economic activity, such as taxes,

[1] See Kerchgassner and Pommerehe (1996) for recent empirical work relating to Europe. For a non-technical overview of fiscal issues surrounding economic integration, see Tanzi (1995).

[2] Krugman and Venables (1995) is closely related to this literature, though it is not strictly speaking a geography model.