Remittances’ Impact on the Labor Supply and on the Deficit of Current Account

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Abstract

Remittances as one of the main benefits of international migration have a great and important impact on the countries of origins and make migration a topic of special interest for many researchers. Workers’ remittances represent an important financial flows and a major source of private external finance for many developing countries, which they receive them in large quantity. For many economies, remittances represent a sizable and stable source of funds that sometimes exceed official aid or financial inflows from foreign direct investment. One substantial drawback of remittances is that it means developing economies lose their best, most skilled young workers. It can lead to a situation where so many adults have migrated to a richer country; children are being brought up by grandparents. This has both an economic and social cost. The economy loses because young workers are not available; society loses out by the displacement effect of young adults not being there. On the other hand, people wouldn’t undertake the upheaval of moving to other countries, if they didn’t think their families would benefit and the country benefits too. The free movement of labor enables greater opportunities for people in developing economies and also helps developing economies gain important foreign currency revenue. Developed countries benefit from a more elastic supply of labor, enabling greater labor market flexibility. Remittances may increase consumption and enhance investments and have a significant impact to finance economic growth in receiving economies. In particular, migrants’ transfers of funds, being inflows of foreign currencies that can be used to repay foreign debt, are less volatile compared to other financial flows. For some countries money sent back in the form of remittances from migrant workers are mostly used for consumption and investments and comprise a substantial portion of GDP and their balance of payments. This paper examines the impact of remittances as an income source to finance the balance of payment deficit. First, it documents the increasing share of remittances relative to other foreign capital flows to Albania and Southeast countries, distribution of remittance inflows across countries. This is followed by some analysis of the potential benefits and costs of remittances in recipient countries. The paper drawing on the case of Albania, Serbia, Bosnia Herzegovina, Moldova, Bulgaria, Romania and Republic of Macedonia, the paper shows the positive impact that rising remittances can have on the improvement of current account balance. Finally, also examines the role of remittances in funding decreasing Albanian National Debt.
Workers’ remittances to Albania are nevertheless an important financial flow—with perhaps, significant developmental effects. Albania earns a large amount of worker’s remittances which since 1992 they have grown rapidly. It is well known that they represent the second largest inflow of incomes, are less costly and increased mostly consumption level. Our results point the positive impact of remittances in financing the deficit of the balance of payments and are a stable source of incomes.

Keywords: Workers ‘remittances; international migration; deficit of current account; national debt

JEL: F 24, F 22, H 63, C 01
1. Introduction

International migration is an international and very widespread phenomenon, which has complex and very significant effects for the origin and destination countries and is very important for the transition process for the developing countries. During the years of migration individuals and families have changed the way of life and thinking, also their economic, social and cultural conditions have changed and been improving during the years. Migration increases the size of the overall economy and the demand for labor, improvement of the living standards and the development of the country. One of the main positive consequences of migration are remittances, which represents an important source of incomes in the country of origin and have a great significant impact on the household livelihood, lead to higher consumption, better access to the goods and services market and the possibility of accumulating assets and investment. The reasons that people migrate are various such as; economic factors, public security, weak institutions, education possibilities etc. Economic condition and factors are the main reasons that have pushed individuals to migrate such as; lack of employment possibilities and difficult living conditions. One of the main and most important causes of migration is the high rate of unemployment in the country of origin. Leaving the country for many people has been very difficult and painful because they have left behind their families and beloved familiaris. Also the origin country have lost their labor force or we can say “selling” their labor forces to the most developed countries which has generated incomes – remittances, which are a growing and relatively market based on external source of incomes. Several data shows that developing countries has faced the cost of losing their labor forces but in the same time; lower labor supply has lowered the unemployment rate in the country of origin and generated incomes (remittances).

Remittance flows, funds received from migrants working abroad, are enormously important as a source of income in many developing countries (Giuliano and Ruiz-Arranz, 2005; Mundaca, 2005). Remittances for many families in the country of origin are seen as a mean of surviving but also they serve as an international redistribution of incomes. These transfers act as the international mechanism of social protection based on private transfers. The sustainability of remittances for many developing countries such as Albania and other southeast European countries is very important because they represent one of the main sources of incomes and also they depend on various factors such as migration pressures in the sending countries and the evolution of migration policies in advanced economies.

Remittances are relatively concentrated in a group of developing countries: the top 20 countries receiving worker remittances capture around 80 per cent of the total worker remittances to the developing world. In terms of value, the three main recipient countries are India, Mexico and the Philippines, while the three main source countries are the US, Saudi Arabia and Germany. Inflow of remittances affects economic growth positively by reducing current account deficit, improving the balance of payment position and reducing dependence on external borrowing (Iqbal and Sttar, 2005). Very important are the effects that remittances have on the overall economy specifically
on the macroeconomic variables such as consumption, investment, economic growth and balance of payments. Inflows of remittances increase the economic growth and reduce the poverty by stimulating the income of the recipient country, reducing credit constraints, accelerating investment, enhancing human development through financing better education and health [Calaro (2008); Jongwanich (2007); Stark and Lucas (1988); Taylor (1992); Faini (2002); Gupta et al.(2009)]. However Chami et al (2003) find that remittances have negative impacts on economic growth of recipient country because a significant flow of remittances reduce labor force participation and work efforts which lowers output. The indirect impact of remittances on unemployment through aggregate demand is more complex. It is obvious that remittances increase disposable income, and as result, directly or indirectly, is influenced positively over macroeconomic variables like consumption, investment and GDP and which finally decrease unemployment. In this paper, we try to analyze the effect that remittances have on the economy and also their impact in the current account balance and help in financing the national debt deficit.

