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Economic Impacts of Non-Tariff Barriers to Trade: The Case of Palestine

Abdel Hakeem Ahmad Eltalla
Faculty of Business and Finance, Alaqsa University, Gaza, Palestine

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Abstracts: The Paris Protocol trade arrangement established a customs union between Palestine and Israel. Palestine also has several bilateral trade agreements with other countries. Despite these arrangements, Palestinian enterprises have not been able to make significant advances in international trade. This is mostly due to the nontariff barriers placed on the execution of these agreements by Israel: closing the commercial crossing points and implementing a back-to-back cargo transit arrangement have led to prohibitive transit and transport costs. In addition, Israeli control of the main border crossings and transport routes renders Palestinian trade dependent on political and security developments, adding great uncertainty. The resulting non-tariff barriers to trade substantially diminish the competitiveness of Palestinian exports. This paper analyzes the impacts of non-tariff barriers to Palestinian trade on the Palestinian economy using a computable general equilibrium model. A simulation of non-tariff barriers reduction is carried out using a 2012 Palestinian Social Accounting Matrix (SAM). The simulation results show that a 40 percent decrease non-tariff barriers to trade is to increase GDP by about 8.85 percent, household income by 7.11 percent, private consumption by 26.41 percent, imports by 12.93 percent, and exports by 26.93 percent. Government revenue increases by 12.66 percent. Overall absorption increases by 17.24 percent and the real exchange rate decrease by 3.80 percent.

Keywords: Trade liberalisation, non-tariff barriers, computable general equilibrium.
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E-mail: *hakeemeltalla@hotmail.com*

Introduction

Trade barriers are government constraints on trade among nations. There are two kinds of barriers: tariff barriers to trade and non-tariff barriers. The tariff barriers are monetary restrictions such as taxes and levies introduced on trade to protect the national industry. Non-tariff barriers are non-monetary restraints. Non-tariff barriers refer to restrictions due to prohibitions, environment, or market requests, which make imports and exports of goods hard or costly, such as import licensing, import quotas, documentation and packaging requests, custom procedures, safety standards and export subsidies, which could affect imports. In addition, non-tariff barriers are regulations and procedures such as customs administration, inspections, trade financing, security issues and infrastructure that include ports and roads can initiate slow down in shipping. Also linked to non-tariff barriers is the good governance that is the efficiency and transparency of practice, contract enforcement and supervision. The system might include concealed costs. The concealed direct costs of poor governance involve bribes. Indirect costs involve time delays and uncertainties in transport due to poor infrastructure and supervision (Minor and Hummels, 2011). In addition, Non-tariff barriers consist of unfair application of Non-Tariff Measures and technical barriers for instance anti-dumping measures, sanitary and phytosanitary measures.

The understanding of importance of the non-tariff barriers has appeared with the reduction of tariff barriers and, the growth in importance of the non-tariff barriers. These barriers are less transparent, more flexible, and extremely variable. This made the non-tariff barriers important substitutes for country's tariff regime. The ambition to have mutual trade agreements as well as the unilateral motive to restrict trade, explains the birth of the non-tariff barriers. Due to terms of trade effects, countries gain by unilaterally restricting trade. When all countries behave the same way, they get caught in a prisoners' dilemma. There are common economic and political factors that can explain the structure of protection across countries and industries. As tariff levels have declined and remained bound by World Trade Organization (WTO) strictures, non-tariff barriers have become the tool of choice for protection. Non-tariff barriers are preferred to tariffs because policymakers assume that the effects of tariffs are less certain. For example, it is easier to see that a quota of one million limits automobile imports to one million than to demonstrate that a certain tariff per car would result in imports of only one million automobiles. The effects of quotas are not altered by subsidies (Deardorff, 1987). In the international trade environment focused on timely delivery, firms need fast and predictable movement of goods. The trade facilitation is essential to international trade development. The overpowering results achieved by many countries in reducing tariff rates have widened the use of non-tariff barriers to trade. The non-tariff barriers are measures applied by states in implementing market protection, in a way that slow the flow of goods across borders. For developing countries, inefficient customs and transport can be obstacles to integration into global economy. These Factors can be harmful to exports competitiveness and to the inflow of foreign investments. With tariff rates cuts on global level, a red tape costs often exceed the amount of tariff rates paid.

