European Economic Review 54 (2010) 760–777

Contents lists available at ScienceDirect

European Economic Review

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

The chilling trade effects of antidumping proliferation

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ARTICLE INFO

Article history:
Received 28 January 2009
Accepted 12 January 2010
Available online 21 January 2010

JEL classification:
F13
F14

Keywords:
Antidumping
Gravity equation
Trade liberalization
Trade flows

ABSTRACT

Advocates of antidumping (AD) laws downplay their negative effects by arguing that the trade flows that are subject to AD are small and their distortions negligible. But while the adverse effect of AD on product-level trade has long been established, the question remains whether there are trade effects at the aggregate level. The recent proliferation wave of AD laws and their use provides us with a unique policy change to estimate the true trade effects of adopting and enforcing AD laws. For this purpose, we estimate the effect of AD on bilateral trade flows between the "new adopters" of AD laws and their trade partners. Using a gravity model of annual observations (1980–2000) our estimates show that AD has trade chilling effects on aggregate import volumes but the impacts are heterogeneous across sectors. We find that new tough users experience a chilling of their aggregate imports of 14 billion US$ a year (or 5.9%) as a result of AD measures. For some countries like Mexico and India, the dampening effects of AD laws on trade flows are found to substantially offset the increase in trade volumes derived from trade liberalization.

1. Introduction

Many commentators have expressed the concern that the recent financial crisis may result in rising protectionism. The World Bank (2009) and WTO (2009) already report a substantial increase in trade protection. Especially the use of antidumping measures is on the rise (see Bown, 2009). This is all the more worrying because the capacity to use antidumping (AD) is no longer limited to a subset of developed countries since in the last fifteen years many more (developing) countries have introduced and started using AD laws. Since the early 1980s, the number of countries that adopted an AD law has nearly doubled. While 37 countries had such laws in 1980, this number increased to 93 countries by the end of 2000 (Zanardi, 2004a). The extent of AD proliferation during the period of our analysis (1980–2000) is illustrated in Fig. 1. Most of the "new adopters" are developing countries. The proliferation does not seem to be confined to any particular region but includes developing countries from Asia, Latin America and Eastern Europe. At the same time, the effects of AD on aggregate trade flows are not well understood. This paper tries to fill this gap of the literature by quantifying the trade effects of adopting and enforcing AD laws.

The "adoption wave" illustrated in Fig. 1 provides an interesting policy regime switch which allows us to test for the effects of these laws on trade flows. A similar exercise for countries where these laws have been on the books already for a long time is more complex. Especially for countries like the EU and the US which have established themselves over time as

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0014-2921/$ - see front matter
doi:10.1016/j.euroecorev.2010.01.003

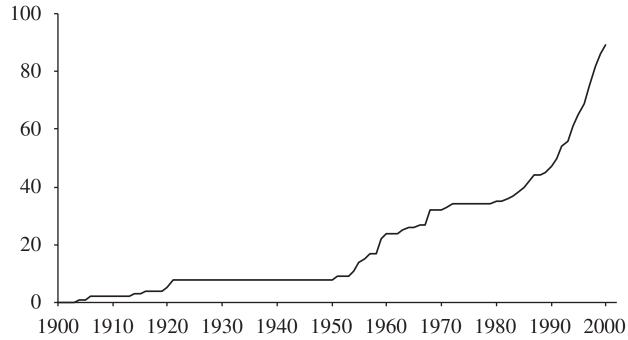

Fig. 1. Number of countries with antidumping laws. *Source*: authors' own calculations.

tough AD users, it is difficult to measure the true impact of AD measures on trade flows since their effects may be present throughout the sample under investigation and well before that since most of these "traditional users" adopted their AD laws around the turn of the 20th century. However, the "new adopters" offer us the possibility to observe trade flows both "before" and "after" the introduction of AD laws.

Our results demonstrate than when countries adopt an AD law into their national legislation, their bilateral imports of commodities from all trade partners and in all goods are seriously chilled (i.e., reduced due to a variety of "spillover" effects) in the years after adoption of the law, *provided* it is used frequently.[2] While other papers have shown that AD measures seriously destroy imports of the products targeted by AD measures (e.g., Prusa, 1997), the question raised in this paper is whether *aggregate* imports can be affected by AD policy. We find this to be the case for those countries that use AD in a systematic way. The effects are not small and are uneven across sectors, with trade in chemicals and agriculture suffering the most. Thus, this paper contributes to a long and distinguished tradition in the literature of identifying economically significant and unintended implications of trade policies, such as AD that go beyond whether the policy itself restricts imports in the products on which it is ultimately imposed. Our findings counter the popular view that the effects of AD are limited to the products they are aimed to protect but instead documents that the impact of AD law proliferation spills over to a more *aggregate* level of bilateral trade flows.

In our analysis based on the gravity equation, we face a number of challenging methodological issues. To control for the potential endogeneity of the decision of a country to adopt an AD law, we use an instrumental variable approach where we first estimate the probability of AD law adoption. To control for the multilateral price (resistance) term of country pairs in the gravity equation, we follow Anderson and Van Wincoop (2003) and Feenstra (2004). Since aggregate exports are likely to be quite persistent over time, we need to account for the dynamics that may be involved. We will also discuss the bias that may arise by excluding zero-trade flows based on recent contributions by Helpman et al. (2008) and Santos-Silva and Tenreyro (2006).

Our dataset consists of annual trade flows from a large set of exporting countries to the partners that adopted an AD law during the sample period (1980–2000). Since not all countries adopt in the same year, we consider the countries that did not adopt the law up to a particular year, as our counterfactual group. To measure AD law enforcement we alternatively use the total number of AD initiations or measures at the country level. Within the group of new adopters, which are mainly developing countries (see Table 1), one can distinguish "tough" and "weak" users, depending on the extent of AD enforcement, measured in terms of the number of AD initiations or measures. It will be an empirical question to investigate whether the intensity of AD usage implies differential aggregate effects. And while our classification of tough and weak users is somewhat ad hoc, we pursue different robustness checks to verify the sensitivity of the results.

In brief, we find that the trade chilling effects of AD are substantial for those countries that systematically use this protectionist tool. In the last section of this paper we engage in a first and tentative attempt to put a dollar value on the impact of AD on trade. Using the elasticities obtained from our analysis for tough new users (i.e., Brazil, India, Mexico, Taiwan and Turkey) we register significant negative impacts of AD on trade, with the largest effects reported in Mexico and India. Annual imports in Mexico are chilled by 6.51 billion US$, or 7.2% of the country's average annual imports, compared to what they would have been in the absence of AD actions.[3] For a country like India that has evolved from a non-user to the most frequent user of AD (Bown and Tovar, 2008), we find that AD actions have resulted in trade losses that seriously offset the increase in trade volumes due to trade liberalization. India started liberalizing in 1991, which led to an annual growth of 17.4% of its imports. Although India has had an AD law in place since 1985, it imposed its first AD measure in 1993 and became a very frequent user ever since. The results of this paper suggest that it suffered from a 6.8% annual loss in imports as a result of AD actions. This confirms the notion that AD actions can substantially hinder the gains in trade

[2] The "chilling" terminology is grounded in the legal literature. In fact, in the 1998 WTO dispute that the EC lodged against the USA for its Antidumping Act of 1916, the EC argued that the AD law had a "chilling effect" on EC exports to the USA since its mere existence led to a lower level of exports than would have otherwise been the case, even though the law was never actually applied. We thank a referee for providing this reference.

[3] All monetary values in the paper are expressed in 1995 real prices.