

COMPANY FINANCIAL DIAGNOSIS IN CEE COUNTRIES

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ABSTRACT: *This paper focuses on developed versus emerging markets arbitrage in terms of investors' perception. We first perform a literature review on the topic, highlighting out both disconnection and transmission belt theories. Then we conduct a deep comparative analysis on the East-European corporate versus government spread bonds evolution during the last 10 years, 1997 being precisely the year when Basel II sovereign ceiling requirement was softened. Thus, we are interested especially in the way investors perceived East-European emerging countries afterwards. Conclusions are worthwhile in the context of the actual financial crisis from many perspectives: emerging markets attraction to foreign investors, corporate and sovereign rating interconnectivity for the countries in the sample (Romania, Bulgaria, Poland and Hungary) and corporate finance decision approach within East-European emerging countries.*

KEY WORDS: *sovereign ceiling; corporate rating; sovereign spreads; emerging*

JEL CLASSIFICATION: *E44, F30, G15*

1. INTRODUCTION

Macroeconomic volatility impacts corporate segment profitability. Literature revealed that company cash-flow is deeply correlated with the economic cycle. From the perspective of the sovereign default theory encapsulated by the „spillover effect”, a financial distress occurred at the macroeconomic level is likely to extend at the level of the corporations as well. Moreover, on the international capital market, a high country risk premium determines cost of equity increase.

Until 1997, based on the sovereign ceiling policy, rating agencies have never rated companies higher than the countries they were located into. This policy has been relaxed by Standard and Poor's once there has been agreed on the fact that deeply

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„dollarized” economies (Latin America countries) are less affected by potential exchange controls exerted in case of sovereign default. First, Moody’s has adopted a clear opposition to the „lite” sovereign ceiling policy; then it began applying it although during the Argentine crises all the companies which have been rated higher than the countries they were located into have defaulted.

In this context, sovereign ceiling phenomenon became a very important research area. There have been conducted many studies, especially in the case of Latin American countries in order to highlight a potential impact of the sovereign rating on corporate rating (Rocha and Garcia, 2004).

Theories generally rallied around two divergent approaches: disconnection and transmission belt principles. From the perspective of disconnection theory, sovereign spreads do not have any impact on the corporate spreads. This theory was validated especially at the level of the developed countries (Ferri, et. al., 2001).

Transmission belt theories assume a deep correlation between these two variables, especially from the perspective of the low significant information reflected into the corporate rating assigned to the companies located into emerging countries. The lack of transparency and reliability in terms of accurate financial information strengthens the idea of sovereign rating extension at the level of the individual corporations (Chan-Lau, 2006).

Even since 1970, analysts were preoccupied with a potential relationship between corporate rating and stock prices changes. Griffin and Sanvicente (1982) as well as Holthausen and Leftwich (1986), Cornell, Landsman and Shapiro (1989), Goh and Ederington (1999) highlighted out that rating downgrades were usually determined by stock prices decrease while a potential increase does not necessarily impact positively corporate rating dynamic.

Durbin and Ng (2005) pointed out that corporate spreads were lower than sovereign spreads while Peter and Grandes (2005) identified sovereign risk to be an important determinant of corporate spreads.

Liu et al. (1999) pointed out that sovereign ceiling phenomenon must be differentiated in accordance with the localization criteria. Developing countries imply a deep correlation between corporate and sovereign spreads while correlation is weaker within developed countries.

Since developed countries have a consolidated financial disclosure framework, corporate rating reflects to a high extent company’s creditworthiness and risk transfer from the sovereign entity towards the corporation is low.

Cantor and Pecker (1996) concluded that corporate and sovereign spreads relationship is based on asymmetry. A potential sovereign upgrade is not reflected at the level of the corporate spreads while a downgrade necessarily impacts corporate spreads increase. This assumption has been recently validated by Uribe and Yue (2006) who highlighted out that recent sovereign downgrades determined risk premium increase.

Kamin and Kleinst (1999) made a research on an extended database of Middle East, African and European countries and underlined that spreads on emerging markets debts are closely linked to debt maturity and currency the debt is denominated into. Goldberg and Verboven (2005) founded the theory on the macroeconomic credit risk

aggregate level reflected into the corporate bonds' spreads. Uribe and Yue (2006) identified the correlation between emerging economies and US stock market especially from the perspective of the fact that business cycle financing may be ensured by the international capital market.

