



Does Economic Diplomacy Influence International Trade?

Evidence from Tanzania

by

Mgeni Msafiri and Vincent Leyaro

Abstract

Diplomatic relations have potential to enhance international trade by minimizing potential risks that firms encounter in their foreign operations, especially for developing countries. This has been a driving force for government intervention in international trade and investment through economic diplomacy. Using bilateral trade data for the period 1997 – 2019, this study examines the impact of economic diplomacy measured by the presence of embassies in Tanzania and in importer countries on Tanzanian exports and imports. The study uses augmented Pseudo Poisson Maximum Likelihood estimation to account for large proportion of zero trade flows, and a lagged trade variable to correct for the potential reverse causality of opening diplomatic representations. Results show that, on average, Tanzania exports more to countries that host Tanzanian embassies, and imports more from countries that have embassies in Tanzania. Results underscore the effective role of economic diplomacy in reducing trade barriers and foster international trade; implying that as a country Tanzania needs to enhance and strengthen its economic diplomacy with her trading partners.

JEL Classification: F51, F14, O55

Keywords: economic diplomacy, international trade, Tanzania



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1. Introduction

In the 1990s, following the economic reforms that began in the mid-1980s, Tanzania shifted the focus from liberation movement diplomacy to a new era of ‘economic diplomacy’ to support her highly sought economic transformation strategies. The end of the cold war era and the supremacy of neo-liberalism fuelled the country’s renewed economic objectives and interests to determine diplomatic relations with even more actors (URT, 2001). In 2001, Tanzania adopted a new foreign policy to protect and promote the social, economic, and cultural interests of the country through sustainable economic diplomacy. In line with the new foreign policy, the Tanzania five-year development plan 2021/22 – 2025/26 (FYDP III) stipulates that the government commits to strengthening and promoting relations with other nations, regional communities, and international institutions as well as deepening the implementation of economic diplomacy policy in her efforts to boost international trade and the overall economic transformation (URT, 2021).

Economic diplomacy uses bilateral and multilateral relations, and influence established by the governments to safeguard their economic interests such as the promotion of trade and attracting of foreign investments. Through economic diplomacy, governments indirectly facilitate the information and communication flow between firms (and traders) in the trading countries. This way, it acts as a significant tool in reducing non-tariff trade barriers associated with information asymmetry, facing firms when entering new markets (Fernandes and Forte, 2022). Tools used include diplomatic representations (embassies and consulates), state visits, trade missions, and trade centres, to mention some.

Diplomatic representations (embassies, consulates, trade missions) provide the first best instrument to reduce the risk of future distortions and trade disruptions (Van Bergeijk, 2009). They further reduce the costs of exporting to and investing in foreign markets by generating knowledge about the country’s opportunities for trade. They are also useful in establishing good political relationships that breed trust and facilitate mutually beneficial trade. This is crucial in enhancing North-South trade and investment links given that most developing countries suffer from incomplete markets and generally produce products that are perceived to be of relatively low quality (Van Bergeijk and Moons, 2018).

For developing countries like Tanzania that aspire to be an export-oriented economy, diplomatic representations play an important role in fostering strong relations with trade partners and potential investors. Between 1997 and 2021, the country’s exports grew significantly from a total of USD 598 million to USD 6.4 billion while imports grew from a total of USD 1.3 billion to USD 10.9 billion (UNCTAD 2023)¹. In

¹ <https://unctadstat.unctad.org/EN/>

addition, in 2021 all top five export destinations of Tanzanian products, the United Arab Emirates, India, South Africa, Switzerland, and Kenya hosted Tanzanian embassies. Similarly, the top five countries from which Tanzania imported its goods and services in 2021 were China, United Arab Emirates, India, Saudi Arabia, and Japan; where Tanzania hosts embassies of all these countries. In addition, the country has continued to expand its network of diplomatic representations abroad by opening new embassies and consulates. For instance, the number of Tanzanian embassies increased from 25 in 1997 to 45 in 2023. During the same period, embassies in Tanzania have increased from 51 to 61.

The use of economic diplomacy tools is, however, associated with nations spending huge sums of their national budgets to finance the activities of diplomatic missions abroad (Afesorgbor, 2018). This has created discontent among the public who argue against some instruments of economic diplomacy particularly state visits and trade missions. Most empirical studies have established that economic diplomacy positively affects trade. Yet, there are few individual country studies, especially from developing countries, in particular those from sub-Saharan Africa (SSA). This is in addition to the issue of endogeneity (reverse causality) of the presence of diplomatic representations which have necessitated further investigation into this area. This study, therefore, examines the impact of economic diplomacy measured by the presence of embassies and number of diplomatic representations (embassies and general consulates) in Tanzania and abroad on Tanzanian exports and imports from the rest of the world.

Towards that end, this study used trade panel data, for the period 1997 – 2019, obtained from the COMTRADE database with Tanzania as an exporter to and importer from 177 trading partners. The study employed an augmented gravity model estimated by a Pseudo Poisson Maximum Likelihood (PPML) estimator to account for large zero trade flows inherent in dyadic trade data. Export results show that the presence of Tanzanian embassies in partner countries is associated with a 57.3 percent increase in Tanzanian exports on average, while foreign embassies have a positive but insignificant effect. A similar analysis for imports reveals a positive and significant impact of foreign embassies on Tanzanian imports by 82 percent, on average. However, Tanzanian embassies do not have a significant impact on imports.

The remaining paper is organized as follows. Section 2 presents a review of the literature on economic diplomacy and trade. Section 3 presents the Tanzanian context of international relations and trade performance, while the estimation strategy that outlines the methodology used is in Section 4. The main econometrics concerns in model estimation, data source, and summary statistics are in Section 5. The main results are also presented in Section 5 for both Tanzanian exports and imports, and Section 6 presents the conclusion and implication of the study.

2. Economic Diplomacy and Trade: A Review of Literature

Economic diplomacy can be defined as the use of government relations and government influence to enable international trade, investment, and other forms of economically beneficial exchanges (Moons and van Bergeijk, 2013; Rana, 2007). In its broad sense, economic diplomacy comprises concepts such as commercial diplomacy, financial diplomacy, or trade diplomacy. It involves the activities of various actors including government ministries, embassies, consulates, investment and export promotion offices; and diplomatic bilateral activities such as trade and state visits (Moons and van Bergeijk, 2013; Okano-Heijmans and Asano, 2018; Rose, 2007; Yakop and van Bergeijk, 2011). It also covers the use of economic statecraft in advancing foreign policy objectives. Economic diplomacy is a modern concept that gained significance in the scientific literature in the 2000s. It is increasingly used by countries to gain access to international markets and enhance the internationalization of their companies (Moons and van Bergeijk, 2013; Okano-Heijmans and Asano, 2018).

Although many nations use several institutions such as embassies, foreign trade offices, trade missions, and export processing zones to attract investments and promote exports, their effects especially in sub-Saharan context are lacking in empirical literature. Most studies have been done in developed countries focusing on the effect of economic diplomacy on either FDI or exports. Rose (2007) applied a standard gravity model on annual data averaged over 2002–03 and finds that the presence of foreign missions in a country (embassies, consulates) is positively linked to exports. Each additional consulate is associated with approximately a 6-10 percent increase in exports. Nitsch (2007) examined the empirical relationship between foreign visits by politicians and international trade. He used a large data set covering the travel activities of the heads of state of France, Germany, and the United States between 1948 and 2003 and applied a standard gravity model of trade. The author found that state and official visits positively affect exports by about 8 to 10 percent, holding other things constant. On the effect of economic diplomacy on market entry of starting and incumbent exporters, Creusen and Lejour (2013) found that trade posts and trade missions significantly raise the probability of a firm entering a new market.

Moons and van Bergeijk (2017) applied meta-regression analysis in the review of empirical studies that deal with the trade and investment impact of economic diplomacy (embassies, consulates, other diplomatic facilities, investment and export promotion offices, trade, and state visits). Except for state visits, economic diplomacy was found to positively and significantly affect international economic flows. In another study covering a group of 104 industrial and developing countries by Lederman et al. (2009), export promotion agencies (EPAs) were found to have a strong and statistically significant impact on exports. The study estimates a \$300 increase in exports for each \$1 of export promotion by EPA. Economic diplomacy has also been found to be useful in the context of market and government failure, especially in developing countries

(Yakop and van Bergeijk, 2011). Intangible barriers to trade such as a lack of trust, cultural differences, and ineffective governance present potential market failure and hamper international transactions such that, embassies and consulates are potential instruments in solving or reducing some of these barriers and thus promote exports.

Of the few studies done in Africa, Afesorbor (2018) examined the interaction of regional integration and commercial diplomacy on export flows among 45 African states over the period 1980-2005 using a gravity model. The results show that bilateral diplomatic exchange is a relatively more significant determinant of bilateral exports among African states compared to regional integration. However, the study by Afesorbor (2018) did not account for possible endogeneity of trade policy variables. Also, the issue of zero trade flows was not addressed in the study even though it is a common problem in dyadic trade data particularly of developing countries due to absence of data or very small bilateral trade. While most empirical evidence supports the positive impact of economic diplomacy in international trade flows, Yakop and van Bergeijk (2011) found that for OECD countries, diplomatic representation via embassies and consulates is not a relevant trade-enhancing factor but it is significant in bilateral trade relationships of developing countries. Further, the authors show that the effects of economic diplomacy differ between different country groups according to different income levels.

