

Workers' Remittances and Economic Growth in Palestine: Evidence from A Computable General Equilibrium Model

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While few people would differ on the economic benefits of remittances to recipients in home economies, the level to which remittances add to economic growth and development is another question. Workers' remittances are one of the largest sources of external financial flow to developing economies. This paper analyzes the impacts of workers' remittances on the Palestinian economy using a computable general equilibrium model. A simulation of workers' remittances increase is carried out using a 2015 Palestinian Social Accounting Matrix (SAM). The simulation results show that real GDP increases by 0.42 percent . The level of real private consumption increases by 4.95 percent . Import increases by 4.28 percent and export declines by 6.86 percent in real term. Net taxes increases by 2.29 percent , the trade deficit increases by 10.16 percent and absorption increases by 3.24 percent in real terms. In addition, the real exchange rate appreciated by 1.6 percent from the base line.

Keywords: Computable general equilibrium, remittances, Labor mobility, Palestine

JEL Classifications: C68, J61, J00, F16, F22

Introduction

Since the occupation of the West Bank and the Gaza Strip in 1967, vast numbers of Palestinian workers have looked for employment in Israeli labor market, due to the high rate of unemployment in Palestine and the enormous difference in wages between the two countries. Palestinian employment in Israel in the late 1980s accounted for one third of Palestinian labor force and contributed a quarter of Palestinian gross national income. PLO and Israel signed the Paris Protocol in 1994, leading to applying the Israeli trade policy on Palestine (customs union between the West Bank Gaza Strip and Israel). This, together with Israeli

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control of the borders, led to Palestinian economic dependence on the Israeli economy and policies. Workers' remittances from Israel are affected by the political environment. Political volatility led to a remarkable decrease in Palestinian labor flows to the Israeli labor market. The number of Palestinian workers in the Israeli labor market declined due to the restrictions on the movement of Palestinian labor imposed by Israel. The restricted entrance of Palestinian workers to the Israeli labor market is an enormous negative shock for the Palestinian economy. At present, Palestinians employed in the Israeli labor market amount to only 10% of the Palestinian labor force. Workers from Gaza Strip, which used to depend on the Israeli labor market to employ 40% of its labor force, were prohibited from working in Israel in 2006 (Palestine Economic Policy Research Institute , 2014).

Workers' remittances is defined as a transfer of money by a foreign worker to his home country. Workers' remittances are essential external source of financial inflows for most developing countries. In many developing countries, worker's remittances are a significant source of income for households, external capital and foreign exchange. The flow of remittances is the least affected by local economic decline and a steady source of income. Remittances have recognized as a source of development and contribute to poverty reduction in various developing economies as workers' remittances is a large source of funding, second to foreign direct investment, and more than foreign aid. Workers' remittances are an essential element of global capital flows, mainly to labor exporting countries. The World Bank (2017) estimates that officially registered remittances to developing countries totaled \$429 billion in 2016. Global remittances, which contain flows to high-income countries, totaled \$575 billion in 2016. Surges in worker remittance flows have significantly helped countries to minimize the problem result from lacks of foreign exchange reserve which is necessary to pay for import requirements (Guiliano and Ruiz-Arranz, 2009). The remittances have a welfare enhancing impact, mainly when they maintain consumption, education and human development, and poverty reduction. As a result, researcher and policy makers have given increasing attention to workers' remittances.

The biggest Palestinian export has been labor service primarily to Israel (see table 1). Due to the proximity of Israeli labor market for Palestinian

worker and the high rate of unemployment in Palestine has caused the Palestinian workers to look for employment in the Israeli labor market. Workers' remittance inflows to Palestine are an important source of foreign exchange. Workers' remittances from Israel represent the most of workers' remittance inflows which is remitted to the Palestinian economy. In 2016, workers' remittance inflows amounted to US \$1.57 billion (see table 1). On average, workers' remittances are almost equal to exports and more than twice the value of foreign aid. This study investigates empirically the impact of increasing workers' remittance inflows by 30 percent on macroeconomic variables such as: private consumption, export, imports, and GDP growth. To quantify the impact of increasing workers' remittance inflows 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 2015 social accounting matrix for Palestine. The study focuses on the impacts of 30 percent increase in workers' remittance inflows as relative to the baseline, which could happen due to the Palestinian reconciliation agreement that may allow to worker from Gaza Strip, to participate in the Israeli labor market.

