THE OFFICIAL DEVELOPMENT ASSISTANCE AND THE REMITTANCE'S DETERMINANTS: CONVERGENCE OR DIVERGENCE?

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ABSTRACT

Remittances constitute a significant external financing source for developing countries. Nowadays, they represent the second largest external financing source for development, after foreign direct investment. However, the literature on remittances has mainly identified the impact of remittances on economic growth and the microeconomic determinants of remittances.
In this work, we seek to answer different questions. First, what are the main macroeconomic determinants that may lead remittances of emigrants? Then, what is the impact of these determinants on remittances, official development assistance's flows and foreign direct investment? We will try to compare this impact to the one exercised over shipments. Finally, on the basis of this comparison we will check if remittances are correlated with other external capital flows.

Keywords: Economic growth, official development assistance; remittances, foreign direct investment, developing countries.

INTRODUCTION:

Since the 1970s, remittances (WR) represent an increasingly important external financial source. According to the word bank reports, remittances are, today, the second largest external financial source for developing countries (ODA) after foreign direct investment (FDI).

However; during the same period; the Official Development Assistance (ODA) has crossed a crisis related to a combination of several factors1. This crisis has led to the questioning of ODA fundamentals, accompanied by a sharp fall of its flows to developing countries.

Burnside and Dollar (1997-2000) support the thesis that the effectiveness of ODA's impact on economic growth depends on quality in economic policies of the ODA's receiving developing countries. Thus, this work paves the way for selectivity criteria[2] that should be applied to these countries.

Facing this debate and the ODA flow decrease, several economists have raised the question of how to exploit external financial sources for development in order to promote economic growth in developing countries. And a renewed interest has gradually been manifested to remittances.

Thus, a major part of the current literature has focused on the remittances. This part is manifested at several levels as the impact exercised by microeconomic and macroeconomic determinants of remittances. However, it is noted that both theoretical and empirical works have focused on the impact of remittances on income distribution within countries, and the determinants of remittances on the microeconomic level or the effects of migration and remittances for countries or regions.

The outline of this paper is as follows: in section 1 we review the theoretical and empirical literature of remittances. In section 2 we will test the impact of determinants of remittance on the external flows. We will use a sample composed by 71 developing countries over a period of thirty years, from 1981 to 2000. The third section shows the comparison results of determinants' effects for each external capital flow. Based on this comparison, this work is to detect the presence and the sign of correlation that may exist between each external capital flows.

MACROECONOMICS DETERMINANTS OF REMITTANCES AND OFFICIAL DEVELOPMENT ASSISTANCE: LITERATURE REVIEW AND ECONOMETRIC MODELS:

MACROECONOMICS DETERMINANTS OF REMITTANCES: LITERATURE REVIEW:

The literature on the determinants of remittances is classified into two main categories. The first is the demographic profile and the migrants' characteristics and their families. Among other things, this category focuses on the microeconomic determinants. The second category concerns macroeconomic and political variables as well as variables related to the institutional environment. In general, studies on the determinants of remittances generally lead to the fact that these remittances are driven by the need to support the families of migrant workers, rather than by investment considerations.

In general, the literature on the determinants of remittances concerns macroeconomic variables, political as well as variables related to institutional environment. Studies on these determinants have commonly led to the fact that remittances are driven by the need to support the families of migrant workers, rather than by investment considerations. Among the empirical studies on the macroeconomic determinants, Katseli and Glytsos' are particularly notable (1986). Based on panel data studies of Greece, their studies show that remittances are negatively related to the inflation rate in the country, the income of the host as well as the interest rates in the latter country. Similarly, Elbadawi and Rocha (1992), using panel data for six countries, they were able to show that macroeconomic variables play an important role in determining remittances.

Faini (1994) attempted to determine the depreciation effect of the real exchange rate of the national currency and it showed that this depreciation has a positive impact on the amount of remittances. Glytsos (1997) tried to distinguish between remittances sent by temporary migrants and remittances sent by permanent migrants. His results suggest that temporary migrants are more likely to rely on investment and future consumption. However, permanent migrants are more likely to pay in response to altruistic purposes.

El-Sakka and McNabb (1999) showed in their study on Egypt, that the differences between the black market rate of premium and interest are important variables explaining remittances. Higgns et al (2004) used the method of estimating fixed effects and they have shown that the exchange rate uncertainty is a risk factor for remittances since this rate is an important variable for shipments funds. Similarly, unemployment in the host

[1] Such as the change of environment marked by the end of the Cold War and the problem of indebtedness of growing countries receiving official development assistance.