Studies focusing on individual countries such as Head and Ries (2009) investigated the impact of the Canadian trade missions on the exports of Canada. The authors used a panel of before and after the treatment periods, accounted for reverse causality using fixed effects, and included the lag of the dependent variable among control variables. Their study did not find a statistically significant effect of trade missions on Canadian exports and imports. Bagir (2019) used the expansion of its foreign embassy network as the source of variation to analyze the impact of foreign missions using panel data in Turkey. The study's strength relies on its ability to address the endogeneity issues (due to reverse causality) associated with a standard cross-sectional analysis mostly used in previous studies and found a positive impact of foreign missions on exports and no impacts on imports. In addition to the standard gravity control variables, the study used development indicators to control for other factors affecting bilateral trade. However, the authors studied only one instrument of economic diplomacy (embassies) and did not show how zero trade flows were treated in the sample.

Complementing the macro data on bilateral trade with data from Portuguese exporting firms, Pacheco and Matos (2021) found a less relevant role for embassies and consulates in export promotion and facilitation. The authors also estimated the gravity equation on sector disaggregated data which implied that endogeneity was not of high concern and applied a random effects model. However, the study overlooked the issue of zero trade flows which is crucial in the gravity equation particularly as Portugal is a small country. Also, the study calls for further research in using alternative estimate techniques to account for endogeneity as reverse causality cannot be overemphasized.

The conclusions of most prior studies confirm that diplomatic representations promote trade. However, these results cannot be generalized to a single country context, especially in Africa. Also building on the argument that economic diplomacy is more relevant for developing countries (Lederman et al., 2009; Van Bergeijk et al., 2011), single-country studies estimating the effects of economic diplomacy in developing countries are missing. In addition, the endogeneity concern associated with the presence of diplomatic missions due to previous trade with importer countries calls for further research in this area.

The significance of this study to Tanzanian policymakers lies in the fact that the current government intends to open and establish new Embassies, Consulates, and Business Centers in strategic countries and cities to promote tourist attractions, attract investment, and find markets for Tanzanian products. It also aims to strengthen the work of the Ministry of Foreign Affairs and East African Cooperation and Embassies located in various countries around the world, by hiring qualified and professional staff. This move calls for empirical analysis of the role, that embassies play in promoting business, investment, and tourism which are currently missing in the literature. The study will also add to the scientific literature on the impacts of economic diplomacy on bilateral trade in a single-country context in sub-Saharan Africa. To the best of our knowledge, this is the first study to quantitatively analyse the impact of economic diplomacy on bilateral trade in Tanzania.

3. The Tanzania Context: International Relations and Trade Performance

The Evolution of Tanzania's international relations can be traced back to the independence period in the early 1960s, and it involved major three phases. The "traditional phase" involved the nationalist movements and the building of a socialist nation. Tanzania's diplomacy was mirrored through cooperation with other countries during negotiations, struggles for political liberation against colonial powers, and conflict resolution of the neighbouring countries (Shule, 2011). For this reason, Dar es Salaam (the capital city of Tanzania by then), became the host headquarters of the OAU Liberation Committee and liberation groups from Mozambique, Angola, Namibia, South Africa, and Zimbabwe. The major turning point of Tanzania's diplomacy was in 1964 and 1965 which marked the deterioration of Tanzania's cooperation with major Western powers on one hand and the strengthening of the diplomatic ties with the Communist countries on the other hand (Niblock, 1971).

The end of the cold war and the attainment of independence by the many countries in the region, including Zimbabwe, defined the second phase of economic diplomacy from the 1980s to the early 1990s. This was the period of the emergence of neo-liberalism, which limited Tanzania's "traditional diplomacy" that maintained the socialist ideology. Tanzania had to adjust its independent non-alignment strategy with the Breton Wood institution's conditionality due to the economic crisis the country was

in. As of 1985, Tanzania's dependence on foreign aid reached 67 percent of GDP, exports decreased by two-thirds from the level recorded in 1981, and there was a drastic drop in net borrowing from TShs. 1.2 billion in 1982 to none in 1985 (Frangonikolopoulos, 1988). Multilateral agreements and structural adjustment programs were thus the only possible solution to address the economic crisis the country was facing.

Consequently, economic reforms were determined to be the priority of Tanzania's foreign policy. Thus, since the 1990s Tanzania adopted economic diplomacy which was defined as a tool for the promotion of economic growth, investment, tourism, and trade. The third government regime of President Benjamin W. Mkapa from 1995-2005 witnessed vast economic reforms, strengthening of international relations, and aggressiveness in pursuing trade openness policies. This includes the privatization of the parastatal firms, liberalization of interest and exchange rates, and serious efforts to attract foreign investments. During this period (1995 – 2010) more than 100 market-friendly policies and laws were passed to attract investments and boost donors' confidence (Kamata, 2012).

In 2001, President Mkapa launched the new Foreign Policy that put specific emphasis on economic diplomacy. In fostering diplomatic relations with other countries, during this regime seven Tanzanian embassies were opened abroad between 1998 and 2005, located in Rwanda, Sweden, United Arab Emirates, Malawi, Oman, Brazil, and Indonesia. As a result of good diplomatic relations, the number of bilateral investment agreements increased during Mkapa's regime from just one in 1994 to 12 by the end of his term in 2005 (Kipole, 2010).

Table 1: International trade performance indicators, 1995 – 2021

| Indicator | | 1995-2005 | 2006-2015 | 2016-2020 | 2021 |
|-------------------------------|----------------------------------|-----------|-----------|-----------|---------|
| Exports of goods and services | Exports (% of GDP) | 15.2 | 19.4 | 15.3 | 14.3 |
| | Exports (annual % growth) | 12.7 | 5.4 | 0.9 | 2.2 |
| | Exports (constant Billion TShs.) | 5726.9 | 12802.8 | 16294.1 | 16906.1 |
| Imports of goods and services | Imports (% of GDP) | 20.3 | 28.3 | 17.3 | 17.1 |
| | Imports (annual % growth) | 11.6 | 7.8 | -1.7 | 13.3 |
| | Imports (constant Billion TShs.) | 5786.8 | 18190.0 | 20605.8 | 22743.1 |
| Trade (% of GDP) | | 35.5 | 47.6 | 32.6 | 31.4 |

Source: World Development Indicators (WDI).

Frequent international trips by the President and other Ministers gained momentum in the 2000s, the justification being economic diplomacy. It was argued that these trips were meant to market the country outside and seek investors. The 4th Phase of President Jakaya Kikwete, that assumed office in 2005 was on record (and notorious) for frequent trips

abroad. According to Ezekiel Kimwaga (2010) as cited by Kamata (2012) wrote that between December 2005 and May 2010, about 120 days and TShs. 2.4 billion (about US\$ 2 million) were spent by President Kikwete on foreign trips alone (Mwanahalisi, 12 May 2010). As shown in Table 1, the fruits of good diplomatic relationships with other countries were evident in the country's improvement of international trade indicators.

Table 1 shows that during the 4th government phase of President Kikwete (2006 -2015) exports as a percent of GDP were the highest (19.4) and the overall trade of goods and services as a percentage of GDP was the highest, playing a significant role in the economy compared to other regimes. This was mainly due to a conducive business environment and good relations with other countries which boosted domestic investments and promoted trade.

Another turn in the implementation of Tanzania's foreign policy was observed in the 5th phase of government under President John Magufuli. In the six years he served, he made only 10 international trips to 8 countries within Africa, the least compared to all his predecessors. Between 2015- 2017 some of his international visits were to Kenya, Rwanda, and Ethiopia where he attended the African Union Heads of States summit. During the same period visits to Tanzania included those by presidents from South Africa, Burundi, Chad, Congo (Democratic Republic), Ethiopia, India, Misri, Morocco, South Sudan, Uganda, Turkey, Vietnam, and Zambia (Nchi Yetu Magazine, 2017)². Seven new embassies in the countries of Algeria, Israel, the Republic of Korea, Turkey, Qatar, Sudan, and Cuba were opened to promote and strengthen cooperation with various countries. However, the President reduced large delegations representing Tanzania abroad to reduce unnecessary spending of limited public resources. Magufuli focused on improving domestic administration and accountability to improve domestic institutions and the business environment. To him, building diplomatic relations was founded on strong domestic economic performance, which was his major focus.

