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MACROECONOMIC UNCERTAINTY AND CORPORATE CAPITAL STRUCTURE: EVIDENCE FROM FIRMS LISTED IN TEHRAN STOCK EXCHANGE, IRAN

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Abstract

Corporate capital structure is one of the most researched areas in finance but there is still no universally accepted theory which can fully explain a firm preference in choosing the financing source and researches are yet trying to recognize new factors affecting leverage. Based on the previous studies, it turned out that in addition to internal factors, there are other important variables influencing the mix of debt-equity and it is even claimed that about 70 percent of differences in the capital structure is due to external factors. For this reason, we tried to extend the literature on the effect of Macroeconomic uncertainty on the capital structure of Iranian firms. In particular, we have considered the influence of inflation rate, real exchange rate and Gross domestic product uncertainty, using a sample of 186 manufacturing firms listed in Tehran Stock Exchange covering a period from 2007 to 2014with applying an EGARCH model to proxy for macroeconomic uncertainty. The results of the fixed effect regression, after controlling for firms specific factors including profitability, liquidity, firm size and tangibility, revealed that inflation rate and real exchange rate uncertainty have negative effects on the leverage while GDP uncertainty has a positive influence on it.

Keywords: Capital Structure, Macroeconomic Uncertainty, ARCH, EGARCH, Panel Regression

INTRODUCTION

The objective in conventional corporate financial theory when making decisions is to maximize the value of the business or firm and all of corporate finance is built on three decisions including the investment decision, the financing decision, and the dividend decision. Any decision (investment, financial, or dividend) that increases the value of a business is considered a good one, whereas one that reduces firm value is considered a poor one (Damodaran, 2010).Therefore considering the financing choice of a company as one of its major decisions which will have substantial effects on the cost of capital and consequently on its value is vital and of high importance.

There are several theories in the finance literature that have made efforts to explain the mix of financing sources of a firm and its behavior according financing choice. The debt–equity decision is one of the most researched areas in finance and the capital structure determinants have been in the center of attention in the past decades. Over the years, research in capital structure has enhanced the overall perceiving of how firms make their financing decisions (Modigliani and Miller, 1958; Modigliani and Miller, 1963; Jensen and Meckling, 1976; Myers, 1977; Myers and Majluf, 1984; Stulz, 1990; Ross, 1977; Baker and Wurgler, 2002) however there is no universally accepted theory which can fully explain a firm preference in choosing the financing source (Camara, 2012). The primary studies used to give consideration to the special firm characteristics. Based on these studies, there are almost similar agreements on the key internal factors affecting capital structure including profitability, firm size, asset structure, liquidity, growth opportunities, uniqueness, industry classification, earning volatility and stock return (Titman & Wessels, 1988; Yang et al., 2010; Chakraborty , 2010;Camara, 2012; Mateev et al., 2013 etc.), while recent surveys have started to investigate external factors affecting debt-equity ratio which are mostly associated with Macroeconomic conditions.

Frank and Goyal (2003) have come to conclusion that around 30 percent of differences in the capital structure inside the country can be explained by internal determinants, which posits that there are other factors than internal determinants influencing financing choices (Bokpin, 2009). Hackbarth et al. (2006) revealed that macroeconomic conditions have considerable impacts on target capital structure (Camara, 2012). Internal factors and their impacts can be managed by the firm, while macroeconomic factors cannot be controlled by managers and both types of determinants have significant effects on the corporate capital structure. Being aware of the level, direction and power of their impacts can help companies to make effective decisions according capital structure for the aim of financial stability and sustainable growth (Mokhova & Zinecker, 2013). With considering the fact that external sources of financing are directly affected by the macroeconomic conditions while firm characteristics

including probability of bankruptcy, profitability and capital investment are indirectly influenced by stages of life cycle via cost of capital, cash flows, leverage and the balance sheet components, it is implied that the target capital structure and its adjustments are both directly and indirectly affected by macroeconomic conditions and different stages of corporate life cycle (Camara, 2012). Furthermore, a firm's financing choices might change as it makes the transition from a start-up firm to a mature firm to final decline. Typically, startup firms and firms in rapid expansion use debt sparingly; in some cases, they use no debt at all. As the growth eases and as cash flows from existing investments become larger and more predictable, we see firms beginning to use debt. Debt ratios typically peak when firms are in mature growth (Damodaran, 2010).

