Analysis of the main sources of investments financing in real estate

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Abstract

The development of the construction industry is an important sector and the special contribution to the gross domestic product and as such should be subject to study, because the performance of the fund financing the construction production is closely linked to the performance of GDP, but also the role of this sector in generating economic growth. Even in our country's construction sector, as one of the leading sectors of the economy has affected the growth trend of the Albanian economy. Many developing economies have shown that credit markets and remittances are the main source of financing long-term investments in construction. Increased investment in the real estate market includes free financial resources and other populations, but the development and expansion of this sector has led to the reduction of unemployment in the country. In periods of economic growth, coupled with the growth of personal income, people seek to improve their living conditions and seek to take credit for use to purchase real estate. The role of the banking system in financing for investments in the real estate market is very important.

The purpose of this paper is to identify what are the factors affecting the financing of investments in the construction sector, and to analyze the important relationships between them and the financing of investments in real estate.

The methodology used in the paper is based on foreign literature, materials and works of local and foreign authors. The data were taken from the reports of Bank of Albania's Institute of Statistics, World Bank and others. Linear Regression model is built referring OLS method, to determine the factors affecting the financing of investments in the real estate market.

The results of this study can be used by relevant institutions and central governmental institutions for the formulation of policies and strategies for the development of this industry, as well as the stakeholders of this sector (businesses and construction) professionals to analyze the dynamics of the development of the construction sector and to evaluate the effect of changes in macroeconomic indicators in the size of this market development in Albania.

Keywords: investments, bank loans, remittances, real estate, construction sector.

Introduction

Construction sector size is affected by the performance of the economy, but also the opposite. Sources for financing investments in real estate are some, but this paper will treat the main sources of financing in real estate bank credit, remittances, their impact and other factors in the fund to finance the construction sector.

The role of GDP in the construction sector is estimated to be higher in underdeveloped countries, while the level of development increases, the role of GDP could be lower and in some cases even negative (Crosthwaite, 2000).

The growth of the construction sector may be affected differently by different economic sectors, however, the greatest demand, both for new constructions and reconstructions,

is associated primarily with the trade branch (Bon and Pietroforte, 1993). The mutual relationship between the construction sector and other sectors of the economy varies depending on the time.

The government is keen to stimulate the development of the construction sector as being the sector which uses human resources intensively, its development may affect the reduction of unemployment (Ramsaran and Hossein, 2006). In underdeveloped countries, a factor that may affect the demand for construction is the amount of incoming remittances, which supports increased investment in dwellings (Osili, 2004). Real estate, land and buildings, are among the most valuable assets of each country and individual. It represents at the same time one of the most attractive long-term investment field. For a potential investor immovable property is attractive primarily because it provides capital gain in the long run, and secondly because the real estate is a good barrier against inflation.

The role of the banking system in the real estate market is very important. It is the main financial intermediary and acts as a catalyst and almost into development progress in this sector. The low level of interest rates is a tool to use banks to increase lending and expand this market. Granting of loans to finance investment in this sector can be for different purposes such as the purchase, construction and improvement of a real estate etc. Credit financing is a very important tool that is used by businesses of construction for the development of the activity of this sector.

Ways of financing in real estate

The study of literature has few ways in real estate financing, but i will treat some of them briefly below:

Debt, is the most common type of financing. Debt is often given in the form of certain types of credit that can come from a number of different sources, including banks, financial institutions, family members, relatives etc.

 Its capital, is another common method used to finance an investment. If for any reason the debt represents the money to be borrowed capital represents money that will be invested.

Partnership (partnership), is the combination of the resources of an investor to those of a partner, as another way to achieve the financing of investments in real estate.

Funding mixed and average cost of capital. Investors often combine several sources of financing, including both debt and equity etc.

There are other ways, but we will treat this work as the main source of financing in real estate bank loan, remittances, as well as their impact and other factors in the fund to finance the construction sector.

