THE ROLE OF REMITTANCES RECEIVED ON THE POST-COMMUNIST ALBANIA'S FINANCIAL DEVELOPMENT

Genci Gjanci, MA
Ardian Cerava, MA
"Fan S. Noli" University, Korce, Albania

Abstract

Studies on the role of remittances received on the recipient country's financial development have given mixed results. The most notable empirical studies try to assess this relation for a group of countries using panel data. In this study we concentrate on the relation between these two variables for the post-communist Albania using annual time series data provided by the World Bank. The multiple regression model developed is estimated using the ARDL bounds testing approach which is highly recommended when the sample size is small. Results indicate a significant positive role of remittances in the country's financial development. In particular, a 10% increase in remittances is associated with approximately a 11.78% increase in the financial development. Other financial development enhancing variables are trade openness and the sum of foreign direct investment and official development assistance, although with a smaller impact.

Keywords: Remittances, financial development, Albania, ARDL

Introduction

Financial development is largely considered to be an important growth enhancing factor (Aggarwal, Demirgüç-Kunt & Martinez Peria, 2011). A developed efficient financial system promotes growth by allocating capital to the most productive investments. In 1992 Albania adopted free market economy after nearly half a century of communist rule. The country inherited a backward financial system. The pre-1992 Albanian financial system consisted only of some underdeveloped state-owned banks (Barone & Porrini, 2010). In 1992 Albania began the process of transformation of its financial system. The first step of the reforming process was the creation of a two-tier bank system while the second step was the establishment of an efficient private banking system. The two-tier banking system established in 1992 consisted of 4 banks, with Bank of Albania serving as the country's

central bank and 3 second tier (commercial) banks (Hashorva (Cami) & Pere, 2011). Not surprisingly, the reshaped banking system was highly concentrated and offered a limited number of financial products and services. Subsequently, efforts were made to turn the rebuild banking system into a modern competitive sector. The transition period is characterized by the privatization of the existing state-owned banks and the licensing of new private banks (Barone & Porrini, 2010; Shingjergji & Shingjergji, 2012; Andoni, 2013). The privatization process provided a good opportunity for the foreign capital to enter the Albanian banking system. In 1994, the first Albanian bank with foreign control - the Italian-Albanian bank - was established (Barone & Porrini, 2010). The 1996 civil turmoil adversely impacted the Albanian banking system that was beginning to take shape. It experienced serious problems mainly due to the loss of confidence in the country's financial institutions. Afterwards a period of rapid development of the Albanian banking system followed. The remaining state-owned banks were privatized and new banks entered the market. Development was particularly encouraged by the presence of foreign capital (Barone & Porrini, 2010, Shingjergji & Shingjergji 2012). The menu of financial products and services offered expanded significantly and bank profits were high. The banking system remained largely intact with the advent of the global financial crisis as no bank failed in Albania. However, efforts to create a fully functional financial market have been much less successful. Tirana Stock Exchange was established in 2002 but it still remains an inactive financial market (Meka & Meka (Taçi), 2012). At present, the banking system clearly represents the most important component of the Albanian financial system with banks holding more than 95% of all financial assets (Meka & Meka (Taçi), 2012). There are 16 commercial banks operating in Albania at present. They are all privately owned and 14 of them are foreign controlled. Foreign capital accounts for more than 90% of the total capital invested in the Albanian banking system (Shingjergji & Shingjergji, 2012). Albanian banking system relies on traditional products. The nonbank intermediaries consist mainly of insurance companies, savings and loan associations and pension funds. The significant amount of remittances that have entered the country during the transition period may have played a role in the development of its financial sector.

Indeed, the size of received remittances has been substantial ranking Albania among the highest remittance recipient countries with average ratio of remittance inflows to GDP of approximately 15.5%[63]. Although this ratio

---

[63] Remittances are the sum of personal transfers and compensation of employees as defined in the sixth edition of the IMF's Balance of Payments Manual.

shows a declining trend in figure 1.1 remittances will most likely remain significant for the country due to increased globalization.

