# COUNTRY RISK WITHIN CEE AREA: EMPIRICAL PERSPECTIVE ON CORPORATE COST OF EQUITY

## PETRE BREZEANU, LUCIAN IONESCU CRISTINA MARIA TRIANDAFIL \*

**ABSTRACT:** This paper studies corporate exposure to country risk from the perspective of the cost of equity. Indeed, corporations located into emerging countries are perceived as being riskier; therefore, investors require higher returns which increase the financing costs. Under these circumstances, financial managers face the challenge of quite a tough balance to keep up with: valorising the growth potential offered by the emerging countries on the condition of implementing powerful financial strategies, capable of protecting the corporation from the macroeconomic volatility. This research develops a practical approach on the way exposure to country risk impacts company's financial balance, with a deep keen on the operational support offered by various methodologies that analysts get use of within the assessment process.

KEY WORDS: country risk, corporate, exposure, equity, financing

#### **1. INTRODUCTION**

In the context of the actual borderless world, capital flows have directed towards the most attractive spaces in terms of return. As higher return is equivalent always to higher risk, new techniques have been implemented in order to assess in a more accurate way credit risk. The strongest points that are always pointed out as for the emerging countries imply strong currency, budget surpluses and a high rate of local consumption. The lack of correlation between their financial systems and the largest capital markets enabled specialists to conceive them as an important element in case of financial crises since investors have the opportunity to direct the capital inflows towards them in order to get a higher protection.

<sup>\*</sup> Prof., Ph.D., Academy of Economic Studies, Bucharest, Romania, <u>brezeanupetre@yahoo.com</u> Prof., Ph.D., Romanian Banking Institute, Romania

Ph.D. Student, Academy of Economic Studies, Bucharest, Romania, <u>cristina triandafil@yahoo.com</u> The negative aspects imply higher volatility, lack of transparency and liquidity. At the global level, there is a keen interest directed towards emerging countries because of the potential growth perspectives offered to the multinational companies and to the low labour cost. Outsourcing became one of the most important strategies developed by all world-wide level corporations.

Emerging countries are considered to be riskier than developed ones. The additional risk consists of macroeconomic volatility deriving from exchange rate depreciation, inflation, unpredictability of the fiscal system or institutional and political instability.

Nevertheless, corporations are attracted by the higher growth potential and it is quite challenging for the financial manager to accurately assess and manage the additional country risk premium. The cost of equity characteristic to corporations from emerging countries must integrate the company exposure to country risk.

This research points out the way cost of equity varies under the impact of the country risk premium characteristic to corporations located into East European emerging countries. Section 2 contains a literature review and section three integrates the case-study and the conclusions.

#### 2. SECTION 2

The actual literature on the international cost of equity represents various approaches either on the possibility to adapt CAPM in order to integrate company exposure to country risk (Ferson and Harvey, 1995), either on the opportunity to compute international cost of equity by the integration of the additional country risk premium to the risk-free rate and to the volatility characteristic to the industry the company activates in (Godfrey and Espinosa, 1996, Pereiro and Galli, 2000, Damodaran, 2003).

Lee, Ng. and Swaminathan (2005) elaborated an implied cost of capital based on the market prices. Cash-flows are forecasted and the discount rate that makes the present value of these cash-flows equal to the market prices represents precisely the cost of equity.

Analysts criticized the low degree of certainty relative to the forecasted cashflows. Many studies pointed out that country risk premium can be quantified by the spread relative to the corporate bonds issued on the international capital market. The problem consists of the fact that bond spreads are not available for all the emerging countries. Erb, Harvey and Viskanta (1996) proposed to run a regression of observed sovereign spreads on country risk ratings in order to determine the implied sovereign spread for a country which does not have government bonds.

Damodaran criticizes the fact that bond spreads are used in order to quantify the cost of equity since bonds represent debts. He proposes to assess the cost of equity using as country risk premium the link between the equity markets reflected into the covariance of the most representative capital market indices.