Palestinian Labor Force

The population growth rate in Palestine is 2.9 percent. The Palestinian population grew to 4.8 million in 2016 (2.9 in the West Bank and about 1.9 in Gaza Strip). The participation rate for the Palestinian labor market is reasonably low related to global and regional rates. This is due to low female participation rate 19.3 percent , while, male participation is 71.6 percent in 2016. Despite the low participation rate, the Palestinian labor market is incapable to create the needed jobs. In 2016, there were 42 thousand new entrants to the labor market, which is far more than the new jobs generated during the same period (17 thousand), of which five thousand offered for the West Bank workers, however, the bulk of them are in Israel and the settlements not in the local economy. In Gaza 12 thousand new jobs were available, as workers in Gaza have been prohibited from working in Israel since 2006. The Palestinian labor force increased to 1341 thousand, of which 360 thousand unemployed in 2016. Subsequently, the unemployment rate increased in Palestine to 26.9 percent in 2016. In the West Bank, the unemployment rate increased to 18.2 percent whereas the unemployment rate increased in Gaza Strip to 41.7 percent in 2016 (Palestine Monetary Authority , 2017).

The high rate of unemployment and the big difference in wages between the Israeli and Palestinian economies have caused the Palestinian workers to look for employment in the Israeli labor market since the Israeli occupation of the West Bank and Gaza Strip in 1967. The number of Palestinian workers has varied in relationship to the Israeli restrictions over the years. In the 1970s and 1980s, third of the Palestinian labor force employed in Israel. However, as the closure regime in the 1990s was intensified the number of Palestinian workers who were allowed to work in Israel dropped significantly. After, the second Intifada in 2000, rate of Palestinian worker has severely declined because of Israeli closure and barriers that made against Palestinian workers. In 2006, Palestinian workers from Gaza were banned from employment in the Israeli labor market, and only the West Bank worker have been allowed employment in the Israeli labor market . The number of Palestinian workers in Israel has been increasing since 2006. At the end of 2016, about 117 thousand Palestinians from the West Bank were working in the Israeli labor market. Remittances of Palestinian workers in Israel consist of more than 90 percent of the remittances of workers' compensation (Palestine Economic Policy Research Institute , 2014; Palestine Monetary Authority , 2017).

Table 1: Palestine: Labor Market Indicators and the Balance of Payment

	2011	2012	2013	2014	2015	2016
Population (thousand)						
Palestine	4,169	4293	4,421	4,550	4,682	4,816
West Bank	2,580	2,649	2,719	2,790	2,862	2,935
Gaza Strip	1,589	1,644	1,702	1,760	1,820	1881
Labor Force (thousand)						
Palestine	1,059	1114	1155	1255	1299	1341
West Bank	718	743	759	811	828	845
Gaza Strip	341	371	396	444	471	496
Unemployment: Percent of Labor Force						
Palestine	20.9	23.0	23.4	26.9	25.9	26.9
West Bank	17.3	19.0	18.6	17.7	17.3	18.2
Gaza Strip	28.7	31.0	32.6	43.9	41.1	41.7