[2] This selectivity principle serves to give more ODA to developing countries which are making political, economic and institutional reforms in order to improve their "good governance ".The basic idea is that improvement efforts of "good governance" greatly increases the productivity of ODA, this same productivity is insignificant or even negative in poorly governed countries (World Bank, 1998;Burnside and Dollar, 2000& 2004).

country is likely to influence such items in its turn.
Yang (2008) found in his study that Filipino migrants send less money in foreign currencies when the peso depreciated during the Asian financial crisis, which suggests that migrants have a target amount to be received by their families. Other studies have noted that there is a negative relationship between the income in the migrant country of origin and remittances sent by these migrants. In addition, it should be noted that the transfers' costs have an important impact on money sent by migrants to their families.
Indeed, once the migrant decides to remit funds to his family, he must first decide how to send them. As a result, the high official costs of money transfer fees or the presence of a dual exchange rate would have a negative impact on the amount transferred. In this context, Freund and Spatafora (2005) studied the influence of transaction costs and the effect of financial development on remittances registered in 104 countries, and they have found that the presence of a system of dual exchange rates and transaction costs have both a negative and a significant effect on remittances by migrants to their families.
In addition, demographic factors such as the proportion of women who have a job or the literacy rate positively affect remittances. Chami, Fullenkamp and Jahjah (2005) have identified a negative relationship between the gap of the recipient country shipments income compared to the United States and remittances from workers in percent of GDP. However the variety of empirical studies on the macroeconomic determinants of remittances their results are mixed. In particular, the influence exercised by the differential in interest rates, household income and inflation is inconclusive. For inflation, for example, the results are contradictory. Indeed, in this context, Glytsos and Katselli (1986) and Elbadawi and Rocha (1992) found that inflation rates excreted a negative impact on remittances, while El-Sakka and McNabb (1999) found that inflation exerted a positive impact on these remittances.

THE DETERMINANTS OF OFFICIAL DEVELOPMENT ASSISTANCE:

In general, the literature on the determinants of ODA is classified into two categories. The first part focuses on the criteria for allocating aid to maximize its impact on economic growth and poverty reduction. These criteria usually include the principle of conditionality and selectivity applied by aid donors. As for the second part, it is usually the factors that are likely to influence the decisions of the ODA granting to developing countries.
The use of econometric modeling to describe the decisions of the distribution of aid began in the 1970s. And it is in this context that several multiple regression models were constructed, each of which is composed of a group of variables that capture a range of donor interests such as economic interests, security interests, interest political power, political stability and democracy ".

SAMPLE DATA SOURCE AND ECONOMETRIC ESTIMATION: METHODOLOGY: ECONOMETRIC ESTIMATION:

Our estimation is done on a sample composed of 71 developing countries (DC) receiving official development assistance and drawn from the list of the Development Assistance Committee of the OECD DAC.
The sample's construction respects the classification of these countries, which is made by CAD according to the level of Gross National Income per capita, as shown in Appendix 1.
According to this classification, developing countries are grouped into four different classes: "Least Developed Countries", "low income countries", "countries and territories to lower middle income bracket" and "countries and territories upper middle income ".
All of these developing countries have in common, the benefit of development aid and the importance of entering transfers received from emigrants as percentage of their GDP. These inputs of remittances vary between 2% and 30% as a percentage of GDP.
We also divided the sample into three decades,: 1981 -1990, 1991 -2000 and 2001 - 2010. This division corresponds approximately to: the period of the debt crisis (1980) and the importance of aid and remittances during these years, the period of globalization accompanied by the ODA legitimacy crisis, and oppositely the massive increase of the flow of remittances to developing countries during the 1990's. And the global crisis and its impact on the external capital flow for development.

SAMPLE AND DATA SOURCES:

Our data are based on the World Bank's reports (WDI and "World Development Indicators 2010", and GDF "Global development finance 2010")

ENDOGENOUS VARIABLES:

- ODA: Net Official Development Assistance (ODA) per capita consists of disbursements of loans made on confessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC)
- WR: Workers' remittances and compensation of employees comprise current transfers by migrant workers and wages and salaries earned by non-resident workers.
- FDI : Foreign Direct Investment is the sum up of net inflows of investment that are to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor.