2. Review of Literature

Many analysts have studied and examined the economic effects of remittances and has given a growing body of literature in recent years (Ozden and Schiff 2005). These studies serve to underscore the increasing importance of remittances provided by migrant workers from developing countries working in other countries. For instance, Ratha (2003) emphasizes the growing importance of remittances as a source of external funds for developing countries. The empirical evidence on the effect of remittances on economic growth, poverty, and income inequality has shown mixed results. For instance, Chami et al. (2003), covering 113 countries found that remittances had a negative effect on growth. The authors of the study attribute this negative effect on the moral hazard problem that remittances create. Essentially, the study concluded that income from remittances allows receiving families to decrease their own work and productivity, which then translates into a reduction in the labor supply for the developing country.

In a study conducted by IMF (2005) about the impact of remittances on growth over an extended period (1970-2003) for 101 developing countries found no statistical link between remittances and per capita output growth, or between remittances and other variables such as education or investment rates. However, this inconclusive result attributed to measurement difficulties arising from the fact that remittances may behave countercyclical with respect to growth. Faini (2002) and Ang (2007) found that the impact of remittances on growth is positive. Faini (2002) argues that remittances overcome capital market imperfections and allow migrant households to accumulate positive assets. Ang (2007) shows the relationship between workers’ remittances and economic growth at the national and at the regional levels in the case of Philippines. He found that at the national level remittances do influence economic growth positively and significantly.
When he broke down his analysis at the regional level to confirm the national results, he found that mixed results giving rise to his anecdotal observations that remittance do not positively affect economic growth. In sum, he concludes that remittances have to be translated to value-added activities and investments which are more foundational sources of development and growth. Glytsos (2005) using data for 1969-1998 for Egypt, Greece, Jordan, Morocco, and Portugal shows that the impact of remittances on output varies over time and across countries. For Egypt, Jordan, and Morocco the growth-generating capacity of rising remittances characteristic is smaller than the growth-destroying capacity of falling remittances. Therefore the large fluctuations in the real value of remittances contribute to large fluctuations of output growth and cause instability in the economies concerned.

Giuliano and Ruiz-Arranz (2005) gathered a sample of 73 countries during the 1975–2002 periods, and then calculated five-year averages for all variables used in their study to smooth out cyclical variations. Again, remittances were defined as the sum of workers’ remittances, employee compensation, and migrant transfers. This study conducted OLS as well as fixed-effects panel estimates, and through a system generalized method of moments (SGMM) procedure used internal instruments to account for possible endogeneity. The study’s basic specification regressed per capita GDP growth on the total remittances–to–GDP ratio, conditioning on the initial level of GDP per capita, the investment rate, population growth, the fiscal balance as a percentage of GDP, years of education, a measure of openness, and inflation. This specification did not find total remittances to be significantly related to growth. However, the authors also explored possible interactions between the total remittances–to–GDP ratio and financial deepening, as a way of testing whether remittances might enhance growth by relaxing credit constraints. Indeed, the authors found significant negative interaction terms and interpreted these results as indicative of the credit constraint hypothesis; total remittances appeared to have positive effects on growth only in countries with small financial sectors where presumably credit constraints would be more pervasive.

Another study, by Catrinescu and others (2006), incorporated institutional variables into the analysis, which covered 114 countries during the 1991–2003 period. Catrinescu and colleagues conducted OLS cross-sectional and various static and dynamic panel regressions of per capita GDP growth on the (log of) total remittances–to–GDP, controlling for initial GDP per capita, ratios of gross capital formation and net private capital inflows to GDP, and such institutional variables as the United Nations Human Development Index, six governance indicators as in Kaufmann, Kraay, and Mastruzzi (2003), and risk ratings from the International Country Risk Guide (ICRG). Overall, their study found a robust positive relationship between growth and gross capital formation, as well as between growth and some of the institutional variables. The study also found some evidence of a positive relationship between growth and total remittances, although this relationship was not very robust and, as the authors acknowledge, relatively mild. These instruments reflect the idea that income in the host country appears to be a key driver of remittances. The inverse of the distance between the migrants’ destination country and the
remittance-receiving country was also used in place of migration shares in the migration instruments described above to form “distance” instruments. The growth regressions found a consistently positive relationship between the total remittances–to–GDP ratio and GDP growth, both when investment was included and when it was excluded from the estimations. When investment was excluded, however, the coefficients lost their significance. The authors also calculated the contribution of total remittances to growth rates and found that it was small.