Distribution of Palestinian workers (thousand)						
Total workers	837	858	885	917	963	980
Workers in Israel	84	83	99	107	113	117
Workers in Palestine	753	775	786	810	850	873
West Bank	510	519	519	561	572	574
Gaza Strip	243	256	267	249	278	289
Palestine: balance of payments: Current Account (USD Million)						
Current Account (Net)	-	-	-	-	-	-1348.0
	2,069.5	1,820.8	2,383.4	2,149.0	2066.0	
Goods (Net)	-	-	-	-	-	-4282.1
	3,779.3	4,135.6	4,682.7	4,830.2	4300.5	
Exports (Fob)	1,053.0	1,135.3	1,133.7	1,383.6	1756.7	1827.4
Imports (Fob)	4,832.3	5,270.9	5,816.4	6,213.8	6057.2	6109.5
Services (Net)	-144.5	-293.1	-49.5	-206.5	-899.1	-888.4
Exports	746.5	735.8	938.1	788.6	581.4	604.8
Imports	891.0	1,028.9	987.6	995.1	1480.5	1493.2
Income (Net)	749.5	857.4	1,160.3	1,482.4	1712.2	1578.6
Receipts	843.6	941.3	1,263.8	1,618.4	1803.0	1716.7
Compensation of employees	736.5	822.9	1,140.5	1,449.4	1663.9	1579.9
Of which from Israel	662.8	762.8	1,079.8	1,435.3	1650.7	1527.7
Investment Income	107.1	118.4	123.3	169.0	139.1	136.8
Payments	94.1	83.9	103.5	136.0	90.8	138.1
Current Transfers (Net)	1,104.8	1,750.5	1,188.5	1,405.3	1421.8	2243.9
Inflows	1,668.9	2,331.5	1,862.9	2,013.2	1875.4	2702.6
To Public Sector	709.1	643.3	735.4	614.6	487.3	564.6
To Private Sector	959.8	1,688.2	1,127.5	1,398.6	1388.1	2138.0
Outflows	564.1	581.0	674.4	607.9	454.0	458.7

Source: Palestine Monetary Authority 2016, 2017

Theoretical Framework

The inquiry of whether workers' remittances inflows promote economic development can be explained theoretically and empirically. Thus, whether worker remittances stimulate economic growth is a very important subject for consideration between economists. Some economists (structuralists) believe that remittances impact economic growth negatively. The negative effect of the remittances on the economic

growth is due to not utilizing the remittances in the productive investment, but utilizing the remittances for the consumption. Therefore the remittances are considered as a substitution for labor income; the remittances recipient increase leisure times and thus impact the economic activity negatively by reducing the motivation to work, which results in smaller labor force participation and economic growth. In addition the negative effect of the remittances on the economic growth is due to the exchange rate appreciation which leads to resource reallocation between tradable and untradeable goods and services (Dutch disease). The exchange rate appreciation reduces the competitiveness of the economy and consequently reduces the export and increase the import (Acosta et al., 2009; Lopez et al., 2007; Stahl and Arnold 1986). On the other hand, various economists (the neo-classical) maintain that there is a positive impact of remittances on output growth and economic development. Those who believe in the positive impact of worker remittances emphasis on the multiplier effects of expenditure; the remittances may impact the economic growth positively by improving the capital accumulation and by enhancing the development of financial sector. Also, Households benefit from workers' remittances by spending in human capital and education, and productive investment that would not have happen otherwise. Workers' remittances inflows impending growth feature is the task of remittances in eliminating poverty and decreasing income inequality. Moreover, remittances may have positive effect on the economic growth by expanding the aggregate demand; however this might increase the import. In addition, the utilization of remittances as source of foreign exchange and as a substitute to debt which improve individuals' credit limitations (Aggarwal et al. 2011; Elbadawy and Roushdy 2010; Guilamo and Ruiz-Arranz 2009).

