IS THERE NEEDED A CORPORATE DEFAULT APPROACH ACCORDING TO THE LOCALIZATION CRITERIA – EMERGING VERSUS DEVELOPED COUNTRIES? CASE STUDY ON IT COMMERCIAL COMPANIES

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Abstract: This paper focuses on corporate default prediction. We conduct a comprehensive study of the existing literature on the corporate default models, outlining the weak and the strong points, especially from the point of view of the methodology by which default threshold is identified. Both classical and modern theories are analyzed; the empirical perspective based on a case study on IT commercial companies is elaborated mainly in order to build up a practical approach on the corporate default models.

1. Introduction

Financial globalization determined credit expansion. In order to accomplish their growth potential, companies have looked for new business segments and finance resources. 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.
Credit techniques are bi-dimensionally approached. They have been conceived both as a business development and risk mitigation modality.
Credit derivatives products have appeared as a necessity of credit support for business needs and also as a technique of risk protection/minimization.
Sophisticated finance structured products have been created in order to allow company to attract additional finance resources and also to protect from risk increase.
The actual financial crisis which is deeply rooted into the credit derivative products has drawn attention to the credit risk assessment. Rating agencies have been accused of not being able to predict in an anti-cyclical way corporate default. Once the crisis has appeared, downgrade of debtors has been initiated and self-achieving anticipations have become predominant.
Thus a deeper preoccupation for credit risk modeling is required, especially from the perspective of the implementation of a powerful model, capable of absorbing enough significant financial information from the internal environment of the enterprise and also integrating it into variables correlated one to another in a statistical founded manner.
The motivation of the keen interest in the credit risk modeling is motivated by their support to portfolio management, credit derivatives pricing and bank regulation.
These three dimensions of the credit models supportive approach have developed precisely in the context of the investing activities at the global level, closely related to derivatives pricing.

As long as more powerful models and techniques will be implemented, default probability will be predicted and quantified in a more accurate manner and derivative price will be correlated with the real financial status of the debtor. Jumping downgrades will be avoided and investors will be more protected. Portfolio managers will base on a more valid model.
Bank regulation is supported by credit-risk models at the level of the capital requirements. Securitization allowed them to avoid excessive capital provisions in the light of Basel II, but meanwhile it determined excessive indebtedness and lack of liquidity.
The basic of all these relationships created between the multidimensional approach of credit-risk models derives from the correlation between credit, equity and business cycle. According to Choe, Masulis and Nanda (1993) theory, firms tend to issue more equity than debt in expansionary periods of the business cycle. Baker and Wurgler (2002) consider that firms are more likely to issue additional equity when their market values are high, relative to past market values while Marsh (1982) and Taggart (1977) appreciate that firms prefer to issue equity when the value of equity is relatively high, and to issue debt when interest rates are relatively low.
It has already pointed out that there is a correlation between corporate rating and business cycle[2]. Basel II agreement stipulated in 2001 that this correlation index amounts to 20% while in 2002-2003 it has been revised to 12%-24%.
This paper is structured as follows: the section 2 is dedicated to a literature review of the credit risk models, outlining their evolution, section 3 concentrates on the case study performed at the level of the IT commercial companies, section 4 focuses on discussions and section 5 includes final conclusions.

2. Theoretical foundation

Corporate risk default as financial phenomenon represents an interesting topic. The models that have been used within the financial litterature in order to quantify the default probability are of three types : quantitative ones, based on accounting information extracted from the Financial Statements such as Balance Sheet and Profit and Loss Account and the structural ones, based on Contingent Claims Methodology[1] which assess corporate risk default by the intermediary of the derivatives and Reduced Form Models which conceive corporate default as a random variable which is not impacted by the financial structure of the company.
The first stage within credit-scoring models evolution is represented by the Beaver univariate analysis (1960) who considered corporate risk default probability is reflected mainly by the profitability and liquidity ratios.
But the whole financial litterature reports on the Altman Z-score (1968) when it comes about credit scoring models ; Altman integrated into a function 5 ratios expressing liquidity, solvency and profitability selected by the intermediary of the Multiliniar Discriminant Analysis : Working Capital/Total Assets, Total Profit/Total Assets, Equity/Total Debts, Turnover/Total Assets. Having as threshold a value of 1.8, Altman considers that any company which is assessed by a score superior to this value will be placed out of the default danger area while an inferior score to this cut-off will be assessed as out this area.
Meanwhile financial analysts have contested the discrimantion process of the ratios (Campbell, John Y., 2004).
Ohlson (1980) has elaborated his own model which includes the following ratios: log(Assets), financial leverage, Working Capital/Current Liabilities, Turnover/Total Assets, Opeartional Cash-Flow/Total Debts.
Zmijeski (1984) considered that there were necessary only 3 of these financial variables – financial leverage,Working Capital/Current Liabilities, Turnover/Total Assets- and Shumway (2001) elaborates a corporate default prediction models based on the financial indicators of