The Palestinian economy has become increasingly connected to the Israeli economy since the beginning of Israel's occupation in 1967. The existing trade regime (Customs Union) between the Palestinian Authority and Israel, as agreed under the terms of the Paris Protocol has increased the dependence of the Palestinian economy on Israel. The Protocol stipulates the freedom of movement of agricultural and manufactured goods between

the West Bank and Gaza Strip and Israel. Economic viability through increased trade relations and export potentials is the best means to improve political stability and lower unemployment in Palestine. Supported by appropriate development strategies, trade can facilitate the structural change and transformation of the Palestinian economy toward higher productivity, leading to a positive impact on unemployment, growth in income and standard of living. Although there are many bilateral trade agreements with different countries, the Palestinian enterprises have not been able to make significant advances in the international trade arena, mostly due to the barriers placed on the execution of these agreements by Israel. Even with the long seacoast of the Gaza Strip, Palestine is landlocked with complete reliance on Israel transport services for engaging in international trade. In addition, Israeli is in charge of the main border crossings and transport routes makes Palestinian trade reliant on political and security developments (UNCTAD, 2004).

Foreign trade liberalization is one of the instruments of globalization. Protective policies are executed by two means, tariff and non-tariff barrier. The objective of this study is to show empirically the impact of a reduction in non-tariff barrier on macroeconomics indicators such as output, imports, export, household consumption, and other related variables. To quantify the impact of reduction in non-tariff barrier on the Palestinian Economy, we constructed a general equilibrium model that captures the economic conditions and characteristics of the Palestinian economy, and we constructed a 2012 social accounting matrix for Palestine (Eltalla, 2014). The study focuses on the impacts of a reduction in non-tariff barriers to trade by 40% relative to the baseline.

Literature Review

Due to the healthy decline in world-wide tariffs that was achieved in the different rounds of multilateral trade talks in the past decades, the interest economists has concentrated on the non-tariff means of protection. Walkenhorst and Yasui (2005) used general equilibrium models to estimate the gains from an enhancement in trade facilitation. They estimated global welfare gains of 40 billion USD from a 1% lowering of trade transactions costs. De (2006) found that transaction costs are a bigger barrier to international trade than import tariffs for many Asian economies. Non-tariff and outside border barriers take different shapes, from rent seeking of customs officers to insufficient transportation to inadequate business environment. Felipe and Kumar (2010) utilized a gravity model to study the connection between trade facilitation and bilateral trade for Central Asian economies. They found considerable gains in trade as a consequence of enhancing trade facilitation, from 28 percent in Azerbaijan to 63 percent in Tajikistan. They found that the boost in total trade was from expansion in infrastructure then by logistics and effectiveness of customs. Hummels and Schaur (2012) found that one extra day wasted by goods in shipping is the same an extra tariff of between 0.6 and 2.3 percent. Koczan and Plekhanov (2013) looked at the impacts of infrastructure and quality of institutions on bilateral trade flows. They provided an empirical analysis of the significance of infrastructure for bilateral trade flows by utilizing a gravity model of trade. They found that potential benefits from enhancements in infrastructure are huge and surpass the impacts of reducing tariff barriers. Wignaraja et al. (2014) estimated the potential gains from South Asian–Southeast Asian economic integration by utilizing computable general equilibrium (CGE) model. If South Asian–Southeast Asian succeed in reducing non-tariff barriers by 50% welfare would increase by 8.9% and 6.4% of gross domestic product, respectively, by 2030 relative to the baseline.

