

PRAGMATICS OF USING A MODIFIED CAPM MODEL FOR ESTIMATING COST OF EQUITY ON EMERGING MARKETS

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Abstract. The aim of the work is to forming pragmatic recommendations for the development and implementation the modified CAPM model in the process of estimating the equity value on emerging markets. Original CAPM model allows estimating the cost of equity on the developed capital markets. At the same time it requires the information received on the market data basis. But, as show recent empirical research, the classical model does not always produce acceptable results of the equity estimation. In addition, CAPM model in its classical form can't be used to estimate the cost of equity for countries with emerging markets. This is due with lower efficiency in emerging markets, with lower level of liquidity and capitalization, which makes the information obtained from these markets not entirely reliable. Therefore in practice are increasingly using different modification CAPM models, that allow consider for more specific factors which affect the cost of equity. These factors, which are not considered in the classical CAPM model, include the size of the corporation and country risk. The first factor is actual for developed and emerging markets and needed to account during the equity estimation and modification the CAPM model. Country risk is associated with differences and peculiarities of the economies different countries and in the first place should be taken into account when estimating the cost of equity in emerging capital markets, which are considered by investors as more risky for investment. This factor should also be taken into account in estimating the cost of equity. *Methodology* In the process of constructing a modified CAPM model, theoretical and methodological provisions were used, which are set out in the work R. Banz, G. Bekaert, M. Goedhart, R. Grabowski, R. Grinold, D. Vessels, A. Damodaran, M. Dempsey, J. Zhang, R. Ibbotson, P. Kaplan, T. Koller, K. Kroner, L. Kruschwitz, M. Long, A. Lofler, G. Mandl, M. Miller, F. Modilyani, K. Nunes, D. Peterson, S. Pratt, L. Siegel, Y. Fama, P. Fernandes, K. Harvey, D. Harrington, S. Hassett. *Results* In result of research received a modified CAPM model, which can be used to determine the cost of equity in developed and emerging capital markets. *Practical implications* Received model in result of research may have practical use in the process of estimating the equity value and designed to determine the rate of return required by investors for investing money in equity of corporations on emerging markets. *Value/originality* Described modified CAPM model takes into account the effect of a greater number of factors that determine the cost of capital on emerging markets and ensures a correct estimate of the equity value in absences of reliable information from emerging markets.

Key words: equity, build-up method, risk-free rate, industry risk premium, equity risk premium, country risk premium, idiosyncratic risk, fundamental measures.

JEL Classification: G10, G11, G12, G13, G15

1. Introduction

In the modern corporate finances, the numerous approaches to the evaluation of the stock capital cost. The CARM model which is widely used by financial analysts in the whole world is the most distributed model. But by the results of recent empirical researches (Dempsey, 2013; Grabowski, 2015; Fernandez, 2015), in practice the classic CAPM often give not quite correct results. In connection with this question it is updated modifications to better taking into account factors that affect the cost of equity. Especially this problem is actual for countries which

develop the capital market, and are not always objective market information available.

By the way it's important groundings the approaches for practical using of formed using. In connection with this, the forming of practical recommendations for development and implementation of modified model in evaluation of CAPM capital assets in the process of assessing the equity value in emerging markets (emerging markets), is the main purpose of the job. For established purpose reaching it's necessary to give the characteristics to the main components of CAPM, identify opportunities for

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its improvement based on recent research to substantiate the specifics of using the modified model of equity capital evaluation for emerging markets.

2. Characteristic of components in original CAPM model

Stock capital cost is the important criterion which defines the corporate financial possibilities by the personal capital attraction. From the position of modern corporate finances, the stock capital cost is a profitability, which requires shareholders for investing in the acquisition of shares of a particular corporation.

Most of the dominant concepts of today the cost of equity are based on the relationship of risk and return. The basis of this relationship is a simple principle: the more risk associated with owning a certain action, the higher profitability will require shareholders on their investment, and accordingly, the cost of equity will increase.