Dionne and Gauthier (2005) unveiled that default risk can be quantified by the spread between corporate and government bond. Galytsky (2006) concluded that generalization is not the proper strategy that could be applied in the case of the sovereign ceiling analysis. It is necessary to perform it at the level of every country in accordance with the individual risk profile. This study follows up Galytsky rationale; since sovereign ceiling analysis implies a high degree of individualization, the focus has been oriented towards the East European emerging countries both at the global and individual level.

2. EMPIRICAL PERSPECTIVE ON CORPORATE-COUNTRY RATING

2.1. Database and methodology

The most recent theories on corporate and country rating correlation assume an impact exerted by the first variable towards the second one based on the interdependencies between company cash-flow and macroeconomic conditions; moreover, literature unveiled that correlation is stronger in case of emerging countries (Cavallo & Valenzuela, 2007).

This section focuses on revealing if this correlation can be validated at the level of a sample of 150 companies located in both emerging and developed countries (50% of the companies are located in developed countries and 50% are located in emerging countries). The innovative element consists of highlighting out the correlation at the general level which excludes a potential impact exerted by the industry. The sample includes companies activating in various fields (IT, retail, car manufacturing, mobile phone equipments, electronic).

Companies activating in the financial services field have been eliminated from the database because of the specific features implied by capital structure.

The motivation for excluding the potential influence of the industry characteristics on the country-corporate rating correlation derives from the global perspective. In fact, country rating has an impact on the corporate sector at the global level, no matter to which sector of activity the company belongs to. The topic of this case-study is related to the one of Cavallo and Valenzuela (2007) and also to the one of Huang and Kong (2003) who studied the relationship between corporate and sovereign spreads having as reference corporate default premium limited to the case of publicly traded firms.

This study is more closed to the work of Borensztein who analyzed this correlation at the level of the credit-rating, but we propose to be more analytical in terms of rationale grounding financial indicators which contribute to the assignment of the final corporate rating; afterwards corporate rating will be deeply correlated with country rating. The deep analysis will be performed in terms of principles governing

the selection of certain financial indicators which should be integrated in a final score function by which a credit-rating will be assigned to the companies.

The corresponding corporate rating will be delivered by a scoring function which will be elaborated using Principal Components Analysis. The countries where the companies are located into are both emerging (Poland, Hungary, Romania, Slovenia, Slovakia) and developed (France, USA, Germany, Italy, Austria) ones.

The sources where the information was obtained from were the following:

- Hewlett-Packard Division containing information extracted from Financial Statements of companies located both in emerging and developed countries;
- Bloomberg agency site which containing information on country rating.

The assembly of financial indicators that will be analyzed is the following: Current Liquidity ratio (I1), Quick Liquidity ratio (I2), Short Term Debt Cash-Flow Coverage (I3), Return on Tangible Net Worth (I4), Earnings before Taxes/Total Assets (I5), Operating Expenses/Net Sales (I6), Debt/Tangible Net Worth (I7), Interest Coverage (I8), Short Term Debt/Total Debt (I9), Leverage multiplier (I10), Accounts Receivables turnover (I11), Accounts Payables turnover (I12), Working Capital Turnover (I13), Total Assets Turnover (I14), Altman Z-score (I15).

The initial point of the analysis focuses on a comparative analysis of financial indicators in terms of descriptive statistics characterizing companies located into emerging and developed countries. First companies are analyzed at the global level, including the whole sample of companies, out of a potential influence of the country rating. Second, the sample of companies is divided into two sub-samples: one including companies located into emerging countries and the other one including companies located into developed countries.

Proceeding with the comparative analysis, it is obvious that descriptive statistics of companies grouped at the general level are less favourable than descriptive statistics of companies located into developed countries (see Annexes no.1 and 2). Median corresponding to the Current Liquidity Ratio is 1.3 at the global level while in case of developed countries is 1.45 and 1.23 in case of developing countries.

