ELSEVIER

Journal of International Economics 55 (2001) 391–409

Journal of
INTERNATIONAL
ECONOMICS

www.elsevier.nl/locate/econbase

Trade liberalization and labor demand elasticities: evidence from Turkey

Pravin Krishna[a], Devashish Mitra[b,*], Sajjid Chinoy[c]

[a]*Department of Economics, Box B, Brown University, Providence, RI 02912, USA*
[b]*Department of Economics, Florida International University, Miami, FL 33199, USA*
[c]*Department of Economics, Stanford University, Stanford, CA 94305-6072, USA*

Received 11 September 1998; received in revised form 15 July 2000; accepted 19 September 2000

Abstract

In the recent debate over the impact of trade reform on factor markets, it has been argued that trade liberalization will lead to an increase in labor-demand elasticities — thus placing labor markets under increased pressure. Using Turkish plant-level data spanning the course of a dramatic trade liberalization, we test this idea. However, we are unable to find any empirical support for this supposed theoretical link: in most of the industries we consider, we cannot reject the hypothesis of no relationship between trade openness and labor-demand elasticities.

Keywords: Trade reforms; Imperfect competition; Factor demand elasticities; Turkey

JEL classification: F02; F12; F13; F15

1. Introduction

The finding of increased wage inequality since the 1970s in the US and other countries has generated intense controversy amongst both economists and policy makers regarding its causes. While no consensus exists on the driving forces behind these changes, their coincidence with increased trade openness over this period has led to a revival of interest in the supposed links between trade and labor

*Corresponding author. Tel.: +1-305-348-3893; fax: +1-305-348-1524.
E-mail address: mitrad@fiu.edu (D. Mitra).

0022-1996/01/$ – see front matter
PII: S0022-1996(01)00089-7

markets. These linkages are now being re-examined and analyzed in a large and growing theoretical and empirical literature.[1] While the primary focus of this research has appropriately been on the direct impact of greater openness on employment, wages and particularly on wage inequality (between high and low-skilled workers),[2] the literature (for instance, Rodrik (1997) and Slaughter (1997)) has emphasized yet another linkage between openness and labor demand: the possibility, particularly in imperfectly competitive contexts, for the elasticity of demand for labor to be higher with greater openness. As Slaughter (1997) has pointed out, the link between factor demand elasticities and product market elasticities is directly established through Hicks' well known 'fundamental law of factor demand' which implies that ''the demand for anything is likely to be more elastic, the more elastic is the demand for any further thing which it contributes to produce''. Since product market elasticities are likely to rise with trade liberalization, this implies that, with greater trade openness, we should see an increase in labor demand elasticities as well.[3]

Why do rising labor demand elasticities matter? As Rodrik (1997) notes, rising elasticities have three important consequences. First, they shift the wage or employment incidence of non-wage labor costs towards labor and away from employers. Second, higher elasticities trigger more volatile responses of wages and employment to any exogenous shocks to labor demand. Third, higher elasticities shift bargaining power over rent distribution in firms enjoying extra-normal profits away from labor and towards capital. Thus, the overall point is that moves towards openness could put labor markets under greater 'pressure' — an outcome that many would consider to be socially undesirable.

This paper attempts to investigate the link between between trade openness and factor demand elasticities empirically.[4] We start by specifying an econometrically implementable theoretical model of a firm operating in an imperfectly competitive context and derive predictions about the implications of changes in trade policy for labor demand elasticities. This is then tested using data from the Turkish

[1]In the recent literature, early contributions include Revenga (1992), Bhagwati and Dehejia (1994), Lawrence and Slaughter (1993), Sachs and Schatz (1994), Freeman and Katz (1994) and Currie and Harrison (1997).

[2]In particular, the implications of the Stolper–Samuelson theoerm (which ultimately predicts in the typical $2\times2\times2$ context that with greater openness a country see an improvement in the rewards to its abundant factors) have received much empirical attention.

[3]See Hammermesh (1993) and Slaughter (1997) for a more detailed discussion. It should be emphasized also that the argument just stated can be made directly only in a partial equilibrium context. For a critical examination of this linkage between openness and labor demand elasticities in a general equilibrium context, see Panagariya (2000).

[4]There have, of course, been other studies of linkages between trade policy and labor markets: Revenga (1992), Harrison and Revenga (1995), Kambhampati et al. (1997) and Currie and Harrison (1997) are recent examples. By and large, each of these papers focuses on the relationship between trade policy and employment and wage levels rather than on elasticities. Slaughter (1997), on the other hand, uses industry-level US data to investigate the link between variations in openness in the recent decades and labor demand elasticities.