While the foundation of Tanzania's foreign policy was the same, what changed during the Magufuli era was its implementation. During this phase, the business environment was faced with fiscal uncertainties and an unstable political arena due to the precarious human rights situation, threats to the thriving country's democracy, and an increase in the government's control over civic sectors. The government also made frequent market interventions to promote the exportation of goods and control the importation of some goods, for example, the cases of cashew nuts exports and intervention in the importation of sugar³ (Estmann *et al.*, 2022). On top of bureaucratic procedures in doing business in the country, President's actions increased doubts about the government's commitment to better investment conditions. Consequently, according to the World Bank's ease of doing business reports, the rank of Tanzania fell from 132nd position in 2017 to 141st in 2019 out of 190 countries. International trade was also badly hit, with average annual export growth

2 <https://www.tanzania.go.tz/publications/nchi-yetu-journal>

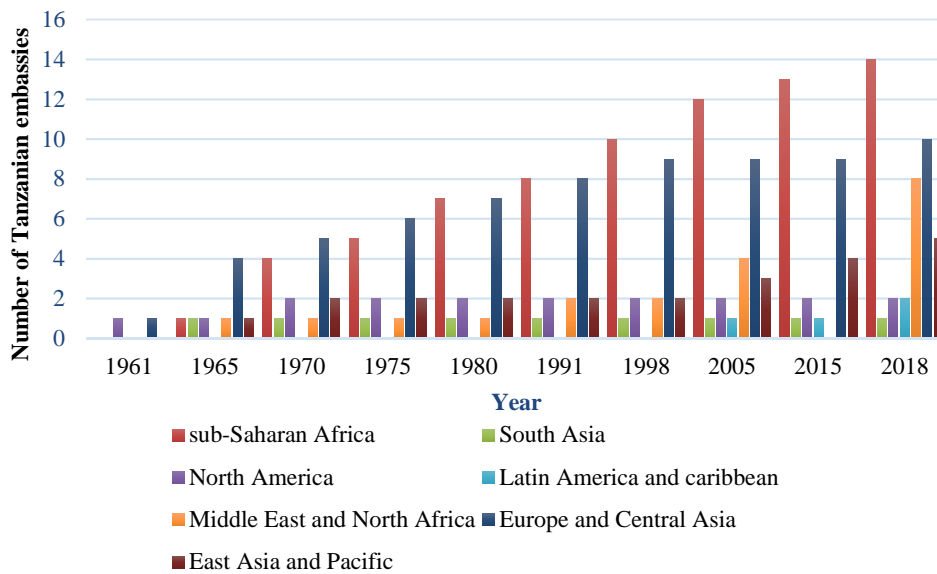
3 <https://www.ft.com/content/a9981660-e9b4-11e8-a34c-663b3f553b35>

recording an average of only 0.9 percent during this phase (2016 – 2020). While the Covid-19 pandemic in 2020 is partly to blame, local interventions in trade, taxation, investment laws, and other issues related to private domestic and foreign investments were the main concerns. As a result, Tanzania's total trade relative to the world trade fell sharply in 2018 because of a decline in main commodities exports, gold and cashew nuts. The reason was the government's tax disputes with the largest gold mining company and intervention in the cashew nuts market, which as a consequence strained diplomatic relations with importer countries (Estmann *et al.*, 2022). Other trade indicators' such as total trade as a percent of GDP also performed poorly compared to the two previous regimes (see Table 1).

In the efforts to revive the strained diplomatic relations with the international community, the 6th phase government of President Samia Suluhu embark on international trips and put particular emphasis on attracting foreign investors. Only one month after she began her presidency, she made her first international visit to Kenya in April 2021 and succeeded to remove long-term non-tariff trade barriers between the two countries, while entering into various bilateral trade agreements. President Samia embarked on a 4Rs philosophy: Reconciliation, Resiliency, Reforms, and Rebuilding. According to her, these are necessary conditions to address the prevailing issues in contemporary Tanzania and restore investors' confidence. For the period 2021 – 2023 since assuming office, President Samia has paid 23 international visits; and two new embassies were opened in Austria – Vienna in 2022 and in Indonesia in 2023. Furthermore, two general Consulates were opened in Guangzhou China, and Dubai in 2022.

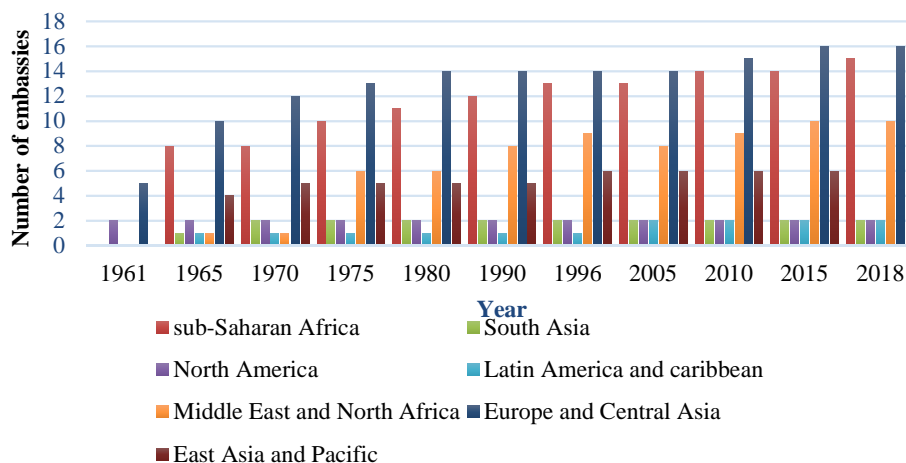
The evolution of the number of Tanzanian embassies abroad is shown in Figure 1. Sub-Saharan Africa hosts the highest number of Tanzanian embassies followed by Europe and Central Asia. South Asia has the least number of Tanzanian embassies (only in India). Good relationship between Tanzania and Middle East countries has facilitated the opening of Tanzanian embassies shown by an increase of Tanzanian embassies in these countries from only two in 1998 to eight in 2018. The evolution of the number of foreign embassies in Tanzania in figure 2 shows that, European and Central Asian countries have the highest number of embassies in Tanzania followed by sub-Saharan African countries. South Asia and Latin America and Caribbean have the least number of embassies in Tanzania. While the number of embassies in Tanzania has been increasing over time, some embassies were closed particularly Somalian embassy in 1990, Libyan embassy in 2004, and Syrian embassy in 2012.

Figure 1: Number of Tanzanian embassies by region over time.



Source: Author’s compilation

Figure 2: Number of foreign embassies in Tanzania by region over time.

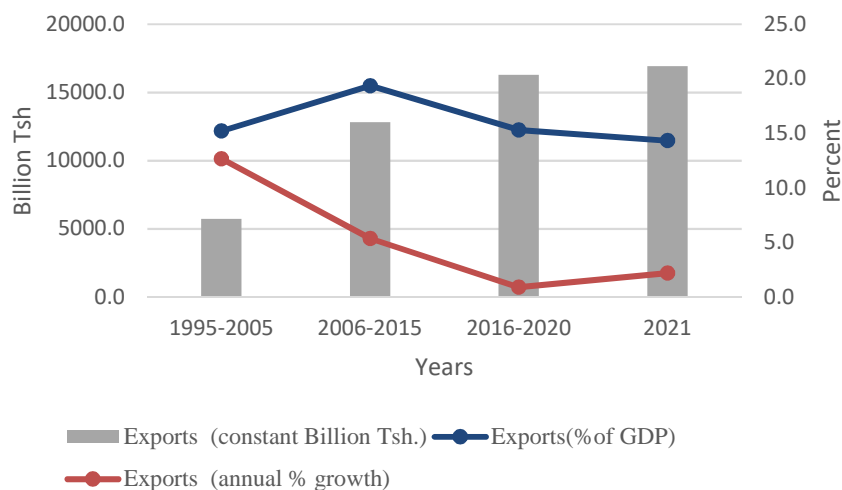


Source: Author’s compilation

There is remarkable progress in the country’s exploitation of various opportunities of preferential market access (preferential market access) between Tanzania and the countries of China, India, Japan, Canada, and South Korea. There are also developments in the customs union protocol between Tanzania and other member countries of the Community of East Africa etc as well as in defending the commercial interests of Tanzania and the countries of the LDCs group in international trade

negotiations (multilateral trade negotiations). Trade performance indicators have also started to improve from the levels recorded in the previous phase. For instance, Figure 3 shows an increase in export value and annual percent growth in 2021 from the average values in 2016-2020; and there are many prospects to show further improvements in the next years.

Figure 3: Export performance indicators by presidency regime.



Source: Author's compilation from WDI

4. Estimation Strategy

Using an augmented panel gravity model for Tanzanian bilateral trade flows with its trading partners, this study investigates the impact of the level of representation (embassy) and number of diplomatic representations (embassies and consulates) on trade performance in the case of Tanzania.

First, the influence of economic diplomacy on Tanzanian trade (exports and imports) is estimated by employing the pooled Ordinary Least Square (OLS) technique followed by Poisson Pseudo Maximum Likelihood (PPML) approach. The trade costs variable in the gravity model is the control variable that includes distance: common language, common border (contiguity), common colonizer, pair in a colonial relationship post 1945, regional trade agreement, importer GDP, importer population, and importer Productive Capacity Index (PCI) that are thought to affect bilateral trade. To account for *multilateral trade resistance* the study includes country and time-fixed effects to take into account the unobserved country-specific characteristics and control for the country's overall level of imports or exports (Anderson and van Wincoop, 2004).

