



Magnitude and Determinants of Trade Mis-invoicing in Burundi

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Abstract

The study examines trade mis-invoicing at both aggregated and disaggregated levels by major trading partners, and by major export and import commodities. Aggregated trade mis-invoicing and disaggregated trade mis-invoicing by major trading partners are computed using DOTS database of the International Monetary Fund (IMF) over the period 1970–2019. Disaggregated trade mis-invoicing by major trading commodities is computed using UN-COMTRADE database over the period 1993–2019. The study shows that the most occurring practices in trade mis-invoicing are export under-invoicing and import over-invoicing. Exports of Burundi to most of its major trading partners are found to

be under-invoiced, while imports of Burundi from its major trading partners are in general over-invoiced. The major trading commodities considered are found to be affected by trade mis-invoicing to a great extent. Moreover, an empirical analysis of the determinants of those two common practices of trade mis-invoicing indicates that financial incentives through tax fraud, civil conflicts, governance, capital account openness, the parallel market premium, and the real exchange rate, are the main determinants of export under-invoicing and import over-invoicing. Drivers of trade mis-invoicing at product level were also analysed for some major export and import commodities. The main product-specific factors of trade mis-invoicing are found to be the parallel market premium, the real exchange rate, governance, and civil conflicts. The study's findings suggest that reducing political instability, having a more open capital account, improving governance, as well as reducing taxes and duties, could be ways to reduce the extent of trade mis-invoicing in Burundi. In addition, more effort is needed in ensuring systematic and transparent reporting of international trade transactions.

Introduction

The phenomenon of capital flight has become an issue of increasing concern over the past decades because of the scourge it inflicts upon poverty alleviation efforts in the developing countries. Both private actors and public authorities are responsible for the phenomenon of capital flight. Due to factors such as macroeconomic uncertainty and political instability, private actors prefer to channel their savings abroad, while because of corruption, public authorities embezzle funds and transfer them to their overseas bank accounts (Ndoricimpa, 2018). There exist capital flight-related economic costs, including the lost potential domestic investments and lost poverty reduction (Fofack & Ndikumana, 2010; Nkurunziza, 2015). For capital-scarce economies, capital flight represents a significant economic loss as it reduces domestic financial resources to spend on vital socioeconomic sectors such as agriculture, education, health, and infrastructure. Existing evidence indicates that trade mis-invoicing is an important mechanism of capital flight (see, for example, de Boyrie *et al.*, 2007; Ndikumana *et al.*, 2015; Nitsch, 2017; Ndikumana & Boyce, 2021). Global Financial Integrity (2018a) emphasizes that trade mis-invoicing is the largest component of illicit financial outflows. Trade mis-invoicing is a method for moving money illicitly across borders by falsifying the value or volume in an international commercial transaction of goods or services (Global Financial Integrity, 2018a). While the aim of trade mis-invoicing is often to evade taxes, duties or capital controls, trade mis-invoicing can also be a trade-based technique for smuggling or money laundering (The Economist, 2014). By import under-invoicing and export over-invoicing, money is slipped into a country; while by import over-invoicing and export under-invoicing, money flees a country (Ndikumana *et al.*, 2015). For Burundi, the present case study, recent estimates (see Ndikumana & Boyce, 2021) indicate that the country lost resources amounting to

US\$5.7 billion in capital flight over the period 1985–2018, 56.1% of which went through trade mis-invoicing. Moreover, Ndoricimpa (2018) shows that about 75% of capital that fled Burundi between 1985 and 2013 went through trade mis-invoicing. It should be noted that capital flight from Burundi is taking place in a context of capital and foreign exchange scarcity. From four months of import cover in 2014, total reserves have fallen to less than one month in 2020. With this extent of scarcity of foreign exchange, *the Central Bank of Burundi must ration foreign exchange by supplying foreign exchange only to importers of strategic goods. Other categories of importers, mostly small importers, turn to the higher parallel market exchange rate for their foreign exchange needs; the parallel market premium standing currently at around 75%*. In a poor and fragile country like Burundi—in great need of more infrastructure, plant and equipment, and human capital—capital flight through any channel represents a great loss in domestic investment in social services such as health, education, and provision of clean water and electricity that could have improved the wellbeing of the population (Ndoricimpa, 2018).