Altman and Zmijeski to which he adds company history and the Standard Deviation of the return on equity and of the return on assets.
If Altman selected the financial variables based on the Multiliniar Discriminant Analyis, Ohloson, Shumway and Zmijeski have resorted to probit regression regarding the score function build up which implies a dependent binary variable.
Apart from these models, the ones elaborated by *Springate* (1978), *Conan si Holder*, *modelul Contabililor Agreati* (CA Score – 1987), *modelul Fulmer* (1984), *modelul Yves Collonques* (1) si *Yves Collonques* (2) can be added. Although at the global level scoring methodology had a validation rate of almost 75-90%, corporate default prediction using credit-scoring models is very difficult to be made in emerging countries such as Romania. On the other hand, specific credit-scoring models elaboration is difficult to be made in the context of the macroeconomic unstability and the impossibility to apply corporate default legislation. From this perspective, there will be impossible to make a clear separation between profitable and falimentary companies. Nevertheless, the models created by Manecuta and Nicolae (1996), Bâilesteanu (1998), Ivoniciu (1998), Anghel (2001).Credit-scoring models have been contested by the limited cut-off rationale (Crosbie, 2003).
From the theoretical point of view, an enterprise which has low liquidity, profitability and solvency ratios is considered to be within default danger area. Davydenko (2005) makes a research on the financial indicators which impact in an essential way corporate default probability valorizing Moody's database CRD – Customer Research Database- and concludes that default probability is determined by alarming ratios. Building up regressions based on the corporate default probability and an assembley of financial ratios, he appreciates that there are enough cases when firms with low liquidity have managee to avoid default while firms with satisfactory liquidity have defaulted. Key-elements for corporate defualt modelling are considered to be external financing costs and assets value.
Thus although a firm can go through a liquidity crisis we can not appreaciate clearly that it is within default area at a low cost.
The dilemma will consist of maintaining an acceptable level of assets, such as positive equity since risky firms imply high finance costs. As all the models imply a static perspective on corporate default, limited to the financial overview reflected into the Financial Statements valid for a certain moment in time, the need to insert the time variable into the quantitative models has been felt. Kahl (2002) elaborates a research based on a group of companies which are close to the corporate default threshold and concludes that only a third of these companies manage to survive independently while the other companies either disappear, are taken over or disappear. Consequently Saretto (2004) creates a model of corporate risk default assessment in a continuous way (Duration model), using finnacial ratios which reflect both book value –Working Capital/Current Liabilities, Turnover/Total Assets, Equity/Total Debts and market value - PER. Having as reference a period of time t, it is considered that the enterprise may evolve differently: survival delimited by $S_t = 1 – F(t)$ the function or default – F(t).
Based on the prediction accuracy –ROC and ROA curves[3]- , it has been pointed out that this corporate default predictive model in continuous time predicts in a more powerful way corporate default in comparison with traditional credit-scoring models, both MLA credit scoring models and probit regression.
Accuracy prediction tests have highlighted out that differentiated credit-scoring models were less powerful than the standard ones implemented by Altman. In order to predict accurately default risk it has been acknowledged that credit-scoring models have to be used complementarily with the other quantitative structural models. Contingent claims models base on Merton model (1974) which focus on the research made by in 1973. Merton

structural model aims at identifying default point (Bohn 2005). Statistical tests have outlined that default point may be conceived as:

Total Assets < DTS + 0,5 DT
where

DTS – Short term debts

DTL – Long term debts

Based on the models elaborated by Merton and Black and Scholes there has been founded Contingent claims corporate deafult prediction methodology. In accordance with this theory (Dwyer, 2004), shareholders may consider that they possess a call on the equity with a strike price equal to the face value of the debts and a maturity equal to the moment the debt is due:

$E= V*N(d_1) – e^{-rT}*FN(d_2)$

where

E = equity value
F = face value of the debt
r= continuous riskfree rate
N(.) = normal standard cumulated distribution function

$d_1 = [\ln(V/F) + (r+0,5\sigma^2_V)T]/\sigma_V*\sqrt{T}$
$d_2 = d_1 – \sigma_V*\sqrt{T}$

If at the maturity T, the value of the enterprise is superior to the debt value, creditors will be disrebursed and shareholders will get the residual value, meaning E = V – D. But if at the maturity T the enterprise value is inferior to the debt, creditors will be disrebursed only to the extent of the available liquidity and shareholders will invoke limited risk clause. In this case, equity is practically zero:

E = V- D=0

One of the weak points of the corporate default risk prediction is represented by the temporal restriction on the corporate default, limited to the debt maturity. Black and Cox (1976) have extended Merton model by the incorporation of the corporate risk default not only at the debt maturity, but in any other moment after debt contracting. Model is known within the financial litterature as First Passage Model (FPM).
Mantaining this hypothesis relative to assets evolution as Brown Motion, Black and Cox have introduced the concept of default threshold –K- which is touched by the enterprise whenever ist value reach it.
Default threshold is a temporal function which can be expressed as:

$K = e^{-\varphi (T-t)} K$

where

K = corporate default value
T – t = the period of time during which the debt has been contracted

Unlike the previous models where corporate default was trigerred automatically the moment when the entreprise was unable to fulfill its financial obligations, the models implemented by have taken also into account the case when financial obligations may be renegotiated with creditors Leland and Toft (1996), Fan si Sundaresan (2000). From this perspective, default threshold was higher than the one forecasted by the previous models (Elizalde, 2005).
Restrictive conditions on assets and equity value distribution determined a keen interest in less limited models. Therefore it has appeared the idea of a Non-Parametric model, based only on the hystorical information regarding ROE (Return on Equity) by whch there will determined ROA (Return on Assets).

$r_A = (D/A)*r_D + (E/A)*r_E$

where

r_A = return on assets
r_D = cost of debt, meaning riskfree rate
r_E = return on equity
A = assets
E = equity

This non-parametric model proved to be more powerful in order to assess corporate risk default for companies activating in financial services field – banks, insurance companies- because they imply particularities especially regarding solvency indicators because of the norms regarding risk capital adequacy.
Bellalah and Jacquillat (1999) have refined Black and Scoles approach and implemented a corporate default risk prediction model by the intermediary of the options mechanism which integrate also informational asymetry costs.
In 1989, Vasicek and Kealhofer have elaborated KMV model acquired by Moody's. KMV focused on the structural Merton approach and assesses corporate default probability (Expected Default Frequency-EDF) based on capital structure, return on assets volatility and also current assets (Stein, 2005).
Distance-to-Default (DD) is determined as :

DD = {[Market value of assets] – [Default point]}/[Market value of assets]*(Assets volatility)

KMW is now the most commercial application, being used at world-wide level by multinational companies which base credit management on.
Moody's advantage consists of international credit/corporate default overview. Moody's corporate rating integrates a premium risk relative to industry and country as well (Dwyer, 2004). Country and industry risk have become important elements of the corporate risk default at the global level. RiskCalc Model success is due to the multinational companies orientation towards emerging countries and international Moody's approach allowed them to perform a more rigurous credit risk management.Excepting emerging countries, Moody's has elaborated models in order to assess Expected Default Frequency (EDF) for every country.
RiskMetrics has been developed by Standard&Poor's following up Moody's rationale. It is based on ca o replica la modelul KMV elaborat de Moody's. It focuses on VaR indicator (Value at Risk) reflecting maximum potential loss that creditor can bear because of the debtor default.
First Passage Models (FPM) are followed up by Liquidation Process Models (LPM) from the perspective of which corporate default does not determin automatically company activity