Palestinian Bilateral Trade Agreements

Since 1994, the Palestinian Authority signed bilateral trade agreements with the European Community, the EFTA countries, Canada, the United States, Jordan, Egypt and with Turkey (see table 1) to help Palestinian enterprises compete and get access to the international markets. The bilateral agreements were intended to increase Palestinian trade, public revenues and support growth, productivity and employment. However, the Palestinian economy has not adneved the gains expected of the bilateral trade agreements signed by the Palestinian Authority, under the customs union with Israel. In fact economic reliance on the Israeli economy continues to ascend, in spite of a strong trade possibility with countries such as Jordan and Korea. Exports to Israel and imports from and through Israel are about 90 percent of total Palestinian exports and about 80 percent of total Palestinian imports. As a result, easing the persistent restrictions imposed by Israel on Palestinian trade is destined to restructure its pattern by boosting exports to regional and international markets, other than Israel, by about 40 percent and reducing the reliance on the Israeli market of imports by 50 percent (ex. Energy and natural gas). The overall trade deficit and the trade deficit with Israel, is not the outcome of the policies followed by the Palestinian Authority, but are primarily ingrained in the economic and political constraints that have slowed down Palestinian development since the start of the occupation in 1967. The bilateral trade agreements did not impact the Palestinian economy significantly due to the Israeli occupation and restrictions on movement and access. The Israeli security procedures and practices have constrained the Palestinian economy and prevent useful international cooperation. These measures have inhibited the diversification of Palestinian exports and import. In addition, this established import and exports dependency on and through Israel. Israel's closure policy, market fragmentation, ruined infrastructure have developed into the main factors reducing the competitiveness of Palestinian producers (UNCTAD, 2011). PLO and Israel signed the Protocol of Economic Relations (Customs Union arrangements) in April 1994 to organize the economic and trade relations between Israel and Palestine. The Paris Protocol allows the Palestinian Authority to arrange free trade agreements with other countries as long as it does not breach Israel's import regime. Effectively this means that the Palestinian Authority cannot sign a Free Trade Agreement with a partner country unless Israel has done so before. The negotiating partner will know in advance, what the Palestinians can offer. The Palestinian cannot present a better deal than Israel agreed to with the exception of goods list A1, A2 and B. Because the Palestinian Authority has the right to determine under the terms of the Paris Protocol, the rates of customs duties and purchase tax on imports of limited quantities of goods from specified sources in Lists A1 and A2 (PP Article III-2, a and b); and imports with no restrictions on quantities of goods in List B (PP Article III-4). The agreements with the European Community, EFTA and Turkey provide for duty-free access for all industrial goods to both sides. They are copies of the Free Trade Agreements that Israel signed with these trading partners. The agreements are in order with the requirements of the Paris Protocol. However, Israel objects to these agreements. So far, Israel has refused to recognize the Interim Association Agreement with the European Community. Israel argues that the Interim Association Agreement puts an end to a system of de facto accumulation of origin. Accumulation of origin allows material to be sourced and manufactured jointly between Israel and the Palestinian Territories without the final product losing the benefit of preferential customs tariffs (Berends, 2008). The other argument is political; Israel maintains that a trade agreement with the PLO would lead to the defining of

Palestinian territorial borders. The Interim Association Agreement says that the Free Trade Agreement applies to the West Bank and the Gaza Strip. The execution of the agreement entails the involvement of Palestinian customs, which have to be based at the borders of West Bank and the Gaza Strip. In the Israeli view, this goes against the spirit of the Oslo accords. The Oslo accords stipulate that borders would be decided in final status talks. In the absence of a final status solution, Israel holds that such an agreement for the benefit of the Palestinian Authority is not yet possible. Goods that are destined for the Palestinian Territories and that carry a certificate of origin seeking preferential treatment under the Interim Association Agreement, are rejected by Israeli customs. Israeli custom offer two options for the exporter. The exporter either do not take the preferential treatment and pay duties, or can change the paperwork to reflect the EC-Israel Free Trade Agreements. This poses transaction costs rise as exporters either needs to spend more time to change the paperwork or give up the preferential treatment and pay unexpected costs. The Palestinian exporters may find this too complex and seek Israeli exporters who will export the goods under the EC-Israel Free Trade Agreement.