Ndoricimpa (2018) examined capital flight from Burundi in the first ever country-specific study focusing on Burundi. The current study builds on Ndoricimpa (2018) by focusing on trade mis-invoicing as a channel for capital flight. Several studies have analysed the problem of trade mis-invoicing (see, for example, Ndikumana & Boyce, 2012; de Boyrie *et al.*, 2007). However, they examined trade mis-invoicing at an aggregated level, which leaves out important information on trading partners involved in the phenomenon, as well as trading commodities affected. Thus, there has been recently growing interest in investigating trade mis-invoicing at disaggregated levels, at product level and by trading partner (see United Nations Conference on Trade and Development [UNCTAD], 2016; Ndikumana & Boyce, 2019; Global Financial Integrity, 2018b, 2019). Burundi, like many other fragile African countries, faces financial constraints for development. With the uncertainty of external support which shrunk significantly with the 2015 political crisis, Burundi ought to discourage capital flight and encourage domestic resource mobilization.

The motivation of this study is, therefore, to explore trade mis-invoicing in Burundi and identify ways to tackle the problem undermining domestic resource mobilization and the development of the country. Undeniably, Burundi relies on a few primary commodities for its export revenue. Up until early 2000s, exports of coffee and tea accounted for about 90% of total export revenue. The contribution of coffee and tea remains considerable although the export basket has been diversified to include a few other commodities such as minerals, beer, and gold (from 2016). Furthermore, Burundi imports several commodities from its trading partners. Therefore, exploring how these exports and import commodities are affected by trade mis-invoicing, and which trading partners are associated with it, could give insights on how to fight the phenomenon and reduce capital flight. This study seeks to focus on both export and import mis-invoicing in Burundi by disaggregating at commodity level

and by categories of major trading partners. Indeed, there are costs related to trade mis-invoicing. As UNCTAD (2016) points out, the costs related to trade mis-invoicing include lost foreign exchange, lost tax revenues, and unfair distribution of the gains from trade. Trade mis-invoicing undermines the current development policy agenda calling for low-income countries to mobilize more tax revenues. As Global Financial Integrity (2014) points out, “trade mis-invoicing robs governments of customs duties and corporate tax revenues”, which undermines social service delivery, hence retarding economic growth and poverty reduction.

In addition, to fight trade mis-invoicing, there is need to understand the factors behind it. Existing evidence indicates that several factors can determine trade mis-invoicing, including economic uncertainties, political instability and wars, corruption, capital controls, and high taxes and tariffs (see Buehn & Eichler, 2011; Patnaik *et al.*, 2012). However, it is not clear whether factors depicted elsewhere may explain trade mis-invoicing for the case of Burundi. The aim of this study is twofold: (i) to disaggregate trade mis-invoicing by major trading partners and by major export and import commodities, and (ii) to analyse the determinants of trade mis-invoicing in Burundi.

Key import and export commodities in Burundi

As far as imports are concerned, the six top import categories are mineral fuels, pharmaceuticals, machinery and mechanical appliances, electrical machinery and equipment, vehicles, and iron and steel. These account, respectively, for 21.85%, 8.37%, 6.97%, 5.74%, 5.74%, and 4.70%, of total imports over the period 2001–2018 (see Table A2 in the appendix).

On exporting side, Burundi relies on a few primary commodities for its export revenue. For the period 1990–2015, exports of coffee and tea accounted for more than 80% of total export revenue, contributing to the tune of 63.5% and 18.0%, respectively (see Table A1 in the appendix). In the export basket, these are followed by ores, slag, and ash (3.0%), skins of bovine animals (2.2%), sugar (1.8%), beer (1.8%), and soap (1.4%). In the recent period (2016–2020), traditional commodities, coffee, and tea, seem to be losing their place as the main cash crops, as gold enters the export basket. For the period 2016–2020, gold accounts, on average, for 28.6% of total exports. However, the contribution of coffee and tea is still considerable, the two accounting for 42.6% over the period 2016–2020. The other commodities contributing to export revenue are wheat (5.1%); ores, slag, and ash (5.0%); cigarettes (3.6%); and beer (3.3%).