Bank loan as the financing instrument

The role of the banking system in the real estate market is very important. Bank loan is a very important financing instrument that is used by businesses of construction for the development of the activity of this sector. Bank lending could affect indirectly on real estate prices, increasing the funds available to borrowers. A rise in lending could lead to a drop in loan interest rates and consequently, to an increase in demand for lending by the individuals and the private sector. This increase in demand, against

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a bid for real estate, can be reflected in an increase even greater real estate prices. Loans for investment in real estate that can be given are: loans to individuals, loans to businesses in the construction sector etc. From Chart 1 we see that major part of loans to individuals is provided for the purchase of real estate (244.6 billion), the purchase of non-durable goods (110.3 billion), durable goods (77.2 billion), overdrafts (43.8 billion) and operating activity (48 billion).

Figure 1: Loans to households based on purpose
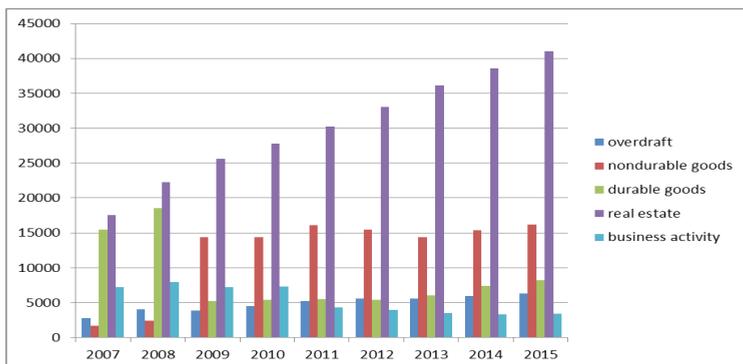
Source: Bank of Albania

The Loans given to the construction sector for the period 2007-2015, as evident from the graph, loans have been increased until 2011 and then this sector had a decline credit crunch, which is explained by the impact of the economic crisis, blocking temporary credit crunch banks sector and the temporary suspension of construction permits the government.

### Figure 2: Loans to businesses in the construction sector
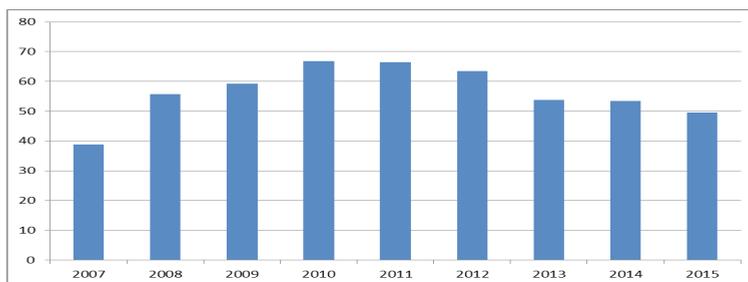
Source: Bank of Albania

Remittances are another source of financing investment in real estate

Remittances play a key role in the economy of many countries; they contribute to the economy and the livelihood of people with the lowest economic level. The demand

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of individuals to finance investments in real estate from year to year has increased through credit, but remittances have occupied an important weight and in most cases there were used by individuals to invest in real estate. Remittances also serve to financially support the economic development of different areas and regions where such investments. The data show that remittances, for the most part, derived from the population of Tirana in the amount of 19%, 12% of Vlora, Shkodra and Fieri 11% and 8%. Remittances for a period of 11 years have contributed to the extent of about 15% of GDP. The effects of the global crisis were directly affected by the slowdown of the remittances from 2009, which is considered as the signal performance of their expected declining in the future. Remittances are an important source of financial growth and economic development, because the increase in disposable income of citizens brings increased demand for real estate purchase.

