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# THE IMPACT OF EXPATRIATE WORKERS' REMITTANCES ON THE CURRENT ACCOUNT OF BALANCE OF PAYMENTS IN JORDAN

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## **Abstract**

*Expatriates' remittances have grown continuously starting from 1.179 million JD in 2000 to 2.365 million JD in 2016 which is 49.8% growth. Remittances have a significant participation in the current transfer of Balance of Payments (BOP) of Jordan. It is acknowledged that remittances are very important source of foreign currencies and thus serves as a stable source to reduce the deficit of current account of BOP. It is worth mentioning that expatriates' play a vital role in the economic growth of a country as it is one of the largest sources of foreign currency and for the period under study, remittances covered more than 14% of imports. The objective of this paper is to investigate the role of remittances in reducing the current account deficit in Jordan. Multiple regression analyses, in addition, Pearson correlation matrix was used to show the relationships between the steady growths of remittance and improvement of current account deficit and found the significant positive relation.*

**Keywords:** *Expatriates' remittances, Balance of payments, Current account, Current transfers.*

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## **1. Introduction**

Jordan is classified as a lower middle income country (World Bank 2011) with limited resources and dependent on expatriates' remittances and foreign aid. In the last decade, the economy of Jordan was severely affected by what is called (Arab Spring), increase of oil prices, global crisis and the influx of Syrian refugees. All these factors are very serious challenges that face the economy of Jordan and resulted in high rate of unemployment, inflation, budget deficit, high external debt and balance of payments deficit. Despite the fact that

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expatriate remittances constituted about 20 % on average of Jordan's GDP (Central Bank of Jordan 2000), the state of current account has shown a remarkable deficit. Remittances of migrant Jordanians, foreign direct investment and portfolio investment played a vital role in offsetting the reversals of current balance. Remittances are one of the main sources of foreign currencies and are one of the most important economic variable that contribute to the growth of the national economy because of the high ratio of the total volume of receipts that reached 35% of trade balance in 2016. The objective of this study is to analyze the impact of Jordanians' migrant workers remittances on the current balance of the balance of payments in Jordan.

The study starts with a background about migration of Jordanian skilled labor and the importance of remittances in the economy of Jordan. Part 2 is about conceptual frame work. Part 3 is about literature review. Part 4 deals with methodology, analysis and findings. Part 5 ends with conclusion and recommendations.

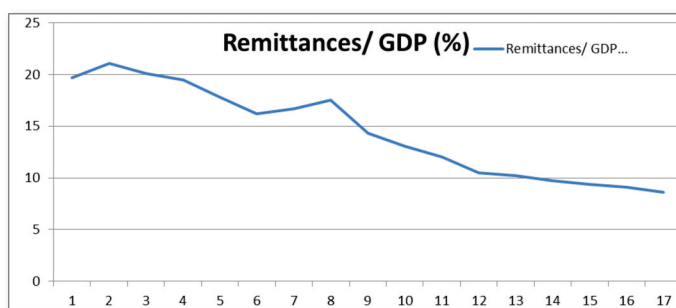
## 2. Migration of Jordanian skilled labor and the importance of remittances in the economy

According to the last census in 2015, the population of Jordan was 9.5 million of whom 31% were foreign nationals. This shows that Jordan has the highest refugees to population ratio. Jordan hosts 2.7 million registered refugees, while outward migration amounts to 785000 which constitute about 8.3% of population. Since 1973 oil price increases, large outflow of Jordanians immigrated to the Gulf States. Data on Jordanians abroad are scarce. According to (Migration Profile: Jordan.2016), Jordanians working in Arab countries amount to about 660000 and 125000 in the rest of the world's countries. The inflow of remittances officially recorded and sent back by expatriates during the period (2000-2016) estimated at around 35 billion dinars. This makes remittances the prime source of foreign exchange. Remittance constituted about 8.6% of Jordan's GDP down from about 20% in 2000. This is due to the increase of Jordan's GDP. It is worth mentioning that the nature of these remittances as private assets still play a vital role in supporting households' income and Jordan's economy in a sense that they play an important role in offsetting the deficit of current account of the balance of payments. The following table illustrates the importance of remittances to Jordan's economy. It also shows the trend of remittance.