The minimum level corresponding to the interest coverage ratio is -5.44 at the global level which is similar to the level relative to the emerging countries; the minimum level for developed countries is -1.56 (see Annexes 2 and 3).

The maximum level for the weight of the short term debt into the total debt (I9) is 100 at the global and developed countries level and 41.61 in case of emerging countries. It is obvious that most of the companies located into emerging countries had adopted financing structures based on long term debt since a higher weight of short term debt into the total debt will make them being perceived as riskier. The financial effort implied by the long term debt is considered to be softer than the one implied by the short term debt.

The standard deviations corresponding to the financial indicators of companies located in emerging countries are to a high extent superior to the standard deviations of the financial indicators corresponding to companies located in developed countries. The instability conferred by the macroeconomic environment is dominant in the case of the emerging countries. The variance corresponding to the leverage multiplier is 57.23

in case of emerging countries, 4.19 in case of developed countries and 47.24 at the general level. The Altman Z-score has the highest variance (-3.341) at the global level and 4.761 at the level of the emerging countries; as for developed countries, the variable amounts to 0.52.

The minimum values corresponding to all financial indicators are recorded in case of emerging countries while maximum values are recorded in case of developed countries. From this perspective, we can assume that macroeconomic environment had a strong impact on corporate rating; macroeconomic volatility implied by emerging countries environment affects the evolution of the financial variables.

2.2. Scoring functions elaboration

The next step of the analysis focuses on elaborating a scoring function in accordance with which there will be delivered a rating to every company included in the sample. There will be elaborated two scoring functions using the Principal Components Method adapted to companies located in both developed and emerging countries.

In order to elaborate the two scoring functions, there will be analyzed the correlation matrices of the financial indicators characteristic to the companies located in both emerging and developed countries. It is obvious that variables correlation degree is higher in case of companies located in developed countries than in case of companies located in emerging countries. This phenomenon can be explained by a higher degree of interdependency between the financial indicators due to the lack of dominant influences from the part of external factors.

In order to get a deeper insight into the most important financial indicators which should be integrated into a final scoring function, the Eigenvalues are computed (see Annex no.4). As for companies located into both emerging and developed countries, the final scoring function should contain 5 main financial indicators. If we had limited to only 3 variables, we would be able to reflect only 58% of the initial information. Extending the analysis to 4 axes, we would reach 67.01% while 5 axes permit an information recovery of 74.19% of the initial space.

In order to identify which are the most important factors that are to be integrated into a final scoring function, we apply a factor loading procedure for both cases (see Annexes no.5 and 6).

Thus, the first axis is highly positively correlated with the same financial indicators for both cases of companies located in emerging as well as for companies located in developed countries. It represents a synthesis of I5, I11, I12, I14, I15, meaning the asset management and profitability indicators. The second axis represents a synthesis of I7, I10, I13 (solvency ratios) in case of emerging countries and of I6 (Operating Expenses reported to Net Sales indicator) in case of developed countries.

The third axis represents a synthesis of I2 and I9 (liquidity and solvency ratios) in case of emerging countries and of I1, I2 and I4 in case of developed countries (liquidity and profitability ratios).

The fourth axis represents a synthesis of I8 (interest coverage ratio) in case of emerging countries and of I7, I10 I13 in case of developed countries (solvency and asset management dynamics indicators).

The fifth second axis represents a synthesis of I4 (profitability indicator) in case of emerging countries and of I3, I8 (solvency indicators) in case of developed countries. It is obvious that the most important financial indicators characteristic to the emerging countries focus on the solvency and liquidity ratios while the most important financial indicators specific to the developed countries are based on profitability.