This paper valorises Damodaran approach in terms of international cost of equity assessment. The research points out the difference between the international cost of equity which integrates country risk premium and the idiosyncratic cost of equity, computed at the firm level variables. The novelty of the approach consists of the orientation towards the East European emerging countries. Previous researches on this topic concentrated on the Latin American emerging countries. The findings reveal out that company exposure to country risk has an important impact on the corporate financial soundness. An increase of at least 1% of the cost of equity by the integration of the country risk premium proves that macroeconomic environment acts as a key element as for the profitability of the company.

#### **3. SECTION 3**

This section contains a research on a panel of industries located into emerging countries. There have been considered 101 industries - from utility to advertising- for which there has been determined the cost of equity from the perspective of the corporate delocalization into the East European emerging countries. Practically, there has been developed the perspective of a potential delocalization of the corporations into the East European emerging countries from the point of view of the impact of the country risk on the cost of equity.

Valorizing the database posted on the Damodaran site, there has been computed the cost of equity by the integration of the country risk premium.

	Bulgaria	Slovakia	Hungary	Poland	Romania
Mean	0.127749	0.108442	0.115175	0.109927	0.118903
Median	0.123489	0.103989	0.110789	0.105489	0.114015
Maximum	0.189627	0.170127	0.176927	0.171627	0.179927
Minimum	0.042300	0.042300	0.042300	0.042300	0.089327
Std. Dev.	0.020460	0.019725	0.019963	0.019776	0.018664
Skewness	0.110157	0.534860	0.401384	0.506846	0.982582
Kurtosis	5.768.272	4.361.443	4.745.497	4.436.943	3.738.971
Jarque-Bera	3.245.412	1.261.587	1.553.379	1.301.376	1.836.647
Probability	0.000000	0.001822	0.000424	0.001493	0.000103
Sum	1.290.264	1.095.264	1.163.264	1.110.264	1.189.034
Sum Sq. Dev.	0.041862	0.038906	0.039852	0.039107	0.034488
Observations	101	101	101	101	100

 Table 1. Descriptive statistics of the cost of equity integrating the country risk premium characteristic to companies delocated into East European emerging countries

Source own processing

Then there will be computed the differences between the costs of equity determined according to the methodology that integrates country risk premium and the cost of equity that does not consider for it. A deep analysis at the level of the descriptive statistics characteristic to the differences will reveal out the impact of country risk premium on the cost of equity. The methodology that has been used in order to determine the cost of equity by the integration of the country risk premium is represented by the Beta approach depicted in the Damodaran working paper of 2003.

### Cost of equity = Riskfree rate + Beta (Mature Market Premium + Country Risk Premium)

The risk free rate will be considered the interest rate corresponding to the European government bonds -4.23% while the mature market premium will be scaled around 4.53.

Analyzing the output enclosed into the first table, it is obvious that Bulgaria appears to impose the highest cost of equity, followed up by Romania and Hungary. The highest level is supported also by the standard deviation indicators which points out the idea that the cost of equity is the most volatile in the case of Romania and Bulgaria.

The cost of equity distribution seems to be leptokurtic, underling the idea that the probability for an extreme event, with disturbing consequences on the East European emerging markets is higher.

As for the idiosyncratic dimension, closely related to the industry level risk, banking, oil processing and food industry are the lowest risky industries while ecommerce, entertainment and equipment are the riskiest.

	Bulgaria	Hungary	Poland	Romania	Slovakia
Mean	0.028848	0.016148	0.010848	0.019148	0.009348
Median	0.029104	0.016404	0.011104	0.019404	0.009604
Maximum	0.030727	0.018027	0.012727	0.021027	0.011227
Minimum	0.025227	0.012527	0.007227	0.015527	0.005727
Std. Dev.	0.001095	0.001095	0.001095	0.001095	0.001095
Skewness	-0.966299	-0.966299	-0.966299	-0.966299	-0.966299
Kurtosis	3.755.725	3.755.725	3.755.725	3.755.725	3.755.725
Jarque-Bera	1.794.190	1.794.190	1.794.190	1.794.190	1.794.190
Probability	0.000127	0.000127	0.000127	0.000127	0.000127
Sum	2.884.837	1.614.837	1.084.837	1.914.837	0.934837
Sum Sq. Dev.	0.000119	0.000119	0.000119	0.000119	0.000119
Observations	100	100	100	100	100