In case of Albania, a number of studies have been undertaken at micro as well as macro level that directly or indirectly focused on the impact of remittances on growth (Burney, 1987; Arif, 1999; Adams, 1998; Malik et al, 1993; Nishat al, 1993; Burki, 1991; Kozel and Alderman, 1990; Amjad, 1986; Nishat and Bilgrami, 1991). The general conclusion of these studies suggest that remittances have positive effects on economy of Albania in terms of aggregate consumption, investment, reduction in current account deficit, external debt burden and improve education/skills of the households. Furthermore, labor migration is considered to be a useful source of foreign exchange earnings (Naseem, 2004). Siddidui and Kemal (2006) explored the impact of decline in remittances on welfare and poverty in Albania. This massive inflow of remittances contributes in reducing current account deficit, increasing foreign exchange reserves, stabilizing exchange rate and reducing poverty. Remittances can increase consumption or stimulate investments in economies with liquidity constraints (Reilly and Castaldo, 2007; Woodruff and Zenteno, 2001). One of the first studies that examined the consequences of remittances on home countries is Funkhouser (1992), who finds that in Nicaragua that remittances increase self-employment for men and reduce the labor supply of women. However, from a development perspective, a decline in the labor supply in the recipient families should not necessarily be viewed as a negative effect. For instance, women in remittance receiving households may carry out both parenting and home production activities (Acosta, 2006). Since remittance inflows are simple income transfers, recipient households may rationally substitute unearned remittance income for labor income. Regardless of their intended use, remittance transfers may be subject to moral hazard problems (Chami et al., 2003). These problems may induce recipients to divert resources to the consumption of leisure, thereby reducing their labor market effort. There are cases in which members of remittance-receiving families reduce their labor market participation in Pakistan (Kozelt and Alderman, 1990) and in Caribbean Basin cities (Itzigsohn, 1995) The impact of remittances on the decision to work has been examined by Rodriguez and Tiongson (2001) in Manila. Without accounting for the endogeneity of remittances with respect to labor supply, they conclude that remittances reduce employment. Using household survey data from Moldova, Görlich et al. (2007) examine labor market inactivity by considering three potential explanations: a “disincentive effect” in which leisure is considered a normal good and non-labor income raises the reservation wage of a potential worker; a labor substitution effect, in which people in remittance-receiving households allocate more time to household production than their counterparts in the non-remittance-receiving households; an education effect, in which migration provides incentives for additional education and remittances are used to invest in the education of those remaining at home.
There are few empirical studies of the relationship between remittances and labor market issues in Albania. Konica and Filer (2009), using Albanian Living Standards Measurement Survey (LSMS) for 1996, suggest that remittances have a negative effect on female labor market participation due to higher income from abroad. This finding is consistent with studies conducted in other countries. In the Albanian case however, Konica and Filer (2009) find that neither the existence of emigrants in the household nor the amount of remittances received has an effect on labor force participation of Albanian males. Using data from the 2005 Albanian LSMS Kilic et al. (2007) measure the impact of past migration experience of Albanian households on non-farm business ownership through instrumental variables regression techniques. These results indicate that households’ past migration experience exerts a positive impact on the probability of owning a non-farm business. Using the same dataset, Dermendzhieva (2009) investigates the effect of migration and remittances on labor supply in Albania. A linear probability model is estimated for the probability of a household member to be working on the subsamples of male and female household members separately. Only after using the instrumental variable, Dermendzhieva (2009) obtains large and negative coefficients for receiving remittances for females and older males. To date the studies on Albania have focused mainly on the decision to work and have not considered that remittances may change the hours worked or the type of work performed in the receiving economy, without altering employment rates. Hence, by focusing on work performance a clearer picture of the allocation of labor supply across different types of employment can be established.

3. Macroeconomic Effect of Remittances

According to many studies remittances have huge macroeconomic impact on the economy. Different studies states and has created debates whether remittances has a positive, negative or any effect in macroeconomic growth. But there are seen three main consequences of remittances:

*Firstly,* different studies state that remittances may cause a similar situation to the Dutch disease. Acosta and Lartey found that whether altruistically motivated or otherwise, an increase in remittances flows leads to a decline in labor supply and an increase in consumption demand.

*Secondly,* Chami, Fullenkamp and Jahjahha would reduce the incentive of people to work (decreasing the labor supply), by creating a moral hazard problem and this would reduce the productivity of the country, giving negative effect in developing growth (Chami, Fullenkamp and Jahjahha, 2005).
Thirdly, remittances are used mostly for consumption and not for investments. A possibility has been pointed out that if the remittances be used as just consumption rather than investment, growth would not be gained (Ghosh, 2006). However, against the conclusion of Chami, Fullenkamp and Jahjahha (2005), Mansoor and Quillin have stated that the remittances appear to have a positive and statistically significant impact on growth (Mansoor and Quillin, 2006).

**Table 1:** Pros and Cons of Remittances

<table>
<thead>
<tr>
<th>Pros:</th>
<th>Cons:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing external deficits</td>
<td>Easing pressure on government to implement reforms for reducing external imbalances</td>
</tr>
<tr>
<td>Potential sources of saving and investment</td>
<td>Carriers of economic shocks, especially when a country is heavily dependent</td>
</tr>
<tr>
<td>Facilitating investment in education</td>
<td>Reduce labor efforts of recipient families</td>
</tr>
<tr>
<td>Raising Standard of Living recipients reducing poverty</td>
<td>Decrease of labor forces and negatively depending on economic growth</td>
</tr>
<tr>
<td>Reducing Poverty</td>
<td>Increase Inequality</td>
</tr>
</tbody>
</table>

Source: (www.iom.int)

In the case of wage remittances, they contribute to family consumption, they contribute to elevating the standard of living and welfare of receiving homes, and at the same time have an effect on the dynamics of economic inequality and the conditions of poverty. As for capital remittances, macroeconomics shows that they contribute to the savings-investment balance. As a source of investment, we can consider productive remittances as an instrument of economic growth which, together with other investment funds (foreign direct investment, private domestic investment, public investment, etc.), forms the basis of any development process. Indeed, we cannot confuse this impact of capital remittances on economic growth with a hypothetical impact on the welfare of the population and/or reduction of poverty, which is associated more with wage remittances. Thus emigration and remittances are seen as a consequence of underdevelopment, not as a manifestation of the global economy that integrates and subordinates these emigrating regions into the global and postindustrial economy. Moreover, emigration and remittances are also seen as an opportunity for these underdeveloped economies, as a resource that, if well-managed, would allow them to overcome the structural conditions or precariousness, poverty and inequality that led to labor emigration.
Table 2: Benefits and costs of remittances from international worker migration

