



COLUMBIA
BUSINESS
SCHOOL

Gray-Channel Economics: Drivers of Smuggling of Food and Agricultural Products into China

Peter S. Moustakerski MBA '04

© 2004 by The Trustees of Columbia University in the City of New York. All rights reserved.

1. Introduction

This paper describes the principal forms of import tax evasion associated with the importation of food and agricultural products into China and examines the main drivers and inhibitors of such smuggling activity. The paper then shows some evidence of smuggling activity found in import/export statistics and makes inferences about the economics of tax evasion. Finally, the paper suggests some government policies that can be applied to limit these illicit activities and some relevant approaches to business planning by private-sector traders and distributors to minimize the potential disruptions caused by seemingly cost-advantageous illicit trade channels.

Import tax evasion was chosen as the focus of this study since it is one of the few types of tax evasion that are relatively observable and measurable. While no official records or data on smuggling are available for any country, differences between two bordering countries' customs records provide at least a rough measure of the level of illegal importation taking place. In the case of China and Hong Kong, it is also possible to measure what percentage of goods exported from a third country—for example, the United States—is shipped directly to China as opposed to transshipped through smuggling channels via Hong Kong, which for the most part acts as a distribution intermediary and does very little processing on its territory. In addition, Hong Kong customs records keep close track of the country of origin of all goods reexported via the territory.

Food and agricultural products are a well-suited subset of import goods to study for a number of reasons: their sheer variety ensures that virtually every form of import restriction and its corresponding form of smuggling are examined; they move in large quantities through all available import channels, so no “liquidity” concerns exist; and the vast majority of them do not originate from or undergo processing in the country of transshipment, Hong Kong.¹

2. Background

After the launching of China's open-door policies by Deng Xiaoping in 1979, imports of consumer foods and agricultural products grew from virtually zero to more than \$10 billion in 2002,² fueled by the country's booming economy, steadily rising living standards and continued liberalization of foreign trade. At the same time, China continued to regulate and restrict many food and agricultural imports, levying high import duties and erecting various non-tariff-based barriers aimed at protecting local industries and extracting maximum import duty revenue from foreign traders. In the majority of cases, these policies were

¹ Hong Kong is not a separate country, but rather a Special Administrative Region under China's sovereign rule. However, China and Hong Kong maintain separate and largely independent government institutions, and customs records are kept separately and independently by both administrations.

² *World Trade Atlas*, China ed., s.v. “China Customs data,” Global Trade Information Services, Inc. (1993–2002), <http://www.gtis.com>.

misguided, since there either were no existing local industries to protect from foreign imports or local producers could not supply the products demanded by the market, and the resulting high prices only burdened Chinese companies and consumers, which increasingly demanded imported consumer foods and agricultural goods. For example, up until mid-1995, the tariff rate on imported wines was 150 percent, even as local demand for quality wine was skyrocketing and local producers were unable to provide acceptable quality or sufficient quantities (USDA 1995, 1997). Most of these restrictive policies remained in place throughout the 1980s and 1990s with only limited relaxation, even as Chinese laws on foreign direct investment were being liberalized and China's society and economy were undergoing profound transformation.

Meanwhile, imports into Hong Kong, whether destined for the territory or for reexport, were for the most part duty-free. In addition, Hong Kong had an excellent infrastructure and an efficient and transparent government, and its companies enjoyed established ties with foreign exporters and easy access to capital. Exports by land and sea across its border with freewheeling Guangdong Province grew exponentially in the 1990s, reaching almost \$66 billion in 1997, 88 percent of which originated from third countries (EIU 2000). At the same time, customs regulations on the Chinese side of the border were enforced only selectively, and corruption among officials was rampant.

This resulted in the establishment and significant growth throughout the 1990s of the *gray channels*—smuggling operations run by enterprising Hong Kong businessmen and enabled by corrupt Chinese government officials—which imported a wide spectrum of consumer goods, including food and agricultural products, and delivered them to markets deep inside the mainland for a fraction of the official effective tariff rates. In 1997, 95 percent of all fruit and tree nuts, 88 percent of all poultry meat, and 82 percent of all red meats imported to China entered the country via Hong Kong, and the majority of these reexports went unrecorded by Chinese customs authorities (USDA 1998a).

3. Forms of Import Tax Evasion

In general, there are four basic forms of import tax evasion that are widely used—albeit to different extents—in the smuggling of different food and agricultural products:

3.1. Underinvoicing and Underreporting

Underinvoicing and underreporting are probably the most common forms of import tax evasion.

