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Tax evasion through trade intermediation: Evidence from Chinese exporters☆

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ABSTRACT

Many production firms use intermediary trading firms to export indirectly. Using Chinese export data, we provide strong evidence that production firms can effectively evade value-added taxes (VATs) by exporting through intermediary trading firms, especially when selling differentiated products. Indirect exporting can save export taxes by 14.5% compared to direct exporting even if no intentional price under-reporting occurs, and even more when domestic purchasing price paid by a trading firm to a production firm is under-reported purposely. We also find that such under-reporting behavior through domestic intermediaries may be associated with cross-border evasion through under-reporting export values to foreign partners.

1. Introduction

Production firms can export directly themselves or rely on intermediary trading firms to export for them (indirect exports).[1] Intermediary trading firms play an important role in international trade. In the U.S., wholesale and retail firms account for about 11% and 24% of exports and imports respectively (Bernard, Jensen, Redding, & Schott, 2010). In the early 1980s, three hundred Japanese trading firms (*sogo shosha*) handled 80% of Japanese trade (Rossman, 1984). According to the data from China Customs, indirect exports in China accounted for 38% of the shipments and 21% of the value in the year of 2005. Despite the extensive studies at firm level in the recent trade literature, the role of trading firms has not been fully explored. This paper investigates the tax evasion motive behind indirect exports in China, stemming from the partial export value-added tax (VAT) rebate policy.

In countries that adopt a destination-based VAT, including China, the VAT should be collected on domestic transactions, but not on exports. The VAT on the value added at the final stage before exporting should be exempted, and the previously paid input VAT should be fully refunded in principle so that exporters can regain their initial competitiveness. Unlike the full rebate policy in the EU and elsewhere, China has a partial rebate system with rebate rates less than or, at most, equal to collection rates. The unrebated part of the VAT

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[1] Our focus is on the case where a production firm sells its products to an intermediary trading firm, with the trading firm taking charge of the tax rebate. Alternately, the intermediary's main role may be to help a production firm to find buyers, while the production firm is still in charge of the tax rebate itself. We analyze the former case because we do not observe the latter case directly.

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becomes effectively an export tax, i.e., $(t - r)$, where t refers to the statutory VAT collection rate and r is the rebate rate.[2] Importantly to our analysis, the export tax is calculated based on the FOB export prices for direct exporters (production firms) but *net of VAT* domestic purchasing prices for indirect exporters (trading firms), largely due to the different tax structures for production and trading firms. In the equilibrium, the FOB price charged by a production exporter and a trading firm should be the same (X), and the VAT inclusive domestic purchasing price paid by a trading firm should be no larger than X. Even if the VAT-inclusive domestic purchasing price is just the same as X, indirect export can bring tax benefit because export tax of an indirectly exported product is calculated based on the *net of VAT* domestic purchasing price which is normally 14.5% lower than X (i.e., 1–1/1.17, given that the VAT rate is mostly 17%). Similar discussions can be found on some websites where some firms or tax experts claim that they can help exporters reduce taxes through indirect exporting.[3] This benefit can be even larger if the VAT-inclusive domestic purchasing price is lower than X, which normally should be the case to ensure some profit for a trading firm.

The joint tax saving through indirect exporting discussed above results simply from different tax formulas used for production and trading firms. In addition, to evade such an export tax, exporters may also have an incentive to under-report their export prices and/or domestic purchasing prices.[4] Direct exporters (production firms) may directly evade the effective VAT by under-reporting its FOB price as long as they can find foreign partners to collude in order to recover the loss due to under-reporting. Indirect exporters (trading firms) may have an incentive to under-report their domestic purchasing price to evade VAT; they also have an incentive to under-report export prices to minimize purchasing-selling price differentials, which is used by the government to detect tax evasion. Although foreign partners are also needed to recover the under-reported values, trading firms are more skilled at doing so because they are normally larger, better politically connected, and more familiar with foreign markets than are production firms. As a result, trading companies can more easily under-report FOB prices than can production firms. This is another channel of export tax evasion through indirect exports.