cease, but it offers the perspective of the negociation between debtors and creditors. This renegociation process focuses on debt rescheduling which permits the company to keep up, meaning to avoid liquidation only if during a period of 2 years it managed to get over the corporate default threshold ; this will be possible only if equity will be positive (Francois and Morellec, 2004).
The last stage within the evolution process of the structural models is represented by the State Dependent Models (SDM) where corporate default is exogenously determined, idea reflected by the macroeconomic variables. During the recession periods, it has been pinted out that corporate profitability decreases since cash-flows are positively correlated with the economical cycle (Hackbarth, Miao and Morellec, 2004).
Reduced Form Models ignore the existence of a correlation between corporate default probability and the financial structure of the company reflected by the corporate rating, considering that corporate default risk is exogenously determined. Specialists have concentrated recently on a relationship between reduced form and structural models (reconciliation models) which integrate unitarly the two types of financial information – book value and market value (Elizalde, 2006). The multitude of corporate default prediction models has determined numerous studies regarding the way one model is superior to another, taking into account two fundamental criteria – ROC and AR curves. It has been pointed out that KMV model is superior to Merton model, but also to Altman Z-score (Bohn, 2005). Non-Parametric model (Chen, 2006) proved to be more powerful than the models implemented by Black-Cox and Merton. After Enron's failure in 2001, most of the models have been contested because they have not been able to predict more accurately default probability.

3. Methods and results

3.1 Database and methodology description

The sources the information was obtained from were the following:

- Hewlett-Packard Credit Division containing information relative to the Financial Statements of various companies located both in emerging East European countries (Poland, Slovenia, Slovakia, Bulgary, Czech, Romania);
- Economic Intelligence Unit site regarding the macroeconomic environment of the emerging East European countries.

The assembley of financial indicators that will be analyzed is the following: Current Liquidity ratio (I_1), Quick Liquidity ratio (I_2), Short Term Debt Cash-Flow Coverage (I_3), Return on Tangible Net Worth (I_4), Earnings before Taxes/Total Assets (I_5), Operating Expenses/Net sales (I_6), Debt/Tangible Net Worth (I_7), Interest Coverage (I_8), Short Term Debt/Total Debt (I_9), Leverage multiplier (I_{10}), AR turnover (I_{11}), AP turnover (I_{12}), Working Capital Turnover (I_{13}), Total Assets Turnover (I_{14}), Altman Z-score (I_{15}). The methodology that will be followed up is based on the analysis of the output regression built up by the OLS procedure. The dependent variable will be represented by the default point (DP) computed as the distance between total debt and total assets. It has been pointed out that the default point lies between the value of assets and the value of the total debt, the difference between the two indicators highlighting how far the corporation is from the default. As long as the assets are highly superior to the total debts and the difference between the two indicators is exceedingly positive, corporation will be perceived as out of danger area. There have been used also 2 financial indicators reflecting the capital structure of the company: leverage multiplier and debt reported to tangible net worth. Leverage multiplier represented by the report between

total assets and equity has been selected in order to get an insight into the self-financing policy of the enterprise. This variable is significant for the East European emerging countries because it reflects the internal finance resources. Indeed, in the context of capital market and banking system underdevelopment degree, internal finance resources are valorized to a high extent; moreover, since companies located into these countries are perceived as riskier, their internal finance resources are very important in order to get additional external resources. The level of assets usually perceived as an indicator reflecting the size and the activity dynamic has been perceived lately by the finance resources providers as a covenant for the company, similarly to the Tangible Net Worth and its importance becomes much higher in the case of the companies located into East European countries. First of all there will be performed a financial analysis at the level of the debt reported to the tangible net worth and of the leverage multiplier relative to the companies based both in emerging and in developed countries. Then the financial analysis will focus on the descriptive statistics relative to the default point corresponding to corporations based in both emerging and developed countries. The second part of the case-study will focus on identifying the main factors which contribute to the largest extent to the default point. There will be tested two regressions between default point as dependent variable and a set of financial indicators as independent variables which are related to. The independent variables which are considered to exert an influence on the default point are Current Liquidity Ratio (I_2), Leverage multiplier (I_{10}), Debt/Tangible Net Worth (I_7), Working Capital Turnover (I_{13}), Return on Tangible Net Worth (I_4). The statistic output will be analyzed in order to highlight out the impact of every indicator on the default point.