Year	Trade agreements	Country	Key provisions
1994	Protocol on Economic Relations	Israel	Customs union with Israel
1995	Trade agreement	Jordan	Customs exemptions for specific products
1996	Declaration of Free Trade	United States of America	Products originating in the occupied Palestinian territory are exempt from duties with Palestinian reciprocity
1997	Interim Association Agreement with the European Community	European Union (EU)	Free trade
1997	Trade agreement	Egypt	Customs exemptions for specific products
1998	Economic and trade cooperation European	Free Trade Association	Free trade agreement with EFTA
1998	Joint Canadian Palestinian Framework for Economic Cooperation and Trade	Canada	Free trade
2000	Greater Arab Free Trade Area (GAFTA)	League of Arab States	Free trade with Arab countries which are members of GAFTA
2004	Free trade agreement	Turkey	Customs duties exemption for all industrial products

Source: UNCTAD, 2011

Table 1: Palestinian trade agreements

High Non-Tariff Barriers in Palestine

The domestic transport in the West Bank and Gaza Strip is both expensive and inefficient. The barriers have caused the fragmentation of Palestinian economic space, and increased trade transaction and transport costs. Economic growth required a smooth flow of people and goods between the West Bank and Gaza Strip. The combination of back-to-back procedures, delayed processing and numerous inspections at internal checkpoints increased the transport and trade transaction costs within the West Bank or between the West Bank and Gaza Strip. The Israeli economy is a high-income economy that offers a huge potential market. However, few Palestinian businesses are able to enter the Israeli market. Access to the Israeli market is limited in a number of says. The closures and mobility restrictions are the main reasons. They reduce competitiveness of Palestinian products and physically preventing access to the Israeli market. There are other dynamic that work as non-tariff barriers. Palestinian exports are obligated to meet the same classification, certification and standards as Israeli goods, which is often extremely difficult. Few enterprises had a Kosher certification, or they had the Israeli Standards Bureau certification for quality and manufacturing. Although, the Paris Protocol demands Israel accept certifications from the Palestinian Standards Institution. These Standards sometimes do not match Israeli standards and Israel does not accept Palestinian Standards Institution certifications. In addition, for security reasons, Israel will not send staff into Palestine to examine and certify Palestinian goods. Therefore, Palestinian goods are remained out of the Israeli market for not meeting Israeli standards. For example, Palestinian pharmaceuticals products meet international standards and can be exported to the world markets, but cannot be lawfully sold to Palestinian hospitals in East Jerusalem (World Bank, 2008).

The movement of goods has been restricted in several ways. Goods going out of the Gaza Strip through the crossing are off loaded in special loading areas and then placed on a moving conveyor belt that is surrounded by cement blocks. The goods then move on the belt into windows that end in x-ray machines that check the contents, and then the goods are reloaded onto Israeli trucks that carry it to its destination. The cost of the Israeli trucks is a lot higher than the cost of Palestinian trucks carrying the same goods. Goods which are intended for entry through into the Gaza Strip go awkward process. Trucks must wait to enter the crossing depending on the origin of the product. Both Palestinian and Israeli firms operate under the same trading arrangement a customs union. Nevertheless, closures are the only differentiating factor between them. Their shipments face different border procedures for security reasons. Palestinian firms face larger transaction costs. Although the Paris Protocol states, “the import and export of the Palestinians through the points of exit and entry in Israel will be given equal trade and economic treatment” (PPArticle III -13). The reality is different. Clearance of cargos takes a longer time because of security. Israeli imports face a risk of security which is 15 to 20%, where Palestinian shipments are certain to security checks all cargo going to Gaza Strip and the West Bank are submit to security procedures. Cargo demuvrege time is one or two days for Israeli shipments and at least one week for a Gaza Strip shipments. Palestinian firms encounter various difficulties and handling delays related to imported cargo. The major delay is that security procedures applicable to Palestinian cargo are not integrated into cargo handling practices. Additional delays related to customs clearance processes and the physical security checks. That includes the removal of Palestinian cargo from their containers. All that has resulted in lengthy delays and high costs, since in many cases, cargo must be stored in bonded

