Labour-Market Effects of Intra-Industry Trade: Evidence for the United Kingdom

By

Marius Brülhart and Robert J. R. Elliott


I. Introduction

The ongoing reduction of trade barriers in the global economy has resulted in a burgeoning literature that examines the welfare effects of product market integration. One strand of this literature has attempted to quantify transitional adjustment costs that result from trade-induced changes in specialization. It is often suggested that the severity of the adjustment costs experienced by a country or industry depends on the type of change in trade patterns. The claim is that distinguishing between the degree of intra-industry trade (IIT) and inter-industry trade permits inferences on the magnitude of factor-market adjustment costs.

In recent decades, IIT has been a pervasive and steadily growing empirical phenomenon, and a range of theoretical models have been developed to explain its existence. These models associate IIT with welfare gains from trade that arise through the exploitation of scale economies, an increase in product variety and the intensification of competitive pressures (see Helpman and Krugman 1985). In addition to those gains, it is also widely believed that trade expansion of the intra-industry type entails relatively smooth resource reallocation and hence low transitional adjustment costs, a proposition that has become known as the “smooth adjustment hypothesis” (SAH). This widely invoked hypothesis has until recently been subjected to relatively little theoretical and empirical scrutiny.

Remark: We thank Peter Wright, David Greenaway and two anonymous referees for helpful comments. This paper was presented at the EARIE 2000 conference (University of Lausanne) and at the University of Nottingham. We gratefully acknowledge financial support from the UK Economic and Social Research Council (“Evolving Macroeconomy” programme, ESRC grant L138251002).
Empirical work has concentrated principally on the pattern of change in trade flows, and on the homogeneity of factor requirements within and between industries. Lundberg and Hansson (1986: 129) in a study of Swedish trade and factor homogeneity concluded that IIT “poses different and generally less serious problems of adjustment than the ‘traditional’ inter-industry trade and specialization.” However, in an analysis for the EU, Greenaway and Hine (1991) cautioned that the evidence on the link between IIT and adjustment costs could not be supported with conclusive empirical evidence.

In this paper, we estimate directly the relationship between IIT and adjustment indicators. Specifically, we suggest that too little emphasis has been given to what is in effect the manifestation of adjustment pressures, the labour market. The concept of labour market adjustment revolves primarily around job gains and losses and the subsequent need for workers to relocate and/or retrain. Economists often treat unemployment and the issue of under-employed resources as a macroeconomic cyclical problem that should be addressed with macroeconomic policy measures. This assumption is the foundation for the majority of simulation estimates of trade liberalization effects. However, such a view abstracts from the microeconomic costs faced by individuals when industries grow, shrink, restructure or relocate. These costs are important and well documented in the labour literature (see, e.g., Shin 1997; Jacobson et al. 1993; Haynes et al. 2002; Hamermesh 1989; Kletzer 1998).

The difficulty facing empirical research arises from the need to capture and quantify adjustment costs and to characterize the relationship between adjustment and changing trade patterns, with the specific aim of providing support for or against the SAH.

This paper furthers the literature in two main ways. First, we develop and compare three proxy measures of adjustment costs, namely mean durations of unemployment spells, unconditional wage variability and an industry-level measure of conditional wage variability. Second, we separately consider the relevance of different conceptions of IIT, concentrating on measures of vertical IIT and marginal IIT (MIIT). We find that, given a certain level of trade exposure, a higher degree of IIT is associated with relatively lower industry-level wage variability. The strongest estimation results are found when we use measures of MIIT, although unemployment durations do not appear to be significantly affected.

The paper is organized as follows. Section II provides a theoretical background to the SAH. In Section III we develop our proxy measures of adjustment costs and describe the various measures of intra-industry