

CHAPTER FIVE

CONCLUSIONS

5.1. Non-compliance with customs laws in Sub-Saharan Africa (SSA)

Tariff revenue is an important source of public revenues in SSA (World Bank, 2016a). Non-compliance with customs laws acts against revenue collection, and therefore limits the capacity of the governments in the region to finance economic development. In Chapter 2, we examine how tariff evasion has changed in SSA, over recent years, in comparison with high income countries and the rest of the world, and in reference to the changing composition of the major trading partners of SSA. During 2008 – 2015, tariff evasion in SSA has increased and has been comparable to the rest of the world, although consistently higher than in high income countries (HIC). The share of imports from BRIC countries (i.e., Brazil, Russia, India, and China) has steadily increased over the same period, while the share from OECD countries (which groups 34 major economies in the world) has decreased. We observe that tariff evasion increased for trade with BRIC countries, and decreased for trade with OECD countries. These results are robust to series of robustness tests.

These findings have two important implications. Although there have been a series of reforms to enhance tax collection and trade in SSA, tariff evasion remains to be, at the present, a serious challenge for the region. In addition, differences in tariff evasion for imports from BRIC and OECD countries indicate that trading partners play an influential role on this matter (i.e., this problem not only pertains to SSA countries).

5.2. What may explain non-compliance with customs laws in SSA?

5.2.1. Corruption of trading partners

Chapter 3 assesses whether tariff evasion is associated with the corruption level in both trading partners (i.e., corruption in the importing SSA country, and corruption in the non-SSA exporting country, where the imports are coming from). As an extension to prior research, it is hypothesized that corruption levels in both exporting and importing countries *reinforce* tariff evasion. The study uses product-level import data of 31 SSA countries and the corresponding export data of 34 OECD and 4 BRIC countries between 2008 and 2014. The analysis indicates that corruption levels in both importing and exporting countries significantly reinforce tariff evasion. These findings provide new insights on how corruption influences non-compliance with customs laws. The key point is that tariff evasion is often conceived as an exclusive problem of the importing country, but these results indicate that both trade partners can influence – and therefore help reduce – tariff evasion in SSA (i.e., a potential solution for it, might require the active involvement of both parties).

5.2.2. Burdensome procedures and aid for trade facilitation

While Chapter 2 and 3 examine tariff evasion, Chapter 4 focuses on smuggling. More specifically, it examines whether aid for trade facilitation is indirectly associated with smuggling. Lengthy and unpredictable customs procedures generate incentives to smuggle. Hence, the rationale is that trade facilitation improves the efficiency of customs procedures, which in turn reduces smuggling.

Based on prior research, we use mirror trade data to measure smuggling. The study employs trade data from 2008–2014 of SSA, OECD, and BRIC countries. Aid for trade facilitation is measured as the amount disbursed by the international community to each SSA country per year. The analysis includes relevant control variables, which measure the efficiency of customs procedures and other factors which affect smuggling. We observe that aid for trade facilitation is positively associated with efficiency of customs procedures in later years, which is in turn negatively associated with smuggling. A series of robustness checks yield the same pattern of results.

This study indicates that aid for trade facilitation may have indirect effects that are highly relevant for the region. By improving the efficiency of customs procedures, in particular, this type of assistance may also contribute to the reduction of smuggling. This has important consequences for revenue collection, and provides opportunities to lower tariffs further. Besides these financial benefits, less smuggling may contribute to the improvement of public safety and the reduction of health risks. Another contribution of this study is that it includes control variables to capture other factors that may affect smuggling, something that has not been done in related research. In line with the theory, the results consistently show that these control variables are indeed significantly associated with smuggling, and it is therefore critical to account for them (in order to rule out alternative explanations and omitted variable bias).

5.3. General implications

Non-compliance with customs laws is by nature a hidden activity, which makes its detection and assessment challenging for both authorities and researchers. However, assessing the nature and extent of non-compliance is required for the evaluation of public policy and for the formulation of

appropriate strategies to address it. This dissertation attempts to examine this phenomenon in the specific setting of SSA, while taking into consideration factors that are particularly relevant in this region. Using all available trade data from the past years, the analyses indicate that, while the region relies on trade taxes as an important source of public revenue, the prevalence of high tariff rates, corruption, and inefficient customs procedures may motivate traders to engage in non-compliance. It also shows that international assistance aiming at addressing trade constraints in SSA can contribute to improvements in compliance.