Various theories have illuminated the impact of remittances on economic growth and development. Between these are the neo-classical, the structuralist and the pluralist theories. The Neo-Classical theory appeared in the 1950s and 1960s with the assumption that the developing economies would be able to improve their developmental progression due to capital transfer and industrialization. It argues that the transfer of investment capital will assist development through the inflow of capital (remittances) which could boost productivity and incomes. From this viewpoint, remittances are considered vital since they lead to change in household incomes, raise investments and innovations. In differ to the

neo-classical theory, the structuralist theory believe that migration and remittances produce underdevelopment in migrants' economies. This opinion appeared in the 1970s and the 1980s. It holds that remittances make receiving economies dependent on the sending countries as well as making receivers of remittances dependent on the donors. The structuralist theory argues that migration depletes the human capacities of economies, and it leads to passive development and create economies that are remittance dependent rather than enhancing economic growth. The Pluralist theory emerged in the 1980s and 1990s in reaction to the neo-classical and the structuralist theories. The pluralist theory connects the neo-classical and the structuralist theories. It claims that remittances have both positive and negative effects. According to the pluralist theory, migration performs an important role in the economy by making capital available through remittances. Therefore, remittances impact economic growth positively if remittances are used for productive activities and negatively if remittances are used for consumptions (De Haas, 2009; De Haas, 2010).

Literature Review

Empirically, remittances have a growth enhancing and a poverty alleviation potential in some economies. For instance, Kato and Dadson (2016) analyzed the impact of remittances and the brain drain on the Ghanaian economy. By using computable general equilibrium (CGE) framework, the study found that the effect of remittances have reduced poverty and developed the Ghanaian economy; however, they also caused income inequality. The impact of the brain drain was negative to both poverty reduction and income inequality in Ghana. Salahuddin and Gow (2015) examined the relations between remittances and economic growth in Bangladesh, India, Pakistan and the Philippines, 1977- 2012. They found a positive relationship between remittances and economic growth in the long run. Elseoud (2014) verified the existence of relationship between workers' remittances and macroeconomic variables in the Egyptian during the period 1991-2011. He found causality between output growth and workers' remittances. Palestine Economic Policy Research Institute (2014) examined the development of personal remittance inflows to the Palestinian economy during the period 1995-2013. It used a Keynesian-type econometric model to study the impact of remittances on macroeconomic activities. It found that remittance inflows to the Palestinian economy significantly impacted the macroeconomic

variables considered in the study and markedly contributed to the economic growth in the period 1995-2013. Barai (2012) found that remittances are mainly used for consumption as a means to overcome poverty in Bangladesh. Azam and Khan (2011) examined the impacts of workers' remittances on economic growth of Azerbaijan and Armenia's economies. They used simple log linear regression model. They found that worker remittances are significant and have positive impacts on economic growth and development in Azerbaijan and Armenia. Aggarwal et al. (2011) studied 99 economies over the period 1975-2003 and they found that remittances have a positive influence on bank deposits and credit to GDP, and therefore on economic growth. Lin (2011) examined the determinants of remittances in Tonga from 1994 to 2009; he found that the remittances decrease with the appreciation of Tongan currency however has positive relationship with the growth of real GDP and rate of unemployment in the host countries. Flaig et al. (2011) estimated the impacts for both the Israel and Palestine economies from lifting movement restrictions between Israel and the West Bank. They used a single country CGE model, and a 2004 Social Accounting Matrix (SAM) of Israel to simulate the impacts of different Israeli labor policy regimes. They found positive welfare impacts for the Israel and Palestine economies, when removing the movement restrictions and increasing Palestinian employment in Israel. Fayissa and Nsiah (2010) examined the impact of remittances on the economic growth of 18 Latin American economies for the period from 1980 to 2005. They found a positive and significant impact of remittances on the growth of Latin American economies. Raihan (2010) examined the impact of global financial crisis on remittances using Computable General Equilibrium (CGE) simulation approach. He found that the decline in remittances was 20 percent during the financial crisis according to simulated results. He evaluated that the negative shock in remittances will decrease GDP by 0.1 percent. Gupta et al. (2009) evaluated the impact of remittances in Sub-Saharan Africa within the context of financial development and poverty alleviation and found that remittances have a direct poverty alleviation impact and the potential to support financial development. Atamanov et al. (2009) analyzed the income impacts of remittances in selected CIS economies. The study is based on computable general equilibrium (CGE) models for Moldova, Ukraine, Georgia, Kyrgyzstan, and Russia. They found that all net emigration economies would experience a big reduction of private consumption in the absence of remittances. They concluded that the

