Journal of International Economics 85 (2011) 102–113

Contents lists available at ScienceDirect

Journal of International Economics

journal homepage: www.elsevier.com/locate/jie

Exporting out of poverty: Provincial poverty in Vietnam and U.S. market access

Brian McCaig

Research School of Economics, H.W. Arndt Building 25a, Australian National University, ACT 0200, Australia

ARTICLE INFO

Article history:
Received 9 February 2009
Received in revised form 3 April 2011
Accepted 11 May 2011
Available online 19 May 2011

JEL classification:
F14
F16
I32
O11

Keywords:
Trade liberalization
Foreign market access
Poverty
Vietnam

ABSTRACT

Can a developing country reduce poverty by gaining increased market access to a large, rich country? The 2001 U.S.–Vietnam Bilateral Trade Agreement (BTA) provides an excellent opportunity to examine this question as, unlike other bilateral trade agreements, the U.S. tariff cuts were not influenced by Vietnamese industries. Using variation in the structure of the labor force across provinces prior to the trade agreement, I construct provincial measures of U.S. tariffs. To address concerns over confounding trends between changes in provincial poverty and changes in provincial tariffs I follow two approaches: controlling for trends based on observable initial conditions and differencing away time invariant trends using pre-BTA data. I find that provinces that were more exposed to the U.S. tariff cuts experienced faster decreases in poverty between 2002 and 2004. Additionally, I document that the movement of workers across provinces is limited in scale, particularly for those with low levels of education. Finally, I show that the most exposed provinces experienced faster wage growth for workers with low levels of education, but not for highly educated workers.

1. Introduction

Can a developing country reduce poverty by gaining increased market access to a large, rich country? A contingent of international policy makers seem to think the answer is yes. For example, the Doha Ministerial Declaration, 2001, part of the World Trade Organization's (WTO) most recent round of negotiations, stated: "International trade can play a major role in the promotion of economic development and the alleviation of poverty." The WTO's Doha agenda called for developed countries to reduce barriers to trade in agricultural goods and labor-intensive manufactured goods. The reductions are predicted to stimulate exports from developing countries with an assumed comparative advantage in the production of these goods. Unfortunately, little ex post empirical evidence exists to support this line of reasoning. This paper aims to provide such evidence.

The paper uses the United States–Vietnam Bilateral Trade Agreement (BTA) to examine the impact of increased market access on poverty in Vietnam. A key attraction of the BTA is the simplicity and extent of the tariff changes faced by Vietnamese exports to the U.S. As discussed in greater detail below, the U.S. committed to granting Vietnam the status of Normal Trade Relations (or Most Favored Nation status) upon entry into force of the agreement. This straightforward reclassification of Vietnamese exports implies that the tariff cuts offered by the U.S. are less susceptible to endogeneity concerns from political lobbying by Vietnamese or American industry groups. Moreover, unlike many other trade agreements, such as the North American Free Trade Agreement, the U.S. tariff cuts were immediate instead of being phased in over a number of years.

Since the BTA came into force in December 2001, Vietnamese exports to the U.S. have grown very rapidly. From 2001 to 2002, Vietnamese exports to the U.S. grew by 128%, followed by an additional 90% from 2002 to 2003 (see Table 1). By 2004, the General Statistics Office (GSO) of Vietnam estimates exports to the U.S. accounted for 20.2% of Vietnam's total exports or about 13% of GDP.[1] By comparison, in 2000, exports to the U.S. represented only 5.1% of total exports, or 2.8% of GDP. Hence, the growth in exports to the U.S. represents a quick and substantial shock to Vietnam's economy. At a more disaggregated level, exports soared in the 2-digit SITC category of articles of apparel and clothing accessories. This product category showed an annual growth of 276.5% from 2001 to 2004. Table 2 presents information on the value, growth, and share of exports for Vietnam's top seven exports to the U.S. according to 2004 value. With the exception of petroleum products, Vietnam's top seven exports to the U.S. are all products that are conventionally classified as being low-skilled labor intensive. As low-skilled workers are more likely to be poor than skilled workers, this suggests the potential for the increase in exports to have positive impacts on alleviating poverty in Vietnam through increased demand for low-skilled labor.

E-mail address: brian.mccaig@anu.edu.au.

[1] According to the GSO, exports of goods and services in 2004 were 65.74% of GDP.

0022-1996/$ – see front matter
doi:10.1016/j.jinteco.2011.05.007

Table 1
Vietnamese exports to and imports from the U.S., 1997–2004.
Source: U.S. International Trade Commission.

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Value (million USD)									
Exports	388	553	609	822	1053	2395	4555	5276	6630
Imports	278	274	291	368	461	580	1324	1163	1192
Growth over previous year (%)									
Exports	22	43	10	35	28	128	90	16	26
Imports	−55	−1	6	27	25	26	128	−12	2

Imports are general imports and exports are FAS exports.

Table 2
Main commodity exports from Vietnam to the U.S.
Source: Author's calculations from data downloaded from the U.S. International Trade Commission's website.