These findings have important theoretical and practical implications. First, they underscore the magnitude of the problem of tariff evasion in the region, which represents substantial losses of public revenue. Our estimations indicate that the loss of tariff revenue in SSA during 2008-2015 is three times higher than the amount of official development assistance that was granted during this period. To fight evasion, policymakers and officials need to identify factors that cause it or reinforce it, and implement strategies to minimize them.

Second, the findings indicate that, although trade reforms have brought reductions in tariff rates and improvements in customs operations, there are remaining conditions (e.g., tariff and non-tariff barriers) which still lead to high levels of non-compliance with custom laws. The policy implication is that new (and perhaps different) trade reforms are required, which is timely and relevant for the current multilateral trade negotiations following the Doha Development Agenda. The dissertation does not examine public revenue. However, it is possible to infer how revenue can be affected. For instance, while tariff reductions may seem to reduce revenue, our findings would indicate that such reductions also have an increasing effect on revenue by reducing tariff evasion, and in this sense, the net effect of tariff reductions on revenue may be much smaller.

Furthermore, the positive effect of lower evasion may be enhanced and strengthened by improved efficiency of customs procedures.

Third, tariff evasion may be reinforced by the corruption level in both the importing and the exporting countries, and more generally, it may be influenced by the composition of the region's trade partner portfolio. The fight against evasion and corruption in SSA countries, alone and by themselves, may not be very effective if it does not involve active efforts from their trading partners. Notably, the corruption level of the exporting country may be informative as a risk signal for customs officials at the time of inspection and examination.

Finally, aid for trade facilitation may translate into more efficient customs procedures, and subsequently, into less smuggling. This is relevant, considering the recent ratification of the Trade Facilitation Agreement by WTO, which highlights the importance of providing assistance for trade facilitation to developing countries. The fight against non-compliance benefits from this type of assistance, the identification of conditions and factors that may cause it or reinforce it, and rigorous empirical analyses to assess its magnitude. Interestingly, aid for trade facilitation may allow for the reduction of tariff rates in SSA, without concerns about revenue losses (because improvements in efficiency of customs procedures lead to an increase tariff revenue).

5.4. Limitations and directions for future research

The studies in this dissertation rely on the discrepancy in the official trade data reported by trading partner countries as a measure of non-compliance. While mirror trade data are widely used in international trade studies to examine non-compliance, they are not without limitations. In addition to the difference between free-on board and cost-insurance-freight, the gap in trade data could be

attributed to other factors including timing differences in recording, exchange rate fluctuations, different recording thresholds for trade value, and the record keeping quality of custom offices. Even in the presence of measurement error, however, the *systematic* positive association between trade gaps and tariff rates is indicative of tariff evasion.

To minimize the effect of measurement error and the probability that unobserved factors cause the observed associations, we use the most disaggregated product-level trade data available, for all trading partners involved (using six-digit product level as per HS code), include relevant control variables, apply several robustness tests, include fixed effects, and run additional analyses of marginal effects and robust standard errors. Despite this, endogeneity concerns may not be fully ruled out. In Chapter 4, we include time lags to support the causal relationship between the variables of interest (so that the explanatory variable antecedes the outcome variable). In Chapters 2 and 3, the results show structural associations and causal inferences are made with caution (if any) based on theoretical reasoning of the expected direction of the association.

Future studies may use product-level data at the company-level (both for importing and exporting countries) to gain further insight related to non-compliance in international trade. More specific insight in the ways used for trade misinvoicing can (and should) be gained from following specific bills of freight and complimenting it with field experiments and action researches. In addition, as the studies focus on SSA, future studies may examine if the findings in this dissertation can be extended to different settings.

Aid for trade facilitation contributes to reducing smuggling in the region. This is one short-term effect of this type of assistance, which may actually have other long-term impacts. Aid for trade flow trends over the years show that aid is subject to change. In fact, a declaration by the first

High Level meeting of Global Partnership for Effective Development Cooperation under the United Nations indicates that “no country should be dependent on others’ resources for its own development.” This implies that future research should evaluate its long-term effects.

Finally, in Chapter 4 we identify control variables that are statistically significant, implying that there are indeed other important determinants of smuggling. Especially, *financial openness*, which measures how easy it is to secure foreign currency to pay for imports, raises the need for further research on policies regarding foreign exchange regimes and the unintended side effects of such policies.