Figure 3: Remittances (in million euro)
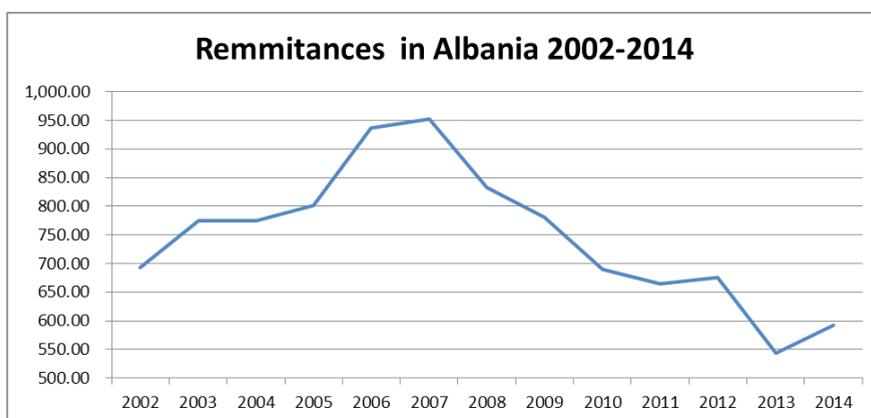
Source: Open Data

Seen from this perspective the data showed that about 20% of remittances are destined mainly in the investment market in real estate, which shows the economic impact of these remittances in the country. From 2007 to 2014 (Chart 3) shows that remittances have fallen and this has led to many individuals that have chosen the loan as a way of financing.

In doing this analysis, we can say that the development and changes in the construction sector indicate that the credit market and the amount of remittances are the main sources of financing in the construction sector.

Investments in the real estate market mainly and widely used capital and financing, while addressing credit by banks, and the informal market, which has brought lasting results in the development of this sector. According to economic theory in developing countries, which is not an exception for Albania, remittances have a positive impact on investments in real estate, which also positively affect production in the construction sector.

This paper shows that developments in the construction sector were impacted by the loan. Despite the costs of credit and loan offers, the reduction in the issuance of credit standards will have a positive effect on the development of the construction sector (Ozcelebi, 2011).

Various studies on economic development emphasize the importance of property rights in encouraging investment and boosting the economy. In Albania the knowledge gaps in the rule of law and property rights continue to have a negative effect on the economic environment and business in the real estate sector, the necessity of the reform in this area is imperative.

It is important to know what resources can be used to finance investment and development of this sector.

The impact of interest rates on loans

Banks have played their part to lure customers by lowering interest rates to stimulate borrowing the money to invest in real estate. Increase or decrease the interest rate on loans to individuals or, in more general terms, investment in real estate, will have a negative or positive effect on the demand for real estate, which would influence the decision to investments in future periods to builders, and the medium will affect production in construction (Ng, Fan and Wong, 2011).

The reduction of the interest rate on loans in real estate (houses), as well as the reduction of prices (impact has and the financial crisis) to purchase these properties for sale across the country has brought increased demand for loans in real estate (especially homes). The 2014 and the first six months of 2015 brought a change in improving the demand for real estate purchase, and therefore, the volume of credit that banks are to deliver the individuals have increased compared to 2013. Loans for real estate (houses) have undergone a reactivation for two reasons; first, that the reduction of interest rates by banks and secondly, reducing the prices of real estate (apartments).

The growth of the demand has come as a result of the combination of several important factors like: reduction of apartment prices, support from government policies, and the process of mortgage real estate (house) has made and created opportunities and trust for obtaining home loans, increased confidence indicator in the construction sector by banks.

Albanian Association of Banks, published interest rates and other charges, related to loan products in 2014, mainly for the purchase of real estate (houses) that have been among the lowest in the last two years. "Lending activity remains essential to the direct impact on the profitability of the banking system and of course is the promoter of economic development" (Apostoli, 2014).

According to representatives of banks of the second level Albania only for the first six months of 2015, more than 50 million euros loan are provided and disbursed in purchasing real estate (apartments), as well as investment for different purchase of real estate. This means that these materials are thrown back into the economy, constituting an important factor in the development of the construction industry.