In fact, the cost of equity reflects the profitability that an investor expects to receive as a result of an investment of money in a corporation. In assessing, the value of equity need to consider the risks associated with investing in the capital stock of a corporation. All existing methods of stock capital cost evaluation (R_e) have common structure which consists of non-risk rate of interest (R_f) and additional premium for risk (Risk premium RP) – a payment for the risks associated with the shares of the particular corporation. The basic structure allows evaluating stock capital cost may be written in a follow way:

$$R_e = R_f + RP. \quad (1)$$

All existing models differ from each other with approaches, which are used for premium calculation for stock capital risk. Capital Assets Pricing Model (CAPM) is one of the most distributed method in stock capital cost evaluation which allows considering the interconnection of risk and profitability. The classic CAPM equation is as follows (Sharpe, 1964):

$$R_e = R_f + \beta_e \times (R_m - R_f) \quad (2)$$

or

$$R_e = R_f + \beta_e \times RP_m. \quad (3)$$

The main components of CAPM model is the non-risk rate of interest (R_f) – is the profitability rate by the non-risk securities (usually US government securities); Beta coefficient (β_e) – the level of riskiness of the stock compared to market risk; market yield securities (R_m) – expected return on a diversified portfolio of common shares.

Let's move to the more detailed characterization of the individual components in the CAPM. The basic element of the model is the risk-free interest rate. Risk-free interest rate is (R_f) on securities, for which the expected return is the same as the actual, such securities are considered risk-free. As the risk-free rate Yu. Fama (Fama, 1967) which proposes to use the rate on long-term US government bonds. In practice, to assess the value of the share capital

as a risk-free rate of return is selected rate for 10 or 20 years US Treasury bonds (t-bonds), to assess the short-term investments can be used short-term interest rate on treasury bonds (t-bills).

Another important component of the model is the CAPM is the equity risk premium of the share capital (ERP). Very often in the scientific and practical literature uses the term market risk premium (market RP_m). These two categories are interchangeable used to characterize the level of extra yield over the yield of risk-free securities, which investors require a fee for the risk of investing in the market portfolio of common stocks that are included in the base of the stock index. The market risk premium (RP_m) in generalized form defined as:

$$RP_m = R_m - R_f. \quad (4)$$

Among the theorists and practitioners of corporate finance, there is no common point of view on the methodology for calculating the market risk premium of the share capital. Dzh. Ravi and V. Dzheniu (Ravi, Zhenyu, 1996) propose to use to assess the market risk premium of equity spread default model (Default spread model, DSM). At the heart of this model is the assumption that the long-term average risk premium for equity is a constant, and the reason for deviation from this value is this long-term average volatility of default spread.

S. Hasset (Hasset 2010) contributed to the development of the methodology for calculating the market risk premium; given that on the basis of empirical research, he identified a link between the risk-free interest rate, yield S & P500, real interest rates and real GDP growth relative to S & P500 index over time.

During the process of A. Damodarian (Damodaran, 2010) determination the potential market risk premium first finds the discount rate, which compares the current value of the S & P500 index from the cash flow distribution estimates in future periods. Then he takes a rate of return on 10 treasury bonds of the US government per year. In a way the market premium for stock capital risk which may be used in the process of the share capital evaluation.

The last and important component of original CAPM model is the beta coefficient. Beta acts as the indicator of market system risk evaluation. Systemic risk affects all corporations regardless of size and industry. Beta (β) – this is the regression coefficient between the yield of individual stocks and the overall market (stock index). Beta ratio serves as a measure of systemic risk, its economic essence lies in the fact those different corporations differently amenable to the influence of the same type of risk.

If the coefficient is $\beta < 1$, so the corporation is amenable to risk, to a lesser extent, if $\beta < 1$, then the corporations are more risky, the market average value of this ratio is 1, which is equivalent to the average market risk level. It should be noted that in the original CAPM beta (.beta.) considers only the systematic (market) risk assets, this type of risk can be minimized by diversification.

The beta (β) measures the risk of individual stock relative to the market index, which acts a kind of measure of the market. In this connection, depending on the industry-specific shares of the corporation or the other may be more or less sensitive to the volatility of the market index, which finds its expression in greater or lesser value of the beta coefficient (β). The beta is more for the corporations, the demand for products, which are more dependent on market conditions. Conversely, if the production corporation have a stable purchasing power, the shares owned by such corporations lower coefficient beta.