Figure 1.1 Remittances received by Albania as a share of GDP from 1992 to 2011
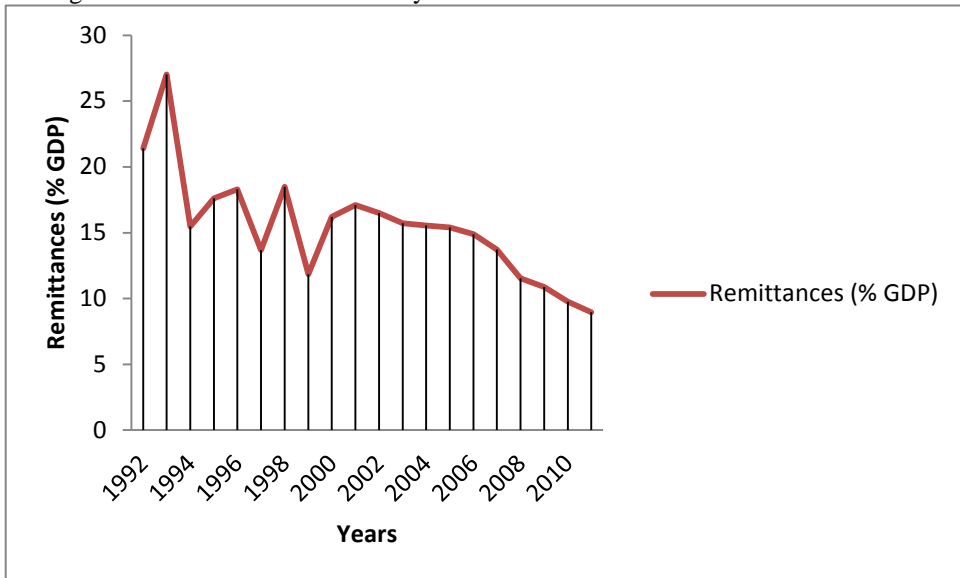
Source: World Bank (World Development Indicators 2013)

Despite the declining trend of remittances as a share of GDP their size has significantly increased until just before the global economic crisis, as figure 1.2 shows.

Figure 1.2. Inflow of remittances in Albania from 1993 to 2012 ($ millions)
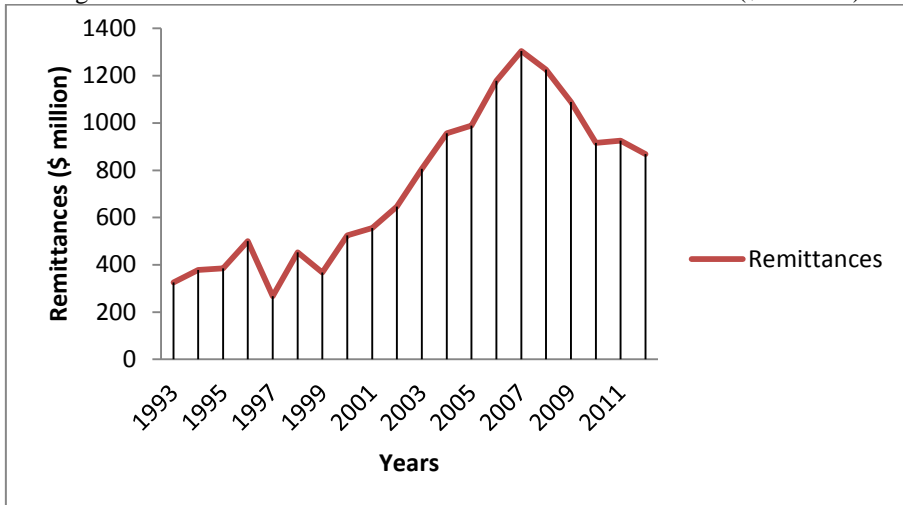
Source: Bank of Albania (2013)

The average growth rate of remittances during the period 1993-2007 has been 13.8%. After 2007 the trend was reversed with remittances

declining at an average rate of 7.6% from 2008 to 2012. This decline is probably due to the economic difficulties in the countries where most Albanian migrants reside, particularly Greece and Italy.

Furthermore, for most of the time remittances received by the country have been higher than the net inflows of FDI and the net ODA received, as shown in the figure below.