Since the global attention has been rising to consider other important factors which are necessary for managers' prospects when making financing decisions, we are interested to shed light on the effect of uncertainty of macroeconomic variables (including inflation rate, GDP and real exchange rate) on the capital structure by using a panel data of 186 firms listed in Tehran stock exchange covering a period from 2007 to 2014.

The rest of the paper is organized as follows; Section 2 discusses relevant literature. Section 3 describes the data and the research methodology used in this paper. Section 4 reports the empirical results and Section 5 summarizes and concludes the paper.

LITERATURE REVIEW

One of the most influential papers ever written in corporate finance containing one of corporate finance best-known theorem is the Modigliani-Miller theorem (1958). First, they argued that in a frictionless world with no taxes, transaction costs and possibility of default, the value of a firm is unaffected by its leverage. However, they ultimately reversed this claim, explaining that leverage has a positive effect on the value of the firm and it is maximized when a firm is entirely financed with debt (Modigliani and Miller, 1963). Miller and Modigliani were pioneers in moving capital structure analysis from an environment in which firms picked their debt ratios based on comparable firms and management preferences, to one that recognized the trade-offs. The trade-off theory of capital structure recognizes that target debt ratios may vary from firm to firm. This trade-off theory states, despite the fact that existing debt in the capital structure of firms creates tax shield and increases its value, risk increases as the firm adds debt to the capital structure. Providing tax shield and being a cheaper source of financing, make Debt beneficial for firms at low levels, But when large amounts of debt is taken on, the firms commence to be financially distressed by trying to meet interest payment obligations (Stretcher & Johnson, 2011). So according to this theory, capital structure decisions depend on benefits and costs of

utilizing more debt (Aggarwal & Kyaw, 2010). Harkbarth et al. (2006) claimed that, if a firm determines its optimal capital structure by balancing the related benefits and costs of debt, then both benefits and costs should depend on macroeconomic conditions; the expected benefit of debt which is also used for the purpose of reducing the agency conflicts between managers and shareholders depends on whether there is an economic expansion or recession since it effects on the level of corporate cash flows. Further, expected costs of debt (bankruptcy costs and agency conflicts between creditors and shareholders') depend on probability of default and loss given default both of which should depend on the current state of the economy (Bokpin, 2009). Myers and Majluf (1984) presented the pecking order theory which starts with asymmetric information indicating that managers know more about their companies' prospects, risks, and values than do outside investors. Asymmetric information affects the choice between internal and external financing and between new issues of debt and equity securities. This leads to a pecking order, in which investment is financed first with internal funds, reinvested earnings primarily; then by new issues of debt; and finally with new issues of equity (Breally & Myers, 2003). Myers and Majluf (1984) anticipated that leverage decreases with the increase of free cash flow (Aggarwal & Kyaw, 2010).

Many studies have investigated the relation between capital structure and firm-level determinants and they have introduced almost a same set of factors. Mokhova & Zinecke (2014) have found that external determinants of capital structure play a substantial role in financial decision-making process and the knowledge about the power and direction of such influence supports managers to make effective and accurate financial decision for stable and successful development. Hatzinikolaou et al. (2002); Frank & Goyal, (2003 & 2009); Bokpin, (2009); you & he (2011); Camara (2012); Jõeveer (2013); Mokhova & Zinecker (2014) have considered the effect of external factors on the capital structure. GDP is one of the most used external factors. As a rule, during the period of economic expansion, when interest rates are rising, banks are willing to increase loans to private sector, therefore, financial leverage should rise (Mokhova & Zinecke, 2014) but according to the pecking order theory, when product market goes up, it leads to more retained earnings therefore the use of debt will decrease (you & he, 2011). Inflation rate is another external factor being considered in the researches. Inflation is expected to have a positive effect since it increases the true value of tax deductions on debt (Frank & Goyal, 2009; Joeveer, 2013). Camara (2012) has showed that inflation is negatively related to leverage since cost of borrowing will increase in the inflationary condition. Another variable which is suspicious to be related to leverage is exchange rate. The exchange rate sensitivity affects the firm value and its stock price. This would occur due to the adjustments of firms' cash flows according to the fluctuations in foreign exchange rate. For instance the profit of

an exporting firm is more likely to decrease based upon the appreciation of domestic currency and so is its value (Gokhan & Cifter, 2014), therefore the firm ought to use external sources of financing. Since the stock price has been fallen, the issuance of new equity does not make sense and due to the reduction of profit, investors will not be interested in buying new shares, so borrowing would be a better choice, in this condition the amount of debt would increase.