In the classic version of the beta coefficient is measured on the basis of stock market data, in particular the volatility of individual security returns and the volatility of the stock market (stock index) as a whole. However, for countries with emerging market capital to use this option for calculating the beta coefficient is not always available, because very often the markets are low liquid and do not reflect the real price situation.

One of the more affordable ways to measure the beta coefficient for the countries with developing capital markets – is to use for this purpose the fundamental indicators of the corporation. A. Damodaran (Damodaran, 2010) believes that the beta (β) the corporation is determined by the following three factors: the type of activity, the level of operating leverage, financial leverage.

The level of operating leverage (operating leverage, OL (Lev.)) The corporation is determined by the structure of its costs and is expressed as a ratio between fixed and variable costs. The Corporation, in the structure where there is a significant proportion of the costs of fixed costs, has a higher level of operating leverage, resulting in greater volatility in operating profit (operating income, OL.), And a larger beta coefficient (β).

The level of financial leverage (financial leverage, F (Lev.)) The corporation is determined by the capital structure and is expressed as a ratio between equity and borrowed capital (D/E). The Corporation, in which the structure more capital share of debt capital, has a higher level of financial leverage and, as a result, the higher the beta (β). The beta characterizes operating riskiness scope of the corporation depends on the risk associated with financial leverage. Financial leverage multiplying the risks associated with the Corporation's operations, thus increasing the beta ratio. In the context of the relationship of capital structure (financial leverage) and the beta coefficient is sufficiently valuable

R. Hamady equation (Hamada 1972), which in A. Damodaran (Damodaran, 2010) has a number of modifications:

$\beta_L = \beta_u \times (1 + (1-t) \times D/E)$ (5) – basic modification when β_d ratio = 0 (borrowed capital risk-free);

$\beta_L = \beta_u \times (1 + D/E)$ (6) – a modification which does not take into account the tax effect;

$\beta_L = \beta_u \times (1 + (1-t) \times D/E) - \beta_d \times (1-t) \times D/E$ (7) – modification, when the coefficient $\beta_d > 0$

Despite the significant prevalence in practice, the use of a base modification R. Hamady equation, it has several drawbacks, since it is based on the provisions of the second law of M. Miller and F. Mollyani. He involves risk-free nature of corporate debt (i.e., borrowed capital is attracted by the risk-free interest rate) the absence of transaction costs and the availability of taxation. In reality, the borrowed capital is not risk-free, so the neglect of this factor can lead to some inaccuracies in the calculations.

From our point of view, the process of evaluating the equity value of more pragmatic in terms of developing the capital market to determine the coefficient β_L . R. Hamady is precisely the equation, since it allows you to take into account the systematic risk inherent to β_u corporations whose securities are traded on the capital market development and specific financial risk a private corporation, which is expressed in the D/E ratio. In this regard, the influence of the proportion of contingent