Moreover, according to Santos Silva and Tenreyro (2006), when the gravity equation is log-linearized and estimated by OLS, even after controlling for fixed effects, the presence of heteroscedasticity can generate not only biased but also inconsistent estimates. Since trade data are often plagued by heteroscedasticity, a comprehensive approach proposed by Santos Silva and Tenreyro (2006) is followed by applying a

PPML estimator instead of OLS. The use of PPML is justified on the following grounds: besides being consistent in the presence of heteroscedasticity, when applied to a gravity model expressed in multiplicative form it provides a natural way to deal with zero values of the dependent variable (Santos Silva and Tenreyro, 2006). Hence, the following equation is estimated:

$$\ln T_{ij,t} = \beta_0 + \beta_1 \ln Y_{j,t} + \beta_2 \ln dis_{ij,t} + \beta_3 \ln pop_{j,t} + \beta_4 CONT_{ij,t} + \beta_5 COL_{ij,t} + \beta_6 COC_{ij,t} + \beta_7 COR_{ij,t} + \beta_8 RTA_{ij,t} + \beta_9 PCI_{j,t} + \gamma_1 ED_{i(j),t} * Trend + \vartheta_j + \delta_t + \varepsilon_{ij,t} \quad (1)$$

where: T_{ij} is the annual Tanzanian exports or Tanzanian imports in current US dollars, dis_{ij} is the distance between country i and j in km, Y_j is the annual GDP per capita of importer in current US dollars, pop is the average population, $CONT_{ij}$ is a binary variable which takes the value of 1 if both i and j share a border, COL_{ij} is a binary variable which takes the value of 1 if both i and j share language, COC_{ij} is a binary variable which takes the value of 1 if both i and j had a common colonizer post-1945, COR_{ij} is a binary variable which takes the value of 1 if both i and j are pair in a colonial relationship post-1945, $RTA_{ij,t}$ is a binary variable which takes the value of 1 if both i and j has a regional trade agreement, ϑ_j is the set of time-varying importer dummies accounting for inward multilateral resistances, δ_t is the set of time fixed effects accounting for unobserved variables that vary over time. $ED_{i(j)}$ is a dummy variable which takes a value of 1 if Tanzania has embassy in country j , or a partner country j has embassy in Tanzania. The variable $Trend$ is a dummy variable included to control for a decline in trade post-2016 due to various government policy options which influenced both the functioning of the diplomatic representations and Tanzanian trade.

The main issue of concern in this setting is endogeneity or reverse causality. Previous trade can influence the set-up of diplomatic missions and further stimulate political ties. If this is the case then the endogeneity of the presence of diplomatic representations would bias the coefficient estimates and estimation in the gravity model would only pick up the correlation and not the causality. This study, therefore, include the lag of the dependent variable, a strategy similar to (Head and Ries, 2010) to control for potential previous trade.

4.1 Data and Descriptive Statistics

Data on foreign representations abroad and in Tanzania for the period 1997-2019 were obtained from the Ministry of Foreign Affairs and East Africa Cooperation (MoFAEAC) and from the Ministries of Foreign Affairs of the importer countries' websites. For those embassies in Tanzania whose year of opening was not obtained from the Ministries, the year in which bilateral relations started was used as a proxy. For this study, High Commissions which are opened in Commonwealth member

countries (countries that were once colonized by Britain) are treated as embassies since they have similar functions. For those missions which are located in one country and serve other countries as well, we only consider the embassy in the country of presence. This study excludes both general and honorary consulates. Honorary consulates have a limited role in trade activities. Also, there is a very limited number of general consulates both in Tanzania and in importer countries opened during the study period.

For example, all foreign general consulates present in Tanzania were opened before 1997, these consulates are thus eliminated from the analysis due to the use of fixed effects model. This implies that, absence or inadequate variation of the consulates that can explain the change in Tanzania trade, will render the estimates unreliable. The gravity model data are sourced from CEPII⁴ (Center d'Études Prospectives et d'Informations Internationales) database. It comprises geographic and cultural data for different countries around the world that includes distance, common language, common colony, common religion, common border, regional trade agreements (RTAs), and others that are harmonized and relevant for the estimation of the gravity model. The trade flow data (exports and imports) are sourced from COMTRADE; while GDP and population data are sourced from WDI. Productive capacity index constructed by eight components including natural capital, human capital, Information and Communication Technology (ICT), transport, institutions, structural change and private sector was obtained from UNCTAD. Due to the effects of COVID-19 pandemic on trade activities, the year 2020 was dropped from the estimation and as a result, the focus is on the period 1997 – 2019 covering three presidential regimes in Tanzania, due to missing export values in 1995 and 1996.

The dataset used consists of bilateral trade flow data with Tanzania as an exporter and 177 trading partners for the period 1997 – 2019. During the study period, exports increased from an average of 3.4 million USD in 1997 to 15.7 million USD in 2019 equivalent to a 361.8 percent increase. Imports increased from 4.0 million USD in 1997 to 18.1 million USD in 2019, which is equivalent to a 352.5 percent increase, in the same period. As of 2019, Tanzania had 41 embassies abroad from only 2 embassies at the independence in 1961 (which were located in London, UK, and New York, USA), and from 24 embassies in 1997. Embassies in Tanzania increased from 47 in 1997 to 55 in 2019.

Table 2 presents the descriptive statistics of key variables, which shows that Tanzanian exports to treatment countries (countries that host Tanzanian embassies) increased from 16.95 to 53.14 million USD (equivalent to 213.5 percentage increase) compared to 1.23 to 4.39 million USD (equivalent to 256.9 percentage increase) for control countries (countries that never hosted Tanzanian embassies) between 1997 and 2019. Similarly, Tanzanian imports increased from 19.10 to 64.05 million USD (equivalent to a 256.9

⁴ <http://www.cepii.fr/>

percentage increase) for treatment countries compared to an increase from 1.66 to 4.27 million USD (equivalent to a 157 per cent increase) for control countries during the same period. The figures suggest higher trade between Tanzania and countries that host Tanzanian embassies compared to those that never hosted the country's embassies, even though the increase in exports during the study period is higher for control countries.

Table 2: Descriptive statistics of trade flow variables used in estimation (Tanzanian Embassies) (in Million Current USD)

| Variables | Treatment countries (hosts TZA embassies) | | | Control Countries (Never hosted TZA embassy) | | |
|-------------------|---|-------|---------|--|------|---------|
| | 1997 | 2019 | %Change | 1997 | 2019 | %Change |
| Tanzanian Exports | 16.95 | 53.14 | 213.51 | 1.23 | 4.39 | 256.90 |
| Tanzanian Imports | 19.10 | 64.05 | 235.34 | 1.66 | 4.27 | 157.23 |

Source: Authors' compilation

Table 3: Descriptive statistics of trade flow variables used in estimation (Foreign embassies in Tanzania) (In Million current USD)

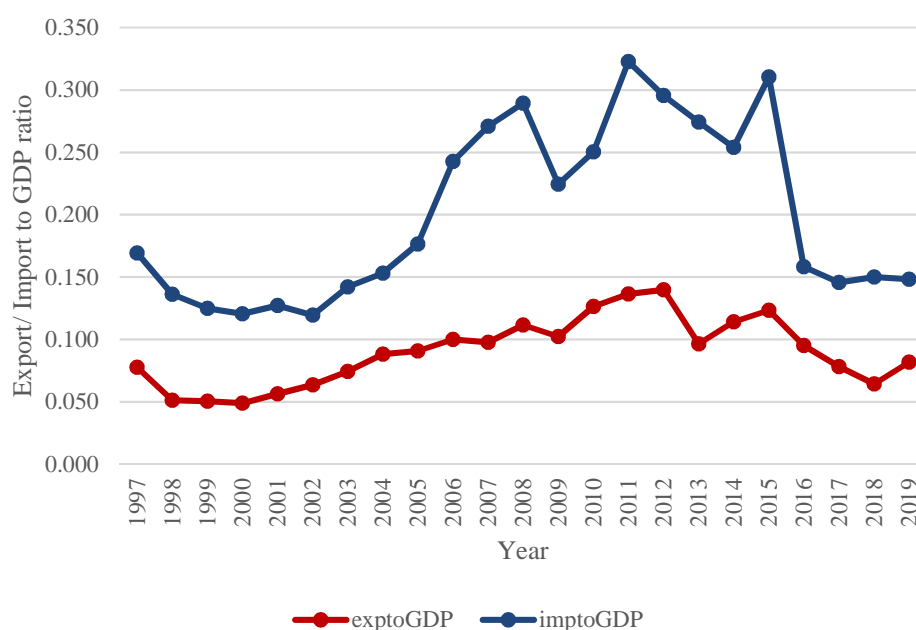
| Variables | Treatment countries (Has embassy in TZA) | | | Control Countries (Never had an embassy in TZA) | | |
|-------------------|--|-------|---------|---|------|---------|
| | 1997 | 2019 | %Change | 1997 | 2019 | %Change |
| Tanzanian exports | 10.19 | 46.74 | 358.7 | 0.90 | 1.69 | 87.8 |
| Tanzanian imports | 12.03 | 52.86 | 339.4 | 1.13 | 2.45 | 116.8 |

Source: Authors' compilation

On the other side, as shown in Table 3, Tanzanian exports to countries whose embassies are in Tanzania (treatment group), increased by more than four times from 8.95 to 48.58 million USD between 1997 and 2019 compared to the countries whose embassies are not in Tanzania, whose exports increased from 0.9 to 1.91 million USD (equivalent to 112.7 percent increase). Tanzanian imports from these countries similarly increased by more than four times compared to an increase in imports from countries that did not have an embassy in Tanzania. As has been observed, the presence of foreign embassies in Tanzania is highly correlated with higher trade compared to the presence of Tanzanian embassies in importer countries. This trade pattern reveals a significant one-way correlation between the presence of diplomatic representations and the promotion of international trade. Descriptive statistics of other control variables used areas are presented in Appendix Table A1.