The analysis of factor score coefficients procedure (see Annexes no.7 and 8) applied in both cases conducts to the elaboration of the final scoring function. As for companies located into emerging countries, the scoring function in accordance with which the rating is assigned consists of:

$$\text{Rtg CEC} = 0.2 * I5 + 0.4 * I7 - 0.44 * I2 + 0.27 * I9 - 0.75 * I8 + 0.42 * I4 \quad (1)$$

where:

Rtg CEC = corporate rating assigned to companies located into emerging countries

I5 = Earnings before Taxes/Total Assets

I7 = Debt/Tangible Net Worth

I2 = Quick Liquidity ratio

I9 = Short Term Debt/Total Debt

I8 = Interest Coverage

I4 = Return on Tangible Net Worth

As for the companies located into developed countries, the scoring function in accordance with which the rating is assigned consists of:

$$\text{Rtg CDC} = 0.2 * I5 + 0.48 * I6 + 0.16 * I1 + 0.38 * I7 - 0.73 * I3 \quad (2)$$

where:

Rtg CDC = corporate rating assigned to companies located into developed countries

I5 = Earnings before Taxes/Total Assets

I6 = Operating Expenses/Net Sales

I1 = Current Liquidity ratio

I7 = Debt/Tangible Net Worth

I3 = Short Term Debt Cash-Flow Coverage

The two scoring functions contain two common indicators - I2 and I7 (liquidity and solvency ratios) while the other ones are different. The scoring function relative to companies located into emerging countries focuses on solvency and liquidity ratios while the second one, relative to companies located into developed countries, is more concentrated on profitability and asset management dynamics indicators. In order to get a deeper insight regarding the potential impact of the country rating on the final corporate rating, there has been performed Granger test.

The Probability associated with the Null Hypothesis slightly exceeds the value of 0.5 which does not permit drawing a clear conclusion - rejecting or accepting the

null hypothesis-, but based on the previous analysis, the relationship at the level of the variables is validated.

3. CONCLUSIONS ON CORPORATE-COUNTRY RATING

This section focused on the corporate rating perceived not only as an idiosyncratic variable, but also as an indicator anchored in macroeconomic fundamentals, from the perspective of the deep correlation with the country rating.

Deep comparative analysis of the descriptive statistics as well as the Granger Causality test has been performed. The overall conclusion subscribes to the influence resulting from country rating towards corporate rating. The most important financial indicators specific to the companies based in emerging countries were characterized by higher volatility and low values in comparison with companies located in developed countries. Moreover, financial indicators characteristic to companies based in emerging countries focused on liquidity and solvency while profitability and asset management indicators were specific to companies located in developed countries.

The impact of country rating on corporate rating is to be considered as an important element for financial leverage management performed at the level of companies located into emerging countries which have to implement more active strategies, adapted not only to the challenges implied by the internal corporate environment reflected into the idiosyncratic risk, but also to the macroeconomic dimension. Thus, financial management strategies have to be multidimensional, oriented towards the systemic risk as well.

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Annex 1. Descriptive statistics of the corporate rating at the global level, for companies located both in emerging and developed countries

Descriptive Statistics	Confid.		95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err.	Kurtosis	Std.Err.	
	Mean	-95.00%											
VAR1	1.30	1.21	1.39	94.84	0.34	2.40	0.15	0.38	0.04	0.67	0.28	0.87	0.56
VAR2	0.79	0.69	0.89	57.64	0.00	2.35	0.18	0.43	0.05	0.93	0.28	2.50	0.56
VAR3	1.36	-1.37	4.08	98.98	-1.01	99.62	136.03	11.66	1.37	8.54	0.28	72.94	0.56
VAR4	33.72	24.80	42.63	2461.34	-95.77	151.24	1460.95	38.22	4.47	-0.39	0.28	3.49	0.56
VAR5	29.34	-0.24	58.92	2141.83	-4.91	822.00	16069.29	126.76	14.84	5.90	0.28	34.11	0.56
VAR6	16.44	12.02	20.87	1200.33	-1.05	112.47	359.72	18.97	2.22	2.20	0.28	7.73	0.56
VAR7	10.18	6.03	14.33	743.07	-7.24	122.69	316.96	17.80	2.08	4.20	0.28	22.59	0.56
VAR8	4.10	1.12	7.09	299.64	-5.44	100.00	163.33	12.78	1.50	6.41	0.28	45.90	0.56
VAR9	79.52	73.32	85.73	5805.16	20.46	100.00	707.17	26.59	3.11	-0.99	0.28	-0.66	0.56
VAR10	6.59	4.99	8.19	481.11	-6.24	43.21	47.25	6.87	0.80	3.37	0.28	15.48	0.56
NEWVAR11	19.76	-4.66	44.18	1442.38	0.00	900.66	10957.63	104.68	12.25	8.51	0.28	72.58	0.56
NEWVAR12	11.42	3.28	19.56	833.68	0.00	293.30	1215.89	34.87	4.08	7.61	0.28	61.44	0.56
NEWVAR13	21.29	-0.78	43.35	1554.04	-634.80	361.50	8943.23	94.57	11.07	-3.94	0.28	34.60	0.56
NEWVAR14	8.93	-3.74	21.60	660.67	0.00	472.82	2990.84	54.69	6.36	8.59	0.28	73.87	0.55
NEWVAR15	10.11	-3.37	23.60	738.24	0.03	497.00	3341.50	57.81	6.77	8.53	0.28	72.85	0.56