Figure 1.3. Remittances received, net inflow of FDI and net ODA received by Albania from 1993 to 2011 ($ millions)
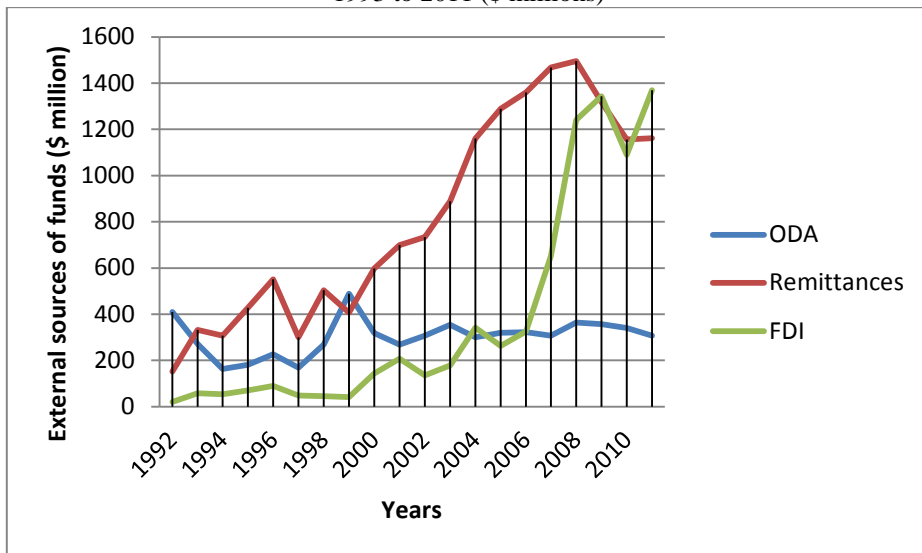
Source: World Bank (World Development Indicators 2013)

Their significant size and their higher relative importance compared to other external sources of finance suggest that their effects on the development of the Albanian financial system are likely to have been important. We try to empirically assess this relation in the post-communist Albania. We believe that this is worth the effort considering the large amount of remittances received by the country and the inconclusive results regarding the nature of this relation in the existing literature. To the best of our knowledge, there is no study that empirically assesses this relation for Albania. This study will try to partially fill this gap.

The rest of the paper is structured as follows: The next section reviews the existing literature on the remittances-financial development relation. Section three describes the econometric model and the data used. Section four presents the econometric techniques employed to estimate the model. Section five presents the results of the empirical analysis. The final section discusses the findings.

2. The remittances-financial development relation

Aggarwal et al. (2011) argue that remittances are more likely to impact financial development through the banking development. However, they notice that theoretically the role of remittances on financial development is ambiguous. On the one hand, remittances may induce financial literacy among the recipients, which in turn may result in more financial services and products demanded by the remittance recipients. This is more likely to happen if they are transferred through the formal financial institutions. But even if they are not transferred through the formal financial sector remittances can still play a positive role on the recipient country's financial development if a considerable fraction of them ends up being saved in these institutions. Remittances saved can promote both deposit and credit market development. If the money that is not consumed is deposited on banks, deposit accounts will increase, stimulating the deposit market development. Overall credit is also likely to increase as the banks have more money available to lend. On the other hand, a negative impact of received remittances on the recipient country's financial development is also equally likely. Remittances can adversely impact credit market development because by easing the recipients' credit constraints remittances can substitute for borrowing. Furthermore, in addition the amount of remittances saved may be very small and consequently have only a minimal impact on both deposit and credit market development. The amount of remittances saved may be significant but they still may play no role on deposit market development if the recipients chose not to deposit these funds on banks for various reasons. Even if they are deposited on banks their contribution may be limited to the deposit market development if the banks chose to restrict credit or lend the funds to the government.

The empirical studies have tried to provide a more complete understanding of the nature of this relationship. They are recent and not quite large in number (Brown, Carmignani & Fayad, 2013). It is worth noticing that they are published during the last decade which indicates current interest on this topic. The empirical studies on the role of remittances on the recipient country's financial development can be classified as either cross-country or single country studies. The first use panel data in trying to understand the nature of this relationship for a group of countries while the second focus on this relation for particular countries using data over a given time period. The most notable studies belong to the first group. However, their results are not unanimous. Aggarwal et al. (2006, 2011) and Gupta, Pattillo &Wagh (2007) for instance find a significant positive impact of the remittances received on the financial development while Brown et al. (2013) find a negative remittances-financial development relation.