As shown in Appendix Table A2, the data used in this study corresponds to three different presidency regimes in Tanzania from 1997 to 2019. The average value of exports to importer countries that hosts Tanzanian embassies during 3rd phase of the government of President Mkapa from 1997 to 2005 was 20.69 million USD. Exports increased significantly to an average of about 77.69 million USD during the 4th phase of the government of President Kikwete from 2006-2015, before decreasing to an average of about 64.06 million USD during 5th phase government of President Magufuli from 2016 – 2019.

Figure 4: Evolution of exports and imports to GDP ratio 1995 – 2019.



Source: Authors' calculation

For a detailed analysis of Tanzanian international trade flow variables, figure 4 show the trend of exports and imports to GDP ratio over the period 1997 – 2019. Exports to GDP ratio have consistently been less than imports to GDP ratio signifying the import dependence of the Tanzanian economy. Both exports and imports reveal inverted u-shaped curves implying that, while economic growth has been increasing, productive capacity of the country has not followed a similar pace resulting in a lower increase in exports compared to the increase in imports. Moreover, Tanzanian firms are faced with significant cross-border hurdles when penetrating into the export markets due to many documentations and institutional regulations required.

Notable decline in exports to GDP ratio is observed in 2009, 2013 and 2016 through 2018. A similar trend is observed for import to GDP ratio. Compared to third and fourth presidency regimes, a general poor performance of trade is observed during the fifth regime as exports declined sharply in 2016 to 2018 before a modest recovery in 2019

(see also table A1 in the appendix). In these years, Tanzanian exports decreased significantly to the main exporters, India, Kenya, China and Oman. For instance, from 2015 to 2016 the share of exports to India decreased from 19.63 to 12.82 percent of total exports, while the share of exports to Kenya (the main trading partner in East Africa) decreased from 13.56 to 6.62 percent of total exports in the same period. Moreover, in 2018 Gold, cashew nuts and precious metal (main export commodities) were not in the list of top five exported commodities from Tanzania, and Rwanda emerged as the top exporter with 18.69 percent share of total exports.

The main reasons attributed to this decline are gold and cashew nuts export bans, and low manufacturing goods prices. In addition, new mining taxes raised investors uncertainty which deepened disputes with the government, adversely affecting mineral exports. Moreover, there were new taxes, and goods seized at the main port of Dar es Salaam (a transit gate for neighbouring inland countries). The international agreement within the East Africa Community was also breached by Tanzania imposing a duty on sugar from Kenya which significantly affected Tanzanian trade with this major partner (Bamwenda, 2018). Generally, the summary statistics reveal Tanzanian poor trade performance during the study period, which raises interest on the understanding of the role that economic diplomacy can play in fostering Tanzanian international trade.

The correlation statistics among all variables used in this study are presented in Appending Table A. Most correlations between variables of diplomatic representation and other independent variables are less than 0.5 except the correlation between Tanzanian embassy and foreign embassy variables is 0.69. Hence, to avoid imprecise and unreliable estimates, these variables are included separately in model estimations.

Zero trade flows

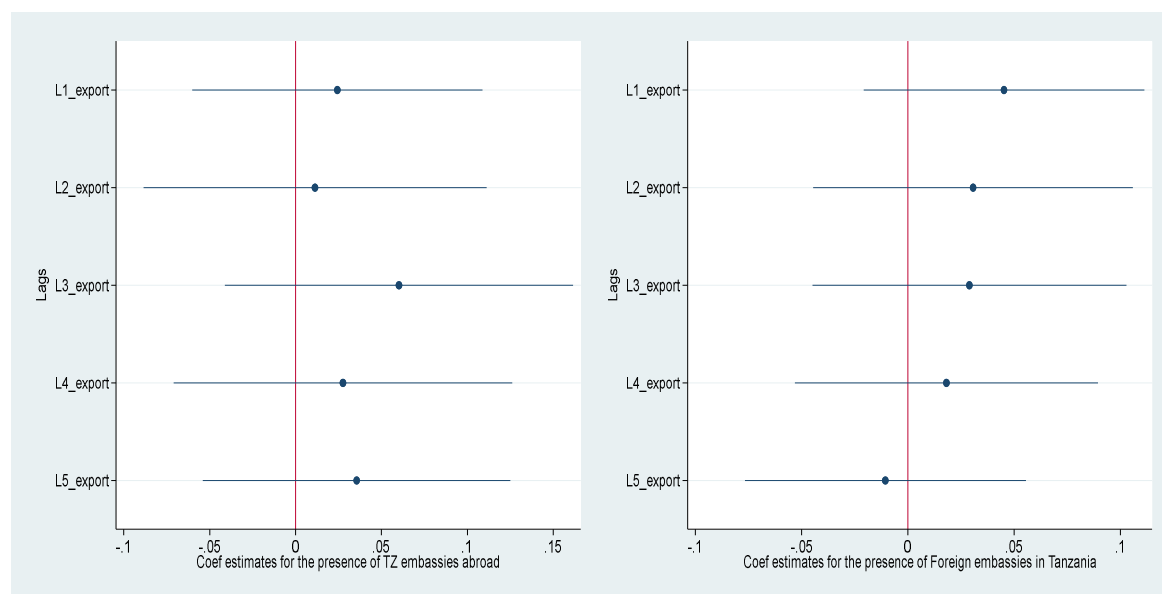
In the data set, zero trade flows comprise around 24.6 percent of export flows and 31.4 percent of import flows. Focusing on the diplomatic representation variables which are of interest, the presence of zero trade flows in countries where the Tanzanian diplomatic missions are present represents zero percent of export flows and 5.7 percent of import flows. For the countries that have their representations in Tanzania, zero trade flows comprise about 4.1 percent of export flows and 10.8 percent of import flow data. The presence of zero trade flows signifies in part the absence of trade or unreported data in the COMTRADE database.

Reverse Causality

We hypothesize that economic diplomacy positively affects trade, but it is reasonable to assume that trade can influence the set-up of diplomatic representations and further stimulate political ties. If this is the case, then the endogeneity of the presence of embassies and consulates due to reverse causality is of concern and can lead to biased and inconsistent estimates. To check for the existence of reverse causality we regressed

the embassies dummy variable on lags corresponding to 5 years of exports before opening the Tanzanian embassy and before opening the foreign embassy in Tanzania. The purpose was to determine whether previous trade positively influenced the opening of the embassy either in Tanzania or abroad. We also included GDP, standard control variables, and time-fixed effects.

Figure 5: Export trend five years before opening the embassy in Tanzania and Abroad



Source: Authors' construction

Figure 5 shows that only the 3rd lag of export in the left graph has a positive and significant impact on the presence of Tanzanian embassies. Moreover, a joint significance test of the lagged exports coefficients is significant, implying that previous trade with importer countries might have influenced the opening of Tanzanian embassies in those countries. However, all individual lagged exports coefficients in the right graph (for the presence of foreign embassies in Tanzania) are not significant, but a joint significant test shows that they are jointly significant. This indicates some evidence of reverse causality, and that previous positive trade with partner countries might have influenced the presence of Tanzanian embassies abroad. Therefore, reverse causality is of concern in this study and estimation in a gravity model will pick up the correlation but would be difficult to pick up the effect, if any, of economic diplomacy. Thus, different sets of fixed effects and the one lagged value of dependent variable are included in the estimation of the augmented gravity model to account for multilateral resistances and possible reverse causality respectively.

5. Results and Discussion

5.1 Export Results

Similar to Fernandes and Forte (2022), this study reports the results of the baseline equation (1) estimated by pooled ordinary least squares (OLS) in column (1) exclude the variables of interest to check whether the gravity model fits the data well (Table 4). Columns (2) through (6) provides estimates using pseudo-Poisson maximum likelihood estimator (PPML) to account for a large proportion of zero trade flows in the data. Results for variables of interest, Tanzanian embassy and foreign embassy are presented separately in columns (3,4) and (5,6) respectively to avoid multicollinearity due to high correlation between the two economic diplomacy variables. Thus columns (3) and (5) includes time trend variables in addition to fixed effects to control for a decline in trade post 2016. To account for potential reverse causality, columns (4) and (6) arguments the results of previous columns by adding the lag of exports.