**Table 1.** Remittances of Expatriate Jordanians (2000- 2016)

Year	Remittances in million JD	Remittances/ Export (%)	Remittances/ Imports (%)	Remittances/ GDP (%)
2000	1,179.0	87.4	40.8	19.7
2001	1,285.2	78.3	42.1	21.1
2002	1,364.2	69.4	43.2	20.1
2003	1,404.5	53.9	32.7	19.5
2004	1,459.6	53.0	28.3	17.8
2005	1,544.8	50.6	23.4	16.2
2006	1,782.7	48.3	24.5	16.7
2007	2,122.5	52.5	24.9	17.5
2008	2,242.2	49.9	18.6	14.3
2009	2,214.2	61.8	21.9	13.1
2010	2,247.3	53.3	20.3	12
2011	2,152.1	44.8	16.0	10.5
2012	2, 229.8	46.9	15.2	10.2
2013	2,327.7	48.4	14.3	9.7
2014	2,388.0	46.2	16.4	9.4
2015	2,423.3	50.5	16.7	9.1
2016	2,365.7	54.1	17.3	8.6

**Figure 1**  
Remittances as a percentage  
of GDP



From table 1, we can see that remittances represent about 55% on average of Jordan's export and 26% of imports are covered by remittances. Compared with GDP; remittances reached as high as 19.5% in 2000 and currently represent 8.6% of GDP. According to EL- )Sakka (2004) rate of remittances to private consumption is a measure of the extent to which remittances can be used to finance private consumption of domestic inhabitants. When it comes to the state of current account in relation to GDP, table 2 shows that the deficit of the current account started increasing from 2005 and in consequences affected the volume of foreign grants and the balance of trade, which is the major component of the current account that posted a high deficit as imports rose while exports stagnated. The rise in the deficit of the current account as a percentage of GDP during the period 2011- 2013 was due to the sharp deficit in the trade balance, slowdown of investments inflows and in the income account due to the regional instability and the necessity to accommodate the Syrian refugees consumption.

**Table 2.** Current Account Deficit as a % of GDP in Jordan

Year	GDP (Million JD)	Current Account (Million JD)	% of GDP
2000	5,996.5	- 153.4	2.6
2001	6,082.9	-284.0	4.7
2002	6,781.2	381.7	5.6
2003	7,08.3	882.6	12.2
2004	8,166.1	62.9	0.08
2005	9,595.1	1,559.4	16.2
2007	10,671.8	- 2,038.0	18.9
2008	12,132.3	- 1,445.2	11.9
2009	15,623.2	- 802.4	5.1
2010	16,895.2	- 931.4	5.5
2011	18,743.1	- 2,098.8	11.2
2012	20,487.7	- 3,344.9	16.3
2013	21,921.8	- 2,487.7	11.3
2014	23,876.2	- 1,851.7	7.7
2015	25,411.7	- 2,365.6	9.3
2016	26,600.5	- 2,560.2	9.6

Source: Central Bank of Jordan. Annual Reports . Various issues

### 3. Conceptual Framework

#### 3.1. *The Current Account of Balance of Payments*

The current account is one of two components of the balance of payments. The other is the capital account. The current account is considered to be an indicator of economy's health. It consists of the balance of trade, net factor income and net cash transfers. The current account measures a country's foreign trade because it is the difference between the country's exports of goods and services and its imports of goods and services. A surplus in the current account indicates a rise in a country's foreign assets and vice versa. In the net factor income, payments represent an outflows and income receipts from investments abroad and remittances of expatriates are inflows. So the current balance is calculated by adding up 4 components; goods and services, income and current transfers as presented in the following formula:

$$CA = (X - M) + NY + NCT$$

Where,

CA: stands for current balance ; X, M: the export and import; NY: net income from abroad

NCT: net current transfers

#### 3.2. *Interrelationships in the balance of payment*

The current account reflects the monetary transaction with the rest countries of the world. Transactions are either recorded as a credit or a debit. Within the balance of payments, there are three categories under which transactions are classified; the current account, the capital account and the financial account. The current account reflects the sum of the capital and financial accounts. The current account is the main causal factor with capital and financial account. Simply reflecting financing of a deficit or investment of funds arising as a result of surplus. The causative factor in the current account and that the positive financial account reflects the need to finance the country's current account deficit.

#### 3.3. *Reducing or increasing current account deficit*

If a country has a deficit in its current account it means that a country is a net debtor to the rest countries of the world. The state of current account balance is influenced by many factors. But the main factor is the trade balance (export –import) which determines the current account state of surplus or deficit. The action to reduce a current account deficit involves increasing exports or decreasing imports or depreciating the exchange rate in order to make the goods and services cheaper for the foreigners. According to (Pitchford thesis) a deficit of current account does not matter if it is driven by the private sector (Cashin, P. and McDermott 1998). In case of surplus it is a good indicator of economic activity of a given country.

