RESEARCH ARTICLE

FIRM LEVEL DETERMINANTS OF PRIVATE INVESTMENTS IN ALBANIA

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Abstract
Considering the great importance of Private Domestic Investment and the little empirical evidence at firm level data in Albania, there is a need to investigate the main determinants in order to further improve the investment climate and to further extend the actually studies. The aim of this paper is to identify and to analyze the main determinants of private investments in Elbasan region only (including Elbasan city, Librazhd, Gramsh and Peqin). The data used in this study has spanned over the period of 2010 till 2014 for 200 firms of different activities. Our findings indicate that private investments at the firm level are strongly affectet by debt and profits, as well as firm size and firm's years of operating in the market. There is also evidence of sales and liquidity impact but even of their positive sign, they resulted statistically insignificant. We can conclude that the financial position of firms plays a critical role on the investment decision - making process. Firms are strongly encouraged to be profit maximization oriented and to better evaluate the debt level as it negatively impact their investments. On the other hand, public policies should be oriented to further stimulate the creation of new businesses and the growth of the existing ones.
Keywords: *private investments, firm level data, empirical evidence.*

Introduction

Private Domestic Investment has played a critical role in the economic activity of Albania after the fall of socialism regime. The private sector grew up fast contributing thus in the economic growth of Albanian country. The greatest contribute for sure was in the employment, community infrastructure and public revenues due to the taxes. In the last few years, major changes have taken place in Albania that led to a significant economic shift as construction and services replaced agriculture and outdated industry as the main contributors to gross domestic product. The main reason to deal with private investment comes due to the their great importance and central role in an economy. It is believed that private investments contribute to six main areas such as: rate of employment, rate of existing national capital, improvement of products and services if related with advanced technology, domestic investments and competitiveness. The main objective of this study is to develop an econometric model for the forecast and control of private investments at the micro view. More precisely we try to identify and empirically analyse the main determinants of private investments at the firm level data. We do hope to contribute both for the entrepreneurs as well as to address the right policies for the government on the behalf of firms in Albania.

Material and Methods

Firm level data studies are very limited either in the international context due to difficulties of obtaining the data and the quality of data but there are several studies that have shed light on the behavior of private investments. One of great importance is the case of Malaysian firms. For the our paper it has been study a large literature review and empirical literature. According to the classical school, the main determinant of private investment was the interest rate and the minimum government actions. Due to Great Depression in 30's and the European Crisis in 70 – 80's the classical view was not able to explain and to resolve the hard situation associated with high unemployment rates, high debt ratios, high inflation rates, ecc. but Keynes proposed the fiscal expansion with tax cuts and the increasing public investments to improve and increase private investments. It resulted successful and effective. Keynesian also included the concept of q-value, known as Tobin's q and the technology

innovation concept known as the Solow surplus as determinants of private investments. Further extensions of Classical and Keynesian schools relates with neoclassical and neokeynesian followers. Meanwhile, main determinants of private investments in the micro view are classified in four groups: the capital utilization rate, expected rate of return, technology and sales level. If sales and rate of return are expected to increase in the future the firms are more likely and motivated to invest and vice versa. It is alslo known the positive impact and advantage of an innovative or new technology implemented. It will generate improved products, higher sales in the future and the incentive to invest more. According to the capital utilization rate, if the firm operates with full utilization rate it means that the machineries and premises will be highly amortized and need to be renovate, thus investment need to be done. Eventhough, it is not common in practice to operate with full utilization capital rate. In general, firms operate with the rate of 80 – 85% and in recession till 70% rate.

or this study are considered 200 firms in the Elbasan Region for a period of 2010 – 2014. There are 100 firms from Elbasan city, 60 from Librazhd, 22 from Gramsh and 18 from Peqin, chosen in proportion with their population. The firms have 5 till 22 years of operating in the market and perform different activites. The variables considered for the estimation of the model are: private investments, sales, liquidity, debt, profit (all in million ALL[1]), firm size (0 - small firms and 1 – large firms) and years of operating in the market. The data for the variables are obtained from their financial statements published at National Registration Center in Albania[2]. For the estimation of the regression and the parameters it is used the OLS[3] method and for the Godness to Fit data are used R^2, F-test and p-value. The level of significance chosen is 0.05. It is also performed an One Way ANOVA procedure to examine if there is any difference in the behavior of private investments between different kinds of firms activities such as: trade, construction sector, manufacturing and trade, timber explotation and service (pharmacy, exchange, transport and travel agencies ecc.).