The macroeconomic environment has significant effects on the growth and financial performance of firms. The economic cycle for example has been discovered to affect profitability, leverage, cash flow and by means of that influence company failures. Bhattacharjee et al. (2009) have studied US and UK firm exits through bankruptcies and acquisitions and have discovered that both modes of exit depend on the macroeconomic environment, specifically, macroeconomic instability (Bhattacharjee & Han, 2014).

Baum et al. (2006) argued that higher uncertainty will obstruct managers' ability to predict firm-specific information such as expected future cash flows. They showed that macroeconomic uncertainty signaling increased uncertainty hampers efficient use of resources. They also found that Firms experiencing rapid growth, firms that are financially constrained and capital-intensive firms are found to be quite sensitive to macroeconomic uncertainty. In this paper, we are interested to investigate the effect of Macroeconomic uncertainty including inflation rate, Gross domestic product and real exchange rate with using firm specific factors as control variables on the capital structure.

METHODOLOGY

This paper is based on the evidence of firms listed in Tehran stock exchange and the sample is containing 186 manufacturing companies for the period 2007-2014. All of the companies in the sample are calendar-year taxpayers and the debt to equity ratio which is considered as a proxy for capital structure, is positive. Availability of appropriate information was another selection requirement, therefore companies which had all required data for the period 2007-2014 were chosen.

The required data of financial statements were obtained from official Tehran stock exchange database and the data of macroeconomic factors including inflation rate, GDP and exchange rate was provided by central bank of Islamic Republic of Iran database. Asset tangibility (fixed assets including machinery, buildings and land to total assets), profitability (return on assets), firm size (natural logarithm of total assets) and liquidity (current assets to current liabilities) are utilized as control variables and an EGARCH model is used to proxy for macroeconomic uncertainty.

Based on the literature this approach seems more appropriate comparing to other proxies which are derived from moving standard deviations of macroeconomic series or those that are based on the dispersion of forecasts (Chakraborty, 2010).

We employed a panel data regression given as Eq. 1:

$$Y_{it} = \alpha_i + \beta X_{it} + U_{it} \qquad (1)$$

Where i is the individual dimension and t is the time dimension. Y is the dependent variable which is a measure of capital structure.

We have data of 186 firms for 8 years so our total observation is 1488. We have checked the stationarity of the macroeconomic variables by using unit root test. The stationarity or otherwise of a series can strongly influence its behavior and properties and the use of non-stationarity data can lead to spurious regressions. Stationarity series can be defined as one with a constant mean, constant variance and constant auto co variances for each given lag which is the concept of weak stationarity. The early and pioneering work on testing for a unit root in time series was done by Dickey and Fuller (Brooks, 2008).

Based on the Augmented Dickey-Fuller test; the macroeconomic variables used in this paper had a unit root, therefore their first differences were utilized. Autocorrelation and partial autocorrelation functions were applied for modeling the macroeconomic factors and the results showed AR (1) for both inflation rate and GDP and ARMA (1,3) for the real exchange rate which the details are shown in tables 1-3.

Table 1: Modeling the Inflation Rate

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	9.177276	4.277009	2.145723	0.0444
INF(-1)	0.570171	0.193883	2.940808	0.0081
R-squared	0.301880	**Mean dependent var**		20.66364
Adjusted R-squared	0.266974	**S.D. dependent var**		9.547353
S.E. of regression	8.174154	**Akaike info criterion**		7.126339
Sum squared resid	1336.336	**Schwarz criterion**		7.225525
Log likelihood	-76.38973	**Hannan-Quinn criter.**		7.149705
F-statistic	8.648352	**Durbin-Watson stat**		1.685597
Prob(F-statistic)	0.008082			