Underinvoicing involves declaring a lower purchase price than the one that was originally paid to the foreign exporter. This is done either with the help of the exporter,

who supplies a marked-down invoice for customs clearance purposes, or by bribing customs officials, who fill out a lower unit price in the customs paperwork.

Underreporting involves declaring a quantity that is lower than the actual shipment quantity. This method is easier to crack down on and relies heavily on lax enforcement and collaboration with corrupt customs officials.

Underinvoicing and underreporting were universally applied throughout the 1990s across all categories of imported food and agricultural products.

3.2. Relabeling/Reclassification

This is a common technique when the products involved are in a high-tariff category but products in a similar or related category have a lower tariff. The high-tariff products are declared to be of the low-tariff category in order to reduce import-tax liability. This can be done with the collaboration of the exporter, who deliberately mislabels the shipment, or by physically relabeling the packaging of the goods while in transit. This method is also relatively easy to crack down on and relies heavily on lax enforcement and collaboration with corrupt customs officials.

3.3. Contraband

Contraband, or smuggling in the traditional sense, involves concealing the goods and shipping them across the border, thus avoiding customs inspection altogether. This is commonly done both by truck and by barge. In the case of overland smuggling, corruption of border officials is sometimes involved as well in order to avoid thorough inspection. In the case of smuggling by sea, the operation is usually conducted at night and in remote locations away from ports and populated areas. This method involves the highest level of risk and visibility during government crackdown campaigns.

This form of smuggling was also universally applied across all categories of imported food and agricultural products.

3.4. Bonded-Imports Leakage

In an effort to encourage exports and foreign direct investment, in the early and mid-1990s the Chinese government began allowing foreign products and raw materials destined for reexport (after some further processing in China) to enter the country duty-free. In the case of many food products, the processing done in China was minimal, and the end product was essentially the same as the original import. Often, these processing companies would “leak” a portion of the duty-free imports to the local market, either concealing the quantity differences from authorities or claiming them as waste. Many processing companies were in fact established for the primary purpose of channeling bonded imports to the local market without incurring import duties. In some cases, such imported products

reprocessed in China were officially exported to Hong Kong, only to make it back into the Mainland market via the gray channels. But in general, the leakage of bonded imports is the one form of smuggling that does not necessarily have to make use of the gray channels via Hong Kong.

4. Drivers of Import Tax Evasion

There are a number of factors that converged to make smuggling from Hong Kong to mainland China possible and profitable in the 1990s, but the following fundamental drivers had the most profound impact:

4.1. Import Tariff Rates

High tariff rates provide the main economic motivation for import tax evasion. Throughout the 1990s, an importer in China who chose to use direct import channels and pay the full import duties and value-added tax put himself at a great competitive disadvantage, given the availability of the gray channels and their widespread use. The cost savings of going through the gray channels were substantial. Using citrus as an example, in 1997 when the official import tariff rate was 52 percent, the cost to an importer of using the services of a Hong Kong “transportation company” was equivalent to paying an import tariff of 4 percent (USDA 1998c). Savings fluctuated with market conditions and the level of law enforcement—by comparison, in 1998 after a nationwide anti-smuggling campaign by the government and an unrelated drop in FOB prices of citrus, the implicit gray channel tariff rate went up to more than 17 percent (USDA 1998c). While declining tariff rates ahead of China’s WTO accession in 2001 did not shut down the gray channels but merely narrowed them and made them economically less attractive, statistical evidence from the past decade generally suggests that smuggling activity and import-tax rates are positively correlated (Fisman and Wei 2001).

4.2. Law Enforcement and Corruption

Corruption and law enforcement are essentially two sides of the same coin—the level of corruption among customs officials drives and enables illicit imports, while the degree of law enforcement inhibits them. The effect of stricter law enforcement was reasonably evident in the case of China following a massive government clampdown on illicit import activity in 1997–98. Smuggling activity, as indicated by Hong Kong reexports into China, decreased notably in 1999, and high-value consumer foods—such as wine and beer, fresh fruit and red meats—which relied heavily on gray channels, were hit the hardest (USDA 2000). At the same time, China’s customs revenue grew impressively—by

81 percent and 41 percent in 1998 and 1999, respectively³—further demonstrating the negative impact that law enforcement has on import tax evasion.

4.3. Non-Tariff Barriers to Imports

Avoiding high import tariffs is not the only reason Chinese importers of food and agricultural products turned to gray channels throughout the 1980s and 1990s. Even after China's entry into the WTO, the Chinese economy remains a highly regulated one. Import trade is certainly no exception—up until the day of its WTO accession, China made extensive use of non-tariff barriers in its effort to restrict the importation of a number of food and agricultural products. These non-tariff barriers generally fall into three broad categories: import quotas, import bans and import licensing.