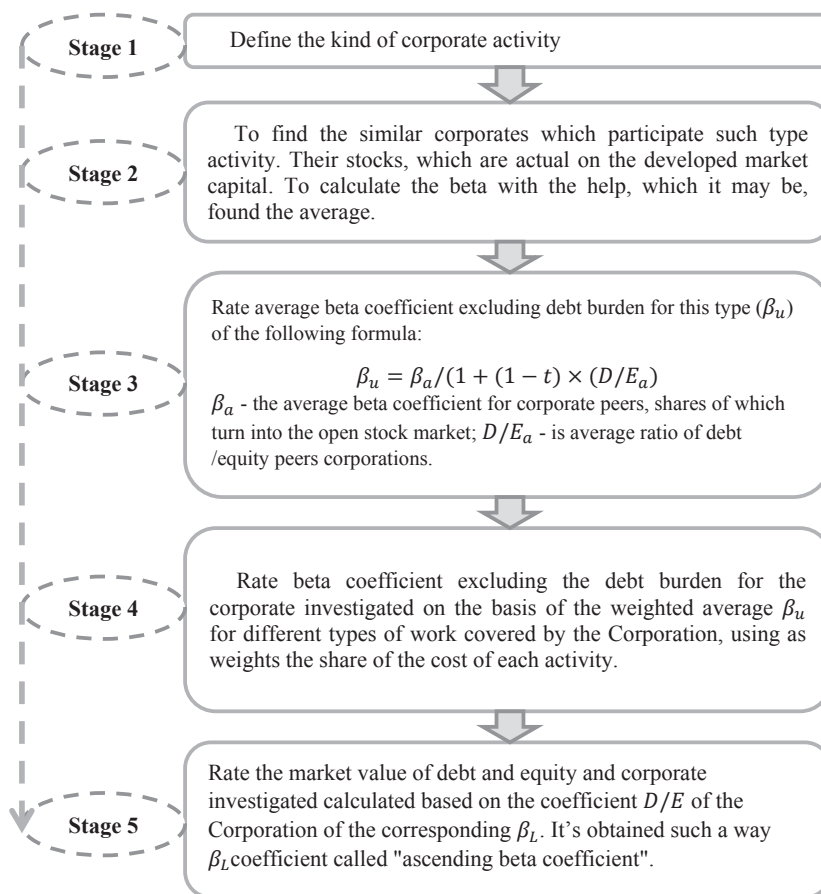


Fig. 1. Algorithm of β_L coefficient calculation

capital increase will be reflected adequately in the model and as a result will increase the cost of equity.

We believe that the cost of equity is determined to a greater extent is capital structure, rather than the interest rate at which attract borrowed capital. In this case, all the risks associated with the involvement of borrowed capital, which is adequately reflected in its value. Considering the above, for the determination of the coefficient practice β_L A. Damodaran (Damodaran, 2010) suggests the following sequence of actions (figure 1).

The thus obtained "upstream betas" in terms A. Damodarana perfect in comparison with beta regression coefficients for the following reasons:

- each regression coefficient β estimated standard error, has a lower standard error of the mean value with a multiple regression coefficients;
- "Bottom-up beta coefficient" can be used to reflect the changes in the activities of the corporation and its assets;
- "Bottom-up beta coefficient" takes into account the current changes in the capital structure of the corporation, which are expressed in changing factor D/E;
- "Rising betas" allow none taking into account the stock prices of corporations. This advantage is especially important for countries, which do not have a developed stock market, but there is a need to assess the value of corporate equity.

In practice, the classical model of CAPM does not always produce correct results is evidenced by a number of empirical studies such as the research M. Dempsey (Dempsey, 2013), R. Grabowski (Grabowski, Harrington, Nunes, 2015) P. Fernandes (Fernandez, 2015). The main disadvantages of the CAPM model lie in the theoretical assumptions of functioning models: the absence of transaction costs, the absence of bankruptcy costs, limited corporations in finance, investment portfolio is fully diversified.

In addition, the classical model does not take into account a number of risks that affect the cost of equity. These risks include the risk of corporate size (as shown by a recent study investors view small companies as riskier and therefore it leads to an increase in the equity value), specific (non-diversified) risk of a particular corporation, country risk, which expresses the increased riskiness of developing countries. Accounting for these types of risks that are not reflected in the classical CAPM model is the basis for its further modification. Particularly relevant is its adaptation to assess equity to emerging market equity.

3. Development of modified model CAPM

Some corporate finance theorists hold the thought that the cost of market risk is the remuneration received in excess of the expected rate of return (in excess of the yield, which provide a risk-free securities). However, empirical studies (Grabowski, Harrington, Nunes, 2015) show that the market estimates and other types of risks, one of these risks is a risk-sized corporation. The essence of this type of

risk is that investors as more risky in comparison with the major evaluate small corporations.

Accordingly, investors are buying shares of small corporations will demand compensation for this type of risk in the form of a premium for the size of the corporation (RP_s). The so-called "size effect" is based on empirical observations, which demonstrate that the corporation smaller investors associated s great risk and therefore have a higher cost of equity.