The three above mentioned studies that find a positive relation between financial development and remittances are very similar in nature. They use a basic model developed by Aggarwal et al. (2006) and estimate it with several econometric methods. However, they differ on the panel datasets used. The core econometric model regresses financial development on remittances and a set of potential determinants. They all use more than one indicator of financial development to increase the reliability of results. Aggarwal et al. (2006) and Aggarwal et al. (2011) proxy financial development with the level of bank credit and the amount of bank deposits while Gupta et al. (2007) proxy it with the amount of bank deposits and the amount of the most liquid assets in the economy, commonly referred to as M2. They all use a rigorous methodology to estimate several versions of the basic model. Aggarwal et al. (2011) is an improvement over their previous study in both the panel size and the instrumental variables used to mitigate potential endogeneity. Aggarwal et al. (2006) examine this relation for a sample of 99 developing countries from 1975 to 2003 while in their more recent work they use data for 109 developing countries from 1975 to 2007. Gupta et al. (2007) in contrast to Aggarwal et al. (2006) focus on a more restricted group of developing countries that includes 44 Sub Saharan African (SSA) countries. The period of study is from 1974 to 2004 but the cross-country panel is shorter because the authors use 5-year averages instead of the annual observations used by Aggarwal et al. (2006) and Aggarwal et al. (2011). Nevertheless, results are similar despite differences in the number of countries and the time frame considered. They provide evidence of a positive contribution of remittances on financial development. On the contrary, Brown et al. (2013) find a positive relation between these two variables only for the developed countries. They find a negative role of remittances on financial development when analyzing data for the whole sample that consist of both developed and developing countries. Their study uses a larger panel dataset than the previous studies reviewed. The data are annual observations for 138 countries from 1970 to 2005. Financial development is measured by domestic credit to the private sector (% of GDP). It is regressed on remittances and a set of control variables. Different estimation methods are employed and the results generally suggest a negative relation between financial development and remittances. However, when the authors study this relation separately for developing and developed countries by splitting the sample into two subsamples the evidence is mixed. Results suggest a negative or at best an irrelevant financial development-remittances relation for the subsample of developing countries.

Oke, Uadiale, & Okpala (2011) instead focus only on one particular country. They study the role of remittances on Nigeria's financial development using data for the period 1977-2009. Financial development is

proxied by 2 alternative measures – money supply to GDP (M2/GDP) and private credit to GDP. The data are annual observations obtained from the World Bank. The authors make use of an econometric model that regress the log of financial development on the log of remittances and some control variables that are found to play a role in financial development in previous literature. Both, ordinary least squares (OLS) and Generalized Method of Moments (GMM) are used to estimate the regression model. In all cases results indicate a positive relation between these two variables. Thus, the nature of this relation does not seem to be conditioned on the financial development measure and the estimator used. However, the impact of remittances on financial development is quantitatively small when the dependent variable is measured by the ratio of private credit to GDP and the econometric model is estimated by GMM.

3. Econometric model and data

We employ a multiple regression model to study the remittances-financial development relation for the post-communist Albania.

The regressors that we consider are remittances as a share of GDP trended (rem_t*t), trade openness trended ($tror_t*t$), sum of FDI and ODA as a share of GDP trended ($flow_t*t$), inflation trended ($infl_t*t$) and natural logarithm of real GDP trended ($\ln(Y_t*t)$). We also include a trend and a crisis "dummy" to account for the impact of the 1992 and 1997 crisis on the Albanian financial system. We multiply each of the variables by the time trend because the unit root tests results on the original variables show that the dependent variable is stationary. The stationarity of the dependent variable restricts the choice of the estimation method to OLS. Considering the short time period for which data are available the OLS estimation may give unreliable results in this case. Thus, the econometric model is written as:

$$m2r_t*t = \beta_0 + \beta_1*t + \beta_2(remr_t*t) + \beta_3(tror_t*t) + \beta_4(flow_t*t) + \beta_5(infl_t*t) + \beta_6(lnY_t*t) + \beta_7 DUM_t + \varepsilon_t \qquad (1.1)$$

Financial development is proxied by the money supply, which as Oke et al. (2011) emphasize is a widely used measure of financial depth. We considered using also two other alternative indicators of financial development that included bank deposits to GDP (%) and bank private credit to GDP (%) but data for each of them were not available for the whole period. Thus, constrained by data availability financial development in this study is measured by the ratio of M2 to GDP. Remittances are the sum of the inflow of personal transfers and compensation of employees (as defined in the 6th edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6)) as a share of GDP. Trade openness is measured as the ratio of the sum of exports and imports of goods and

services to GDP. Flow represents the sum of two important external sources of funds – FDI and ODA – as a share of GDP. Inflation is computed as the annual percentage change of the GDP implicit deflator, where GDP implicit deflator is computed as the ratio of GDP in current local currency to GDP in constant local currency. Real GDP is computed in 2005 USD.

All data are annual and are obtained by the World Bank, World Development Indicators online (2013).

4. Estimation method

First, we perform several traditional unit root tests on the trended variables and then decide on the most adequate estimation method. Unit root test results are presented below.