Figure 4: **The performance of loans related to remittances and loan interest rates**
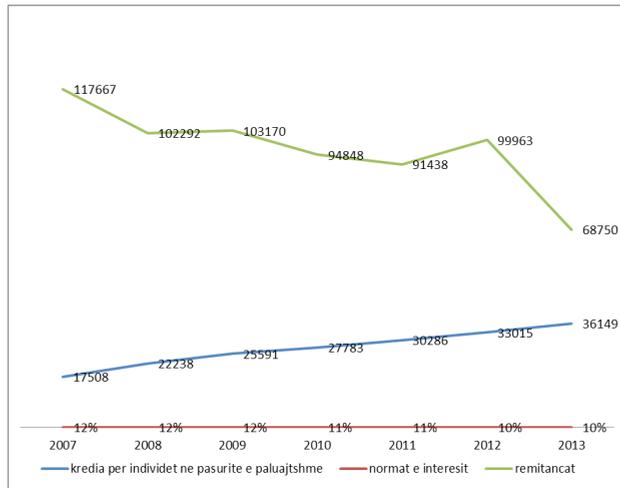
Source: Bank of Albania

From the graph it can be analyzed that banks have played an important role by lowering interest rates in order to rise investments in real estate.

Empirical Analysis

The purpose of this study is to apply the Linear Regression Method to determine what factors affect the financing of investments in the construction sector. It is important to know what resources can be used to finance investments. The study period consists from 2003 to 2013. Linear Regression Model was built referring to the OLS method. The information included in the model in relation is taken from data published by the Statistical Institute. The independent variables were obtained from the Bank of Albania's Institute of Statistics, Open Data and the World Bank. In the model I have included these variables:

1. Loans in Construction; data published by the Bank of Albania reports. This variable was included because associated with the financing we will have a tool to provide an investment.

2. Interest rates on loans; published reports of Bank of Albania with annual frequency.

3. Remittances: Remittances are included since they are widely used by investors as a source of funding. The data were obtained from reports published by the Open Data.

4. Income per capita published by the World Bank in real terms.

5. Construction's licenses: the more jobs provided the more funds will have to provide a financing source (Institute of Statistics).

6. Construction Cost Index published by the Bank of Albania reports.

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Table 1: Independent variables included in the model

Year	Construction's licenses CL	Loans in Construction LIC	Remittances R	Income per capita IPC	Interest rates on loans IRL	Construction Cost Index CCI
2003	3218	927	95289.23	216984	14%	90.6
2004	1492	1098.58	98839.8	244094	12%	93.4
2005	2752	1560	99608.4	266884	13%	94.7
2006	2420	1978.2	115344.7	288382	13%	95.7
2007	995	38884.8	117667.2	314335	14%	98.1
2008	1492	55684.9	102292.4	349100	13%	99.3
2009	1534	59332.5	103170.1	361970	13%	99.3
2010	1845	65787.3	94847.5	387979	13%	99.7
2011	1604	70875.5	91437.5	412471	12%	100.1
2012	447	63410.3	99962.5	427081	11%	100.8
2013	298	53784.0	68750	441691	10%	101.8

Source: The author

Linear Regression model was built by reference to OLS and from the analysis method we determined the Multiple Linear Regression equation.

Production Financing Fund = 7.28023 + 0.38977 * Construction Permits + 0.49038 * Construction loans + 0.26041 * Remittances – 0.3515 * Income per Capita – 0.47601 * Loan Interest Rates + 0.91853 * Construction Cost Index
Multiple Linear Regression model is built by OLS method as below:

Table 2: OLS Results

Model	Dependent variable	Independent variables	Regression's coefficients	Standart Deviations	Statistic t	R^2 Coefficient	Statistic F	Sig.
1	Financing Fund Of Construction	Constant	+7.28023	27.97741	0.50216	0.9533	13.61	0.0000
		Construction's licenses	+0.38977	5.874706	3.62714*			
		Loans in Construction	+0.49038	0.277924	2.70648*			
		Remittances	+0.26041	0.29009	2.63817*			
		Income per capita	+0.3515	0.205586	1.70987			
		Interest rates on loans	+0.47601	0.510473	2.25706*			
		Construction Cost Index	+0.91853	0.35719	2.57081*			

Note: * Significant Raports , **Source: Author**

From an overview of the equation we see that the variables have a significant positive impact on the dependent variable that is funding for production in construction, except for variable income per capita. All reports to the individual links are important, seeing the R² value of 0.9533 means that 95.3% of the changing values of the dependent variable are explained by the independent variables included in the above model. The model is "clean" by the presence of multicolinearity problem and there is no correlation between errors.