warehouses for prolonged periods. The West Bank goods face difficulties in reaching Gaza Strip, where procedures at crossing discriminate(3-4 weeks waiting period) against goods arriving from the West Bank although these goods are carried in Israeli trucks and move without restriction in Israel, in route to Gaza Strip (World Bank, 2008). The escalated conflict since 2000 hase left the Palestinian economy stalled in economic crisis. Israeli military and security actions have inflicted major costs on the Palestinian economy, undercutting its prospects. The closures regime the system of limitations on the movement of goods and people have fragmented the Palestinian economy, and further diminished the Palestinian's productive potential. The most binding constraint on economic activity in Palestine is uncertainty and extra cost of doing business because of difficult access, resulting from the closure and security regime. That includes back to back system and special security screening of exported and imported goods rising trading cost, that make the Palestinian economy nonviable. Increasing current economic cost through escalate transaction costs, higher transport fees, longer delivery times, and other cost of unproductivity in hibits. Future economic cost through elude investment opportunities of integrating with external markets. The existing security regime decreases new investments and erodes the competitiveness of existing businesses (World Bank, 2008).

Methodology and Data

The computable general equilibrium methodology is a strong methodological instrument for investigating the impacts across multiple markets of modifications in policy variables or exogenous shocks. They offer an economy-wide structure for policy analysis to evaluate variety of policy issues. Computable general equilibrium (CGE) modeling uses general equilibrium theory as a tool for evaluating empirically resourced allocation in market economies. Computable general equilibrium models are a valuable instrument of analysis in developmed economics. They are utilized for making predictions about the behavior of economies in reaction to shocks and to various policies. The competitive market equilibrium of supply and demand is established by the demand functions of the consumers and the production functions of the firms. The general equilibrium happens when a set of prices make supply equal to demand in all markets at the same time. This economy-wide, multi-market approach depicts all sectoral and inter-sectoral price connections simultaneously rather than considering each commodity market separately (Shoven and Whalley, 1984). The computable general equilibrium model that we use is neoclassical. Its framework is developed from the micro-economic foundations of optimization behavior of rational economic agents. Consumers demand commodities and supply their endowments to maximize their utility, subject to their endowments. Producers (activities) demand inputs and supply outputs to maximize their profits, subject to production technologies (Dervis et al., 1982). The computable general equilibrium structure presents a theoretical quantification that brings together the general equilibrium arrangement structured by Arrow and Debreu with real economic data presented by a social accounting matrix. A social accounting matrix is a comprehensive, economy wide data framework, which represent the economy of a country. It details the economy-wide circular flow of incomes and payments in the economy and represents the structure, internal and external links of the economy. A social accounting matrix is a square matrix in which each account is represented by a row and a column. The elements of the matrix represent the payment from the account of a column to the account of a row. A social accounting matrix is constructed on a walrasian general equilibrium structure; agents receive incomes from selling their initial endowments to other agents. The agents

spend part of their incomes to purchase commodities or primary factors in the markets. All exchanges happen; in which for each income must be a corresponding expenditure. The incomes are placed in the row accounts and expenditures in the column accounts. Since incomes must be accounted for by expenditures, the total of rows and columns must be equal for a given account (double entry accounting). The sources of data for the social accounting matrix are an input-output matrix, national income accounts, household income, and expenditure statistics (King, 1985; Roland-Holst, 2008). To carry out Computable general equilibrium analysis, A Palestinian Computable general equilibrium (CGE) model and a 2012 social accounting matrix for Palestine have constructed. A Palestinian Computable general equilibrium (CGE) model based on the standard model used by the International Food Policy Research Institute (IFPRI) (Lofgren et al., 2002). Lofgren et al. (2002) has a complete description of the IFPRI's standard model. In addition a 2012 social accounting matrix (SAM) for Palestine is constructed. The 2012 social accounting matrix is used as the initial data for the calibration of the Palestinian computable general equilibrium model.

Prices and Trade Costs in the Model

Non-tariff barriers to trade increase domestic prices above global prices in the countries enforcing them. They instigate price gaps. The non-tariff barriers to trade lead to higher domestic prices. A simulation in a computable general equilibrium (CGE) model that alters the level of non-tariff barriers to trade effect prices and quantities in all markets , in a way consistent with economic theory.