Table 2: Modeling the GDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.036417	0.016547	2.200777	0.0403
AR(1)	0.548342	0.252745	2.169549	0.0429
R-squared	0.198547	**Mean dependent var**		0.041648
Adjusted R-squared	0.156365	**S.D. dependent var**		0.035294
S.E. of regression	0.032418	**Akaike info criterion**		-3.929823
Sum squared resid	0.019967	**Schwarz criterion**		-3.830345
Log likelihood	43.26314	**Hannan-Quinn criter.**		-3.908234
F-statistic	4.706942	**Durbin-Watson stat**		1.506593
Prob(F-statistic)	0.042931			

Table 3: Modeling the Real Exchange Rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.223539	0.715697	12.88749	0.0000
AR(1)	0.939391	0.070365	13.35031	0.0000
MA(3)	-0.636320	0.331646	-1.918673	0.0702
R-squared	0.858046	**Mean dependent var**		9.782175
Adjusted R-squared	0.843103	**S.D. dependent var**		0.333057
S.E. of regression	0.131925	**Akaike info criterion**		-1.087050
Sum squared resid	0.330678	**Schwarz criterion**		-0.938271
Log likelihood	14.95755	**Hannan-Quinn criter.**		-1.052002
F-statistic	57.42294	**Durbin-Watson stat**		1.262146
Prob(F-statistic)	0.000000			

The results from using Autoregressive conditionally heteroscedastic (ARCH) models revealed that the variance of errors of inflation rate, the real exchange rate and the gross domestic product are not constant at the 95 percent confidence interval, see table 4-6.If the variance of the errors is not constant, this would be known as heteroscedasticity, if the errors are heteroscedastic, but assumed homoscedastic, an implication would be that standard error estimates could be wrong. It is unlikely in the context of financial time series that the variance of the errors will be constant over time, and hence it makes sense to consider a model that does not assume that the variance is constant, and which describes how the variance of the errors evolves (Brooks, 2008).

Table 4: Heteroskedasticity Test: ARCH-Inflation Rate

F-statistic	4.682022	**Prob. F(1,19)**	0.0434
Obs*R-squared	4.151777	**Prob. Chi-Square(1)**	0.0416

Table 5: Heteroskedasticity Test: ARCH- GDP

F-statistic	7.957007	**Prob. F(1,19)**	0.0109
Obs*R-squared	6.198654	**Prob. Chi-Square(1)**	0.0128

Table 6: Heteroskedasticity Test: ARCH- Real Exchange Rate

F-statistic	5.004623	**Prob. F(1,19)**	0.0375
Obs*R-squared	4.378202	**Prob. Chi-Square(1)**	0.0364

In order to calculate macroeconomic uncertainty, we used an EGARCH model which was proposed by Nelson (1991) which is shown by Eq. 2:

$$\ln(\sigma_t^2) = \omega + \beta \ln(\sigma_{t-1}^2) + \gamma \frac{u_{t-1}}{\sqrt{\sigma_{t-1}^2}} + \alpha \left[\frac{|u_{t-1}|}{\sqrt{\sigma_{t-1}^2}} - \sqrt{\frac{2}{\pi}} \right] \quad (2)$$

This model has several advantages over the pure GARCH specification. First, since the log (σ_t^2) is modelled, and then even if the parameters are negative, σ_t^2will be positive. There is thus no need to artificially impose non-negativity constraints on the model parameters. Second, asymmetries are allowed for under the EGARCH formulation (Brooks, 2008). The EGARCH models of inflation rate, GDP and real exchange rate are shown in tables 7-9, respectively. The unit root test was also applied for the dependent and control variables and non-stationarity problem was not seen among them.

Table 7: EGARCH Model-Inflation Rate

Variable	**Coefficient**	**Std. Error**	**z-Statistic**	**Prob.**
C	3.065184	0.232838	13.16447	0.0000
AR(1)	0.798389	0.086671	9.211696	0.0000
	Variance Equation			
C(3)	-0.126677	0.627454	-0.201891	0.8400
C(4)	-1.912784	0.928821	-2.059369	0.0395
C(5)	0.831217	0.545304	1.524318	0.1274
C(6)	0.365221	0.170672	2.139905	0.0324
R-squared	0.303911	**Mean dependent var**		2.940519
Adjusted R-squared	0.269107	**S.D. dependent var**		0.418600
S.E. of regression	0.357870	**Akaike info criterion**		0.572117
Sum squared resid	2.561425	**Schwarz criterion**		0.869674
Log likelihood	-0.293292	**Hannan-Quinn criter.**		0.642213
Durbin-Watson stat	1.840066			