Table 1.1. Unit root test results for variables of financial development model in levels and first differences

Variable	Level				First difference			
	ADF	PP	KPSS	Result	ADF	PP	KPSS	Result
$m2r_t*t$	-1.06633	-0.470099	0.180066 **	nonstationary	-3.297836 **	-3.209618 **	0.385790	stationary
$remr_t*t$	0.703671	-0.10881	0.154107 **	nonstationary	-5.19958 *	-5.08926 *	0.469417 **	inconclusive
$tror_t*t$	-0.31199	-0.21173	0.167737 **	nostationary	-2.54949	-2.43913	0.551945 **	nostationary
$flow_t*t$	-1.367623	-1.5755	0.104692	inconclusive	-3.334224 **	-3.363571 **	0.147575	stationary
$infl_t*t$	-5.31067 *	-5.21236 *	0.158904	stationary	-8.48916*	-14.4656*	0.5**	inconclusive
$ln(Y_t*t)$	-5.121148*	-8.599233*	0.186956 **	inconclusive	-2.113717	-9.04052*	0.554476 **	inconclusive

* and ** indicate rejection of the null hypothesis (H_0) for the ADF, PP and KPSS tests at 1% and 5% level of significance respectively.

Notes: Test statistics and critical values are computed by the statistical software EViews 7.1. Lag lengths or bandwidths were automatically selected by the program. Selection of lag lengths for both ADF and PP tests was based on Schwarz Information Criterion (SIC). In the KPSS test Newey-West Bandwidth was selected using Bartlett kernel spectral estimation method. The Critical values in both the ADF and PP tests refer to critical values computed by Mac Kinnon (1996) while those in the KPSS test refer to Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1). Inference is made based on 1% and 5% level of significance.

DF-GLS unit root test is also performed to provide further evidence regarding the nature of the time series data that we consider. Like the ADF test, it tests the null of nonstationary against the alternative of stationarity but

it is considered to be superior compared to the former. Elliot, Rothenberg, & Stock (1996) argue that it has greater power than the ADF test.

Table 1.2. Results of the DF-GLS unit root test for the variables of financial development model in levels and first differences

Variable	Level		First difference	
	DF-GLS	Result	DF-GLS	Result
$m2r_t{*}t$	-1.467436	nonstationary	-3.421798*	stationary
$remr_t{*}t$	-1.14252	nonstationary	-5.19876*	stationary
$tror_t{*}t$	-1.11739	nonstationary	-2.64879**	stationary
$flow_t{*}t$	-1.577152	nonstationary	-3.320105*	stationary
$infl_t{*}t$	-4.53171*	stationary	-2.55372**	stationary
$ln(Y_t{*}t)$	-2.945724	nonstationary	-0.628804	nonstationary

* and ** indicate rejection of the null hypothesis (H_0) for the DF-GLS test at 1% and 5% level of significance respectively.

Notes: Lag lengths are selected automatically by the software EViews 7 using SIC. The critical values in this unit root test refer to the Mac Kinnon (1996) critical values.

The results of the unit root tests for $ln(Y_t{*}t)$ are not unanimous. However, the majority of evidence indicates that it is integrated of order 2 or higher. They provide stronger evidence regarding the order of intergration of $flow_t{*}t$, which becomes stationary after first differencing. To summarize, the dependent variable $m2r_t{*}t$ is I(1) while its potential determinants are a mixture of I(1) and I(0) except for $ln(Y_t{*}t)$. $remr_t{*}t$, $flow_t{*}t$ and $tror_t{*}t$ are I(1) while $infl_t{*}t$ is I(0). We can estimate the model above by the ARDL estimation method if we drop $ln(Y_t{*}t)$ from the model. Consequently, to enjoy the benefits of the ARDL method we decide to drop $ln(Y_t{*}t)$ from the financial development model. ARDL approach is particularly suitable when the sample size is small. For instance, Gaikwad and Fathipour (2013) employ ARDL approach to study the impact of FDI on the Indian GDP using 18 annual observations. This approach also addresses potential endogeneity among variables of interest (Tchantchane, Rodrigues & Fortes, 2013; Durmaz & Lee, 2013). Another important advantage of using this approach is its ability to deal with omitted variable bias (Narayan, 2004).

The ARDL bounds testing approach to cointegration is a dynamic technique developed by Pesaran, Shin & Smith (2001). It allows for greater flexibility compared to other methods used for estimating time series regressions because it does not require that all variables be of the same order of integration. However, it requires that the dependent variable be I(1) and none of the regressors be integrated of order 2 or higher. It uses lagged values of both the dependent and indipendent variables to model the dynamic nature among several variables.