We discuss here the organization of the production and trade of the three main export commodities: tea, coffee, and gold. The production of tea in Burundi is organized by tea factories located in a few areas where the weather is conducive for tea farming. These factories receive tea supplies from their plantations (30%) and smallholder farmers (70%). The tea factories are owned and managed by *Office du Thé du Burundi (OTB)*,

a parastatal company, which handles the production, processing, marketing, and trade of tea from Burundi (OTF Group, 2008). Around 95% of total tea production from Burundi is marketed internationally, where 85% is through an auction mechanism in Mombasa, Kenya, where OTB has export agents, and 10% through direct sales to international buyers. Main export destination for Burundian tea, are Oman, United Kingdom, Kenya, and Tanzania.

Regarding coffee, the production of coffee in Burundi is currently organized by *Office pour le Développement du Café du Burundi (ODECA)*, a public company with an objective to coordinate, regulate and monitor the whole process of the coffee value chain. Washing stations buy coffee cherries from smallholder coffee farmers at a price fixed after a consultation with representatives of all the stakeholders in the chain value, and an approval by the Council of Ministers. The coffee transformation process is in two steps: washing stations convert the cherries into parchment, and then the milling companies convert the parchment into green coffee. ODECA then sells coffee to international buyers through bidding. The top four destinations of coffee from Burundi are: Switzerland, United Kingdom (UK), Belgium, and Germany.

It should be noted that from January 2003, export taxes on traditional exports (coffee, tea, and cotton) were abolished. However, exporters are required to repatriate all export receipts. Coffee and tea exporters may retain 30% of their earnings in foreign exchange denominated accounts in the domestic banking system (Organisation for Economic Co-operation and Development [OECD], 2004).

Concerning gold, currently gold in Burundi is generally exploited by mining cooperatives that do artisanal exploitation, along with a few mining companies that entered the race recently. Until the end 2019, gold transaction activities in Burundi were done by the trading counters, that bought gold exploited and then exported it. Two types of these counters existed: those under the Burundian law, authorized to buy only minerals exploited from Burundi, and counters in transit that could only buy minerals from other countries. Counters in transit were not subject to the 4% ad valorem tax and were not obliged to surrender the foreign exchange from their export receipts. However, according to Midende (2010), 90% of minerals exploited from Burundi were exported by counters in transit, which implies that the government of Burundi lost considerable amount of resources in tax revenues and in foreign exchange which were not surrendered. However, in November 2019, a new law came in place and gave the Central Bank of Burundi the monopoly on gold transactions. The Central Bank of Burundi is currently the only institution authorized to buy all the gold exploited by mining companies and cooperatives in Burundi. The gold sellers are paid in local currency by the Central Bank of Burundi.

The new law came in place in the context of an economic crisis of lack of foreign currency the country was going through. The Central Bank of Burundi was probably trying to centralize the foreign currency going through that sector. However, as the anti-corruption observatory noted, this new law is likely to encourage more fraud and corruption, while also pushing away the counters in transit, that are of foreign origin since they are likely not to accept to be paid in local currency. It should be noted that Gold is currently Burundi's largest export commodity, contributing approximately 29% of total export earnings (2016–2020). In the national statistics (Central Bank of Burundi), gold exports of Burundi starts in 2016 while in international statistics (COMTRADE), gold export appears from early 1990s. This could mean that foreign exchange earnings from gold export up to 2016 have never been surrendered to the government. Indeed, until recently, the major problem the Burundian mining sector faced was informal exploitation, with anarchic mining which was not profitable to the country. According to COMTRADE, for the period 1993–1996, the main gold export destination was Belgium (83.4%) followed by Switzerland (16.1%); for 1999–2003, Belgium was the sole destination (100%) of gold from Burundi; for 2004–2006, Switzerland became the main destination (67.8%) followed by United Arab Emirates (22.2%), then Belgium (3.7%). In the 1990s and early 2000s, Belgium was the major destination of gold from Burundi due to the presence of a Belgian gold refinery in Burundi.

In recent years (2007–2019), United Arab Emirates is the main gold export destination (92.5%) followed by Belgium (4.4%). Indeed from 2006, Dubai has become one of the world's major gold trading hubs. Gold importers usually follow some standards regarding the source of gold and how it was produced, e.g., if gold originated in a conflict-affected or high-risk country or if it is associated with gross human rights violations. However, United Arab Emirates (UAE) follows few of these standards, which explains the UAE's rapid rise as a major global gold hub. Moreover, another explanation for the UAE as one of the major gold importers is that there is no import duty tax or value added tax on gold brought into the UAE.