PPML explains 90 per cent of variation in the Tanzanian exports compared to 56 percent in OLS. In column (1), the traditional control variables in the gravity model show expected signs and significance except common colony, pair in colonial relationship post 1945 and sharing a regional trade agreement (RTA). Tanzanian exports increase with the economic size of the importer and decrease with the distance between Tanzania and the importing country. *Ceteris paribus*, a 1 percent increase in importer GDP increases exports by about 0.4 percent. A 1 percent increase in distance decreases exports by 2 percent. The slightly higher impact found in this study is similar to previous studies done in Tanzania such as Leyaro (2021) .

Being in a Regional Trade Agreement (RTA) with importer country increases Tanzanian exports but not significantly. Further, the effect of sharing a common boarder (contiguity) is highest and very significant indicating that Tanzania trades more with her neighbors by 1371 percent $[(\exp(2.689)-1) * 100\%]$. This results explains the significant trade that exists in the East African region especially with Kenya compared to the rest of Africa or the world. The study also controlled for productive capacity of importer countries using Productive Capacity Index (PCI). Table 4 shows Tanzanian exports increases with higher importer productive capacity index by 7 percent, on average. Previous trade with partner countries (Lag1 export) significantly increases current-year exports by 33 percent on average. A negative interaction term of time trend dummy and economic diplomacy variables in column (3), (4) and (6) supports the observed data trend of a decline in exports post 2016 (Appendix A1).

Table 4: The export-promoting function of diplomatic representations

| VARIABLES | (1) Log Exports | (2) Exports | (3) Exports | (4) Exports | (5) Exports | (6) Exports |
|------------------------|-----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|
| Ln distance | -2.022*** (0.275) | -2.431*** (0.598) | -2.193*** (0.586) | -0.617 (0.623) | -2.421*** (0.588) | -0.782 (0.681) |
| Ln importer GDP | 0.423** (0.210) | 0.462* (0.251) | 0.471** (0.214) | 0.242 (0.197) | 0.484* (0.247) | 0.256 (0.211) |
| Ln Importer population | 0.558*** (0.209) | 1.002 (0.812) | 0.932 (0.760) | 0.729 (0.596) | 0.828 (0.802) | 0.603 (0.619) |
| Common colony | 0.355 (0.287) | | | | | |
| Pair in colonial rship | 0.391 (0.311) | | | | | |
| Contiguity | 2.689*** (0.573) | | | | | |
| Common language | 0.715*** (0.251) | | | | | |
| RTA | 0.236 (0.455) | 0.277 (0.271) | 0.282 (0.285) | 0.346* (0.198) | 0.310 (0.275) | 0.362* (0.188) |
| Importer PCI | 0.071*** (0.024) | 0.049 (0.036) | 0.050 (0.035) | 0.029 (0.032) | 0.047 (0.035) | 0.026 (0.032) |
| Lag1 export | | | | 0.309*** (0.048) | | 0.319*** (0.050) |
| Tanzanian embassy | | | 0.632** (0.314) | 0.453* (0.263) | | |
| Trend# Tanzania emb. | | | -0.554 (0.339) | -0.466* (0.253) | | |
| Foreign embassy | | | | | 0.339 (0.581) | 0.233 (0.386) |
| Trend# foreign emb. | | | | | 0.043 (0.316) | -0.005 (0.233) |
| Constant | 7.572*** (2.654) | 8.915 (9.083) | 7.076 (8.822) | -1.563 (8.737) | 10.11 (9.428) | 1.028 (9.517) |
| Observations | 2,564 | 3,178 | 3,178 | 2,526 | 3,178 | 2,526 |
| R-squared | 0.558 | 0.900 | 0.903 | 0.905 | 0.901 | 0.903 |
| Country FE | NO | YES | YES | YES | YES | YES |
| Year FE | NO | YES | YES | YES | YES | YES |

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in brackets.

Source: Authors' calculations

Focusing on the effect of the presence of Tanzanian embassies abroad on Tanzanian exports, we base on the estimates in column (4) as the specification accounts for the largest variation in exports by 90.5 percent and properly account for the previous year's export which might have influenced the opening of the embassies using lag 1 of exports. The impact of regional trade agreement (RTA) become significant in this specification, showing that Tanzania exports more to countries in the same RTA by 41.3 percent [(exp (0.453)-1) *100%] on average similar to previous studies (Visser, 2019). Thus, the preferred estimates in column (4) shows that Tanzanian embassies

significantly increase Tanzanian exports on average. The presence of Tanzanian embassies in partner countries is associated with a 57.3 percent $[(\exp(0.453)-1) * 100\%]$ increase in Tanzanian exports, *ceteris paribus*. Therefore, after controlling for previous potential trade with partner countries and a significance decline in exports post 2016, this study supports the hypothesis that host country's embassies abroad promotes exports. Results are consistent with previous studies (Bagir, 2019; Moons and van Bergeijk, 2017; Pacheco and Matos, 2021; Rose, 2007; Visser, 2019). Thus, economic diplomacy tools are effective in reducing trade barriers that firms in relatively low productive countries like Tanzania, may find it difficult to overcome themselves (Ahn, Khandelwal, and Wei, 2011).

Similarly, the preferred estimates of the effect of the presence of foreign embassies in Tanzania on exports are shown in column (6) which explains the most variation in Tanzanian exports (90.3) compared to column (5), and accounts for reverse causality. The presence of foreign embassies is associated with higher Tanzanian exports; however, the effect is not significant. The interaction term of time trend dummy and foreign embassy variable reveal a decline in trade associated with the presence of foreign embassies in Tanzania after 2016.

The positive and significant effect of Tanzanian embassies on exports reveals the potential of economic diplomacy in reducing the information asymmetry problem due to market failure. Embassies play role in search and matching activities, and facilitate the understanding of the partner countries market conditions and overall business environment to potential exporters. It is therefore crucial to address the challenges faced by Tanzanian representations abroad such as limited budget, few diplomatic staff and insufficient expertise in the area of economic diplomacy (MoFAEAC Budget speech, 2023/24). A decline in exports post 2016 negatively affected the impact of diplomatic representations (as shown by negative interaction terms in Table 4). This underscores the importance of policy predictability in international trade environment, as disruptive policies such as sudden change of tax laws, government interventions in product markets and so on render the diplomatic representations ineffective.

IMPORT RESULTS

Table 5 presents results for imports utilizing the OLS estimation in column (1) and PPML estimation approach including country and time-fixed effects in column (2) through (6). The first column consists of the standard gravity variables excluding the variable of interest to check if the gravity model fits the data well. The effects of variables of interest are presented separately with column (3) and (4) presenting the effect of the presence of Tanzanian embassies abroad and column (5) and (6) indicating the effect of the presence of foreign embassies on Tanzanian imports. Column (3) and (5) includes the time trend dummy to control for a decline in imports from 2016 - 2017 as shown in appendix A1. Our preferred estimates are presented in column (4) and (6) which includes lag 1 of imports to account for potential previous trade that may have influenced the opening of embassies. In column (1) the gravity model explains only 64.7 percent of variation in Tanzanian imports when OLS is used. The explanatory power of the model increases to 92.7 percent when PPML estimator is used together with country and time fixed effects revealing the significance of properly accounting for multilateral resistance terms.

Focusing on column (1) results, the traditional gravity variables exhibit the expected signs and significance except common colony, common language, pair in a colonial relationship and RTA. *Ceteris Paribus*, a 1 percent increase in distance increase trade costs and reduce Tanzanian imports by 2.6 percent slightly higher than previous gravity literature. Similar to exports, Tanzania's imports increase with the increase in the economic size of the importer by 0.5 percent on average for every 1 percent increase in the importer country's GDP. Further, Tanzania imports more from countries with higher population by 0.7 percent on average. Moreover, Tanzania imports more from countries that share a common land border by 1,226 percent $[(\exp(2.585)-1) * 100\%]$ on average. Moreover, column (1) in table 5 shows a positive relationship between Tanzanian imports and importer Productive Capacity Index (PCI), implying that as partner countries' production capabilities increase, Tanzanian imports increases by 10.6 percent on average.