The notation principles make it possible to differentiate between variables (upper-case Latin letters) and parameters (lower-case Latin letters). The price system of the model assumes quality variations among commodities of various origins and destinations: imports, exports, and domestic outputs used nationally. Endogenous prices are related to other prices (endogenous or exogenous) and to non-price model variables. The trade costs enter in the following equations: the price of imports and the price of exports. A reduction of the trade costs affects the model through those equations. The import prices paid by domestic consumers for imported commodities include import tariffs and trade costs per import unit icm. The world price of imports (pwm) transforms to the import price (PM) by considering the exchange rate and import tariffs plus trade costs icm. The equation of the import price of good c is:

$$PM_c = pwm_c.(1 + tm_c).EXR + \sum PQ_c.icm_{cc}$$

Where c is a commodity, PM is the import price including trade costs, pwm is the world market import price, PQ is the composite price (the market price paid by domestic commodity consumers), tm is the import tariff rate, EXR is the exchange rate, and icm is the trade costs per imported unit. The import price (PM) is the price paid by domestic users for imported commodities. The import price is affected by the trade costs, which increase the price paid by the consumers. The export price (PE) is the price granted to domestic producers for their exports. The world price of exports (pwe) transforms to the export price (PE) by considering the trade costs and export tariffs plus exchange rate. The equation of the export price of good is:

$$\mathrm{PE_c} = \mathrm{pwe_c}.(1 - \mathrm{te_c}).\mathrm{EXR} + \sum \mathrm{PQ_c}.\mathrm{ice_{cc}}$$

where PE is the export price, pwe is the world market export price, te is the export tax rate and ice is the trade costs per exported unit. The export price is the price received by domestic producers, which is affected by the export taxes (te), the trade costs and the exchange rate. The export price is affected by the trade costs, which reduce the price received by the domestic producers of exports.). Demand Price of Domestic Nontraded Goods PDD

$$PDD_c = PDS_c + \sum PQ_c . icd_{cc}$$

Where PDD is demand price for commodity produced and sold locally, PDD equation defines the demand prices as the supply price plus the cost of trade inputs per unit of local sales of the commodity in question. PDS is supply price for commodity produced and sold locally, and icd is amount of commodity c as trade input per unit of c produced and sold locally (Lofgren et al., 2002).

Simulations and Empirical Results

Non-tariff barriers to trade increase domestic prices above global prices in the countries enforcing them. They instigate price gaps. The non-tariff barriers to trade lead to higher domestic prices. A simulation in a computable general equilibrium (CGE) model that alters the level of non-tariff barriers to trade effect prices

and quantities in all markets, in a way consistent with economic theory. The simulation generates estimation of the impact on different economic factors, such as exports and imports, prices, GDP; and economic welfare. We simulated a 40 percent reduction of non-tariff barrier to trade by reducing the trade costs. Non-tariff barriers to trade increase domestic prices above global prices in the countries enforcing them.They instigate price gaps. The non-tariff barriers to trade lead to higher domestic prices. A simulation in a computable general equilibrium (CGE) model that alters the level of non-tariff barriers to trade effect prices and quantities in all markets, in a way consistent with economic theory. The simulation generates estimation of the impact on different economic factors, such as exports and imports, prices, GDP; and economic welfare. We simulated a 40 percent reduction of non-tariff barrier to trade by reducing the trade costs. We used the General Algebraic Modeling System (GAMS) to perform the simulation. Table 1 shows the effects on selected variables of the Palestinian economy for a 40 percent decrease of non-tariff barriers to trade. The base-year (benchmark) values correspond to the values found in the Palestinian social accounting matrix. The impact of a 40 percent decrease non-tariff barriers to trade is to increase GDP by about 8.85 percent, household income by 7.11 percent, private consumption by 26.41 percent, imports by 12.93 percent, and exports by 26.93 percent. Government revenue increases by 12.66 percent. Overall absorption increases by 17.24 percent. Foreign savings increases by 57.36 percent and the real exchange rate decrease by 3.80 percent.