Data source

Trade mis-invoicing is an old phenomenon. Bhagwati (1964) discovered that there were discrepancies between the amounts of imports reported by a country and exports reported by its trading partners. As Schneider (2003) argues, capital flight can occur when traders keep capital abroad by faking the trade documents most of the time due to exchange controls by under-invoicing exports and/or over-invoicing imports. Following Ndikumana and Boyce (2021), the amount of trade mis-invoicing is estimated by comparing trade values declared by Burundi with those declared by trading partners in a bilateral international transaction. Since trade statistics reported by advanced countries are assumed to be more reliable, trade mis-invoicing is usually computed by considering only industrialized trading partners.

Conclusion

The objective of this study was to examine trade mis-invoicing in Burundi at both aggregated and disaggregated levels. The study examined trade mis-invoicing at disaggregated levels by major trading partners, and by major export and import commodities, and found evidence of capital flight from Burundi through export under-invoicing and import over-invoicing. Exports of Burundi to most of its major trading partners are found to be under-invoiced. The top destinations for export under-invoicing are United Arab Emirates (UAE), Belgium, and Germany. Over the period 1970–2019, export under-invoicing with these three countries is estimated to be, respectively, US\$1007.5 million, US\$959.1 million, and US\$933.3 million. Export under-invoicing may be a conduit for capital flight as operators conceal their actual earnings and keep the difference in foreign accounts.

Burundi exports mainly precious stones and metals to the United Arab Emirates, and coffee and tea to Belgium and Germany. However, exports of Burundi to United Kingdom (UK) and Switzerland are found to be over-invoiced. The three major export commodities considered, namely, tea, coffee, and gold, are found to be affected by trade mis-invoicing to a great extent. Coffee export under-invoicing is most pronounced in trade with Germany and USA, where under-invoicing amounts, respectively to US\$501.0 million and US\$118.8 million over the period 1993–2019. Coffee export was found to be over-invoiced in the trade with Switzerland, UK, and Belgium, to the tune of US\$460.3 million, US\$230.8 million, and US\$30.9 million, respectively. Gold export is found to be under-invoiced, with under-invoicing amounting to US\$641.1 million in the trade with United Arab Emirates and US\$30.1 million in the trade with Belgium. Regarding tea exports, we observed lack of trade data for many years on the side of Burundi, which posed a challenge in estimating tea export mis-invoicing. Nevertheless, tea export to Oman was found to be over-invoiced, while tea export to United Kingdom (UK) and Pakistan is found to be under-invoiced.

On the import side, the estimation results indicate that imports of Burundi from its major trading partners are in general over-invoiced. Relatively high import over-invoicing is observed in the trade with Saudi Arabia, China, and Japan to the tune of US\$978.4 million, US\$505.2 million, and US\$413.3 million, respectively. On commodity level, for the six top commodities considered, that is, refined petroleum, pharmaceutical products, machinery and mechanical appliances, vehicles, electrical machinery and equipment, and iron and steel, imports were largely found to be over-invoiced.

In addition, an empirical analysis of the determinants of the two common practices of trade mis-invoicing, namely, export under-invoicing and import over-invoicing, was done. The results indicated that, financial incentives through tax fraud, capital account openness, political instability, governance, trade openness, the parallel market premium, and the real exchange rate, are the main factors behind export

under-invoicing and import over-invoicing. Drivers of trade mis-invoicing at product level were also analysed for some major export and import commodities. Product-specific factors of trade mis-invoicing also include the parallel market premium, the real exchange rate, governance, and civil conflicts.

The findings of this study suggest that, reducing economic instabilities, reducing political instabilities, having a more open capital account, and improving governance, could be ways to reduce the extent of trade mis-invoicing in Burundi. In addition, we found a staggering lack of data on Burundi's commodities exports for several years, while trade partners systematically reported imports from Burundi. The opacity of gold trade data before 2016 in the national statistics should be noted. More effort is, therefore, needed in ensuring systematic and transparent reporting of international trade transactions.

When disaggregating trade mis-invoicing, this study considered import commodities accounting only for less than 50% of total imports. For further research, a study can be done with a focus on import mis-invoicing only but analysing all import commodities. It should also be noted that while UN-COMTRADE database has been a reliable data source for trade flows, it has some data quality issues, including outliers and missing values (Chen *et al.*, 2022).

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