Table 5: Import facilitation function of diplomatic representations

| VARIABLES | (1) Log Imports | (2) Imports | (3) Imports | (4) Imports | (5) Imports | (6) Imports |
|---------------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Ln distance | -2.584*** (0.252) | -0.603 (1.800) | -0.496 (1.540) | -1.824 (1.586) | -0.560 (1.457) | -1.925 (1.530) |
| Ln importer GDP | 0.475** (0.201) | 0.545** (0.262) | 0.519** (0.228) | 0.297 (0.231) | 0.573** (0.264) | 0.363 (0.270) |
| Ln importer population | 0.740*** (0.190) | 0.999* (0.607) | 1.049* (0.576) | 1.404** (0.574) | 0.782 (0.668) | 1.116 (0.683) |
| Common colony | 0.189 (0.291) | | | | | |
| Pair in colonial rship. | -0.541 (0.328) | | | | | |
| Contiguity | 2.585*** (0.522) | | | | | |
| Common language | 0.371 (0.275) | | | | | |
| RTA | -0.141 (0.360) | 0.703** (0.333) | 0.701** (0.333) | 0.748** (0.330) | 0.738** (0.334) | 0.784** (0.329) |
| Importer PCI | 0.106*** (0.023) | 0.058** (0.029) | 0.061** (0.029) | 0.054** (0.027) | 0.057** (0.029) | 0.049* (0.026) |
| Lag1 imports | | | | 0.00*** (0.000) | | 0.000*** (0.000) |
| Tanzanian embassy | | | 0.113 (0.168) | 0.162 (0.156) | | |
| Trend# Tanzanian emb. | | | -0.256 (0.251) | -0.313 (0.217) | | |
| Foreign embassy | | | | | 0.541** (0.210) | 0.599*** (0.189) |
| Trend# foreign emb. | | | | | -0.148 (0.157) | -0.222* (0.134) |
| Constant | 8.452*** (2.403) | -9.036 (14.55) | -10.17 (13.16) | 1.693 (13.57) | -7.898 (12.96) | 4.322 (13.59) |
| Observations | 2,444 | 3,051 | 3,051 | 3,051 | 3,051 | 3,051 |
| R-squared | 0.674 | 0.923 | 0.924 | 0.927 | 0.924 | 0.927 |
| Country FE | NO | YES | YES | YES | YES | YES |
| Year FE | NO | YES | YES | YES | YES | YES |

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in brackets. The coefficient on lag imports the coefficient is very small (1.85e-06***), while the respective standard error is also very small ((4.35e-07), hence the significant 0.00 values.

Source: Authors' calculations

Focusing on the impact of economic diplomacy on Tanzanian imports, our preferred estimates are found in column (4) and (6) for Tanzanian embassy and foreign embassy variables. Both specifications explain the largest variation in imports by 92.7 percent after including the lagged import variable. The significant impact of lag 1 imports shows the significant effect of previous trade on the current level of trade, and the importance of correct model specification to account for reverse causality. Further, the coefficient of Regional Trade Agreement (RTA) in the preferred estimations is positive and significant consistent with previous literature. That is Tanzania imports more from countries within the same trade bloc by 111.7 percent $[(\exp(0.75)-1) * 100\%]$ on average.

Thus, results in column (4) reveal that the presence of Tanzanian embassies in partner countries has a positive but insignificant effect on Tanzanian imports. This finding is consistent with that of Bagir (2019) in Turkey, who found an insignificant impact of host country embassies on imports. Conversely, column (6) shows that, Tanzanian imports increase with the presence of foreign embassies by 82 percent $[(\exp(0.599)-1) * 100\%]$ on average. This implies that, foreign embassies present in Tanzania effectively promote their countries exports to Tanzania. The findings of this study are consistent with those of Van Bergeijk et al., (2011) who found a positive and significant effect of foreign embassies on imports. Throughout the study period, Tanzanian imports have been consistently larger compared to exports. This partly explains the positive association that exists between the presence of embassies in both Tanzania and in foreign countries and Tanzanian imports. However, Pacheco and Matos (2021) found a positive but insignificant effect of foreign embassies on host country's imports different from this study.

Robustness Tests

The estimations in this study separates Tanzanian embassies from foreign embassies in both table 4 and 5. However, it is possible that both embassies may influence Tanzanian trade simultaneously, thus a potential omitted variable bias cannot be ruled out. Therefore, both embassies (Tanzanian and foreign) are included in the same specification for exports and imports and results are presented in column (1) for exports and column (2) for imports. However, due to high correlation between these variables of interest, multicollinearity is a likely problem, thus these results are only presented for robustness check as in Visser (2019). Table 6 show the results of only variables of interest as other variables behave consistently with previous estimations. The main results of the study are consistent. Column (1) reveals that the impact of the presence of Tanzanian embassy on Tanzanian exports is positive and significant, but higher than in table (4), while the impact on imports is not significant. Similarly, table 6 shows that the presence of foreign embassies in Tanzania exerts a positive and significant impact on Tanzanian imports and an insignificant impact on Tanzanian exports as in table 5.

Table 6: Robustness tests results

| VARIABLES | (1) | (2) |
|-------------------------|----------------------|---------------------|
| | Exports | Imports |
| Tanzanian embassy | 0.651** (0.274) | 0.117 (0.157) |
| Trend# Tanzania embassy | -0.966*** (0.328) | -0.294 (0.313) |
| Foreign embassy | 0.201 (0.430) | 0.548*** (0.199) |
| Trend# Foreign embassy | 0.828** (0.403) | -0.0203 (0.292) |

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in brackets.

Source: Authors' calculations

7. Conclusion

This study analyzed the impact of the presence of diplomatic representations (embassies) on trade (exports and imports) in Tanzania. The study used panel data set for the period 1997 – 2019 using PPML estimation approach. While the presence of Tanzanian embassies in partner countries is found to increase Tanzanian exports by 57.3 percent, foreign embassies present in Tanzania are associated with about 82 percent increase in Tanzanian imports (partner countries exports) on average. Conversely, results point to a positive but insignificant effect of foreign embassies and Tanzanian embassies on exports and imports respectively.

This study supports the previous studies findings that, economic diplomacy plays an active role in influencing host country's trade, in particular exports. Economic diplomacy presents an opportunity for domestic firms to reap the benefits of international markets through the reduction of barriers to trade/exports. Even for firms in relatively low productive countries like Tanzania, effective economic diplomacy has the potential to facilitate their entry into the foreign markets. This study is timely as Tanzania is currently reviewing its 2001 foreign policy which puts particular emphasis on economic diplomacy. The results of this study therefore substantiate the continued policy interest in economic diplomacy.

As argued by Whitten *et al.*, (2020) international trade and political relationships between countries normally have a positive relationship, implying that warmer political relations facilitate more trade between countries as opposed to political tensions. Thus, strong initiatives towards improving bilateral relations in the current government lays a promising future in the use of economic diplomacy to promote international trade. Yet, to further improve the effectiveness of diplomatic representations in fostering international trade, the study recommendation among others is: to reduce interference in the markets and abstain from disruptive policies related to trade within and outside its borders; to explore new strategic trading partners to diversify the country's export

portfolio; to consider using more targeted instruments of economic diplomacy such as export promotion agencies; and to improve the quantity and quality of diplomatic staff responsible for carrying out export promotion activities in Tanzanian representations abroad.

Our study leaves room for further research in this area. First, it would be interesting to study the effect of economic diplomacy at a disaggregated level of products, homogenous and differentiated goods. Moreover, a study detailing the impact of these missions on foreign direct investment is of particular interest since their impacts are not widely documented in the literature.

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APPENDICES

Appendix A1: The trend of Total exports and imports (in Million USD) for the period under study, 1997 – 2019

| Year | Exports | No partners | Imports | No partners |
|------|---------|-------------|---------|-------------|
| 1997 | 598 | 102 | 1302 | 159 |
| 1998 | 630 | 124 | 1671 | 143 |
| 1999 | 642 | 121 | 1588 | 138 |
| 2000 | 656 | 125 | 1613 | 157 |
| 2001 | 768 | 127 | 1729 | 164 |
| 2002 | 901 | 132 | 1691 | 171 |
| 2003 | 1132 | 132 | 2164 | 166 |
| 2004 | 1473 | 130 | 2556 | 163 |
| 2005 | 1672 | 135 | 3247 | 168 |
| 2006 | 1865 | 142 | 4527 | 163 |
| 2007 | 2139 | 138 | 5919 | 167 |
| 2008 | 3121 | 149 | 8088 | 180 |
| 2009 | 2982 | 146 | 6531 | 182 |
| 2010 | 4051 | 157 | 8013 | 177 |
| 2011 | 4735 | 149 | 11184 | 174 |
| 2012 | 5547 | 146 | 11716 | 173 |
| 2013 | 4413 | 158 | 12525 | 173 |
| 2014 | 5705 | 150 | 12691 | 190 |
| 2015 | 5854 | 155 | 14706 | 187 |
| 2016 | 4742 | 158 | 7876 | 181 |
| 2017 | 4178 | 151 | 7765 | 178 |
| 2018 | 3669 | 147 | 8554 | 176 |
| 2019 | 5004 | 151 | 9055 | 178 |

Source: UN COMTRADE data

Appendix A2: Summary of exports and imports by presidency regimes

| Variable | Regime | Obs | Mean | Std. Dev. | Min | Max |
|-------------------|--------|-----|-------|-----------|-------|--------|
| Tanzanian Exports | 3rd | 243 | 20.69 | 26.72 | 22.42 | 119.37 |
| Tanzanian Exports | 4th | 321 | 77.69 | 122.16 | 9.93 | 793.89 |
| Tanzanian Exports | 5th | 155 | 64.06 | 102.07 | 0.793 | 685.63 |
| Tanzanian Imports | 3rd | 243 | 22.18 | 29.91 | 0 | 170.72 |
| Tanzanian Imports | 4th | 321 | 60.20 | 86.49 | 0 | 552.55 |
| Tanzanian Imports | 5th | 155 | 68.40 | 96.81 | 0 | 548.67 |