EXOGENOUS VARIABLES:

- INFL: Inflation as measured by the annual growth rate of the GDP implicit deflator
- G: Annual percentage growth rate of GDP per capita based on constant local currency.
- M2: M2/PIB Money and quasi money comprise the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government.
- Opness: Net barter terms of trade index is calculated as the percentage ratio of the export unit value indexes to the import unit value indexes, measured relative to the base year 2000.

After presenting, in section 1, the various studies on the macroeconomic determinants of remittances, these studies can be classified into three categories.

- Studies on the determinants of remittances in a single country.
- Studies on the determinants of remittances in a homogeneous group of countries
- Studies of the determinants of remittances in a heterogeneous group of countries

However the variety of estimation's techniques, the consensus on the determinant's impacts, is far from being established. Indeed, the signs and significance accorded to these determinants differ from one study to another. In our study, we will be limited to a set of macroeconomic determinants that are likely to have an impact both on remittances as ODA and FDI.

And we will try to compare this impact to that exerted by remittances. On the basis of this comparison, we can identify if there is a correlation between remittances and the other extern capital flows, to finally identify the nature of this correlation. In order to do this, we try to test empirically whether these variables may explain the variations that focus on remittances, on ODA and on FDI. Thus, we will develop a panel composed by three linear equations. In each equation we'll just change the dependent variable while we will maintain the same control variables that represent the macroeconomic determinants of remittances, ODA and FDI.

Therefore, the dependent variables are respectively: The remittances, ODA and FDI. These three variables are measured as a percentage of GDP. Regarding the control variables, we have chosen a few variables that can exercise an impact on these different external financial sources for development. Thus, we included the annual growth rate in log, as a measure of the development' state of the country. The GDP per capita annual growth is characterized by its strength in explaining the level of investment attractiveness for countries.

Therefore, we can expect to have a negative impact for the first equation on official capital flows (ODA) because ODA target generally low economic growth countries. However, this indicator can have positive sign for FDI flows. In the case of remittances (equation n°2), we cannot claim the sign given to this variable.

Indeed, on the one hand, there are migrants who tend to invest in their origin country in spite their weak economic growth. On the other hand, there is another category of migrants who intend to invest in their home countries that are generally developed countries characterized by strong economic growth. Besides, the degree of economic development, macroeconomic instability is its tower, which may have an impact on both the decision to migrate as incentives to shift some of their money earned abroad to their countries original. In fact, the degree of instability is measured by the national inflation rate. However, the expected effect of inflation is ambiguous and unclear. Indeed, on the one hand, an unstable macroeconomic environment creates incentives to migrate abroad. Therefore, high inflation could have a positive impact on remittances.

And on the other hand, the increase in inflation implies a strong uncertainty about future price changes, and this leads to a reduction in yield of the money paid. And in this case, the expected impact of inflation on remittances is negative. We also introduced the variable GDP per capita in log, since it indicates the overall level of development of a country. Therefore, we expect to have a negative coefficient in the case of regression of

remittances. This is explained by the fact that the presence of a large GDP implies among others a high level of development, the motivations of migration and remittance of funds are relatively low. We expect, as well, that the GDP will keep a negative sign in the case of ODA. While most less developed countries will need more that help to stimulate its development. On the contrary, in the case of FDI flows, we expect to have a positive coefficient, since most developed countries also tend to have significant financial markets, and are therefore more attractive to investors. And to monitor the stability of the regression coefficients of the different groups of countries, we will introduce dummy variables for each group of country.

Indeed, the sample's construction has respected the country's classification made by CAD according to the level of Gross National Income per capita, as illustrated in Appendix 1. It should be remembered that all these developing countries have in common, the benefit of official development assistance and the importance of remittances received as percentage of their GDP. These percentages vary between 2% and 30% of GDP.