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease foreign exchange constraints and improve balance of payments</td>
<td>Are unpredictable</td>
</tr>
<tr>
<td>Permit imports of capital goods and raw materials for industrial development</td>
<td>Are spent on consumer goods which increases demand, increases inflation and pushes up wage levels.</td>
</tr>
<tr>
<td>Are potential source of savings and investment for capital formation and development</td>
<td>Result in little or no investment in capital generating activities</td>
</tr>
<tr>
<td>Net addition to resources</td>
<td>High import content of consumer demand increases dependency on imports and exacerbates BOP problems</td>
</tr>
<tr>
<td>Raise the immediate standard of living of recipients</td>
<td>Replace other sources of income, thereby increasing dependency, eroding good work habits and heightening potential negative effects of return migration</td>
</tr>
<tr>
<td>Improve income distribution (if poorer/less skilled migrate)</td>
<td>Are spent on 'unproductive' or 'personal' investment (e.g. real state, housing)</td>
</tr>
</tbody>
</table>


Remittances are a fraction of the wages and remunerations of the migrant labor force in those global markets. They are a part of the pay that migrant labor receives, which has the same macroeconomic function as any other wage: the reproduction of the labor force. For the country of origin they represent a loss in their active labor forces but in the other hand it means a reduction in the unemployment rate. Remittances are undoubtedly a wage fund; this is their significance and function as a macroeconomic variable. But for the country of destination it will be a higher labor supply in the labor market. They are not only a part of the process of the transnational reproduction of the migrant labor force but also of the structural conditions of the social exclusion and labor precariousness faced by this labor force.

4. Remittances as an income source to finance the balance of payment deficit

As noted, remittances constitute a voluntary and unilateral transfer of resources to the receiving country, and as such appear in the current account of the balance of payments, and national accounts. Remittances can be expected to cause a widening of the external trade account deficit (including services as travel), or a narrowing of the current account surplus. As remittances increase purchasing power in the receiving country they augment domestic demand. Bouhgaghagbe found in their analyses, that “remittances almost cover the trade deficit and have
contributed to the recent surpluses of the external current account, as well as the overall BOP. The BOP surpluses have contributed to the strengthening of Morocco’s external position through the accumulation of reserves, which now cover the external public debt (Bouhga-Hagbe, 2004, p.10). A related phenomenon, resulting in positive flows, is the nostalgic expenditure of emigrants described by Orozco. This expenditure includes emigrant travel to the home country and consumption of home goods that increase exports from the home country. Overall, the effect of the remittances plus the expenditure of emigrants on the receiving country’s balance of payments in a first round will be positively offset by the increase in imports (and decrease in exports) as demand for both domestic and foreign goods rises.

As an unrequited transfer in the recipient country’s balance of payments accounts is instead a disguised capital flow—that is, that the migrant retains ownership of the resources sent to the home country, and the recipient simply invests these resources on the migrant’s behalf. This situation differs from that of a traditional capital inflow in that the domestic intermediary who is entrusted with investing the remitted funds is typically a family member, rather than a formal financial intermediary in the destination country. It is more likely to arise when the recipient country’s financial system is poorly developed, so domestic investors can reduce the external finance premium they face by borrowing from family members living abroad, rather than from a domestic financial institution. Although this situation has implications for the behavior of remittances (e.g., they should be responsive to return differentials between the economy in which the migrant resides and that to which he or she remits), its growth implications are less clear, for at least two reasons.

First, and most obviously, the demand for loans in the recipient country can arise to finance either consumption or investment. But second, even if the loan is intended to finance investment, adverse selection and moral hazard problems (aggravated by familial relationships and distance) make it uncertain that the loan funds will indeed be used for investment purposes or that, if they are, the resulting investment will be productive.

Theoretical and empirical literature on remittances is rich, as many studies on the motives, causes, and effects of worker’s remittances in the growth and development process have been conducted. According to Elbadawi and Rocha (1992) the determinants of remittances can be divided into two main categories—endogenous migration and portfolio approaches. The key determinants and the motivating factors behind the endogenous migration approach are economic situations facing the migrant and their family as well as demographic information describing the nature of family ties or the existence of other family arrangements (Chami, R., C. Fullenkamp, and S. Jahjah, 2005). The main determinants of the portfolio approaches to remittances include interest rate differentials on deposits between the host and home countries, rate of return on real estate in the home country, black market premium, inflation rates, political risk and uncertainty (Salisu, M., 2005). On the basis of these approaches, remittances can be divided into what (Wahba, S., 1991) describes as “fixed” and “discretionary” remittances. The fixed remittances
support the family leaving behind the home country while the discretionary remittances go to investment purposes.

Remittances are sometime difficult to measure, because it is calculated from the balance of payment data under the lines “worker’s remittances” and “compensation to employees”. But these are likely to understate the extent of remittances, as some remittance flows occur through informal (non-market) channels, and are excluded from the official records. It should be mention here that although various strategies to transfer remittance have taken over last one decade even the choice of remittance channel is 46% formal and 54%. The impacts of remittances are felt beyond the household and affect the national economy. High levels and/or large increases in remittance flows can have direct as well as indirect repercussions on the macro-economy. Remittances, specifically, have been acknowledged as critical sources of foreign exchange and macro-economic stability.