	Millions USD			As % of GDP	
	Base line	**Change**	**% Change**	**Base line**	**Change**
Absorption	9794.700	11482.965	17.239	144.162	155.278

Private consumption	6394.380	8082.054	26.409	94.115	109.289
Gov. consumption	2302.570	2302.570	-	33.890	31.144
Investment	1097.750	1097.750	-	16.157	14.844
Exports	1091.460	1105.765	1.308	16.065	15.283
Imports	4091.930	5193.616	26.926	60.227	67.479
Net Taxes	1408.024	1587.224	12.659	17.291	21.253
GDP	6794.230	7395.114	8.846	100.000	100.000
GDP at factors cost	5386.206	5385.251	3.495	79.276	74.484
Trade Deficit	3000.47	4087.851	36.228	44.157	55.297

Table 2 Effects of a 40 percent decrease in non-tariff barriers to trade

	1	2	3	4	5	6	7	8	Total
1-Activities		10456.04							10456.04
2-Commodities	4886.99	1033.29		6394.38	2302.57	1097.75		1091.46	16806.44
3-Factors	5386.21								5386.21
4-Households			5671.96		371.43				6043.39
5-Government							1801.95	818.65	2626.60
6-Saving-Invest.				-750.92	-47.40			1896.07	1097.75
7-Taxes	182.84	1225.18		399.93					1801.95
8-Rest of the world		4091.93	-285.75						3806.18
Total	10456.04	16806.44	5386.21	6043.39	2626.60	1097.75	1801.95	3806.18	

Table 3: The macro 2012 social accounting matrix of Palestine (Source: Authors' calculations)

Conclusion

Closing the commercial crossings damage the Palestinian imports and exports. The crossings use a back-to-back cargo transit arrangement. In back-to-back transit system trucks are not allowed to enter the Palestinian areas. Upon reaching a terminal the cargo is unloaded and then reloaded onto a different truck. Exporters and importers must use Israeli transport companies when goods are going to or leaving Gaza Strip and the West Bank through Israel. In addition, shipments are subjected to special screening procedures. These are the main factors behind the prohibitive transit transport costs that prevent Palestinian enterprises from increasing participation in international trade and undermine the competitiveness of their exports. This has diminished the competitiveness of Palestinian exports, posing trade barriers of greater significance than tariffs. Traditional trade liberalisation examination take into account trade distortions owing to rents occur to domestic agents due to tariffs and quotas. This examination miss non-tariff barrier to trade that involves real costs which result in welfare losses like tariffs. The effects of non-tariff barriers to trade might be measured in a number of ways. The existence of non-tariff barriers to trade increases domestic prices, reduces exports and imports, and impacts other economic variables. Looking for these impacts is the main purpose of quantification. The simulation estimates the impacts on imports and exports, prices, GDP, and economic welfare. The economy of Palestine is burdened by non-tariff barriers to trade resulting from the absence of a seaport, geographical fragmentation, frequent border closures, and checkpoint controls. The non-tariff barriers act as a tax on both Palestinian exports and imports with no tax revenue for the Palestinian authority. We used a general equilibrium model to quantify the effect of a 40 percent reduction in non-tariff barriers to trade. The effects are substantial. The simulation results show that a 40 percent decrease a non-tariff barriers is to increase GDP by about 8.85 percent, private consumption by 26.41 percent, imports by 12.93 percent, and exports by 26.93 percent. Government revenue increases by 12.66 percent. Overall absorption increases by 17.24 percent. Foreign savings increases by 57.36 percent and the real exchange rate decreases by 3.80 percent. The simulation of the effects of reduction of non-tariff barriers provides some policy lessons to the Palestinian Authority policymakers: there is real benefit from a reduction non-tariff barriers on the economy. The results suggest that policies to lower non-tariff barriers trade (investment in infrastructure) have big benefits. In addition, reduction of of non-tariff barriers to trade forced by Israel on Palestinian trade will lessen the reliance on Israel, as it will support Palestinian exports to regional and foreign markets and decrease imports from Israel. Palestinian policymakers can look at alternatives to the custom union with Israel which imposed by Paris Protocol, to take advantage of the bilateral trade agreements with other countries. For the small Palestinian economy, whose regional and international economic interaction were restrained, establishing new trade relations is important for decreasing the reliance on trade with Israel, in addition to stable growth and development. This needs new trade agreements with various countries, and to facilitate trade by increasing investments in transportation infrastructure to establish contacts with the rest of the world.

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