THE MODEL:

$$\log(Oda_{it})=\alpha_i+\alpha_1 m_{1i}+\alpha_2 m_{2i}+\alpha_3 m_{3i}+\alpha_4\log(Gdp_{it})+\alpha_5\log(G_{it})+\alpha_6\log(Opness_{it})+\alpha_7\log(m2_{it})+\alpha_8\log(Infla_{it})+\varepsilon_{it} \quad 1$$

$$\log(Rem_{it})=\alpha_i+\alpha_1 m_{1i}+\alpha_2 m_{2i}+\alpha_3 m_{3i}+\alpha_4\log(Gdp_{it})+\alpha_5\log(G_{it})+\alpha_6\log(Opness_{it})+\alpha_7\log(m2_{it})+\alpha_8\log(Infla_{it})+\varepsilon_{it} \quad 2$$

$$\log(Fdi_{it})=\alpha_i+\alpha_1 m_{1i}+\alpha_2 m_{2i}+\alpha_3 m_{3i}+\alpha_4\log(Gdp_{it})+\alpha_5\log(G_{it})+\alpha_6\log(Opness_{it})+\alpha_7\log(m2_{it})+\alpha_8\log(Infla_{it})+\varepsilon_{it} \quad 3$$

m1i = 1 if the observation belongs to "least developed countries" and 0 in another case; m2i = 1 if the observation belongs to "low income countries" and 0 in another case; m3i = 1 if the observation belongs to "lower middle income group countries and territories" and 0 in another case. Since we have four regions, we used three dummy variables to avoid falling into the dummies trap, that is to say estimating perfect collinearity. In the "upper middle income bracket countries and territories" dummy variable is the reference variable. m1i = 1 if the observation belongs to "least developed countries" and 0 in another case; m2i = 1 if the observation belongs to "low income countries" and 0 in another case; m3i = 1 if the observation belongs to "lower middle income group countries and territories" and 0 in another case. Since we have four regions, we used three dummy variables to avoid falling into the dummies trap, that is to say estimating perfect collinearity. In the "upper middle income bracket countries and territories" dummy variable is the reference variable.

THE MODELS ASSUMPTIONS:

(i) H1: Macroeconomic determinants keep the same sign for both the first and the second equation;
(ii) H2: During the comparison of the effect exerted by the macroeconomic determinants of our model, we note a presence of convergence between ODA and remittances. By cons, there is some discrepancy between these two sources, and foreign direct investment;
(iii) H3: existence of a correlation between remittances and official development assistance

METHODOLOGY:

Our model is based on panel data which has the advantage of addressing the joint common and specific effects. However, models based on panel data raise the problem of the correct specification of the effect that is either common or specific. It is first necessary to distinguish the specific effects and the common effect.

RESULTS AND DISCUSSION:

The estimation results are shown in the following tables

Table 1: The estimation results of Equation 1

Period	All the sample	P1-(1981-1990)	P2-(1991-2000)	P3-(2001-2010)
Constante	-0.877 (-0.150)	1.967*** (3.31)	-0.186 (-1.37)	4.638*** (4.64)
Lgdp	-0.346*** (10.02)	-0.387*** (-6.17)	-0.512*** (-9.31)	-0.85*** (-8.03)
G	-0.710*** (-7.72)	-0.004 (-0.08)	-0.357*** (-3.53)	0.03 (0.75)
Lopeness	0.056 (30.38)	0.353*** (4.44)	0.085 (0.50)	0.508*** (3.79)

lM2	0.729*** (14.34)	0.009** (2.95)	0.003 (0.69)	0.079 (1.06)
Lifnl	0.582*** (0.86)	0.039** (2.11)	0.087** (2.86)	0.007 (0.23)
Dummy m1	0.146*** (1.23)	0.846** (2.22)	0.164*** (2.30)	0.601* (1. 78)
Dummy m2	-0.773 (-0.88)	0.083 (1.25)	-0.658* (-1.50)	0.046 (0.09)
Dummy m3	-0.557 (-1.20)	-0.019 (-0.05)	0.341** (2.10)	0.071 (0.24)
Obs	710	710	710	710
N	71	71	71	71
R2 Within	0.721	0.022	0.111	0.091
R2 Between	0.103	0.621	0.415	0.473
R2 Overall	0.690	0.603	0.311	0.300

Note: The endogenous variable is the official development assistance as a percentage of GDP
*, **, *** Indicate statistical significance respectively at 10%, 5% and 1%.