3.2 Descriptive Statistics analysis

In order to get a deeper insight regarding the default point characteristic to the corporations based in emerging and developed countries, there have been selected a set of financial indicators relative to leverage. Analysts agreed on the fact that leverage is the main variable which impacts on the default point. Therefore, leverage multiplier and debt reported to tangible net worth have been selected out of the financial indicators reflecting the capital structure/solvency of the company.
The Mean and Median relative to the Debt reported to Tangible Net Worth (DTNW) are superior to the corporations based in the developed countries (22.6 and 17.48 versus 4.82 and 3.21) in comparison with the Median and the Mean corresponding to the emerging countries corporations. The Maximum corresponding to the DTNW relative to developed countries corporations is highly superior to the one relative to the emerging countries (122.69 versus 45.58). Corporations based in developed countries are highly leveraged in comparison with the corporations based in emerging countries. Since capital market and finance opportunities are more extended within developed countries, corporations are not

Table 2 -Descriptive Statistics corresponding to the leverage ratios relative to emerging countries versus developed countries corporations

	DTNWEMER	LEVMULTEMER	DTNWDEV	LEVMULTDEV
Mean	4.820922	5.586039	22.6	8.919091
Median	3.21	4.16	17.48	9.32
Maximum	45.58	43.21	122.69	17.18
Minimum	-7.24	-6.24	0.49	1.38
Std. Dev.	8.41073	7.56561	26.20977	4.193002
Skewness	3.977484	3.844596	2.777634	0.084551
Kurtosis	19.33426	18.88299	10.93391	3.070775

Jarque-Bera	701.4401	661.7099	85.99053	0.030804
Probability	0	0	0	0.984716
Sum	245.867	284.888	497.2	196.22
Sum Sq. Dev.	3537.019	2861.923	14426	369.2066

Source: own processing

reluctant to leverage. Indebtedness finance culture is implemented at the level of every corporation since their growth opportunities can be valorized by the intermediary of the external finance resources.

A higher leverage is equivalent also to stronger corporate governance mechanisms specific to developed countries in opposition with the emerging countries where corporate governance is still under valuated.

This conclusion is in line with the assumption made by Embrechts and Claessens (2002)[3] according to which companies based in emerging countries focus on self-financing; pecking order theory is validated mainly at their level. Statistics corresponding to leverage multiplier follow-up the same direction: corresponding mean and median are superior for the companies based in developed countries (5.86 and 4.16 versus 8.91 and 9.32) which subscribes to the idea that equity is lower in the case of the developed countries. Business is ran out mostly by the intermediary of the externally attracted funds; as for the emerging countries, high value of equity can be explained both by the pecking order theory and by the impossibility for firms to attract external resources. Moreover, in order to get more external funds, firms must comply with the security/covenant requirement (meaning it has to provide creditors with enough collateral proved by a high level of equity). The arbitrage emerging versus developed concerning leverage multiplier is not exceedingly superior as in the case of the debt reported to tangible net worth. The standard deviations corresponding to the two financial indicators show out a high degree of volatility at the level of the Debt reported to Tangible Net Worth specific to developed countries corporations (26.2 versus 8.41) which is in line with the assumption that their capital structure is more dynamic. Owing to their strong corporate governance mechanisms, leverage degree can

Table 3 Descriptive Statistics corresponding to Default Point (DP) relative to emerging countries versus developed countries corporations

	DPGENLEV	**DPEMER**	**DPDEV**
Mean	-358.8479	76.51176	-1368.091
Median	99	100	-798.5
Maximum	100	100	100
Minimum	-10601	-835	-10601
Std. Dev.	1416.321	131.4012	2304.149
Skewness	-5.694516	-6.743334	-3.192425
Kurtosis	39.5848	47.24085	13.04468
Jarque-Bera	4465.646	4545.679	129.8567
Probability	0	0	0
Sum	-26195.9	3902.1	-30098
Sum Sq. Dev.	1.44E+08	863313.5	1.11E+08

Source: own processing

change from one period to another, which strengthens the idea of capital structure flexibility, fully adapted to the business needs. Default point descriptive statistics point out the fact that emerging countries corporations may default even if the difference between the two indicators is still high (from -835 to 100) while for the corporations based in developed countries, default point is touched when the value of assets is highly exceeded by the total debts; it may reach from -10601 to 100. The mean relative to the emerging countries default point is 76.51 while for the developed countries it reaches -1368.091.
This finding highlight out that emerging countries companies are more exposed to default probability than those based in developed countries.
Developed countries corporations can afford negative equity while those based in emerging countries ca not afford high leverage degree