Whether the tax benefit is based on a different tax formula or on export value under-reporting, both lead to smaller reported export value (i.e., export tax base). The resulting tax benefit will be higher and the incentive of evasion will be stronger if the effective export tax rate $(t - r)$ is higher. This suggests a positive correlation between export tax rates (i.e., the nonrefundable part of VAT) and the probability of indirect exporting, which is measured by the share of indirect exports in our product level analysis. That is, the higher the implicit export tax, the more likely that exporting will be facilitated through an intermediary. We test this hypothesis using China Customs export data for the year 2005, which is the first year after the full liberalization of trading rights under China's WTO commitments.[5] This correlation is empirically robust, especially for differentiated products whose values are easier to under-report than homogenous products; it is also stronger for the exports of state-owned enterprises (SOEs), which are more politically connected with the government than private or foreign firms.

As mentioned above, although the VAT rebate to a trading firm is not based on its final export price, it may also have an incentive to under-report exporting prices to minimize the chance of being caught because the purchasing and selling price differential is used by Chinese tax authorities to detect evasion behaviors. Such a view is supported by a product–country level analysis, which implies that the tax evasion through domestic trading firms may be associated with cross border evasion in the case of indirect exports. Therefore, both types of evasion should be reflected in the under-reported export values and the data reporting discrepancies between China and importing countries. This paper provides a complete explanation for the export price under-reporting by both direct and indirect exporters, which in turn helps to explain why China's reported exports are significantly smaller than the corresponding imports reported by partner countries such as the U.S. The fast-growing trade of China, especially its exports and large trade surplus, has drawn increasing attention. Investigating the incentives behind the under-reporting of China's exports not only provide policy makers a clearer picture of China's trade but also help authorities to detect and curb evasion behaviors.

Although the scope of VAT evasion is usually considered to be small because this tax is imposed at every stage of production and it is difficult for all of the involved firms to collude, our results suggest that the partial rebate policy can motivate firms to evade VAT. We show how firms respond to tax incentives by choosing to export either directly or indirectly through intermediaries. Anecdotal evidence shows that some production firms export indirectly through trading companies or establish seemingly separate but actually related trading companies simply to facilitate tax evasion. While such related transactions are usually difficult to observe and to identify, the methodology in this paper provides evidence that this behavior is consistent with evasion. In fact, there are explicit provisions in China for production companies to own and control trading intermediaries.[6]

[2] Feldstein and Krugman (1990) show that a destination-based VAT system should provide exporters full rebates and an incomplete rebate is equivalent to an export tax.

[3] See the following links for two examples on how indirect exporting can help firms to save taxes:
http://www.e-to-china.com.cn/Trade/jckhjs/cjwt/2012/0608/102964.html
http://chinasourcinginfo.org/2011/09/22/vat-rebate-differences-between-trading-and-manufacturing-companies/

[4] Ferrantino et al. (2012) provide empirical evidence for how production firms may have incentive to under-report their export values in the case of *direct* exports, while the current paper investigates the evasion through *indirect* exporting. The evasion behaviors discussed in these papers are different from another popular type of VAT evasion by firms within a VAT-adopting country in which they over-report their input VAT using fake invoices to obtain more input VAT credits and hence reduce their VAT liabilities.

[5] We choose to use the data for year 2005 for the following reasons. First, before 2005, the export and import right was under the examination and approval system. Production firms would have to choose indirect exports if they did not have export right, which is unrelated to tax evasion. Second, two other related papers on Chinese intermediary firms, Ahn et al. (2011) and Tang and Zhang (2012), also use the data of 2005. To facilitate the comparison with their work, we follow them by choosing the same year. We have access to the detailed China Customs data only for years 2000–2006. Although we could also carry out a panel data analysis using the data for 2005–2006, we do not pursue this direction given the limited within variations of key variables over the two years.

[6] See Circular [2004] No. 14: "The Act of Foreign Trade Business Registration". Before July 1, 2004, there are restrictions on establishing an intermediary trading firm by a production firm. After that date, China opened the export and import rights to both production firms and pure trading firms. Under this rule, production firms can establish the intermediary firm legally.