Journal of International Economics 86 (2012) 141–157

Contents lists available at SciVerse ScienceDirect

Journal of International Economics

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

Evasion behaviors of exporters and importers: Evidence from the U.S.–China trade data discrepancy☆

Michael J. Ferrantino [a], Xuepeng Liu [b], Zhi Wang [a,*]

[a] U.S. International Trade Commission, Washington, DC, USA
[b] Kennesaw State University, Kennesaw, GA, USA

ARTICLE INFO

Article history:
Received 14 March 2010
Received in revised form 5 April 2011
Accepted 9 August 2011
Available online 16 August 2011

JEL classification:
H26
F1

Keywords:
Trade data discrepancy
Tax evasion
Export VAT rebates
Transfer pricing

ABSTRACT

Since the late 1990s, reported U.S. imports from China and Hong Kong have regularly and increasingly exceeded reported exports of China and Hong Kong to the United States. This discrepancy, which is not caused by re-exporting through Hong Kong, varies by product categories, and in some cases takes the opposite sign. In this paper, we focus on China's direct exports to the United States. Using a model that allows for simultaneous misreporting to two authorities, we find strong statistical evidence of under-reporting exports at the Chinese border to avoid paying value-added tax (VAT). The value of VAT avoided is estimated at $6.5 billion during 2002–2008, and the associated understatements account for approximately two-thirds of the discrepancy. We also provide evidence of tariff evasion at the U.S. border, in particular for related-party transactions, and indirect evidence of transfer pricing and evasion of Chinese capital controls. An estimated $2 billion of U.S. tariff revenue is lost due to such evasion during 2002–2008, which reduces the apparent size of the statistical discrepancy.

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1. Introduction

The growing trade relationship between the United States and China has drawn increasing attention. The increasing U.S. trade deficit with China is frequently viewed with alarm in U.S. policy circles, and is often referenced in the context of calls for changes in China's exchange rate policy (e.g., Palley, 2005; Bipartisan China Currency Action Coalition, 2007). It has been noted, however, that China's reported exports to the United States are routinely smaller than U.S. reported imports from China.[1] Economists have traditionally sought to explain the discrepancy by the large share of China's trade re-exported through the customs territory of Hong Kong. Goods which are exported from China to Hong Kong, and then re-exported to the United States, are likely to be counted in U.S. data as imports from China but in China's data as exports to Hong Kong. Hong Kong's trade statistics include both domestic (Hong Kong origin) exports to the United States and re-exports of goods of Chinese origin to the United States. When the sum of exports from China and Hong Kong to the United States is compared with U.S. imports from China and Hong Kong together, most of the discrepancy disappears for data from 1979 to 1993 (Fig. 1a), even before shipping margins are accounted for. Re-exportation through Hong Kong has been accepted by many researchers as a sufficient explanation for the

☆ The views expressed in this paper are solely those of the authors, and are not meant to represent in any way the views of the U.S. International Trade Commission or any of its Commissioners. The authors thank Guohua Huang of China Customs; Dong Liu of the Chinese Embassy in Washington, DC; and Glenn Barresse, Timothy Baxter, and David Dickerson of the U.S. Census Bureau with assistance on data; Aaron Hedlund, Kendall Dollive, and Elaine Aguasvivas for research assistance; and two anonymous referees and participants at presentations at Georgia State University, Georgia Institute of Technology, George Washington University, the Southern Economic Association, the Italian Statistical Society, and the American Economic Association for helpful comments. Xuepeng Liu thanks the Coles College of Business at Kennesaw State University for partial financial support. Any remaining errors or omissions remain the responsibility of the authors.

* Corresponding author.
E-mail addresses: Michael.Ferrantino@usitc.gov (M.J. Ferrantino), xliu6@kennesaw.edu (X. Liu), Zhi.Wang@usitc.gov (Z. Wang).

[1] Discrepancies between exporters' and importers' trade data are endemic globally, and not peculiar to the U.S.–China relationship (see, e.g., Tsigas et al., 1992; Gehlhar, 1996). In research applications which require that the trade data are symmetric (i.e., exports from country i to j equal imports of j from i), such as general equilibrium modeling, substantial efforts are devoted to algorithms that remove the discrepancies. (e.g.,Wang et al., 2010). The exchange of trade-related information among customs authorities is often restricted to certain circumstances on a voluntary rather than mandatory basis. Customs authorities engage in periodic collaboration to note the extent of such discrepancies, but not to eliminate them. The 1987 Memorandum of Understanding between the United States and Canada, which causes a direct exchange of import statistics between the two partners, is an exception to this rule (U.S. Department of Commerce, 2000).