Results and Discussion

Analyzing the level of investments in the Elbasan Region and some descriptive statistics through 2010-2014 period it was observed that the highest investment level belongs to the 2010-2011 period with approximately 7.2 million ALL, followed by the 2011 – 2012 period with 4.1 million ALL. 2012 -2013 period has not been a good climate for investments as it was observed a decrease with approximatly 4.7 million ALL. The situation is slightly improved in the 2013-2014 period with an approximately increase of 0.63 million ALL. We can conclude that the most positive period for investment has been the 2010 – 2011th. Next attempt was to perform a One Way ANOVA procedure to identify if there is any difference in the mean investments through firm's different activities. The results are summarized and presented in table 1. One can easily observe that even there are differences in the mean investment level, at the 0.05 level of significance the groups were homogenues, so we can conclude that there are not differences in the behavior of different firm's activities and there is no special incentives needed according to the firm activity but for the investments as a whole.

Table 2 summarizes and analyzes the regression results obtained form the OLS method. It can be immediately observed that debt and profits[4] are highly significant. Sales and liquidity, even with a positive impact as it was expected from the literature seems to be not significant while firm size and experience (years of operating) are significant at 10% level of significance. Debt affects negatively investments and thus it gives a signal to entrepreneurs to better evaluate their financial position but at the same time they are strongly encouraged to be profit maximazation oriented as it positively affect investments. It was well expected that firm size positively affected investments and experience in the contrary direction. According to the business cycle, investments are positive and increasing in the entrance and growth stage, they begin to decrease in the maturity stage and so on. The coefficcient of determination of 0.727 indicates that 72.7% of the variability in investments is explained by the mentioned variables and 27.3% (100 – 72.7) is explained by other variables or is unexplained.

[1] Albanian lek

[2] www.qkr.gov.al

[3] Ordinary Least Square

[4] Before running regression each variable was testet with Ramsey RESET test for the functional form with investments. It was found that relationship between debt and investments is quadratic and between profit and investments is cubic. Refer to Gujarati, Basic Econometrics textbook for the econometric tests. Also available in the references section of this paper.

Table 1. ANOVA results

Types of firm activity	*N*	*Investment level*
Trade	74	1'436'495.9443
Construction Sector	45	628'511.7296
Manufacturing and Trade	46	5'662'088.6214
Timber Explotation	9	367'774.8611
Service	26	40'358.0449
	200	

Table 2. Regression results

Variables	*Coefficients*	*p-values*	*Observed signs*
intercept	-51	0.226	-
Firm size	59	0.094*	+
Sales	0.014	0.820**	+
Liquidity	0.020	0.670**	+
Debt	-0.911	0.000	-
$Debt^2$	0.074	0.000	+
Profit	-3.788	0.000	-
Profit2	0.0147	0.000	+
Profit3	0.043	0.000	+
Experience	-5.138	0.053*	-

*significant at 10% level of significance
** not significant

Conclusions

With results in mind and the empirical evidence we can conclude that financial position of firms is an important issue that affects investment decision making process behind the fiscal and monetary policy. Firm size, debt, profit and experience are important determinants of private investments. As it was observed that larger the firm larger the investments, government is strongly encouraged to stimulate the growth of existing firms. We also obtained a negative relationship between experience and investments, meaning again that government should incourage either the creation of new businesses. From the entrepreneurs view, they should take in consideration their financial position before obtaining new debt as it strongly and negatively affects investments but should be profit maximization oriented. It is suggested that further studies take in consideration other variables that can potentially explain investments such as cash flow, capital utilization rate and the investitor profile as it was not possible to include such variables in this study due to missing data or difficulty of obtaining them. We can also suggest that the obtained model can be used for control or forecast purposes as the model p-value was highly significant (0.000). Even if the study was limited only for the 2010 – 2014 period it will be of worth to compare it with other studies for the north or south of Albanian Country, or to establish the base for such studies in the future.

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