Table 2: The estimation results of Equation 2

Period	All the sample	P1-(1981-1990)	P2-(1991-2000)	P3-(2001-2010)
Constante	-0.709*** (1.30)	-0.019*** (-0.03)	-0.443 (-0.24)	2.210* (1.69)
Lgdp	-0.083*** (-6.83)	-0.029* (-1.76)	-0.081*** (-3.09)	-0.242*** (-6.13)
G	-0.093*** (-19.51)	-0.009** (-1.99)	-0.004 (-1.08)	-0.088* (-1.91)
Lopeness	0.128*** (15.71)	0.152 (1.48)	0.759*** (4.76)	0.876*** (6.21)
lM2	0.033*** (4.86)	0.148*** (1.93)	0.047 (0.42)	0.014 (0.19)
Linfl	0.077*** (4.11)	0.041* (1.58)	0.088 (1.34)	0.126*** (4.12)
Dummy m1	-0.569** (-2.09)	0.126 (0.22)	0.172 (0.35)	0.335 (0.77)
Dummy m2	-1.466*** (-3.44)	0.103*** (4.64)	0.712 (0.95)	0.715 (1.06)
Dummy m3	-0.884 (-3.26)	-0.047 (-0.03)	0.297 (0.62)	0.881** (2.06)
Obs	710	710	710	710
N	71	71	71	71
R^2 Within	0.613	0.002	0.153	0.242
R^2 Between	0.233	0.503	0.414	0.453
R^2 Overall	0.527	0.488	0.350	0.392

Note: The endogenous variable is remittances as a percentage of GDP
*, **, *** Indicate statistical significance respectively at 10%, 5% and 1%

In the case of individual effects model, the question is how these effects should be specified. We need to answer the following question: Should we accept the hypothesis of randomness or otherwise assuming fixed effect? It is an examination of the model and a check on its nature; that is to say, if they are specified as fixed effects (Estimator within) or random ones (Estimator between). The choice between these two effects is conducted through the Hausman test (1978). In our case, all three models are random effects.

Both tables 1 and 2 which summarize the estimation results of the remittances and determinants of ODA show that the coefficients associated to GDP per capita of the country of origin (LGDP), is negative as expected, and statistically significant as well for the three periods for the entire period of study. In fact, GDP per capita is an

indicator of the development level of the country. So, if this indicator is high, incentives to migrate will be relatively small and therefore remittances are significant in their laps. This result confirms the works of Raju Singh (in January), Markus Haaker and Kyung-woo Lee (2009) who have shown that remittances to sub-Saharan Africa do not seem to play a role in shock absorption. The coefficient of GDP per capita in migrants' country of origin has a negative sign regardless to the choice of estimation methods of these studies. Thus, when adverse economic shocks decrease incomes in their country of origin, migrants rely on more funds to protect their families from these shocks. Consequently, in this case, migrants should send more money if those who receive it are getting poorer.

Likewise, the coefficient keeps a negative and statistically significant sign for the Equation 1 corresponding to the estimation of the determinants of the official development assistance. Indeed, the less the country is developed the more it needs help. As a result, a high GDP per capita has a negative impact on the flow of official capital. We point to the first two equations in the period from 1 to period 3; the negative sign associated with the variable GDP per capita becomes increasingly important. Indeed, GDP per capita in the country of origin is an important measure of variability in amounts of development aid and remittances. This variable has undergone changes during the three decades of our study. In fact, the GDP per capita continues to evolve in many developing countries. This increase will have a negative effect on the official capital flow's amount given by official donors. It is the same effect exerted on the remittances sent by migrants to their countries of origin.

For the third equation corresponding to the Foreign Direct Investment inflows (FDI), the weight given to the GDP per capita is negative. But the results are not robust because the coefficient is not significant at 1%, as for the case throughout the period and for the last corresponding period in 2000, it is respectively equal to 0.366 and 0.138. Thus, an increase of 1% of GDP variable generates a changing flow of FDI, to developing countries in our sample, respectively, 0.366% and 0.138.

The examination of the inflation's impact[3] exerted on remittances is not clear. On the one hand, an unstable environment encourages people to migrate to developed countries and in this case, inflation has a positive impact on remittances. However, a high inflation rate implies a high degree of uncertainty about the future evolution of prices and this in turn leads to a weakening of the expected money paid by migrants to their families' yields. And in this case the inflation's impact will be negative. So, we cannot predict the sign assigned to inflation in the case of equation 2. Our estimation results showed that inflation has a strictly positive effect on remittances, and this confirms the results of Claudia M. Buch and Anja Kuckulenz (2004). However, this impact is robust except for the third period corresponding to the year 2000.