The literature notes that when remittances are significant they make a dent in the national balance of payments and their impact is felt in foreign exchange reserves and current account of the balance of payments of the receiving country (Ramamurthy, 2003). In simply words remittances are money sent home form emigrants working abroad. The amount of remittances depends on the number of migrants, the wealth of the countries where they go, their wages, intents, education etc. Remittances can be money or made in-kind and their channels of transportation can be formal or informal.

Remittances are seen as a key factor of financial inflow to many countries (mainly developing countries) as the stand the second after foreign direct investment and also they can be considered even the largest source of income. Usually remittances have an important influence in the economy of the poorest countries where the migration is in high levels rather than in developed countries. Remittances have a direct impact on consumption, investment and savings contributing so to economic growth but we are going to focus to the impact of remittances to trade balance. As financial inflow remittances affect the balance of payment. As remittances represent money flowing in, they improve negative balance of payment and cover the trade deficit financing the import. However there is another impact of remittances in opposite from what we said. This impact is the appreciation of the national currency because the total amount of money in country’s economy increases. This appreciation makes the exports more expensive and since the competition gets worse in the international area the economy will face a decrease in exports and an increase in imports. This phenomenon is called Dutch Disease and brings a trade deficit. As it could be seen, remittances may have a double effect in economy which can be handled by different policies.
Table 3: Albania potential benefit from remittances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>
| Domestic Demand               | • Multiplier effect on GDP through consumption  
• Reactivation of construction sector  
• Development of remittance-related activities  
• Support for investment (particularly microenterprises) | • Demand is heavily focused on non-productive  
• Economic activity is sensitive to changes in migratory cycles                                                                                                                                    |
| Current Account               | • Improvement in current account through balance of invisibles                                                                                                                                              | • Increased imports as a result of ostentation and imitation  
• Loss of competitiveness as a result of currency appreciation (risk of Dutch disease)                                                                                                           |
| Labor Market                  | • Higher reservation wage  
• Higher real wages (due to reduced labor supply)  
• Lower unemployment (fewer people looking for work)                                                                                                                                                    | • No incentive to work (culture of idleness)                                                                                                                                                            |
| Prices                        | • Imported disinflation (due to appreciation of currency)                                                                                                                                                     | • Increase in money supply  
• Increased demand for non-tradable goods  
• Higher production costs (due to increase in real wages)                                                                                                                                               |
| Financial systems             | • Increased functional efficiency (more competition between financial intermediaries)  
• Increased balkanization among remittance recipients                                                                                                                                                     | • Risk of money laundering                                                                                                                                                                               |
| Public finance                | • Increased tax revenue  
• Lower social expenditure  
• Lighter debt burden (greater access to international financing)                                                                                                                                          | • Moral hazard (growing public debt)                                                                                                                                                                     |
| Human and social capital      | • Increased investment in education and health care  
• Organization of emigrant networks for the sending of collective remittances                                                                                                                                 | • Collateral problems: brain drain and break-up of families                                                                                                                                              |
| Poverty and Inequality        | • Reduced poverty  
• Steady income for retirees  
• Funding of social projects by emigrant associations                                                                                                                                                      | • Increased social and geographic inequality  
• Strong financial dependence on the part of recipient households  
• Risk of reduced social spending (remittances take its place)                                                                                                                                          |

Source: Authors literature review and findings

Remittances offset chronic balance of payments deficits, by reducing the shortage of foreign exchange. These transfers can help to ease the often crucial restraint imposed on the economic
development of the migrants’ home countries by balance of payment’s deficits. They have a more positive impact on the balance of payments than other monetary inflows (such as financial aid, direct investment or loans), because their use is not tied to particular investment projects with high import content, bear no interest and don’t have to be repaid. In addition, remittances are a much more stable source of foreign exchange than other private capital flows and for certain countries they exhibit an anti-cyclical character (Buch et al., 2002; Buch and Kuckulenz, 2004; Nayyar, 1994; Straubhaar, 1988). Developing countries quickly recognized this obvious and clearly estimable positive balance of payments effect of remittances, and measures were taken to increase such inflows of foreign exchange. But such measures must be implemented with care, because apart from the positive balance of payments effects, remittances have an impact on the economic activity in the home country. Depending on how they are spent or invested, their effects on production, inflation and imports will be different.

As Albania moved from a centrally planned economy to a market-oriented one, after the big political and economic changes in ’90, the level of import was highly increased. There was a lack of products in the market as a result of a higher demand for goods and services and the impossibility of domestic production to respond to this demand. During years this level (in absolute terms) continued to rise. While the export compared to GDP (Gross Domestic Product) was and still is in small levels. Although the growth of the level of export over years, the trade deficit continues to widen. This severe imbalance shows that Albania continues to be an import-oriented economy. In 2009 total import reached 430.945 million Albanian Lek (a decrease of 1.8% from 2008) and the total export reached 102.898 million ALL (a decrease of 8.1%) with a trade deficit of 26.6% of GDP.