Table 4 Regression output regarding the main determinants of the corporate default point within emerging countries

DEPENDENT VARIABLE: DPEMERG				
Method: Least Squares				
Date: 01/12/08 Time: 23:32				
Sample(adjusted): 1 51				
Included observations: 75 after adjusting endpoints				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GRAPHVAR2	-2.11E-12	4.96E-13	-4.25792	0.0001
GRAPHVAR7	-100	2.47E-13	-4.05E+14	0
GRAPHVAR10	100	2.77E-13	3.61E+14	0
GRAPHNEWVAR13	-5.76E-15	2.73E-15	-2.1118	0.04
R-squared	1	Mean dependent var		76.51176
Adjusted R-squared	1	S.D. dependent var		131.4012
S.E. of regression	1.87E-12	Akaike info criterion		-51.0975
Sum squared resid	1.64E-22	Schwarz criterion		-50.946
Log likelihood	1306.985	Durbin-Watson stat		1.387118

Source: own processing

4. Discussions

In order to identify the main factors which impact default point according to developed versus emerging countries corporations, two regressions have been built up, conceiving default point as dependent variable determined by a series of variables such as Current Liquidity Ratio (I_2), Leverage multiplier (I_{10}), Debt/Tangible Net Worth (I_7), Working Capital Turnover (I_{13}),

Return on Tangible Net Worth (I_4). As for the emerging countries, default point appears to be closely determined by the whole series of financial indicators. The R-squared coefficient is 1 which indicates a deep relation between default point and the financial indicators reflecting liquidity, solvency and activity.
The most significant factors are represented by leverage multiplier and debt reported to tangible net worth which highlight out that leverage is the main corporate default driver. Default point is not triggered in a significant manner by any of the liquidity, solvency,

Table 5 Regression output regarding the main determinants of the corporate default point within developed countries

DEPENDENT VARIABLE: DPDEV				
Method: Least Squares				
Date: 01/13/08 Time: 00:10				
Sample(adjusted): 2 22				
Included observations: 75 after adjusting endpoints				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
GRAPHVAR2	-1301.5	931.9936	-1.39647	0.1805
GRAPHVAR4	-9.51365	11.01178	-0.86395	0.3996
GRAPHVAR7	2.016008	41.06485	0.049093	0.9614
GRAPHNEWVAR13	-9.13874	21.69218	-0.42129	0.6788
R-squared	0.14536	Mean dependent var		-1395.81
Adjusted R-squared	-0.00546	S.D. dependent var		2357.288
S.E. of regression	2363.713	Akaike info criterion		18.5435
Sum squared resid	94981360	Schwarz criterion		18.74245
Log likelihood	-190.707	Durbin-Watson stat		1.595879

Source: own processing

profitability or activity indicators. The R-squared coefficient is excessively lower (0.14536) which points out that within developed countries default is not determined strictly by leverage or by other commonly known factors. This finding is supported mainly by the low values of the default points.

5. **Conclusions**

This paper focused on corporate default assessment; the approach is a differentiated one in accordance with the localization criteria, respectively emerging versus developed countries. Statistical tests highlighted out that companies based in developed countries have a higher leverage and the gap between assets and total debts value is highly negative in comparison with the differential relative to emerging countries. Default point appeared not to be impacted by any financial variable characteristic to the internal environment of the company.

In opposition with the corporations located in developed countries, the corporate default point characteristic to the emerging ones is highly impacted by the level of the financial indicators reflecting liquidity, profitability, activity and solvency of the company. For the years to come, companies based in emerging countries will increase their leverage since capital market and finance opportunities will develop and their default point will have the tendency to become positive too.
From the perspective of the credit-risk management strategies, it is obvious that developed countries corporations currently apply more strict credit management strategies although they have significant leverage potential. This finding is based on the fact that they are perceived as being riskier because of the macroeconomic volatility too.
The corporations based in developed countries apply more flexible credit management strategies. As in the future leverage corresponding to the corporations located into emerging countries will increase, credit risk management strategies will become more flexible too.

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