The estimated regression coefficients - interpretation:

b_1 = +0.38977; shows a positive effect of the number of construction's licenses in the dependent variable of the study (Financing Fund of Construction - FFO), for each given new license will have a surcharge of 0.4 units in FFO;

b_2 = +0.49038 shows a positive effect of loans in construction in the dependent variable in the study (Financing Fund of Construction - FFO), each new loan will bring an additional surplus of 0.5 units in FFO;

b_3 = +0.26041 shows a positive effect of the level of remittances in the variable (Financing Fund of Construction - FFO), each new influx of remittances in monetary units will bring an additional surplus of 0.3 units in FFO;

b_4 - insignificant coefficient (the ratio t <2);

b_5 = +0.47601 shows a positive effect of the interest rate on loans in the dependent variable (Financing Fund of Construction - FFO), the same effect of the variable loans for construction;

b_6 = +0.91853 shows a positive effect between the construction cost index and variable (Financing Fund of Construction - FFO).

Table 3: Correlation Matrix

	FFO	CCI	LC	CL	IRL	R	IPC
FFO	1	0.189372	0.205681	**0.518163***	**0.821214***	**0.899358***	0.178339
CCI		1	0.903385	-0.791059	-0.558217	-0.297741	-0.658713
LC			1	-0.650258	0.358248	-0.293349	-0.668241
CL				1	0.712732	0.290428	-0.755964
IRL					1	0.647682	0.645533
R						1	-0.458314
IPC							1

Source: Author

The matrix shows that the variable of interest has strong links with correlative variables: Construction's licenses, Interest rate on loans, Remittances, with correlation coefficients respectively: 0.518163, 0.821214 and 0.899358 (r_i > 0.5; strong correlation) Multiple linear model above is eligible to be a better model, except an individual insignificant relation (with Income per capita). It was built a reduced model with the variables that have the greatest impact on dependent variable as below:

Production Financing Fund = 53.2 + 0.7628 * 0.4582 * Remittances + Loan Interest Rate

Table 4: Second Reduced Model

Model	Dependent variable	Independent variables	Regression's coefficients	Standart Deviations	Statistic t	R^2 Coefficient	Statistic F	Sig.
2	Financing Fund of Construction	Constant	+53.2	59.814	0.521	0.93	26.1	0.000
		Remittances	+0.7628	0.597	2.271*			
		Interest rate on loans	+0.4582	0.615	2.134*			

Note: * Significant Raports, **Source: Author**

On the reduced model R^2 is 93% which means that 93% of the Financing Fund of Construction will be explained by the independent variables included in the model. To test the importance of the overall model will use the Fisher test. These data indicate that the coefficient F has a value of 26.1 which is very important value. To test individually the importance of independent variables will use the student t test. T test values of the independent variables are 2.27 and 2.13 respectively, resulting important tests of individual relations.

$b1 = +0.7628$ shows a positive effect of the level of remittances on the dependent variable the Financing Fund of Construction, each new influx of remittances in monetary units will bring an additional of 0.8 units in FFO; It shows the trend during year and the sector that absorb the most of remittances level.

$b2 = +0.4582$ shows a positive effect of the interest rate on loans on the dependent variable the Financing Fund of Construction, the most common way of financing through bank's loans.