**Figure 1**: Albania Current account to GDP 1992 – 2013

Source: World Bank Database 2014
During the period, a negative balance due to the decrease of exports and the sharp increase of imports characterizes the Albanian foreign trade. In 1992, the trade deficit in Albania was 470 million USD, whereas in 1998, it reached 588 million USD. 71% of the trade deficit is with Greece and Italy, two its main trade partners. This trade deficit, during the period 1991 – 1998, is covered 32% - 81% by remittances. The Albanian economy suffers from a trade deficit, albeit a declining one. In 2010, Albanian exports totaled $1.194 billion while imports totaled $3.602 billion – which decreased significantly from $4.898 billion in 2009 when exports remained at a similar figure of $1.345 billion. Albania exports textiles and footwear, asphalt, metals and metallic ores, crude oil, vegetables, fruits and tobacco. Its primary export trading partners Italy are (55.9% of exports), Greece (11.6%), China (7.2%), Italy (27.6%), Greece (14.8%), Turkey (7.4%), China (6.8%), Germany (5.6%), Switzerland (5%) and Russia (4.2%). Albania’s primary imports include machinery and equipment, foodstuffs, textiles and chemicals. It imports from Italy (32.2% of imports), Greece (13.1%), Turkey (7.2%), Germany (6.6%), China (4.5%), Russia (4.4%) Italy (27.6%), Greece (14.8%), Turkey (7.4%), China (6.8%), Germany (5.6%), Switzerland (5%), Russia (4.2%). Italy dominates both imports and exports, while Greece is its second two-way trading partner. From the analysis of the trade balance we can draw the conclusion that emigrants’ financial flows, under the conditions of the lack of the microeconomic restructuring, are recycled abroad, or more correctly mainly to their country of origin by the means of imports.

**Figure 2: Balance of payments and remittances’ flows trend**

Actually, in Albania, the remittances are playing an important role for the development of small family enterprises and the employment. Those enterprises are mostly created in the sectors of trade and services and represent 84% of the overall number of the enterprises. Meanwhile, the
rural families that don’t have their members in emigration and are entirely engaged with the agricultural and processing activities in their farms earn annual income that is 2-3 times less than the income of the families that have someone in emigration. This difference has stimulated and is still stimulating two negative phenomena.

First, the families with income from emigration are investing in housing or for their living improvement in general, thereby neglecting the farm and the agricultural activity in general. Second, the group of the farmers that have nobody in emigration are becoming disgruntled with their income level from their work in farm and are thinking about either emigration or off agriculture and off village activities. If these trends continue in the future, then the young generation considering the lack of the jobs or the low level of the income would constantly want to emigrate. The value of remittances sent by Albanian emigrants however is still less than that sent by emigrants in other Mediterranean countries; in 1991 the value was about a tenth compared to the transfers sent to Portugal and Yugoslavia and half of those sent in Tunisia.

The size of remittances flowing to Albania in the period 1992-2010 was indeed enormous both in absolute and relative terms. According to the Bank of Albania a total of 778.1 million USD was transferred from the immigration countries to Albania in 2003, an amount representing 11.4 percent of the GDP (almost the size of an economic sector), almost three times the FDI inflows, covering more than 50 percent of the country’s trade deficit on average (Bank of Albania, 2004). According to the World Bank a total of 1,156 mill. $ was transferred to Albania almost two times than FDI inflows. But according to the dates we can see that there is a decline in the level of remittances after 2009 because of the financial crisis.

Figure 3. Remittances flows and Current Account trend

Source: IMF World Economic Outlook 2013
Remittances have shown to be reasonably stable and less volatile than FDI but having a null effect in the monetary equilibrium. (Buch and Kuckulenz, 2004). They have contributed significantly to the development of tourism since a good share of emigrants, in particular those settled in Greece or Italy choose to spend their summer vacations in Albania, together with their families or relatives. As noted by the Bank of Albania (2010), the money spent by emigrants during the tourist seasons constitutes a significant share of the revenues from tourism in Albania.

5. Remittances flows in Southeast Europe and their impact on the Current account deficit

According to the data, the Southeast Europe region is one of the most remittance recipients in the world. This countries has created a large number of emigrants, which the main motive is the economically factor, as well as the strong family relationship. According to the latest World Bank (December, 2013) data for 2013, the largest recipient countries of remittance flows are: India, China, Mexico, Philippines, France, Pakistan, Germany, Bangladesh, Belgium and Spain. It is evident that the list of top 20 remittance recipient countries includes high-income countries as France, Spain, Germany and Belgium, but the amount of received remittances as a share of the GDP, in these countries, is insignificant. As one would expect, in 2010 remittances received by the top 10 developing recipient countries represented 45 percent of the total remittance inflows. This is not unusual having in mind that 8 of those countries are included in the group of top 20 emigration countries in the world. The most important receiving countries by a share of remittances in GDP in 2012 (World Bank, December, 2013), were: Tajikistan, Lesotho, Samoa, Moldova, Kyrgyz Republic and Nepal. Remittance inflows in these countries are more than 20 percent of GDP. From the group of 24 countries that have remittance inflows above 10 percent of GDP, 7 countries belong to the region of Europe and Central Asia, while 7 of them belong to the Southeast Europe region (Albania, Serbia, Bosnia Herzegovina, Moldova, Bulgaria, Romania and Republic of Macedonia).

As shown in figure 2, the total amount of remittance inflows (compensation of employees, workers' remittances and migrant transfers), or of current transfers, net (defined in accordance with the BOP definition), is one of the most important items of the balance of payments, and they largely contribute into providing sustainable balance of payments, especially for covering the deficits in the foreign trade.
The simplest way to explain the importance and the size of remittances in Southeast Europe is to express them as a share of GDP (Figure 4). From the figure 4 it is evident that this percent is more than significant, and in some countries it reaches 34.7 percent (e.g. Moldova in 2006).