Source: own computations

Annex 2. Descriptive statistics of the corporate rating for companies located in developed countries

Descriptive Statistics													
	Mean	Confid. -95.00%	Confid. 95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err. Skewness	Kurtosis	Std.Err. Kurtosis	
VAR1	1.45	1.23	1.68	31.99	0.34	2.40	0.27	0.52	0.11	-0.21	0.49	-0.17	0.95
VAR2	0.69	0.41	0.97	15.19	0.00	2.35	0.40	0.64	0.14	1.13	0.49	0.91	0.95
VAR3	0.06	-0.09	0.21	1.33	-0.04	1.60	0.12	0.34	0.07	4.67	0.49	21.87	0.95
VAR4	30.07	6.51	53.62	661.45	-95.77	151.24	2821.85	53.12	11.33	-0.79	0.49	2.42	0.95
VAR5	4.22	1.18	7.27	92.93	-4.91	23.88	47.17	6.87	1.46	1.92	0.49	4.39	0.95
VAR6	34.20	24.65	43.75	752.40	-0.78	112.47	463.78	21.54	4.59	2.17	0.49	8.19	0.95
VAR7	22.60	10.98	34.22	497.20	0.49	122.69	686.95	26.21	5.59	2.99	0.49	10.42	0.95
VAR8	5.85	-3.52	15.22	128.74	-1.56	100.00	446.71	21.14	4.51	4.61	0.49	21.49	0.95
VAR9	45.61	36.50	54.72	1003.46	20.46	98.81	422.28	20.55	4.38	1.25	0.49	1.11	0.95
VAR10	8.92	7.06	10.78	196.22	1.38	17.18	17.58	4.19	0.89	0.09	0.49	0.42	0.95
NEWVAR11	6.39	4.22	8.57	140.66	0.00	13.67	24.09	4.91	1.05	0.27	0.49	-1.63	0.95
NEWVAR12	4.32	3.16	5.47	94.94	0.00	8.86	6.75	2.60	0.55	0.39	0.49	-0.78	0.95
NEWVAR13	11.04	0.75	21.33	242.87	0.00	96.71	538.97	23.22	4.95	3.14	0.49	9.77	0.95
NEWVAR14	0.54	0.40	0.68	11.91	0.00	1.26	0.10	0.32	0.07	0.37	0.49	-0.50	0.95
NEWVAR15	1.17	0.85	1.50	25.84	0.03	3.46	0.52	0.72	0.15	2.03	0.49	4.98	0.95

Source: own computations

Annex 3. Descriptive statistics of the corporate rating for companies located in emerging countries