According to Choong, Zulkornain & Venus (2005), who summarizes Pesaran et al. (2001), the ARDL model can be expressed as a VAR model of order p:

$$z_t = c_0 + \alpha t + \sum_{i=1}^{p} \eta_i \, z_{t-i} + \varepsilon_t \qquad\qquad (1.2)$$
where

z_t is a column vector of variables y_t and x_t. y_t is the dependent variable while x_t is a column vector of k explanatory variables.

c_0 represents a (k + 1)-component column vector of intercepts,

α represents a (k + 1) component column vector of trend coefficients,

η_i represents a (k + 1) * (k + 1) matrix of VAR parameters for lag i,

ε_t is a (k + 1)-component column vector of white noise error terms,

t represents time while p is the optimal lag length.

It can be written as a VEC (Vector Error Correction) model in the following form:

$$\Delta z_t = c_0 + \alpha t + \lambda z_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \, \Delta y_{t-i} + \sum_{i=0}^{p-1} \Phi_i \, \Delta x_{t-i} + \varepsilon_t \qquad (1.3)$$
where

Δ is the first difference operator,

λ is a (k + 1) * (k + 1) long-run multiplier matrix, and

Γ_i and Φ_i are a (k +1) column vector and a (k + 1) * k matrix of short-run coefficients respectively.

The long-run multiplier matrix can be partitioned as

$$\lambda = \begin{bmatrix} \lambda_{yy} & \lambda_{yx} \\ \lambda_{xy} & \lambda_{xx} \end{bmatrix}$$

The econometric model that we employ can be expressed in the ARDL form following the assumptions made by Pesaran et al. (2001) for case v (unrestricted intercepts and unrestricted trends). The restriction $\lambda_{xy} = 0$ should be imposed so that at most as unique long-run relationship between y_t and regressors be examined. It is shown as the following UECM (unrestricted error correction model):

$$\Delta(m2r_t * t) = \beta_0 + \beta_1 * t + \lambda_1(m2r_{t-1} * t - 1) + \lambda_2(remr_{t-1} * t - 1) + \lambda_3(tror_{t-1} * t - 1) + \lambda_4(flow_{t-1} * t - 1) + \lambda_5(infl_{t-1} * t - 1) + \lambda_6 * DUM_t + \sum_{i=1}^{p} a_i \Delta(m2r_{t-i} * t - i) + \sum_{i=0}^{q} b_i \Delta(remr_{t-i} * t - i) + \sum_{i=0}^{r} c_i \Delta(tror_{t-i} * t - i) + \sum_{i=0}^{s} d_i \Delta(flow_{t-i} * t - i) + \sum_{i=0}^{v} f_i \Delta(infl_{t-i} * t - i) + \varepsilon_t \qquad (1.4)$$

This equation can also be viewed as an ARDL model of order (p, q, r, s, v). The inclusion of the "one-zero" dummy variable in the model above is not a cause for concern as the fraction of observations where dummy is nonzero is 2/10 = 10% (Pesaran et al. 2001). Choong et al. (2005) also use one such dummy variable in the ARDL model employed to account for the impact of the East Asian financial crisis on growth in Malaysia.

5. Results

We estimated several variants of the econometric model employed using different combinations of the explanatory variables. The estimated

coefficients of the most appropriate model are presented below. Financial development seems to be determined by remittances trended, trade openness trended and sum of FDI and ODA trended.

Dependent Variable: DM2R_T
Method: Least Squares
Date: 12/10/13   Time: 20:38
Sample (adjusted): 1997 2011
Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-22.50193	34.11945	-0.659505	0.5567
M2R_T(-1)	-4.222300	0.409196	-10.31852	0.0019
REMR_T(-1)	4.974372	0.565127	8.802223	0.0031
TROR_T(-1)	2.846909	0.253810	11.21668	0.0015
FLOW_T(-1)	3.226625	0.440677	7.321974	0.0053
DM2R_T(-1)	0.348309	0.235463	1.479253	0.2356
DM2R_T(-2)	-1.731944	0.273582	-6.330619	0.0080
DREMR_T	3.541895	0.355726	9.956808	0.0022
DTROR_T	1.879693	0.118482	15.86474	0.0005
DTROR_T(-1)	-0.855335	0.127067	-6.731347	0.0067
DTROR_T(-2)	-1.274240	0.113982	-11.17929	0.0015
DFLOW_T	6.644765	0.667485	9.954931	0.0022

R-squared	0.995306	Mean dependent var		90.57970
Adjusted R-squared	0.978097	S.D. dependent var		37.85790
S.E. of regression	5.602863	Akaike info criterion		6.274995
Sum squared resid	94.17623	Schwarz criterion		6.841435
Log likelihood	-35.06246	Hannan-Quinn criter.		6.268961
F-statistic	57.83426	Durbin-Watson stat		2.508980
Prob(F-statistic)	0.003285			

Source: EViews 7 output

Before interpreting the derived results we performed the model diagnostic tests, which are summarized below. More details are provided in the Appendix.