Table 8: EGARCH Model-GDP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.045325	0.014129	3.207837	0.0013
AR(1)	0.558710	0.132766	4.208218	0.0000
	Variance Equation			
C(3)	-13.49823	0.987806	-13.66486	0.0000
C(4)	2.092899	3.757108	0.557050	0.5775
C(5)	0.477931	1.844687	0.259085	0.7956
C(6)	-0.791295	0.162184	-4.878992	0.0000
R-squared	0.184787	**Mean dependent var**		0.041648
Adjusted R-squared	0.141882	**S.D. dependent var**		0.035294
S.E. of regression	0.032695	**Akaike info criterion**		-3.905889
Sum squared resid	0.020310	**Schwarz criterion**		-3.607454
Log likelihood	47.01184	**Hannan-Quinn criter.**		-3.841121
Durbin-Watson stat	1.495340			

Table 9: EGARCH Model-Real Exchange Rate

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	13.71513	10.17386	1.348075	0.1776
AR(1)	1.013148	0.036137	28.03601	0.0000
MA(3)	-0.809874	0.023189	-34.92565	0.0000
	Variance Equation			
C(4)	-0.681475	0.759275	-0.897535	0.3694
C(5)	-1.029342	0.279670	-3.680556	0.0002
C(6)	-0.845496	0.572231	-1.477543	0.1395
C(7)	0.737438	0.134334	5.489579	0.0000
R-squared	0.836591	**Mean dependent var**		9.782175
Adjusted R-squared	0.819391	**S.D. dependent var**		0.333057
S.E. of regression	0.141543	**Akaike info criterion**		-1.972152
Sum squared resid	0.380654	**Schwarz criterion**		-1.625002
Log likelihood	28.69368	**Hannan-Quinn criter.**		-1.890374
Durbin-Watson stat	1.233699			

EMPIRICAL RESULTS

Hausman and Chaw tests were applied in order to see whether a fixed effect or a random effect model is appropriate. Based on these tests, a fixed effect model is preferred, refer table 10 and 11.

Table 10: Hausmantest

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section and random effect	8.558	4	0.07

Table 11: Chaw test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.622409	(185,1295)	0.0000
Cross-section Chi-square	990.719289	185	0.0000

The results of the fixed effect regression are presented in Table 12. It appeared that inflation uncertainty and real exchange rate uncertainty have negative effects on the capital structure of firms listed in Tehran stock exchange while GDP uncertainty has a positive effect on it. According to t-statistics and p-values, it can be perceived that among macroeconomic variables, only GDP uncertainty has a significant effect at 95 percent confidence interval and the effect of real exchange rate uncertainty is significant at 90 percent confidence interval.

There are statically significant negative relationships between all control variables and debt to equity ratio except for firm size which has a positive effect and this effect is not statically significant. The R-squared of the model is 85 percent meaning that 85 percent of the variations in the dependent variable is explained by the explanatory variables in the model.

Table 12: Fixed Effect Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.164600	0.410496	0.400978	0.6885
LOG(UNCINF)	-0.009190	0.006533	-1.406629	0.1598
LOG(UNCGDP)	0.050974	0.023013	2.214976	0.0269
LOG(UNCRER)	-0.007148	0.004276	-1.671629	0.0948
ROA	-0.022871	0.001291	-17.71159	0.0000
TAN	-0.699342	0.107565	-6.501549	0.0000
LIQ	-0.456032	0.019449	-23.44798	0.0000
SIZE	0.020910	0.030451	0.686668	0.4924
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.854843	**Mean dependent var**		0.397654
Adjusted R-squared	0.833321	**S.D. dependent var**		0.865425
S.E. of regression	0.353321	**Akaike info criterion**		0.877608
Sum squared resid	161.6624	**Schwarz criterion**		1.565713
Log likelihood	-459.9400	**Hannan-Quinn criter.**		1.134055
F-statistic	39.72055	**Durbin-Watson stat**		1.450916
Prob(F-statistic)	0.000000			