Descriptive Statistics													
	Mean	Confid. -95.00%	Confid. 95 Sum	Minimum	Maximum	Variance	Std.Dev.	Standard Error	Skewness	Std.Err. Skewness	Kurtosis	Std.Err. Kurtosis	
VAR1	1.23	1.15	1.31	62.85	0.71	2.25	0.08	0.29	0.04	1.16	0.33	2.41	0.66
VAR2	0.83	0.75	0.92	42.45	0.11	1.95	0.09	0.30	0.04	1.25	0.33	4.32	0.66
VAR3	1.91	-2.01	5.84	97.65	-1.01	99.62	194.77	13.96	1.95	7.14	0.33	50.98	0.66
VAR4	35.29	26.81	43.78	1799.89	-13.22	131.92	910.20	30.17	4.22	0.89	0.33	0.88	0.66
VAR5	40.17	-2.22	82.57	2048.90	-4.65	822.00	22722.67	150.74	21.11	4.90	0.33	23.07	0.66
VAR6	8.78	5.64	11.92	447.93	-1.05	49.60	124.62	11.16	1.56	2.44	0.33	5.65	0.66
VAR7	4.82	2.46	7.19	245.87	-7.24	45.58	70.74	8.41	1.18	4.10	0.33	18.18	0.66
VAR8	3.35	1.45	5.25	170.90	-5.44	41.61	45.65	6.76	0.95	4.14	0.33	21.08	0.66
VAR9	94.15	91.11	97.19	4801.70	49.20	100.00	116.72	10.80	1.51	-2.68	0.33	7.32	0.66
VAR10	5.59	3.46	7.71	284.89	-6.24	43.21	57.24	7.57	1.06	3.96	0.33	17.69	0.66
NEWVAR11	25.52	-9.67	60.72	1301.72	2.02	900.66	15656.38	125.13	17.52	7.12	0.33	50.77	0.66
NEWVAR12	14.49	2.83	26.14	738.74	1.43	293.30	1716.25	41.43	5.80	6.39	0.33	43.14	0.66
NEWVAR13	25.71	-5.84	57.26	1311.17	-634.80	361.50	12585.72	112.19	15.71	-3.57	0.33	25.87	0.66
NEWVAR14	12.64	-5.84	31.13	644.83	1.20	472.82	4321.05	65.73	9.20	7.14	0.33	50.97	0.66
NEWVAR15	13.97	-5.44	33.38	712.40	1.94	497.00	4761.22	69.00	9.66	7.14	0.33	50.97	0.66

Source: own computations

Annex 4. Eigenvalues of the financial indicators characteristic to companies located into emerging countries

Eigenvalues				
Extraction: Principal components				
	Eigenval	% total Variance	Cumul. Eigenval	Cumul. %
1	4.86	32.40	4.86	32.40
2	2.43	16.18	7.29	48.59
3	2.13	14.22	9.42	62.81
4	1.33	8.85	10.75	71.66
5	1.06	7.07	11.81	78.73

Eigenvalues of the financial indicators characteristic to companies located into developed countries

Eigenvalues				
Extraction: Principal components				
	Eigenval	% total Variance	Cumul. Eigenval	Cumul. %
1	4.59	30.57	4.59	30.57
2	2.30	15.34	6.89	45.90
3	1.78	11.89	8.67	57.79
4	1.40	9.32	10.07	67.10
5	1.06	7.09	11.13	74.19

Source: own computations

Annex 5. Factor loading procedure applied to the case of companies located into emerging countries

Factor Loadings (Varimax normalized) (emerging.sta)					
Extraction: Principal components					
(Marked loadings are > .700000)					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	-0.06	-0.14	-0.88	0.19	0.15
VAR2	-0.02	0.06	-0.93	0.03	0.07
VAR3	0.01	-0.08	-0.02	0.37	0.05
VAR4	-0.08	0.37	-0.09	-0.28	0.73
VAR5	0.78	-0.03	0.04	-0.01	0.08
VAR6	0.47	0.07	0.01	-0.42	-0.61
VAR7	0.00	0.93	0.02	0.02	0.20
VAR8	-0.05	-0.17	0.01	-0.85	0.15
VAR9	0.06	-0.07	0.70	0.28	0.43
VAR10	0.01	0.95	0.02	0.02	0.19
NEWVAR11	0.97	0.05	0.04	0.00	-0.13
NEWVAR12	0.98	0.02	0.02	0.07	-0.06
NEWVAR13	0.11	0.60	-0.01	-0.07	-0.35
NEWVAR14	0.98	0.05	0.03	0.00	-0.12
NEWVAR15	0.98	0.05	0.03	0.00	-0.12
Expl.Var	4.67	2.35	2.15	1.25	1.40
Prp.Totl	0.31	0.16	0.14	0.08	0.09

Source: own computations

Annex 6. Factor loading procedure applied at the level of companies located into developed countries