Conclusions and recommendations

· The development of the construction industry is an important sector and the special contribution to the gross domestic product.
· The construction sector is one of the leading sectors of the Albanian economy that has contributed to its growth.
· The role of the banking system in the real estate market is very important. It is the main financial intermediary and acts as a catalyst in developing and leading the progress in this sector.
· Bank loan financing is a very important instrument used by businesses for the development of construction activity in this sector.
· Bank lending is the main source of funding for investment in the real estate market. Facilitate procedures for the financing of this sector through the granting of loans by banks has led to the growth and expansion of this market.
· Remittances are an important source of financial growth and economic development, because the increase in disposable income of citizens brings increased demand for real estate purchase.
· Remittances of emigrants were used very well as a good source of funding. This was the period when real estate building had a big boom associated with the high amount of remittances sent by immigrants.
· Increase or decrease the interest rate on loans to individuals or, in more general terms, investment in real estate, will have a negative or positive effect on the

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demand for real estate, which would affect the decision investment in future periods to real estate investors.

·   Various studies on development economies emphasize the importance of property rights as encouraging investments and boosting the economy.

·   Referring to the linear regression equation, the variables have a significant positive impact on the dependent variable that is funding construction.

References

Aliaj B., (2003), "A Short History of Housing and Urban Development Models during 1945-1990".

Baum, A., (1994), Quality and property performance. Journal of Property Valuation and Investment, Vol.12 lss:1, (31-46).

Berges S., (2004) "Real Estate Finance for Investments Propertyes"Canada.

B.Brueggeman, Jeffrey D.Fisher, (2011), "Real Estate Finance And Investments" New York.

Danermark, Berth (1993), Post-War Urban and Regional Development in Albania, at Habitat. Great Britain 1993.

Deininger, K. (2005) "Land policies for growth and poverty reduction: Key issues and challenges ahead", OECD Paper.

El-Sakka, M. (2005). "Migrants workers remittances and Macroeconomic Policy".

Hall, Derek, 1990: Chapter Eight: Housing Policy in Albania, at Housing Policies in Eastern Europe and Soviet Union, London 1990.

Ibrahimaj, D. & Mattarocci, G. 2013, (96-106), Sektori i Ndërtimit dhe Tregu i Pasurive të Paluajtshme: Evidenca nga Shqipëria

Kagochi, J.M. and Kiambigi,M.(2012),"Remittances Influence on Housing Construction Demand in Sub-Saharan Africa : The Case of Kenya",African Development Review, Vol.24, No. 3, (255-265).

Kalia M. (2013), "The Factors that Influence Customer Behaviour in Housing Market in Tirana", Journal of Marketing & Management, Vol. 4, No. 1, (93-106).

Osili."Migrants and Housing Investments: Theory and Evidence from Nigeria", Economic Sayan, S. and Tekin-Koru, A. (2007). "Remitances,Busines Cycles and Poverty".

Rama A., 2013, "Të Drejtat e Pronësisë në Shqipëri Sfidat dhe prespektiva".

Thanasi M. and Hysi V. (2013), "Impact of the Model of Taxation on Transferring Properties in Immovable Property Market in Albania", Journal of Finance, Accounting & Management, Vol. 4, No. 2, (1-10).

Buletini i Bankës së Shqipërisë, 2009, "Rezultatet e vrojtimit pranë familjeve për të ardhurat nga emigrantët".

www.instat.gov.al.

Ligji Nr. 7698, (1993), "Për Kthimin dhe Kompensimin e Pronave ish-Pronarëve".

Ligji Nr. 7843 I 13 Korrikut 1994, "Për Sistemimin e Regjistrimit të Pasurive të paluajtshme".

Ligji Nr. 33/2012 " Për rregjistrimin e Pasurive të Paluajtshme".

Open Data.Kredia per individet sipas qellimit.

Open Data.Kredia per bizneset sipas qellimit dhe aktivitetit ekonomik.

Open Data.Remitancat ne Shqiperi .

Raportet e Bankes se Shqiperise.Tirane, Per vitin 2000 deri ne vitin 2014.