Diagnostic Checking

AR(1) = 3.29261 [0.0696]
JB = 0.334501 [0.845988]
ARCH(1) = 2.60879 [0.1063]
RESET(2) = 0.514355 [0.7021]

AR, JB, ARCH and RESET stand for the Breusch-Godfrey serial correlation test, the Jarque-Bera normality test, the ARCH test and the Ramsey's RESET test respectively. The numbers in brackets represent the number of lags = 1 and number of fitted terms = 2 included in the Breusch-

Godfrey serial correlation test, ARCH test and RESET test respectively. The probabilities of the calculated test statistics are shown in square brackets. The results show that the estimated model does not seem to have any serious diagnostic problems such as serial correlation, ARCH effects, non-normality of the residuals and misspecification. (Conclusions do not change even when the number of fitted terms included in the RESET is 1)

In additon, the plots of both CUSUM and CUSUM of Squares Tests, that are provided in the Appendix, suggest that the model is stable during the sample period.

Thus, the estimated coefficients of the model above are valid for interpretation. The explanatory power of the model is very high (R^2 = 0.995306). We also check the existence of a long-run relation among the variables of interest using the Wald test.

The computed F-statistic is compared with the critical values provided by Narayan (2005).

Table 5.21. Critical values for cointegration analysis provided by Narayan (2005)

Significance level (α)	Lower bound critical value	Upper bound critical value
1%	5.333	7.063
5%	3.710	5.018
10%	3.008	4.150

Note: Critical values are cited from Narayan (2005) for case III (unrestricted intercept and no trend) for number of regressors (k) = 3 and number of time periods (n) = 30. Number of time periods in our study is 20 but we use the critical values computed for a sample size of 30 because it is the smallest sample size for which they are calculated by the author. However, this should have a samll impact on the results.

The computed F-statistic is 74.25475 and because it is larger than the upper bound critical value of 7.063 at 1% significance level it implies a long-run relationship between $m2r_t$*t, $remr_t$*t, $tror_t$*t and $flow_t$*t.

This long-run relation is shown as:

$$m2r_t * t = -22.50193 + 1.17812(remr_t * t) + 0.674256(tror_t * t) + 0.7641866(\text{flow}_t * t)(1.5)$$

The long-run coefficients are calculated as suggested by Bardsen (1989). They are all statistically significant at 1% significance level, except for the constant which is not relevant. In addition, they all carry the expected positive signs. Thus, remittances, trade openness and sum of FDI and ODA as a share of GDP seem to promote financial system development. Moreover, remittances seem to play the most important role in the financial system development in Albania. Results indicate that a 10% increase in remittances is associated with an approximate 11.78% increase in the financial development measure when the other variables don't change. The second most important determinant of financial system development in Albania seems to be the sum of foreign direct investments and official

development assistance as a share of GDP (%). A 10% increase in this indicator is accompanied with a 7.6419% increase in financial system development. Estimated results suggest that trade openness also plays an important role in financial system development in Albania. They indicate that a 10% increase in trade openness is related with an approximate 6.7426% financial development increase.

6. Conclusion

Remittances received seem to be an important factor in promoting financial development in the post-communist Albania. Results suggest a significant positive linear long-term relationship between these two variables. Therefore, policies aimed at increasing remittances transferred through the formal financial sector seem to benefit the country's financial development. Formalizing remittances is likely to promote financial development and result in a more efficient use of these funds. Banks, which represent the dominant sector of the Albanian financial system, could be the principal actors in formulating and implementing appropriate policies. They could try to attract more remittances by creating attractive banking products with migrants' motives for sending remittances in mind. Banks can also consider a reduction of the remittances' transfer costs through these institutions. This is likely to impact positively the amount of remittances transferred through the formal financial sector. The literature on remittances' determinants indicates that transfer costs are an important factor that migrants consider in deciding the channel through which they send remittances. However, the results of this study should not be considered conclusive as the remittances variable used includes only recorded remittances. As Brown et al. (2013) note, a significant amount of remittances is sent through informal channels and consequently it is not recorded. Another limitation of the current study relates to the indicator of financial development used. Considering the dominant role of banks in the Albanian financial system maybe bank deposits or bank credit to the private sector would be more appropriate measures of financial development as suggested by Aggarwal et al. (2011). Therefore, further research is required to provide more evidence regarding this relation.