Source: Authors compilation

Appendix A3. List of Tanzanian embassies abroad and the year of opening

| Embassy | Year | Embassy | Year | Embassy | Year | Embassy | Year |
|---------|------|----------|------|--------------|------|----------------|------|
| Algeria | 2017 | Ethiopia | 1966 | Malawi | 2004 | South Africa | 1994 |
| Belgium | 1978 | France | 1962 | Malaysia | 2007 | Sudan | 2017 |
| Brazil | 2007 | Germany | 1963 | Mozambique | 1975 | Sweden | 1998 |
| Burundi | 2003 | India | 1962 | Netherlands | 1965 | Switzerland | 1966 |
| Canada | 1966 | Israel | 2018 | Nigeria | 1970 | Turkey | 2017 |
| China | 1965 | Italy | 1972 | Oman | 2004 | Uganda | 1981 |
| Comoros | 2013 | Japan | 1970 | Qatar | 2016 | UAE | 2002 |
| DRC | 1964 | Kenya | 1983 | Russia | 1991 | United Kingdom | 1961 |
| Cuba | 2019 | Korea | 2017 | Rwanda | 1998 | USA | 1961 |
| Egypt | 1964 | Kuwait | 2016 | Saudi Arabia | 1984 | Zambia | 1979 |
| | | | | | | Zimbabwe | 1980 |

Source: Authors compilation

Appendix A4: Trend of exports, imports (in million USD) and percentage change of exports and imports for importer countries that hosted Tanzania embassies

| | EXPORTS | | | IMPORTS | | |
|----------------------|---------|---------|------------|---------|---------|---------------|
| | 1997 | 2019 | % Change | 1997 | 2019 | % Change |
| Algeria | 0.0001 | 0.972 | 972,087.00 | 0.035 | 0.000 | -99.72 |
| Brazil | 0.005 | 0.065 | 1190.82 | 0.016 | 0.034 | 116.93 |
| Burundi | 0.855 | 86.687 | 10041.4 | 2.990 | 48.512 | 1522.40 |
| Comoros | 0.001 | 4.579 | 444,059.94 | 0.022 | 2.650 | 12083.35 |
| Cuba | 0.000 | 0.193 | 193,346.00 | 0.000 | 0.000 | 0.00 |
| Israel | 3.910 | 11.801 | 201.8 | 0.846 | 7.216 | 752.96 |
| Korea | 1.898 | 19.124 | 907.6 | 2.826 | 36.623 | 1196.09 |
| Kuwait | 0.118 | 0.130 | 9.9 | 0.085 | 0.531 | 523.39 |
| Malawi | 5.384 | 57.363 | 965.3 | 0.000 | 62.762 | 62,762,369.00 |
| Malaysia | 5.682 | 5.933 | 4.4 | 17.646 | 65.962 | 273.81 |
| Oman | 0.145 | 4.110 | 2,742.30 | 0.529 | 0.000 | -99.98 |
| Qatar | 0.024 | 12.723 | 53,059.70 | 0.000 | 14.399 | 14,399,177.00 |
| Rwanda | 6.096 | 171.226 | 2,708.92 | 15.749 | 224.001 | 1322.34 |
| Sudan | 1.550 | 2.125 | 37.1 | 0.420 | 0.000 | -99.98 |
| Sweden | 0.368 | 2.759 | 650.1 | 1.794 | 5.059 | 181.99 |
| Turkey | 1.571 | 6.088 | 287.6 | 2.758 | 29.751 | 978.87 |
| United Arab Emirates | 4.962 | 35.317 | 611.8 | 0.000 | 76.847 | 76,847,082.00 |

Source: Authors compilation

Appendix A5. List of Foreign embassies in Tanzania and the year of opening

| Embassy | Year | Embassy | Year | Embassy | Year | Embassy | Year |
|----------------------|------|-----------|------|-------------|------|--------------|------|
| Algeria | 1964 | Spain | 1967 | Morocco | 2017 | Saudi Arabia | 1996 |
| Angola | 1975 | Ethiopia | 2018 | Mozambique | 1975 | Sudan | 1964 |
| United Arab Emirates | 2011 | Finland | 1965 | Malawi | 1985 | Somalia | 1962 |
| Burundi | 1965 | France | 1961 | Namibia | 2007 | South Africa | 1994 |
| Belgium | 1962 | UK | 1961 | Nigeria | 1962 | Sweden | 1964 |
| Brazil | 2005 | Indonesia | 1964 | Netherlands | 1962 | Syria | 1971 |
| Canada | 1961 | India | 1961 | Norway | 1964 | Turkey | 2009 |
| Switzerland | 1964 | Ireland | 1968 | Oman | 2008 | Uganda | 1964 |
| China | 1962 | Iran | 1983 | Pakistan | 1967 | USA | 1961 |
| DRC | 1964 | Italy | 1961 | Poland | 1962 | Vietnam | 1965 |
| Comoros | 2014 | Japan | 1966 | North Korea | 1965 | Yemen | 1990 |
| Cuba | 1962 | Kenya | 1984 | Palestine | 1973 | Zambia | 1964 |
| Germany | 1961 | S Korea | 1992 | Qatar | 2012 | Zimbabwe | 1980 |
| Denmark | 1962 | Kuwait | 2015 | Russia | 1961 | | |
| Egypt | 1962 | Libya | 1975 | Rwanda | 1965 | | |

Source: Authors compilation

Appendix A6: Trend of exports (in million USD) and percentage change of exports for importer countries that had embassies in Tanzania

| Importer | EXPORTS | | | IMPORTS | | |
|----------------------|---------|--------|--------------|---------|--------|---------------|
| | 1997 | 2019 | % Change | 1997 | 2019 | % Change |
| Brazil | 0.005 | 0.065 | 1190.82 | 0.016 | 0.034 | 116.93 |
| Comoros | 0.001 | 4.579 | 444,059.94 | 0.022 | 2.650 | 12,083.35 |
| Ethiopia | 3.776 | 5.638 | 49.31 | 0.212 | 4.934 | 2222.25 |
| Kuwait | 0.118 | 0.130 | 9.93 | 0.085 | 0.531 | 523.39 |
| Morocco | 0.0001 | 4.882 | 4,882,369.00 | 0.553 | 6.978 | 1161.46 |
| Namibia | 0.0001 | 0.822 | 821,816.00 | 0.000 | 3.266 | 3,266,084.00 |
| Oman | 0.145 | 4.110 | 2742.30 | 0.529 | 0.000 | -99.98 |
| Qatar | 0.024 | 12.723 | 53,059.70 | 0.000 | 14.399 | 14,399,177.00 |
| Turkey | 1.571 | 6.088 | 287.64 | 2.758 | 29.751 | 978.87 |
| United Arab Emirates | 4.962 | 35.317 | 611.78 | 0.000 | 76.847 | 76,847,082.00 |

Source: Authors compilation

Appendix A7: Correlation Matrix

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| (1) exports | 1.000 | | | | | | | | | | | | |
| (2) imports | 0.793 | 1.000 | | | | | | | | | | | |
| (3) Tanzanian GDP | 0.111 | 0.134 | 1.000 | | | | | | | | | | |
| (4) Importer GDP | 0.344 | 0.476 | 0.067 | 1.000 | | | | | | | | | |
| (5) Distance | -0.084 | -0.029 | -0.007 | 0.193 | 1.000 | | | | | | | | |
| (6) RTA | 0.134 | 0.076 | 0.017 | -0.070 | -0.409 | 1.000 | | | | | | | |
| (7) Common colony | 0.051 | 0.035 | 0.015 | -0.115 | -0.176 | 0.211 | 1.000 | | | | | | |
| (8) Pair in col. rship | 0.049 | 0.066 | 0.000 | 0.112 | 0.016 | -0.024 | -0.048 | 1.000 | | | | | |
| (9) Common language | 0.094 | 0.092 | 0.003 | 0.076 | -0.033 | 0.308 | 0.553 | 0.132 | 1.000 | | | | |
| (10) Contiguity | 0.278 | 0.176 | -0.004 | -0.056 | -0.345 | 0.429 | 0.127 | -0.018 | 0.192 | 1.000 | | | |
| (11) Importer PCI | 0.062 | 0.143 | 0.163 | 0.286 | 0.383 | -0.238 | -0.085 | 0.130 | -0.061 | -0.324 | 1.000 | | |
| (12) Tanzanian embassy | 0.431 | 0.459 | 0.056 | 0.364 | -0.216 | 0.217 | 0.018 | 0.159 | 0.158 | 0.429 | 0.088 | 1.000 | |
| (13) Foreign embassy | 0.355 | 0.403 | 0.045 | 0.314 | -0.188 | 0.214 | -0.056 | 0.123 | 0.070 | 0.351 | 0.135 | 0.692 | 1.000 |

Source: Authors compilation