Import quotas awarded or sold to Chinese trading companies allowed them to import a limited amount of certain food and agricultural products duty-free or at a reduced tariff rate. The most interesting example is that of fresh seafood: Throughout the 1990s, China allowed its top state-run fisheries to import certain quantities (or quotas) of fresh seafood that they caught in international waters without having to pay any import duties. The fisheries then sold their duty-free quotas to any buyer wishing to import fresh or chilled seafood from overseas and avoid the import duties of 50–80 percent, while declaring the foreign seafood as “self-caught.” This became one of the primary import channels into China for live and frozen seafood products (USDA 1998b, 2003a).

Import bans came under a variety of names and excuses, from phytosanitary quarantine in the case of U.S. tobacco and wheat to hygiene concerns about U.S. poultry and California citrus. These bans generally had no scientific grounds and were aimed at protecting (often nonexistent) local industries or were used as bargaining chips in China's bilateral negotiations leading up to its WTO membership.

Import and export licensing was (and still is) common in China. Only a small number of companies—generally large and state-owned—were issued import licenses, which limited the sourcing options for local buyers and allowed licensed companies to extract high fees. In some cases, such as poultry products, the government published a list of certified importers that were allowed to handle the importation of these products (USDA 2003b). Access to foreign exchange for overseas payments, usually only awarded to the same state-run companies, was another way to restrict direct imports, and ultimately raised the popularity of the gray channels even further.

³ “Chinese customers revenue drops,” *People's Daily*, May 11, 2002.

4.4. Reputation and Self-Regulation

Another inhibitor of illicit import activity was the relatively recent decision of many major foreign exporters to pursue a long-term strategy for the China market and to dissociate themselves and their products from smuggling channels. This was driven in part by the enhanced enforcement of customs rules and regulations but was also a reaction to rising distaste for smuggled products among Chinese buyers and the need to build brand equity and reputation with both the Chinese government and individual consumers. For example, a number of foreign wine exporters and their Chinese distributors voluntarily moved to increase their direct imports and implement strict labeling standards in order to reassure quality-conscious consumers and distance themselves from the gray channels (USDA 2003c).

5. Evidence of Smuggling in Statistical Data

There are no official records of smuggling or other forms of import tax evasion. Therefore suitable proxies must be devised from official data to analyze these illicit phenomena. One creative way to measure gray-channel activity is to examine the differences between the customs records of China and Hong Kong, particularly the gap between exports recorded by Hong Kong and imports recorded by China. The recording gap is in most cases significant and has been proven to correlate strongly with the tariff rate applied to the imported goods (Fisman and Wei 2001). While smuggling likely is only one of the possible explanations for the gap—sloppy record keeping and different recording standards being two others—this analysis is nonetheless an effective way to measure or approximate the level of illicit import and export activity.

Because the Hong Kong government keeps relatively detailed records of reexport trade passing through the territory, there is another possible way to create a reliable proxy for smuggling activity. For many food and agricultural products, the principal method of importation into Mainland China is via the Hong Kong gray channels. This can be observed by examining the Hong Kong reexport records for individual goods (at the six-digit HS code level) and comparing them to China's recorded imports of the same product as well as the customs records of the original exporter country. Specifically, one could measure smuggling activity by examining, for example, what portion of total U.S. exports to China enter via Hong Kong rather than being shipped directly to a Mainland port. U.S. customs records of U.S. direct exports to China and to Hong Kong by product are publicly available.⁴ At the same time, Hong Kong's government keeps track of products originating from the United States, imported into Hong Kong and then reexported

⁴ For example, U.S. Department of Agriculture, Foreign Agricultural Service, 2003, <http://www.fas.usda.gov/ustrade>.

to China.⁵ As China's own import statistics show,⁶ only a small portion of imported high-value food and agricultural products are recorded by China's customs authorities, and a sizable majority enter China via Hong Kong and are unrecorded by Chinese border authorities. This observation holds across most categories of food and agricultural products.

Figure 1 uses shelled almonds (HS# 080212)—which are representative of many high-value food and agricultural products—to provide a simple example of the gaps between what China records and what flows from the United States and via Hong Kong. For example, in 1998 the United States exported roughly \$7 million worth of shelled almonds to Hong Kong and China, and according to Hong Kong records, more than 80 percent of those (or almost \$6 million worth) were transshipped via the territory to Mainland China. China's own records that year, however, show a mere \$353,000 of imported shelled almonds originating from the United States. A large portion of the \$6 million worth that were recorded leaving Hong Kong for China but were never recorded by Chinese officials upon entry were going through illicit gray channels, avoiding import duties altogether.