Over time, remittances have become one of the main important sources of incomes of migrant’s families and with positive effects on economic growth. Remittances started to grow sharply in 2003 – 2004, which also reflected the increase in the number of migrants. The growth trend of remittances was affected by the crisis period in 2008, but then in 2010 transfers started to increase again. With the exception of Bosnia and Herzegovina, where the data shows a decreasing trend over time (as a result of GDP growth in recent years, and low coverage of remittances flows), all other countries have stable remittance inflows over the period 2000-2008 (Albania, Serbia and Bulgaria), or a continual trend of growth (Romania, Moldova and Republic of Macedonia). A slight slowdown in remittances growth since the second half of the last decade caused a reduction of their share in GDP, from 34.7% in 2006 to 22.3% in 2011, yet the Republic of Moldova ranks the third country in the region of Europe and Central Asia as regard remittances’ weight in GDP and their per capita value (Stratan et al., 2013). Over 30% of Moldova’s exports are tied to remittance based finances. Remittances therefore look set to play an increasingly important role in the Moldovan economy and may see an increase in the emigration flows of Moldovans in the foreseeable future.

Remittance inflows declined in 2009 in almost all of the analyzed countries (with the exception of Serbia and R. Macedonia), due to the global crisis that caused remittance inflows in developing countries to fall by 5.2 percent.
Remittance inflows in 2009 had an effect on reducing the current account deficit by almost 4 times in Moldova, 2 times in Serbia, and almost 2 times in Albania. On the other hand, it is obvious that remittances, when they are mostly spent on imports, can by themselves create trade
deficits. Even in that case, it is clear that such deficits are self-financing and pose no threat to balance of payments stability.

**Figure 6: Workers’ remittances and FDI flows**

Albania

![Graph of Albania's workers' remittances and FDI flows](image1)

Bulgaria

![Graph of Bulgaria's workers' remittances and FDI flows](image2)

Bosnia and Herzegovina

![Graph of Bosnia and Herzegovina's workers' remittances and FDI flows](image3)

Moldova

![Graph of Moldova's workers' remittances and FDI flows](image4)

Serbia

![Graph of Serbia's workers' remittances and FDI flows](image5)

Macedonia

![Graph of Macedonia's workers' remittances and FDI flows](image6)
Starting from 1992, foreign direct investments represent one of the main sources for developing countries but a very important source for external financing are remittances, which they show more stability, contra cyclicality and sustainability, even in the cases of global economic and financial crises. Only in Bulgaria and Romania, remittance inflows are ranked behind foreign direct investment as a source of external funding. In other four countries (Albania, Bosnia and Herzegovina, Macedonia and Moldova) remittances are significantly larger than other types of capital flows. This is in line with international experience, which confirms that poorer and smaller countries receive relatively larger remittances. Inflows from portfolio investments are negligible by size, indicating a high level of underdevelopment of the secondary stock exchange markets in these countries. Official aid for development represents capital flows without any obligations for future repayments and with certain degree of stability over the years. But usually they are considered as a limited and highly dependent source of external funding, which cannot promote sustainable economic growth.

6. Impact of Remittances on National Debt

In less developed countries, governments use national debt as an imperative tool to finance its expenditures. Economic growth can be increased by effective and proficient utilization of resources to achieve macroeconomic goals. However, if the national debt is not properly utilized, it would restrict economic growth and become the biggest curse for the economy. National debt is one of the major economic issues facing the governments of developing countries.

There are several reasons of national debt. First, it is used to finance budget deficit. Second, it is used to implement monetary policy through open market operations. Third, there is need to develop and deepen the financial markets by the instruments of national debt. National debt can have severe implications for the economy as well. National debt servicing absorbs a major part of
government revenues. So, government has fewer resources to spend on development projects. In this way, national debt servicing is more harmful for the economic growth than the stock of national debt.

But developing countries such as Albania that has gone through a transition process and has been facing with a large number of emigrated people and high remittances inflows, which may have a very crucial impact on national debt and especially in financing it. Remittances in Albania represent the second largest flow of incomes and have shown an important impact in main macroeconomic variables, such as national debt.

**Figure 7: Remittances inflows and National Debt as a % GDP**

![Graph showing Remittances inflows and National Debt as a % GDP](source: IMF database 2014)

6.1. An empirical investigation of the effect of remittances on national debt

The notion that remittances have a significant effect on financing the national debt may at first be surprising, since governments have no direct claims on these person-to-person transfers. The fact that remittances enter the recipient economy through family transfers means that remittances affect national debt sustainability indirectly through the activities of remittance-receiving households, primarily through their consumption decisions and saving patterns. In this respect remittances are quite different from natural resources, which governments may own and from which they derive revenue, and public aid transfers, which enter the government budget constraint directly.
Since remittances contribute to higher consumption of domestic and imported goods, they may affect government’s revenues through consumption- and trade-based taxation. Furthermore, remittances may lead to increased deposits in the banking system and, to the extent that the marginal propensity to consume is less than unity, they may increase the level of private saving. Both of these channels may affect fiscal policy through credit market activity. As a result, remittances can play an important role in the assessment and finance of a country’s debt, since they alter the fiscal balance and the evolution of the stocks of public and private sector liabilities over time. To examine the impact of remittances in financing the debt levels, data were assembled from the IMF World Economic Outlook database and the World Bank’s World Development Indicators for the Albanian economy, based on the ratio of remittances to GDP between 1992 and 2013.