References:
Aggarwal, R., Demirgüç-Kunt, A., & and Martinez Peria, M. S. (2011). Do Remittances promote financial development? *Journal of development Economics*, 96(2), 255-264.
Aggarwal, R., Demirguc-Kunt, A., & Martinez Peria, M. S. (2006). Do workers' Remittances Promote Financial Development? *World Bank Policy*

Research Working Paper Series, WBPR WP No 3957, The World Bank. Retrieved from http://econpapers.repec.org/RePEc:wbk:wbrwps:3957.

Andoni, A. (2013). Basel III challenges in the Albanian banking system. *The Macrotheme Review*, 2(5), 36-46.

Bank of Albania official website. Retrieved from http://www.bankofalbania.org/web/Statistika_230_1.php

Bardsen, G (1989). Estimation of Long Run Coefficients in Error Correction Models. *Oxford Bulletin of Economics and Statistics*, 51(3), 345-350.

Barone, R., & Porrini, D. (2010). The role of foreign banks in the Albanian economic system. *Banks and Bank Systems*, 5(2), 59-69.

Brown, R. P. C., Carmignani, F., & Fayad, G. (2013). Migrants' Remittances and Financial Development: Macro- and Micro-level Evidence of a Perverse Relationship. *The World Economy*, 36(5), 636-660. doi.org/10.1111/twec.12016

Choong, C. K., Zulkornain, Y., & Venus, L. K. S. (2005). Export-Led Growth Hypothesis in Malaysia: An Investigation Using Bounds Test. *Sunway Academic Journal*, 2, 13-22.

Durmaz, N., & Lee, J. (2013). An Empirical Analysis of Import Demand Function for Turkey: An ARDL Bounds Testing Approach. University of Houston-Victoria Economics & Finance Working Paper Series. UHV-WP 2013-01. Retrieved from http://www2.uhv.edu/durmazn/E&FWPwebsite/UHV-WP%202013-01.pdf

Elliot, G., Rothenberg, T. J., & Stock, J. H. (1996). Efficient tests for an autoregressive unit root. *Econometrica*, 64, 813-836.

Gaikwad, P. S., & Fathipour, G. (2013). The Impact of Foreign Direct Investment (FDI) on Gross Domestic Production (GDP) in Indian Economy. *Information Management and Business Review*, 5(8), 411-416.

Gupta, S., Pattillo, C. A., & Wagh, S. (2007). Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa, *IMF Working Paper* WP/07/38. Retrieved from http://www.imf.org/external/pubs/ft/wp/2007/wp0738.pdf

Hashorva (Cami), A., & Pere, E. (2011). The Financial "Tsunami" of 2008 and its Effects on the Albanian Economy and Financial System. *EuroEconomica*, 2(28), 89-97.

Meka, E. and Meka (Taçi), S. (2012). Albanian financial system in front of global & financial crisis - a new approach to ensure long-term sustainability. Bulletini shkencor nr 2. Peja: dukagjinicollege, pp. 321-326. Retrieved from http://www.dukagjinicollege.eu/libri2/59-Meka(321-326).pdf

Narayan, P. K. (2004). Fiji's tourism demand: the ARDL approach to cointegration. *Tourism Economics*, 10(2), 193-206.

Narayan, P. K. (2005). The saving and investment nexus for China: evidence from cointegration tests. *Applied Economics*, 37, 1979-1990.

Oke, B. O., Uadiale, O. M., & Okpala, O. P. (2011). Impact of Workers' Remittances on Financial Development in Nigeria. *International Business Research*, 4(4), 218-225.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics*, 16, 289-326.

Shingjergji, A., & Shingjergji, A. (2012). Analysis of the Albanian Banking System in the Transition Years. *International Journal of Business and Commerce*, 2(4), 78-89.

Tchantchane, A., Rodrigues, G., & Fortes, P. C. (2013). An Empirical Study of the Impact of Remittance, Educational Expenditure and Investment on Growth in the Philippines. *Applied Econometrics and International Development*, 13(1), 173-186.