Expected to be positive the inflation's effect exerted on official capital flows, and this can be explained by the fact that the more a country is vulnerable the more it needs help. This economic vulnerability occurs by a high inflation rate. This is the case of our estimation. Indeed, the results of Table 10 showed that the inflation rate in developing countries has a positive impact, and it is statistically significant at 1% on cash assistance is a development period of study.

Therefore, inflation is a stimulator for official development assistance. However, in this context, it should be noted from Table 10 that the inflation rate has a greater impact during the first and the second decade while this effect decreases with the 2000s years. Thus, this coefficient has been degraded through column 1, corresponding to the estimate for the entire period; and the column 3, corresponding to the third decade of the study. He spent from 0.582% to 0.07%. Similarly, we note that it is not significant for the third decade of our study period. Indeed, the end of the second period and the beginning of the third one is marked by a large debate on the conditions of the ODA's effectiveness. The basic idea of these conditions is that the efforts to improve the "good governance" greatly increase the ODA's productivity. The same productivity is insignificant or even negative in poorly governed countries.

Indeed, the end of the second period and the beginning of the third one is marked by a large debate on the effectiveness's conditions of ODA. The basic idea of these conditions is that the efforts to improve the "good governance" greatly increase the ODA productivity; the same productivity is insignificant or even negative in poorly governed countries. In fact, that good governance is accompanied by sound macroeconomic policies manifested primarily due to lower rates of inflation. Therefore, a high inflation rate is likely to result in a lower or negative effect on the flow of official capital. This explains the drop associated with the variable inflation during the corresponding coefficient of the third period of the 2000s. Unlike its impact on ODA, inflation has a strictly negative effect on FDI. But the significance of this impact is scored for the second period.

Indeed, a high inflation rate reflects an unstable and vulnerable to invest economic environment, this instability is likely to decrease the FDI attractiveness.

[3] which is an index of the degree of macroeconomic instability

For the impact of financial deepening, measured by the ratio of money and quasi money as a percentage of GDP, it is expected to have a positive impact on remittances. And this is consistent with our results which showed that this ratio has a positive effect. However, this effect is not significant for the corresponding period in 1980. And this is consistent with the findings of Freund and Spatafora (2005) and that of January Raju Singh, Markus Haacker, and Kyung-woo Lee (2009).

This result is similar to that found in Equation 1 corresponding to the regression of ODA. And in this context, it should be noted that the weight assigned to this variable has suffered from an increase in the second period to period, as in the case of inflation, this is explained by the same arguments for inflation rate on the selection criteria for ODA. With the birth of ODA's selectivity criteria and its effectiveness conditions, financial depth is one of the macroeconomic policies required for official capital flows are effective.

The annual GDP per capita growth rate (g) is used to capture the attractiveness of countries for investment. It is then expected to have a positive impact exerted by this variable on FDI flows. This is not the case for the flow of official capital flows since these usually target countries with low economic growth. The results of our estimation show that the coefficient assigned to economic growth is strictly negative and is statistically significant at 1% level for the second and for the entire period in the case of the equation 1 corresponding to the regression of aid. It is respectively, -0710 and -0357. Thus, a change of 1% affecting economic growth leads respectively to 0.710% and 0.357%, respectively, for the entire period and for the second decade when our study is set. However this ratio is reversed and it becomes positive in the case of the third period. But it is not significant for this period corresponding to the 2000s. Based on the selectivity criteria which marked the end of the 1990s and early 2000s, aid is usually granted to developing countries that are less vulnerable and that apply efficient macroeconomic policies. Therefore, during this period, low economic growth is no longer a pacemaker for the granting of official capital.

This is not the same case of the first period corresponding to the debt crisis when ODA is usually conveyed to the developing countries on the basis of weak economic growth in these countries. And it confirms the deductions made for the inflation and financial depth variable for the third period. The estimation of equation 3 shows that the GDP growth has a positive and statistically significant for the second period of 90 years on the level of 1% and that of 5% for the whole period effect study.

Thus, strong economic growth has a sturdy appeal of FDI flows. Similarly, we note that the GDP per capita has a negative and statistically significant impact on remittances, suggesting that the decision to remit is driven by high rates of return that can be obtained in the origin country of migrants. This coefficient is -0.083 and is significant at 1%. Thus, a 1% increase in g leads to a decrease of -0.083 remittances. It is also negative and statistically significant at 1% regardless of the period of study for the case of the regression in equation 1. Thus, there is a 1% increase in GDP per capita that leads to a decrease of 0.346%, 0.387%, 0.512% and 0.85%, respectively, for the entire period and for three decades of our study.