remittances had important contribution of to stabilizing and sustaining incomes in many CIS economies. Giuliano and Ruiz-Arranz (2009) investigated the relationship between remittances and growth for 100 economies and found that remittances can improve growth in economies with a less developed financial system by providing a different method to finance investment and assist in reducing liquidity constraints. Qayum et al. (2008) examined effect of remittances on economic growth and poverty in Pakistan from 1973 to 2007. They found that remittances have positive and significant relationship with economic growth and reduce of poverty in Pakistan. Acosta (2008) evaluated ten economies in Latin America and the Caribbean and found that remittances enhance growth and decrease inequality and poverty. Jones and Skeldon (2007) examined the impact of remittances on Tajikistan development. They found that remittances have been taking a task of a shock absorber that has been reducing socioeconomic difficulties in Tajikistan. On the contrary, some studies found that remittances have a negative or no impact on growth. For instance, Jouini (2015) examined the relations between remittances and economic growth in Tunisia, between 1970 and 2010. He found that remittances had no impact on the economic growth.

Djiofack et al. (2013) analyzed the impact of remittances and the brain drain on the Cameroonian economy. They found using a CGE model that the negative effect of the brain drain would surpass the positive effect of remittances on income. They determined that the overall effect of migration on poverty reduction is negative in Cameroon even though the positive effect of remittances is taken into account. Giritli and Ugural (2013) analyzed the impact of unskilled labor remittances using Computable General Equilibrium (CGE) simulation approach in North Cyprus. They found that despite the positive impact on the demand side, the supply side of the economy is deteriorated and output declined. Bhaskara and Takirua (2010) studied the possible sources of growth in a small island economy of Kiribati. They found that remittances have a negative impact on economic growth. Barajas et al. (2009) estimated the effect of remittances on economic growth using a panel data on 84 economies during 1970-2004. They found that no effect of remittances on economic growth. Freund and Spatafora (2005) found that there is no direct connection between per capita output growth and remittances. Chami et al. (2003) considered the task of remittances in economic growth. They found that remittances have a negative impact on economic growth due to the moral hazard problem in remittances.

Astrup and Dessus (2005) used a general equilibrium model to evaluate the impact of restricted access to the Israeli labor market on the Palestinian export and on GDP growth. They found that exporting large flows of Palestinian workers to Israel inclines to reduce the ability of the Palestinian industry to export goods.

Methodology and Data

Computable general equilibrium (CGE) methodology is a strong methodological instrument for examining the impacts across multiple markets of modifications in policy variables or exogenous shocks. The CGE presents an economy-wide structure for policy analysis to evaluate variety of policy issues. Computable general equilibrium modeling uses general equilibrium theory as an instrument for evaluating empirically resource allocation in market economies (Shoven and Whalley, 1984). The computable general equilibrium model that we use is neoclassical. Consumers demand commodities and supply their endowments to maximize their utility, subject to their endowments. Producers 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 (1954) 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. The incomes are placed in the row accounts and expenditures in the column accounts, the total of rows and columns must be equal. 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; Eltalla, 2017). The standard CGE model is written as a set of simultaneous equations. It explains all of the payments recorded in the social accounting matrix. The model follows the social accounting matrix disaggregation of factors, activities, commodities, and institutions. To carry out the CGE analysis, a Palestinian CGE model and a 2015 social

accounting matrix for Palestine have constructed. The model is based on the standard model used by the International Food Policy Research Institute (IFPRI). Lofgren et al. (2002) has a complete description of the IFPRI's standard model. The 2015 social accounting matrix is used as the initial data for the calibration of the Palestinian CGEmodel.