**Model:**

\[ Deb_t = b_0 + b_1 \text{Re}_{t-3} + b_2 Deb_{t-1} \]

\[ Deb_t = 0.63 - 0.404 \text{Re}_{t-3} + 0.73 Deb_{t-1} \]
Results:

Dependent Variable: DEB
Method: Least Squares
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Sample: 1998 2013
Included observations: 16
Convergence achieved after 5 iterations

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Adjusted R-squared 0.908108  S.D. dependent var 0.063798
S.E. of regression 0.019340  Akaike info criterion -4.885966
Sum squared resid 0.004862  Schwarz criterion -4.741106
Log likelihood 42.08773  Hannan-Quinn criter. -4.878548
F-statistic 75.11764  Durbin-Watson stat 1.930103
Prob(F-statistic) 0.000000

Inverted AR Roots .73

Autocorrelation test and partial correlation

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Sample: 1998 2013
Included observations: 16
Q-statistic probabilities adjusted for 1 ARMA term(s)

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Normality test

Breusch-Godfrey Serial Correlation LM Test:
F-statistic 0.015495
Prob. F(2,11) 0.9846
Obs*R-squared 0.044948
Prob. Chi-Square(2) 0.9778

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 04/14/14   Time: 10:41
Sample: 1998 2013
Included observations: 16
Presample missing value lagged residuals set to zero.

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Sum squared resid 0.004849  Schwarz criterion -4.397346
Log likelihood 42.11024  Hannan-Quinn criter. -4.626416
F-statistic 0.007747  Durbin-Watson stat 1.965399
Prob(F-statistic) 0.999860

Serial correlation test LM

Breusch-Godfrey Serial Correlation LM Test:
F-statistic 0.007747
Prob. F(2,11) 0.999860

Test Equation:
Dependent Variable: RESID
Method: Least Squares
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Sample: 1998 2013
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Presample missing value lagged residuals set to zero.
Heteroscedasticity Test

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<td>Prob(F-statistic)</td>
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From the table we observe that value of regression coefficient of worker remittances is -0.403720 which means that an increase in one million-worker remittances decrease the national debt by about 0.403720 million. This effect is very strong and statistically significant also showing that there is a time lag by three years in financing the national debt. Workers’ remittances can positively affect national debt through a number of channels. Firstly, remittances may reduce credit constraint of household receipts so that entrepreneurial activity and private investment could increase (Yang, 2004; Woodruff and Zenteno, 2004). In developing countries, households face less efficient financial markets so that access to credit markets appears to be their prime concerns. Remittance inflows could assist households to set up their entrepreneurial activity and also help to finance education and health which are main variables in enhancing long-term economic growth.

Secondly, remittances could develop a country’s creditworthiness and thus boost its access to international financial markets. World Bank (2006) explains that the country credit ratings also
depend on its size of remittance flows. Thirdly, remittance inflows could produce positive effects to economic growth through multiplier effect mechanisms. There are backward and forward linkages in investment activities so an increase in investment of one household could increase the other household income. In the context of increasing returns, the expansion of one sector could increase the size of other sectors.

Conclusions

Migration has a high price for migrants’ them-selves, both in financial and deeply human terms, as they uproot themselves from their families and undertake a dangerous journey. The free movement of labor, enables greater opportunities for people in developing economies and also helps developing economies gain important foreign currency revenue. Reliance on remittances, particularly in a small country such as Albania with significant emigration to the Italy, Greece, United States, Canada, and the United Kingdom., can comprise a significant share of a household’s income, thus affecting decisions such as labor market participation and hours worked. Migration phenomena lowers labor supply and the unemployment rate in the country of origin. The countries of origins even if they have a reduction of the active and skilled labor supply forces they have a huge and important benefit which are one of main sources of incomes – remittances. Also they have a positive impact in the improvement of the deficit of the balance of payments. Facing theoretical criteria, and especially the practical criteria of current account deficitsustainability vis-à-vis the current account balance position in Albania, the conclusion is drawn that current account deficit in Albania’s case is chronic and at very high levels. In general, however, it may be estimated as being relatively sustainable, but with very fragile and seriously threatened sustainability. The fragility is related particularly to the dominating trade deficit weight in the current account balance and the expected unsustainability of financing sources of this deficit in medium and long-term periods. Taking into account the current account deficit structure, we draw the conclusion that remittances has a positive impact in financing and improvement the deficit of current account balance, above all, the trade balance improvement. The econometrical model shows that remittances have a positive impact in financing the national debt of Albania with a time lag of three years.
References


Arif Ghulam M. Remittances and investment at the household level in Pakistan. PIDE Research Report #166


Bussolo, Maurizio and Denis Medvedev (2006), Do remittances have a flip side? A general equilibrium analysis of remittances, labor supply responses and policy options for Jamaica


Catrinescu, Natalia; Ledesma, Miguel.L; Piracha, Matloob and Quillin, Bryce (2006), Remittances, Institution and Economic growth.IZA DP NO.2139


World Bank (2002), *Basic Information on Jamaica Survey of Living Conditions*

_________ (2005), *World Development Indicators*

_________ (2006a), *World Development Indicators*

_________ (2006b), *The Development Impact of Remittances in Latin America*

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