SITC code	SITC description	2004 value (million USD)	Annual growth 2001 to 2004 (%)	Share of exports to U.S. in 2004 (%)
84	Articles of apparel and clothing accessories	2571	276.5	48.7
3	Fish	568	5.9	10.8
85	Footwear	475	53.2	9.0
82	Furniture	386	206.4	7.3
33	Petroleum	349	24.0	6.6
5	Vegetables and fruit	184	54.2	3.5
7	Coffee and tea	144	17.3	2.7

Following the entry into force of the BTA, the incidence of poverty in Vietnam declined dramatically. Between 2002 and 2004 the national poverty rate fell from 28.9 to 19.5%.[2] While there is clearly a coincident trend in poverty alleviation and U.S. market access, it remains an empirical question whether there is a causal connection running from the cut in U.S. tariffs to the fall in poverty.

In this paper I measure the short-run impacts of U.S. tariff cuts on provincial poverty in Vietnam using variation across provinces. Following Topalova (2010), I construct provincial measures of U.S. industry tariffs by weighting the tariffs by the pre-existing share of employment by industry within each province. I find that provinces that were more heavily exposed to the tariff cuts (i.e., prior to the BTA had a greater share of workers in industries with large tariff cuts) experienced more rapid decreases in poverty. The impact on provincial poverty rates between 2002 and 2004 is large. The effect is robust to underlying trends based on observable differences in initial conditions and to time invariant trends. I find that overall migration rates are low, on the order of 1 or 2% of the population, and that migration flows are positively related to the drop in provincial tariffs. However, workers with low levels of education are less responsive to cross-province differentials, which may be one of the reasons for the differential impact of the BTA on provincial poverty. Finally, consistent with the reductions in poverty and low levels of migration, I find that wages grew more quickly for the least educated workers in the most exposed provinces, but that there is little effect on the wages of the most educated workers.

The paper proceeds by first providing a brief overview of the literature on trade and poverty and a discussion of the impact of changes in foreign market access on labor demand. Next, the BTA is discussed in detail, followed by an overview of the data and empirical methodology used in the paper. Subsequently, regression results are reported and discussed, before concluding remarks are presented.

2. Background

The trade and poverty literature provides little direct empirical evidence about the ex post economic impact of changes in trade policy on the poor (see reviews by Winters et al.(2004) and Goldberg and Pavcnik(2004)). Nonetheless, the associated literature is very large. It generally relies on indirect evidence of the impact of changes in trade policy on poverty. This often takes the form of evidence linking labor market correlates of poverty, such as unemployment, employment in the informal sector, and unfavorable changes in wages for unskilled workers, with trade liberalization, and usually only focuses on urban and or manufacturing workers.[3] A notable exception is Topalova's (2010) study of India's trade liberalization in the early 1990s and the subsequent variation in regional impacts. She finds that rural Indian districts that were more exposed to the import tariff reductions experienced slower declines in poverty than districts that were less exposed. The current study follows a similar methodology to examine provincial differences in poverty reductions after the implementation of the BTA in Vietnam.

Most of the studies on trade and poverty use domestic trade reforms, such as own country tariff reductions or quota removals, as their source of variation in trade policy. Few papers look at the converse question: What impacts do changes in foreign trade policy have on poverty and living standards in developing countries? One exception is Brambilla et al. (forthcoming) who analyze the impacts of U.S. anti-dumping duties applied to exports of Vietnamese catfish products. They show that the imposition of anti-dumping duties significantly decreased income for households that were relatively specialized in the production of aquaculture products. However, the impact of *increased* foreign market access remains an underexplored research question given its prominence in policy discussions. This paper provides empirical evidence from a large trade shock induced by a trading partner. Specifically, it uses the 2001 U.S.–Vietnam Bilateral Trade Agreement as an example of a dramatic increase in foreign market access for a developing country.

The empirical section focuses on the impact of increased market access on poverty. It is thus worth discussing some of the theoretical channels through which increased access to the U.S. could influence the allocation of labor, and thus relative labor demand for unskilled workers, who are much more likely to be poor than skilled workers in Vietnam.

Romalis (2004) proposes a model of trade with the key prediction that "countries capture larger shares of world production and trade in commodities that more intensively use their abundant factor". The model features a continuum of goods, where goods can be ranked by the intensity with which they use skilled labor. It is assumed that countries can be grouped as relatively abundant in skilled labor, the North, or in unskilled labor, the South. Different varieties of each good are produced under monopolistic competition and international trade features transportation costs. Romalis models the trade costs as standard iceberg trade costs (i.e., τ units of a good must be shipped in order for 1 unit of the good to arrive in the importing country). In this setup, a reduction in trade costs leads to an increase in the price of the exported good, to an increase in the share of unskilled labor intensive goods being produced in the South, which has a relative abundance of unskilled labor, and hence of exports of unskilled labor intensive goods from the South to the North.

What effects would this model predict the BTA should have on the structure of production and trade in Vietnam? First, it is plausible to assume that Vietnam is abundant in unskilled workers relative to the U.S. This seems a reasonable assumption given the pattern of Vietnamese exports, which, as documented above (see Table 2), is dominated by goods that intensively use unskilled labor, such as

[2] The poverty rate is defined as the share of the population living below the poverty line based on expenditures. The poverty lines are 1.917 and 2.077 million Vietnamese Dong in 2002 and 2004, respectively.

[3] For recent empirical evidence of the impact of trade on labor markets in developing countries see Attanasio et al. (2004), Goldberg and Pavcnik (2003), Pavcnik et al. (2004), Galiani and Sanguinetti (2003), and Goldberg and Pavcnik (2005), among others.