To be sure, the data contain some level of noise; for example, U.S. export figures are reported as “free alongside ship” (FAS), while China imports and Hong Kong reexports are listed as “cost, insurance and freight” (CIF), and some double counting on both sides is possible, but generally the ratio of reexports via Hong Kong to total exports to China is a reliable indicator of illicit trade activity. It is also important to note that the record-keeping gap illustrated by the data in figure 1 is potentially due to more than one form of import tax evasion. It likely represents contraband activity, as well as underreporting and underinvoicing.

Figure 1. Value of Export Trade in U.S. Shelled Almonds (HS# 080212), in U.S.\$ thousand

	1994	1995	1996	1997	1998	1999	2000	2001	2002
China Imports from US ^a	331	65	124	483	353	788	429	1,383	1,638
US Exports to China ^b	85	44	459	426	798	1,465	4,515	4,767	3,999
US Exports to HK ^b	7,394	7,687	11,542	8,024	6,103	15,869	16,460	9,606	15,755
HK Imports from US ^c	8,637	8,108	10,597	9,585	7,261	19,207	24,913	13,068	20,309
HK Re-Exports from US to China ^c	1,908	1,554	4,548	5,737	5,934	9,948	10,748	4,114	4,015

^a China Customs data.

^b U.S. Census data.

^c Hong Kong Census and Statistics Department data.

⁵ *Hong Kong External Merchandise Trade* (Smartal Solutions Ltd.), vol. 7 (1992–2002), CD-ROM, <http://www.smartalsolutions.com>.

⁶ *World Trade Atlas*, China ed., s.v. “China Customs data,” Global Trade Information Services, Inc. (1993–2002), <http://www.gtis.com>.

6. Conclusion

Import tax evasion is difficult to observe and measure, as no official records of such illicit activity are available. However, in the case of smuggling activity across the China–Hong Kong border, by examining the differences and gaps between the customs records kept by the Chinese, Hong Kong and U.S. authorities and by studying the reexports via Hong Kong to China of products originating from the United States, it is possible to construct fairly reliable proxies for almost all forms of import tax evasion—underinvoicing, underreporting, relabeling, reclassification, contraband and bonded-imports leakage.

Smuggling and other forms of import tax evasion depend greatly on a number of key factors, with tariff rates and enforcement being the most prominent. Without high tariff rates to circumvent and with strict enforcement of customs regulations there is little economic incentive to engage in illicit import trade and tax evasion. Beyond that, excessive regulation and restrictions on efficient market mechanisms also give rise to smuggling, which to some extent acts as an oil-in-the-wheels catalyst of market activity. Finally, the emergence of reputation as a factor changes the economics of import tax evasion by transforming the interaction into a multi-period collaborative game” and introducing different payoffs that inhibit illicit behavior.

This analysis has implications both for government policymakers and private-sector traders and distributors. A prudent government policy should aim to maximize import-duty revenue by avoiding excessive tariffs while clamping down on corruption and tightening law enforcement. Non-tariff import restrictions should be avoided where possible, and consumers should be educated to distrust and avoid smuggled and illegal goods. At the same time, smart business planning by import/export traders and distributors should take into account the risks and benefits associated with all import channels available; take into consideration legislative, regulatory and enforcement developments that have an impact on the viability and cost advantage of these channels; and actively monitor consumer perceptions and trends, such as the importance of reputation and quality, associated with each available trade channel.

References

- Economist Intelligence Unit. 2000. *Business China* 26, no. 18:8–9.
- Fisman, Raymond, and Shang-Jin Wei. 2001. Tax rates and tax evasion: Evidence from “missing imports” in China. National Bureau of Economic Research Working Paper, no. 8551.
- U.S. Department of Agriculture (USDA). Foreign Agricultural Service. 1995. Attaché Reports, no. CH5803.
- . 1997. Attaché Reports, no. CH7822.
- . 1998a. Attaché Reports, no. CH8627.
- . 1998b. Attaché Reports, no. CH8637.
- . 1998c. Attaché Reports, no. CH8645.
- . 2000. Attaché Reports, no. CH0603.
- . 2003a. Attaché Reports, no. CH3019.
- . 2003b. Attaché Reports, no. CH3606.
- . 2003c. Attaché Reports, no. CH3802.