



ELSEVIER

Contents lists available at ScienceDirect

Journal of The Japanese and International Economies

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



The price disparity analysis revisited: An application to pork imports in Japan



Kazuki Onji

Graduate School of Economics, Osaka University, 1-7 Machikaneyama, Toyonaka, Osaka 560-0043, Japan

ARTICLE INFO

Article history:

Received 21 September 2012

Revised 27 March 2014

Available online 13 April 2014

JEL classification:

H26

H22

F13

L11

Q17

Keywords:

Tax evasion

Tax incidence

Agricultural safeguard

ABSTRACT

Onji, Kazuki—The price disparity analysis revisited: An application to pork imports in Japan

The effect of tariff evasion on price formations is relevant in understanding the welfare consequence of illicit trades. Previous empirical studies demonstrate that tax evasion reduces the effects of tariffs on equilibrium prices, but admit an alternative explanation: traders bore the incidence. This paper aims to refine the price disparity analysis to allow for that explanation. An application considers the market for imported pork parts in Japan to exploit the variation in tariff rates over time and across products. Using novel data on monthly wholesale prices on narrowly-defined pork products from 2001 through 2012, I find that a widespread evasion nullified safeguard tariffs almost fully. An alternative identification strategy corroborates the evidence on widespread evasion: An upper bound estimate on the total amount of tariffs evaded is 5.5 times as much as the collected revenue. Additionally, the result indicates that a tougher enforcement reduces evasions. *J. Japanese Int. Economies* **34** (2014) 1–23. Graduate School of Economics, Osaka University, 1-7 Machikaneyama, Toyonaka, Osaka 560-0043, Japan.

© 2014 Elsevier Inc. All rights reserved.

1. Introduction

Tariffs are important revenue source when infrastructures for collecting taxes are poor (Baunsgaard and Keen, 2005), and tariff evasion is a topic of long standing interest (Bhagwati,

E-mail address: kazuki.onji@econ.osaka-u.ac.jp

1964).¹ Assisted by new data and an increased computation power, recent studies have revived an analysis that identifies tariff evasion through inconsistency in values declared to customs in exporting and importing country (Fisman and Wei, 2004; Mishra et al., 2008; Javorcik and Narciso, 2008). The *evasion gap* analysis, following the term used by Fisman and Wei (2004), has provided new insights into the relationship between tariff evasion with policy instruments (i.e. tariff rates and the degree of law enforcement). The evasion gap analysis however has its limit.² In theory, tariff evasion mitigates distortionary effects of tariffs by aligning market outcomes with and without a tariff; if deadweight losses fall more than evasion costs, the welfare improves (Bhagwati and Hansen, 1973; Pitt, 1981a; Thursby et al., 1991; Lovely, 1994). To assess the welfare consequence of tariff evasion, we need information on the extent to which tariff evasion reduces price levels. The evasion gap analysis uses prices declared by traders at customs, not prices formed in markets, and therefore does not provide enough information for assessing welfare consequences.

An approach considered by Cooper (1974), and subsequently by Pitt (1981a,b), supplements the evasion gap analysis by estimating effects of evasion on market prices (hereafter referred to as the *price disparity* analysis following Pitt, 1981a). The price disparity analysis identifies tariff evasion from a discrepancy between a market price and a counterfactual price that would have prevailed had there been no tariff evasion. Early applications suggest that this approach is informative, but rely on an assumption that prices respond one-to-one to tariffs in constructing a counterfactual price.³ If exporters have market power, the counterfactual price based on that assumption leads to ‘false positive’ since exporters may bear the incidence of tariff.⁴

This paper aims to reduce the incidence of Type I error in the price disparity analysis by relaxing the one-to-one pass-through assumption. To allow for incomplete pass through, this paper considers an adjustment based on the degree of exchange-rate pass-through (ERPT), since studies find statistical equivalence of the degree of tariff-rate pass-through (TRPT) and ERPT (Feenstra, 1989; Winkelmann and Winkelmann, 1998; Reztis and Brown, 1999). In a study on India, Mallick and Marques (2008) report a markedly smaller TRPT coefficient in comparison with an ERPT coefficient during a sample period where Mishra et al. (2008) identify pervasive evasion in that country. The case of India therefore suggests that ERPT coefficients do provide a comparison base for identifying tariff evasion. This identification strategy is close in spirit to Marion and Muehlegger (2008) and Chetty et al. (2009).⁵

This paper considers an application in the market for imported pork parts in Japan for several reasons. First, under a variable levy applied to imported pork, low-value pork parts are taxed more heavily than high-value pork parts, so that products in which the tariff should have direct impacts are clear. Second, the ‘price floor’ of the variable levy has been raised and lowered when the Japanese government invoked the agricultural safeguard.⁶ This study focuses on the safeguard in 2001–2004 that raised

¹ For a collection of precursors to the contemporary research on tariff evasion, see Bhagwati (1974).

² Cooper (1974) observed that goods may not cross border through official ports of entry, so that those goods are not recorded in Trade Statistics. If smugglers, who are operating “stealthily in the night,” are responsible for much of evasion, rather than under-invoicing at customs, the evasion gap analysis fails to identify evasion.

³ Cooper (1974) arbitrarily assumes a uniform mark-up of 25 percent across a diverse range of products to approximate counterfactual prices.

⁴ The literature on the exchange rate pass-through indicates that many international markets depart substantially from the perfect competition and that the pricing power of exporters affects the degree to which changes in exchange rates are passed through to prices (Feenstra, 1995). The assumption of one-to-one pass-through would be sensible when the market is approximated by a long-run equilibrium with a constant marginal cost and free entry. Besley and Rosen (1999) provide an excellent discussion in the context of the tax incidence of commodity taxes.

⁵ In these studies, different types of behavioral responses are expected to weaken the response of some variables to taxes. To identify the behavioral response, the authors compare an estimate of the tax effects to a theoretical benchmark that would prevail in the absence of the particular behavioral response. To identify the impact of tax salience, Chetty et al. (2009) compare the responses of beer demand to exercise tax (salient tax) and sales tax (less salient). To identify the effects of tax evasion, Marion and Muehlegger (2008) compare tax elasticity and wholesale-price elasticity of diesel fuel retail demand.

⁶ Japan had negotiated a special agreement on safeguard clause in the WTO, allowing Japan to raise temporarily the pork tariff when import volume surges. The WTO records 89 cases of safeguard measures invoked over 1995 through 2008 around the world. These cases include policy measures in form of tariffs or quantitative restrictions, and are based on notification by WTO members to the WTO (http://www.wto.org/english/tratop_e/safeg_e/safeg_e.htm#statistics, accessed September 2, 2009). The U.S., for instance, invoked safeguards on steel and tiers in 2002 and 2009 respectively. The Japanese pork safeguards have some distinct features since they were negotiated under special agreements. See Obara et al. (2003) for further details.

Download English Version:

<https://daneshyari.com/en/article/964479>

Download Persian Version:

<https://daneshyari.com/article/964479>

[Daneshyari.com](https://daneshyari.com)