Transfer in the Model: Institutions Block

Equation (1) describes the total income of each factor. In equation (2), this income is divided between domestic institutions in fixed shares after payment of direct factor taxes and transfers to the rest of the world. Transfers to the rest of the world are fixed in foreign currency and transformed into domestic currency by multiplying by the exchange rate. This equation presents reference to the set of domestic institutions (households and the government), a subset of the set of institutions, which also contains the rest of the world. The total income of any domestic nongovernment institution is the sum of factor incomes (describes in equation 2), transfers from other domestic nongovernment institutions (describes in equation 3), transfers from the government (indexed to the CPI), and transfers from the rest of the world.

$YF_f = \sum_{a \in A} WF_f \cdot \overline{WFDIST}_{fa} \cdot QF_{fa}$		Equation 1
income of factor f	=	sum of activity payments (activity-specific wages times employment levels)

$YIF_{if} = shif_{if} \cdot [YF_f - trnsfr_{rowf} \cdot EXR]$		Equation 2
income of institution i from factor f	=	share of income of fact f to institution i * income of factor f (net of tax and transfer to RoW)

$YI_i = \sum_{f \in F} YIF_{if} + \sum_{i' \in INSDNG'} TRII_{ii'} + trnsfr_{i gov} \cdot \overline{CPI} + trnsfr_{i row} \cdot EXR$					Equation 3			
income of institution i	=	Factor income	+	Transfers from other domestic non government institutions	+	transfers from government	+	transfers from Rest of the World

Where, Y_f is income of factor f , $i \in \text{INS}$ is a set of institutions (domestic and rest of the world), Y_i^f is income to domestic institution i from factor f , sh_i^f is share of domestic institution i in income of factor f , t_f is direct tax rate for factor f , $trnsf_i^f$ is transfer from factor f to institution i , Y_i is income of institution i (in the set INSDNG), and $TR_{i,i}$ is transfers from institution i to i (both in the set INSDNG).

The current account balance, which is articulated in foreign currency, requires equality between the nation's spending and its revenues of foreign exchange.

$\sum_c p_w m \cdot QM + \sum_f \text{transfr}_{row,f} = \sum_c p_w e \cdot QE + \sum_f \text{transfr}_{i,row} +$								
FSVA Equation 4								
import spending	+	Factor transfers to Rest of theWorld	=	export revenue	+	institutional transfers from Rest of the World	+	foreign savings

Where: FSAV is foreign savings, QM is quantity of imports, QE is quantity of exports, $p_w m$ is import price (foreign currency), $p_w e$ is export price, $\text{transfr}_{row,f}$ is factor transfer to the world and $\text{transfr}_{i,row}$ is institutional transfers from the world (Lofgren et al., 2002).

Simulation and Empirical Results

We simulate the impact of a 30 percent increase in worker' remittances, which could come due to the Palestinian reconciliation agreement that may remove the restrictions on the worker from Gaza from entering the Israeli labor market. A simulation in a CGE model that alters the level of worker' remittances impact 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 used the General Algebraic Modeling System (GAMS) to perform the simulation. Table 2 shows the effects on selected variables of the Palestinian economy for a 30 percent increase in worker' remittances. The base-year (benchmark) values correspond to the values found in the Palestinian social accounting matrix. The simulation results show that real GDP increases by 0.42 percent. The level of real private consumption increases by 4.95 percent. Import increases by 4.28 percent and export decline by 6.86 percent in

real term. Net taxes increases by 2.29 percent, as a percentage of GDP the trade deficit increases by 10.16 percent (Table 3). The shock can considerably change the real exchange rates, which in turn affect the trade balance. Real exchange rate appreciated by 1.6 percent from the base line. In addition, absorption increases by 3.24 percent in real terms.