Factor Loadings (Varimax normalized) (developped 2007.sta)					
Extraction: Principal components					
(Marked loadings are > .700000)					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	-0.056	0.241	-0.839	-0.122	-0.108
VAR2	0.022	-0.185	-0.764	0.044	0.290
VAR3	0.003	-0.145	-0.080	-0.126	0.532
VAR4	-0.068	-0.098	-0.544	0.370	-0.250
VAR5	0.771	-0.073	0.006	-0.005	-0.049
VAR6	0.158	0.845	0.332	0.004	-0.040
VAR7	-0.078	0.340	-0.148	0.740	0.048
VAR8	-0.014	-0.163	-0.107	-0.188	-0.788
VAR9	0.112	-0.886	0.284	-0.152	0.002
VAR10	-0.023	0.101	-0.092	0.892	0.027
NEWVAR11	0.982	0.056	0.053	0.029	0.004
NEWVAR12	0.981	-0.027	0.008	0.018	0.066
NEWVAR13	0.176	-0.165	0.148	0.525	-0.031
NEWVAR14	0.983	0.038	0.046	0.032	0.019
NEWVAR15	0.984	0.037	0.042	0.029	0.015
Expl.Var	4.538	1.812	1.853	1.851	1.075
Prp.Totl	0.303	0.121	0.124	0.123	0.072

Source: own computations

Annex 7. Factor score coefficients procedure applied to the case of companies located into developed countries

Factor Score Coefficients (developped 2007.sta)					
Rotation: Varimax normalized					
Extraction: Principal components					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	0,028100	0,158033387	-0,47699067	-0,16175	-0,0829
VAR2	0,032351	-0,10209908	-0,42665502	-0,02462	0,275963
VAR3	-0,00309	-0,06076668	-0,06015703	-0,08041	0,500489
VAR4	0,006705	-0,09914599	-0,26761162	0,190575	-0,23907
VAR5	0,173555	-0,04149843	-0,02954401	-0,004300	-0,05983
VAR6	0,022271	0,482981542	0,172967483	-0,07144	-0,03338
VAR7	-0,02338	0,110736952	-0,02274822	0,374806	0,027273
VAR8	0,017749	-0,08166680	-0,06337233	-0,07107	-0,72974
VAR9	0,014269	-0,49418067	0,148668605	0,037135	-0,00982
VAR10	-0,01579	-0,04570330	0,020245606	0,494813	-0,00202
NEWVAR11	0,217375	0,029526125	-0,01119303	-0,00105	-0,014100
NEWVAR12	0,218166	-0,01622239	-0,03749276	-0,00332	0,043597
NEWVAR13	0,025044	-0,15795037	0,119043008	0,332146	-0,05389
NEWVAR14	0,217758	0,01865176	-0,01520904	0,001375	-0,00012
NEWVAR15	0,218141	0,018585372	-0,01747767	-0,0004	-0,00373

Source: own computations

Annex 8. Factor score coefficients procedure applied to the case of companies located into emerging countries

Factor Score Coefficients (emerging.sta)					
Rotation: Varimax raw					
Extraction: Principal components					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR1	0.033	-0.045	-0.436	0.068	0.143
VAR2	0.028	0.031	-0.445	-0.013	0.032
VAR3	0.015	-0.031	-0.035	0.272	0.117
VAR4	0.048	0.191	-0.091	-0.434	0.419
VAR5	0.191	-0.019	-0.026	-0.078	0.168
VAR6	0.037	-0.007	0.062	-0.139	-0.482
VAR7	-0.007	0.395	0.006	0.046	-0.011
VAR8	-0.001	-0.060	0.027	-0.745	-0.017
VAR9	0.048	-0.012	0.271	0.080	0.408
VAR10	-0.007	0.401	0.008	0.051	-0.019
NEWVAR11	0.212	-0.001	-0.012	-0.006	0.025
NEWVAR12	0.222	-0.007	-0.030	0.028	0.091
NEWVAR13	-0.032	0.231	0.038	0.123	-0.365
NEWVAR14	0.213	0.000	-0.016	-0.002	0.029
NEWVAR15	0.213	0.000	-0.018	-0.005	0.030

Source: own computations