For "opness" measured by open trade and reflects sound macroeconomic policy rate, we can see in the case of the first equation that this variable has a significant impact on the period of study. However, this impact is significant only in the case of the third decade of our study. It should be remembered that this decade is the period following the emergence of the principle of aid selectivity where macroeconomic policies measured a low inflation, a large trade openness and efficient financial policies. The results of our assessments are summarized in the table below.

CONCLUSION:

Remittances have been largely ignored under the globalization and international finance despite the fact that these transfers are generally considered, especially from the 90s, as a source of external funding of important development.

However, the results of our estimates suggest that remittances may not only be more stable than private capital inflows providing more reliable access from the financial resources that can offer these private capital. In addition, they could help to overcome information asymmetries in the domestic financial markets and thus improve the quality of investment in developing countries.

Our results can be summarized as follows:

Firstly, remittances to developing countries have widely and gradually evolved over the past three decades. In contrast, official capital flows have regressed remarkably. Indeed, remittances represent, nowadays, the second largest source of external financing for development after FDI. This makes these remittances an important source of development finance in developing countries.

Secondly, we use panel regressions to find the remittances and capital flow's determinants namely ODA and FDI. In general, we find that the traditional variables such as economic growth, the level of inflation and economic development have a significant impact on the magnitude of remittances in receivers' countries. A likely explanation for these findings is that the remittances from workers share the same characteristics of official capital flows which in turn are driven by factors quite different compared to FDI.
Therefore, workers' remittances are largely determined by the market, but social considerations play an important role both in deciding how much money to pay and in migration. Given the results showing that remittances and ODA keep the same characteristics in terms of determinants that we considered, we conclude that these two external capital flows converge.

REFERENCES:

[1] Claudia M. Buch , Anja Kuckulenz et Marie-Helene Le Manchec (2002) .Worker Remittances and Capital Flows . Kiel Working Paper No. 1130 p3
[2] Jan Singh, Markus Haaker et Kyung-woo Lee (2009). "Determinants and Macroeconomic Impact of Remittances to Sub-Saharan Africa. IMF Working paper , August 2009, p 11
[3] Claudia M. Buch and Anja Kuckulenz (2004) .Worker Remittances and Capital Flows to Developing Countries". Centre for European Economic Research; April 2004 p23
[4] Caroline Freund and Nikola Spatafora (2008)."Remittances, transactioncosts, and informality".Journal of Development Economics 86 (2008) p 356–366
[5] Aggarwal, R., Spatafora, N (2005).Workers' remittances and economic development. IMF (2005). IMF, Washington, DC. Chapter II.
[6] Sander, C. (2003). Capturing a market share? Migrant remittance transfers & commercialization of microfinance in Africa. Paperprepared for the Conference on Current Issues in Microfinance, Bannock Consulting.
[7] Jessica Hagen-Zanker and Melissa Siegel (2007).The determinants of remittances: A review of the literature" . Working Paper MGSoG/2007/WP003; June 2007 Maastricht University
[8] Elbadawi, I. A. and Rocha, R., (1992). Determinants of Expatriate Workers' Remittances in North Africa and Europe".World Bank Working Paper Series 1038.
[9] Hillel Rapoport et Frédéric Docquier (2005) .The Economics of Migrants' Remittances. IZA DP No. 1531
[10] RICHARD H. ADAMS JR. (2008). The Determinants of International Remittances in Developing Countries.World Bank, Washington, DC, USA; Vol. 37, No. 1, p. 93–103, 2009
[11] Sokol Havolli (2006) .Determinants of Migrants' Earnings and Remittances: Evidence from Kosovo.Central Bank of the Republic of Kosovo (CBK), Glytsos, Nicholas (1997). Remitting Behaviour of "Temporary" and "Permanent" Migants: TheCase of Greeks in Germany and Australia. Labour 11 (3)P 409-435
[12] El-Sakka, M.I.T., and R. McNabb (1999).The Macroeconomic Determinants of Emigrant Remittances. *World Development* 27 (8): P1493–1502.
[13] Straubhaar, T. (1986).The Determinants of Remittances: the Case of Turkey. WeltwirtschaftlichesArchiv 122 (4): p 728–40.
[14] Sayan, S. (2004). Guest Workers' Remittances and Output Fluctuations in Host and Home Countries: The Case of Remittances from Turkish Workers in Germany. Forthcoming in Emerging Markets Finance and Trade.
[15] Lucas, R. and Stark, O., (1985).Motivations to Remit: Evidence from Botswana, *The Journal of Political Economy*, 93, p. 901-918.
[16] Alesina, A. and D. Dollar, (2000).Who Gives Foreign Aid to Whom and Why?. Journal of Economic Growth 5(1) p 3363.
[17] B. Bhaskara Rao1, Gazi Mainul Hassan , (2010). A panel data analysis of the growth effects of remittances. Economic Modelling, ECMODE01898; No of Pages 9
[18] Balasubramanyam, V. N., Salisu, M., & Sapsford, D.(1996). Foreign direct investment and growth in EP and IS countries. Economic Journal, 106(1) p 92105.
[19] Barajas, A., Chami, R., Fullenkamp, C., Gapen, M., Montiel, P., 2009. Do workers' remittances promote economic growth? International Monetary Fund WorkingPaper No. WP/09/153.
[20] BendeNabende, A., Ford, J., Santoso, B., & Sen, S., (2003). The interaction between FDI, output and thespillover variables: Cointegration and VAR analysesfor APEC, 196599. Applied Economics Letters,10(3)
[21] Blomstrom, M., Lipsey, R., & Zejan, M. ,(1996).Is fixed investment the key to economic growth?. Quarterly Journal of Economics, 111(1). P 269-76.