Table 2: Effects of a 30 percent increase in worker' remittances

	millions USD			As percent of GDP	
	Base line	Change	% Change	Base line	Change
Absorption	10847.159	11198.609	3.24	140.76	144.72
Private consumption	7099.800	7451.250	4.95	92.13	96.29
Gov. consumption	2090.400	2090.400	-	27.13	27.01
Investment	1656.959	1656.959	-	21.50	21.41
Exports	1660.900	1546.911	-6.86	21.55	19.99
Imports	4801.900	5007.163	4.28	62.31	-64.71
Net Taxes	1501.052	1531.125	2.29	19.48	19.79
GDP	7706.159	7738.357	0.42	100.00	100.00
GDP at factors cost	6205.107	6209.251	-	80.52	80.24
Trade Deficit	3141.000	3460.252	10.16	40.76	44.71

Source: Authors' calculations.

Table 3: The Macro 2015 Social Accounting Matrix of Palestine

	1	2	3	4	5	6	7	8	Total
Activities-1		13522.8							13522.8
Commodities-2	7064.6	3129.1		7099.8	2090.4	1657		1660.9	22701.8
Factors-3	6205.1								6205.11
Households-4			6205.1		484.77			1064.2	7684.62
Government-5							1939.4	732.07	2699.66
Saving-Invest-6				146.47	124.48			1344.8	1656.96
Taxes-7	253.1	1247.96		438.35					1939.41
ROW-8		4801.9							4801.9
Total	13523	22701.8	6205.1	7684.6	2699.7	1657	1939.4	4801.9	

Source: Authors' calculations.

Conclusion

The economic and socioeconomic result of worker' remittance inflows in an economy depend on political and economic institutions, and culture; the degree of the moral hazard problem and consumption is impacted by culture. This paper quantified the impacts of a 30 percent increase in worker' remittances in the Palestinian economy by using a computable general equilibrium model. The simulation results show that real GDP increases by 0.42 percent. The level of real private consumption increases by 4.95 percent. Import increases by 4.28 percent and export declines by 6.86 percent in real term. The trade deficit increases by 10.16 percent. The Real exchange rate appreciated by 1.6 percent from the base line. The empirical results of the study shows the existence of small positive relationship between worker' remittances and economic growth (RGDP increases by 0.42 percent). However, private consumption increases by 4.95 percent. Imports increase by 4.28 percent and exports decline by 6.86 percent in real term. The implication from these results is that worker' remittances is an important tool for poverty alleviation and not a significant instrument for economic growth in Palestine. This is due to majority of worker' remittances come from unskilled Palestinian workers in Israel, where most of their incomes go to the consumption of goods and services. The majority of these goods come as imports from Israel (Imports increase by 4.28 percent). Thus, a major share of Palestinian worker' remittances in Israel spends on imported Israeli goods (the Palestinian economy on a path of dependence in which increased expenditure, leads to increase the imports from Israel). Therefore, there is a trade of the Palestinian export labor services to Israel and Israel export goods and services to Palestine. The small impact of the worker' remittance on the economic growth is due to utilizing the remittances for the consumption not for the productive investment. In addition the effect of the remittances on the economic growth is due to the exchange rate appreciation, which leads to resource reallocation between tradable and non-tradeable goods and services (Dutch disease). The exchange rate appreciation reduces the competitiveness of the economy and consequently reduces the export and increase the import.

Our results have several policy implications. Workers' remittances from Israel are impacted by the political environment. The Palestinian policy makers should put more importance on the worker' remittances as a

instrument which the government can use to solve various economic problems, influence the performance of the economy and boost the economic growth. For this purpose, there is a need to implement policies that may increase the efficiency of worker' remittances and improve productivity which in turn influences positively the economic growth. Policy makers should implement policies that support Palestinian worker' remittances and the growth creating capacity of these remittances. These polices should encourage investment and capital accumulation rather than consumption. Otherwise, the policy makers should look at the question of whether an alternative strategy to exporting labor services is feasible and give similar income prospects. For instance, energizing the Palestinian manufacturing sector by implementing a strategy of structural transformation, that begins with an import substitution through support of production phase, followed by an export promotion phase. The export promotion phase include global marketing support, reliable policies helpful in maintain prices stability and competitiveness, and subsidies to research and development.

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