Table 2. Descriptive statistics of the differences between the cost of equity integrating the country risk premium characteristic to companies delocated into East European emerging countries and the cost of equity which does not integrate the country risk premium

Source own processing

The difference between the cost of equity integrating the country risk premium and the cost of equity which did not integrate it reveals out the fact that macroeconomic environment stability is a key element within the process of cost of equity assessment. The difference between the two indicators lies between 1% and 2%. The highest difference is recorded in the case of Bulgaria while the lowest one is recorded in the case of Slovakia. Romania holds quite a medium position.

These findings point out the fact that country risk premium is a key element that must be considered in the design and implementation process of the financial management strategies adopted by the corporations which delocate their activity in East European emerging countries. Growth perspectives are higher, but risks are correlated with, which implies the fact that company exposure to country risk, together with industry volatility becomes another important part of the cost of equity architecture. Therefore, relative to corporations located into developed countries, financial management developed within emerging countries located corporations is more challenging, implying additional efforts in terms of quantification and management strategies.

#### 4. ACKNOWLEDGEMENTS

This paper is part of the research grant PN2 - *The analysis of the economic and financial risk characteristic to companies located in CEE countries: impact on the finance making-up decision process*, code 1795, provided by UEFISCU.

#### **REFERENCES:**

- [1]. Agmon, T.; Lessard, D. Investors recognition of corporate international diversification: a systhesis, Journal of Finance, 38, juin 1983, pp.925-984
- [2]. Bancel, F.; Ceddaha, F. Vers une prime de risque unique ?, Analyse Financière, no.119, juin 1999, pp.81-92
- [3]. Campbell, H. *The world price of covariance risk*, Journal of Finance, 46, 1991, pp.111-158
- [4]. Clark, E. *Valuing political risk*, Journal of International Money ann Finance, vol.16, no.3, 1997, p.477-490
- [5]. Damodaran, A. Estimating equity risk premiums, Stern School of Business, Working Paper, NY, 1998
- [6]. Doukas, J.; Travlos, N. The effect of corporate wealth: evidence from international acquisitions, Journal of Finance, Vol XLIII, n°5, décembre 1988, pp.1161-1174
- [7]. Fontaine, P. Gestion des portefeuilles internationaux, in Encyclopédie de Gestion, 1997, pp.548-571
- [8]. Godfrey, S.; Espinosa, R. A practical approach to calculating the costs of equity for investments in emerging markets, Journal of Applied Corporate Finance, Fall, 1996, pp.80-89
- [9]. Goetzmann, W.; Jorion, P. A century of global stock markets, Working, Université of California at Irvine et Yale School of Management, 1996
- [10]. Groslambert, B. De l'intérêt des marchés émergents dans une gestion internationale de portefeuille, CEFi, Université d'Aix-Marseille, 1998
- [11]. Jacquillat, B.; Solnik, B. Multinational are poor tools for diversification, Journal of portfolio Management, 4, Hiver, 1978, pp.8-12
- [12]. Lee, K.; Kwok, C. Multinational corporations vs. Domestic Corporations: International Environmentals Factors and Determinants of Capital Structure, Journal of International Business Studies, 1988, pp.195-217

- [13]. Lessard, D. Principles of International portolio selection, in Abraham George and Ian Giddy, editors, International financial handbook. New York, NY: John Wiley & Sons, 1983
- [14]. Madura, J. International Financial Management, 3<sup>rd</sup> Edition, St. Paul, MN: West Publishing Company, 1992
- [15]. Michel, A.; Shaked, U. Multinational corporations vs domestic corporations: financial performance and caracteristics, Journal of International Business, Automne, 1986, pp.89-100
- [16]. Mikkelson, W. Convertible calls and security returns, Journal of Financial Economics, 1981, pp.237-264
- [17]. Reeb, D.; Kwok, C.; Baek, H. Systematic risk of the multinational corporation, Journal of International Business Studies, 1998, pp.263-279