### 4. Literature Review

Because of the increase of flows of expatriates' remittances and their importance in the economic development of receiving- countries, a wide range of issues related to the expatriates' remittances became over the past years the subject of political debate, as well as of theoretical and empirical studies. Kandil and Mirzaie, (2001) in their analysis by using time series analysis found that remittances inflows led to the export growth in two countries (Jordan and Tunisia) out of four MENA countries. Bouhga - Hagbe (2004), reached a conclusion that in Morocco, expatriates' remittances covered the trade deficit and explained the surplus of the

external balance. According to (OECD 2006), when expatriates' remittances cause an increase of imports and deficit in trade balance in the receipt- receiving country, which is known as boomerang effect, the propensity to import increase. In the process of evaluating the impact of expatriates' remittances on economic variables, Ratha stressed the growing importance of remittances as a source of foreign exchange for developing countries which is reflected in his study on the relationships between remittances and economic growth in Sri Lanka during the period 1977-2012. Harsha Paranavithana(2014), using VEC model, he found a positive and direct relationship between remittances and economic growth in the long run, but no causality in the short run. Pradham,G et al (2008), investigate the relationship between remittances and economic growth in 39 developing countries from 1980-2004, using panel data fixed effects and random effects and found a direct relationship between remittances and economic growth. El-Sakka and McNabb (1999) estimated a macro model for total inflow of remittances through official channels in Egypt. They found that levels of income in both host and home countries have a positive impact on the inflow of remittance to the home county. They also found that remittance flows are highly responsive to black market premiums. The results also support the idea that interest differentials at home and abroad have a negative impact on the inflow of remittances through official channels. They also find that imports financed by remittances have higher income elasticity and relatively lower price elasticity as compared to other imports. Edards (2009) examined the relationship and growth input of remittances and transfers using fixed panel effects estimation (1979-2002) and found that remittances and foreign aid are negatively associated with growth. Pradhan. A.H et al (2012) in their research "Contribution of Remittances on Current Account of Balance of Payments in Bangladesh" using VECM estimation model found that the high contribution of remittances in the current transfer over the period 1997-2009) led to a positive link between remittances and current account. And finally, Jihad .Al-Sondos and Suliman Abu-Kharmah(2010), on their study about the impact of Jordanian workers' remittances on macroeconomic variables employing Multiple Linear Regression by the Least Square Method and statistical tests found a positive statistical significance impact of remittances on the macroeconomic variables and a positive impact on the increasing the per capita share of the GDP. Based on the previous literature the following hypothesis has been formulated as follows in its alternative form:

**Hi: There is an impact of expatriates' remittances on current account of balance of payments in Jordan.**

## **5. Methodology, Analysis and Findings**

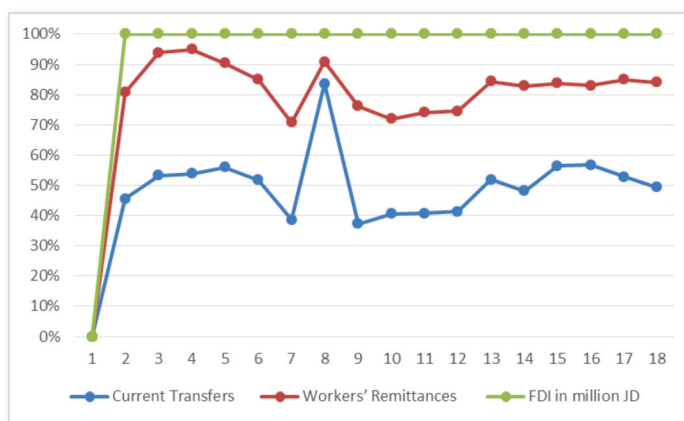
The objective of this study is to evaluate and analyze the impact of Jordanian expatriates' remittances on the current account of the balance of payments. The study is based on secondary data collected from the annual reports of the Central Bank of Jordan and from the Department of Statistics. A wide range of critical and exhaustive review of literature was used for the purpose of the study.