0022-1996/$ – see front matter. Published by Elsevier B.V.
doi:10.1016/j.jinteco.2011.08.006

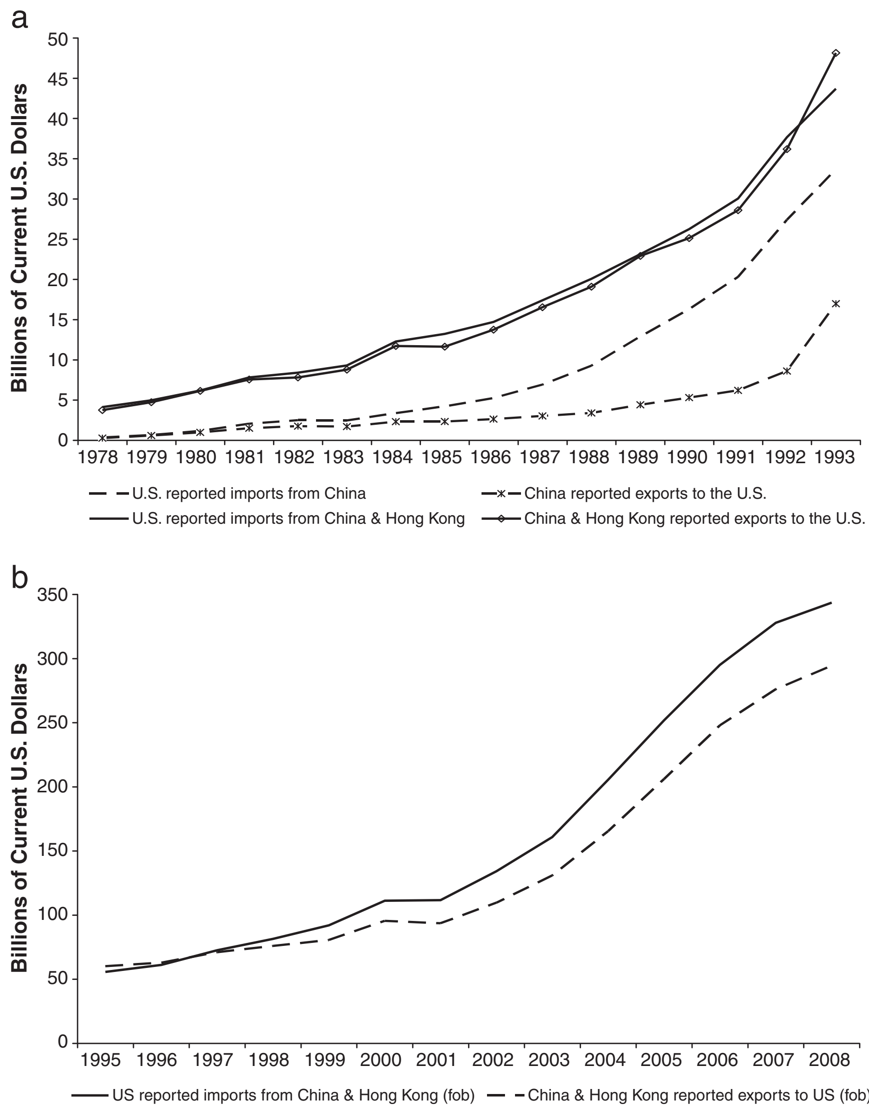

Fig. 1. a. Eastbound U.S.–China trade 1978–1993. b. China–Hong Kong Exports to United States, 1995–2008.
Notes: Data are updated by authors based on Ferrantino and Wang (2008). The data are corrected by shipping margins and geography.

data problem (see, e.g., West, 1995; Fung and Lau, 1998, 2004; Feenstra et al., 1999; Fung et al., 2006).

However, as the role of Hong Kong as an entrepôt for China–U.S. trade has decreased, it has become increasingly apparent that a sizable amount of the discrepancy has other origins. Ferrantino and Wang (2008) notice that even when the role of Hong Kong is very carefully accounted for, taking into account transportation costs and the difference in geographical definitions, U.S. reported imports from China and Hong Kong have grown persistently larger than the sum of China's and Hong Kong's reported exports to the United States (Fig. 1b). The difference in 2007 was nearly $52 billion, declining slightly in 2008 to $49 billion. The 2007 difference amounts to about 16% of the reported U.S. number, or about 18% of the total figure reported by China and Hong Kong together. This discrepancy has grown at the same time that the role of Hong Kong as a "middleman" between China and the United States has shrunk. Expressed as a share of U.S.-reported imports from China, the share of Hong Kong re-exports of goods of Chinese origin has declined from about 61% in 1995 to less than 12% in 2008 (Fig. 2a). Obviously, this newly emerged pattern of discrepancy in the data cannot be explained simply by a failure to account for re-exporting through Hong Kong. One ought to look elsewhere for a primary explanation. By carefully comparing detailed customs records from China, Hong, Kong, and the United States, Ferrantino and Wang (2008) show that direct exports from Chinese ports account for most of the statistical discrepancy, and that discrepancies associated with Chinese exports through third countries are now about as large as discrepancies associated with trade flows involving Hong Kong (Fig. 2b). The discrepancy on *direct* Chinese exports to the United States (neither re-exports nor transshipments) increased from approximately $1.7 billion in 1995 to $39 billion in 2007 and consistently accounts for more than half of the total discrepancy since 1998. This suggests that traders may be systematically misstating the value of shipments, either understating them to China's customs authorities, overstating them to U.S. authorities, or both.[2]

[2] An official U.S.–China statistical working group has noted that unit values for China's processed exports directly shipped to the United States are lower than those for the corresponding U.S. imports (U.S. Department of Commerce et al., 2009), suggesting that the difference may be due to purchases and re-sales by intermediary parties.