Inflation and real exchange rate uncertainty would increase the firm's business risk via increasing the volatility of the firm's volume of sales, product and input prices. Therefore the volatility of the firm's operating income and its probability of bankruptcy will increase. In appointing the optimal capital structure, it is very important for the management to consider the size and the stability of the firm's cash flows relative to the fixed charges associated with the use of debt. Hence in a highly inflationary environment with heightened inflation uncertainty, a firm which is facing high business risk and uncertain cash flows and needs to raise funds for its investments, may choose to issue new equity and it will decide to keep some unused debt capacity for the future in order to maintain some flexibility. Otherwise, if the firm decides to borrow for its capital needs, it may be forced to issue new shares on unfavorable terms in the future (Hatzinikolaou et al, 2002). Assaf (2014) found the same results as Hatzinikolaou et al, (2002), in his master thesis. He considered the effect of inflation uncertainty and discovered that Inflation uncertainty reduces leverage exogenously. It increases business risk, which refers to more volatile operating income, causing the tax-shields to become more uncertain. Consequently, reduces the use of debt. Heidari and Bashiri (2012) claimed that variations in real exchange rate will conduct investors to foreign exchange market and it will also increase the firms' costs, therefore stock prices will fall. Decrease in stock prices will increase bankruptcy costs and in this case according to the trade-off theory, firms will use less debt in their capital structure.

In explaining the effect of GDP uncertainty, it can be argued that being uncertain about Growth of future products, will decrease the level of wages and this will make policy makers to do actions in order to increase the real products which will cause to more inflation. Inflation itself will cause to more debt because during the period of economic expansion, when interest rates are rising, banks are willing to increase loans to private sector, therefore, financial leverage should rise. As a rule, the high rate of inflation is expected to adversely affect both the debt market and the stock market; consequently the rate of return is expected to be high, which adversely affects the price of the securities. As a result, the cost of capital is increasing, which makes some investments projects unprofitable and thereby adversely affects the rate of growth of the economy and consequently adversely affects the stock market. Therefore, under the conditions of higher inflation rate the debt will be more beneficial for companies, because the cost of debt decreases (Mokhova & Zinecke, 2014).

Profitability has a negative effect on the capital structure since high retained earnings minimize the need for debt. Firm size has a positive effect on the use of debt. Due to their diversified expected cash flows, and higher collateral base, larger firms tend to have better

access to capital markets, and thus tend to have higher leverage than smaller firms. Within the trade-off framework, tangibility is expected to be positively related to leverage. That is, tangible assets can be collateralized and therefore lowers expected bankruptcy costs, while our result shows a negative relationship. Firms with Higher liquidity would prefer to use their internal funds as their financing source and hence a negative effect between liquidity and leverage is expected.

CONCLUSION

Managers make their financial decisions according to the sources of financing based on both macroeconomic conditions and firm specifics characteristics. Existing studies about capital structure have been mostly evolved around firm-specific factors and some researches have been noticing the significance of macroeconomic variables, in the past few years. In this study we have considered the effect of macroeconomic uncertainty including inflation rate, real exchange rate and Gross Domestic Product with controlling for firm-level factors on corporate capital structure of firms listed in Tehran stock Exchange for the period 2007-2014.

We used a fixed panel regression and an EGARCH model as a proxy for macroeconomic uncertainty. Hatzinikolaou et al. (2002) and Assaf (2014) have only considered the effect of inflation rate uncertainty on the leverage and to our knowledge the influence of uncertainty of other macroeconomic variables have been neglected in the previous researches. In consistent with their studies, our results proved that inflation rate uncertainty has a negative effect on the leverage, exactly the same as exchange rate uncertainty which can be implied that Higher inflation rate and exchange rate uncertainty will increase firms' business risk and the volatility of their revenues and costs, in this case the probability of bankruptcy will rise, therefore firms will use less debt in their capital structure. GDP uncertainty appeared to have a positive effect on the leverage, since being uncertain about Growth of future products will decrease the level of wages and this will make policy makers to do actions in order to increase the real products which will heighten the inflation rate. In an Inflationary environment firms will use more debt because during the period of economic expansion, when interest rates are rising, banks are willing to increase loans to private sector; therefore, financial leverage should rise.

From the limitations of this study we can point to the unavailability of required data which some firms have not presented their audited financial statements for some years hence we were not able of calculating credible essential factors including debt to equity ratio, liquidity, size and profitability of firms as our explanatory variables.

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