**Table 3.** Current Transfers, workers' Remittances and Current Account Balance

Year	Current Transfers	Workers' Remittances	% of Current Transfers	FDI in million JD	Current Acc. Bal.
2000	1,531.2	1,179.0	76.9	648.23	- 153.4
2001	1,679.7	1,285.2	76.5	194.54	- 284.0
2002	1,792.2	1,364.2	76.1	168.98	381.7
2003	2,273.0	1,404.5	61.8	388.37	882.6
2004	2,280.2	1,459.6	64.0	665.27	62.9
2005	1,855.0	1,544.8	83.3	1,408.0	- 1, 559.4
2006	2,080.5	1,782.7	85.7	2,282.5	- 1,133.3
2007	2,029.6	2,122.5	104.6	1,301.3	- 2,038.0
2008	2,896.0	2,242.0	77.4	2,005.7	- 1445.7
2009	2,696.0	2,214.2	82.1	1,713.3	- 802.4
2010	2,789.4	2,247.3	80.6	1,721.1	- 931.4
2011	3,454.7	2,152.1	62.3	1,046.2	- 2,098.8
2012	3,084.9	2,229.8	74.5	1,099.3	- 3,344.9
2013	4,813.3	2,327.7	48.3	1,382.2	- 2,487.7
2014	5,160.9	2,388.0	46.3	1,546.7	- 1,851.7
2015	3,989.3	2,423.3	60.7	1,136.2	- 2,365.6
2016	3,369.6	2,365.7	70.2	1,092.6	- 2,560.2

Source: Central Bank of Jordan Annual Reports (2000- 2016) Statistical Tables.

**Figure 2**  
current account, FDI,  
and workers' remittances



In order to find out the role of expatriate remittances in offsetting the current account

Deficit, we suggest the following model:  $Y = a + b_1x_1 + b_2x_2 + b_3x_3 + \epsilon$

Where y stands for current account, X1 for current transfer; X2 for Expatriate remittances and X3 for foreign direct investment. Then we used multiple regression analyses, in addition to Pearson correlation matrix. The authors found that there is a negative and significant effect of expatriate remittances on the current account of balance of payments in Jordan; p. value (0.00) which is lower than 0.05, while the effect of FDI is positively correlated and insignificant, but the effect of Current Transfers on the current account of balance of payments is negatively correlated and insignificant as shown in Table 4.

Table 4 Regression analysis

Dependent Variable: current account balance

Variable	Coeff.	t-Stat.	Prob.
C	2,890.84	3.115	0.01
X1	(0.03)	-0.440	0.67
X2	(2.27)	-3.708	0.00
X3	0.25	0.463	0.65
R-squared	0.64	Akaike info crite.	16.37
Adjusted R-squared	0.55	Hannan-Quinn crite.	16.39
Log likelihood	(135.17)	D-W stat	1.42
F-statistic	7.60		
Prob(F-statistic)	0.003468		

In turn, we observe that the correlation coefficients between the current account balance and both the current transfers and expatriate remittances are negative, viz., a, viz, (-0.910) and (-0.650) respectively while the relation with the foreign direct investment variable has a positive association (0.910) as shown in Table 5.

Table 5 Correlation matrix

Variables	x1	x2	x3	y	
x1	Correlation Sig (2 tailed)	1.000			
x2	Correlation Sig (2 tailed)	-0.670 0.000	1.000		
x3	Correlation Sig (2 tailed)	-0.900 0.000	0.840 0.000	1.000	
y	Correlation Sig (2 tailed)	-0.910 0.000	-0.650 0.010	0.910 0.000	1.000
N		16.000	17.000	17.000	17.000

**X1** stands for current transfer; **X2** Expatriate remittances; **X3** Foreign direct investment and **Y** for Current Account.

## **6. Conclusion and Recommendations**

From the above discussion, we conclude that expatriates' remittances have become a significant issue due to its role in many aspects of economic growth of a receiving country. This paper concentrates on theoretical literature on remittances and investigate its link with current account of the balance of payments of Jordan. In terms of the expatriates' remittances, its trend has been increasing and positive in a sense that they reduce the deficit in current account. In order to enhance the size and roles of remittances in economic stability, we recommend the following:

1. A clear strategy should be adopted by the government to improve the skills of the emigrant workforce.
2. Attempts should be taken by policy makers to bring these remittances via formal channels.
3. Interest rates should be maintained on the accounts of migrant workers at levels that are higher than on domestic or foreign currencies deposits.
4. Special treatment in terms of duty and tax on equipment and investments of migrant workers.



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i This study titled "The Nexus between income inequality, international remittances and economic growth in Turkey" was presented in International Economy Conference in Bodrum/Turkey (2016). This masterpiece is revised and expanded version of presented study.