[22] Boone, P, (1994).The impact of foreign aid on savings and growth. Mimeo, London School of Economics.
[23] Borensztein, E., Gregorio, J., & Lee, J. (1998).De How does foreign direct investment affect economic growth. Journal of International Economics. p 45(1)
[24] Borjas, G. (1995).The Economic Benefits from immigration. Journal of Economic Burnside, C. and D. Dollar, (2000). Aid, Policies and Growth. American Economic Review, 90, 4 P 847–68.
[25] Burnside, C., and D. Dollar, (2004). Aid, Policies and Growth: Revisiting Evidence. Policy Research Working Paper 3251. World Bank. Washington, D.C.
[26] Cassen, R., and Associates.(1994) . Does Aid Work? 2 nd ed. Oxford: Clarendon Press.
[27] CarlJohan Dalgaard, Hhenrik Hansen et Finn Tarp, (2004). On the empirics of foreign aid and growth. The economic journal.114, F 191 F 216, Royal economic society 2004
[28] Cassen, Robert , (1985). Does Aid Work?. Oxford: Oxford University Press.
[29] Catrinscu, LeonLesdesma,Piracha et Quillin (2008). Remittances, Institutions, and Economic Growth', World Development Vol. 37, No. 1, p. 81–92, 2008 Elsevier
[30] Chami R, Fullenkamp C and Jahjah S (2003). Are Immigrant Remittance Flows a Source of Capital For Development?. Washington, D. C. : IMF
[31] Chauvet, L. and P. Guillaumont, (2002). Aid and Growth Revisited: Policy, Economic Vulnerability and Political Instability. paper presented at the Annual Bank Conference or Development Economics on Towards Propoor Policies, June, Oslo.
[32] Chenery, H.B. and Strout, A.M., (1966). Foreign Assistance and Economic Development.American Economic Review 56(4): 679733.
[33] Denis Cogneau, JeanDavid Naudet, (2003).Une critique du principe de sélectivité pour l'allocation de l'aide. Dialogue numéro 23, Juin 2003.
[34] Dilip Ratha and Sanket Mohapatra, (2007), Development Prospects Group The World Bank Washington D.C. 20433November 26, 2007
[35] Dollar, D, and V. Levin, (2004).The Increasing Selectivity of Foreign Aid, 1984-2002. World Bank Policy Research Working Papers 3299, World Bank: Washington DC.
[36] Durbarry, R. N. Gemmell, and D. Greenaway., (1998). New Evidence on the Impact of Foreign Aid on Economic Growth. CREDIT Research Paper 98r8, University of Nottingham.
[37] Durham, J. B, (2004).Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. European Economic Review, 48(2) P.285-306.
[38] Easterly, William, *(*2003).Can Foreign Aid Buy Growth?.Journal of Economic Perspectives, Vol. 17, No. 3, pp. 23-48.
[39] Faini, R. (2002). Migration, remittances, and growth. http://www.wider.com

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