One of the first studies that reflect the relationship between the value of the share capital and the size of the corporation, is a research R. Banz (Banz, 1981), who analyzed the yield on the NYSE stock corporations with low and high capitalization for the period 1926-1975 years. In addition, M. Long Dzh. Zhang (Long, Zhang, 2004). It's noted that small corporations have risk characteristics that are different from the risk of large corporations. Large corporations have more opportunities in the resource sector, in management, in access to capital markets, making them more resistant to the economic downturn.

All these differences lead to the fact that investors demand a higher rate of return for investments in small corporations. This additional yield is expressed in the additional premium for corporate size (RP_s). The prize for the size of the corporation, which is defined by Duff & Phelps (Grabowski, Harrington, Nunes, 2015) adapted to the CAPM model and can be integrated into it as take into account the risks that are not reflected in the beta coefficient (β).

The scientific and practical literature devoted to Corporate Finance can be found two ways of calculating the premium for corporate size: the method of "policy portfolio" (guideline portfolio method) and the method of regression equation (regression equation method). The first method is relevant for corporations whose shares are traded on the open stock market, as it requires information about the company's capitalization. The second approach is more versatile and can be used for companies whose shares are traded on developed stock market, and corporations do not have a quoted market price is correct. The latter is particularly important for developing capital markets (emerging markets) which include and Ukraine.

The method of regression equation (regression equation method) allows you to calculate the risk premium corporations which is based on the following indicators that characterize the size of the corporation: the market value of equity (MVE), the market value of invested capital (MVIC), the book value of equity (BVE), the size of the total assets at book value (TA), the average annual net profit for the last 5 years (NI), the average amount of income before interest, depreciation and taxes for the last 5 years (EBITDA), net income (NS), number of employees (NE) . This approach allows us to calculate a premium for the size of the corporation as the basis of market information, as well as based on the financial statements. From our point of view, this approach is more versatile and can be applied to companies whose securities are

traded on emerging capital markets. In this situation it is possible to calculate the average premium for the size of the corporation on the basis of six fundamental parameters describing the size of the corporation, obtained on the basis of financial statements of the estimated corporation.

R. Grabowski, Dzh. Harrington and K. Nyunz to calculate the premium amount for the corporation (RP_s) offer equation described in (Grabowski, Harrington, Nunes, 2015). With the help of these equations (Table 1) it is possible to calculate the additional premium for the size of the corporation, which must be taken into account in the modified CAPM as an additional additive component.

Another important element that does not take into account the classical CAPM model – is the difference in the level of risk the economies of different countries. According to this approach, the economies of developing countries are considered as more risky for investments in connection with the impact of political, economic, financial and institutional risks. Considering this factor A. Damodaran (Damodaran, 2010) to estimate the cost of equity for countries with developing capital markets (emerging markets), proposes to take into account the risk premium for a particular country (country risk premium, RP_c). Use of this award as a supplement to the CAPM model is widely used in practice, although very often the discussion.

In particular in the L. Krushvitsa, A. Loflera and G. Mandla (Kruschwitz, Löffler, Mandl, 2012) is subjected to sharp criticism of the concept of the use of the risk premium of the country (country risk premium, RP_c) and approaches the whole A. Damodarana. Indicating the author noted these contradiction Prize ideas CAPM as country risk is weakly correlated with the global systemic risk. This risk can be almost completely minimized by the diversification of the global capital market; with a portfolio, investor should not require additional profitability for it.

In other words L. Krushvits, A. Lofler and G. Mandl (Kruschwitz, Löffler, Mandl, 2012) come to the conclusion that eliminates the need for the CAPM (RP_c). In response to that criticism A. Damodaran (Damodaran, 2012) acknowledges the theoretical weakness of his position. However, at the same time, it notes that the emerging capital markets (emerging markets) objectively, there are

additional risks and they should be such as to take into account. In addition, until that time, until a reasonable assessment of the theory of this type of risk it considers it possible to use the premium for country risk (RP_c).

To calculate the premium for country risk (RP_c) A. Damodaran (Damodaran, 2010) suggests using two approaches: based on the volatility of the stock market, based on the assessment of default spread (Country Default Spread) on sovereign bonds of the country. The essence of the first approach is the calculation of the premium for the country risk based on the ratio of the volatility of the local stock market volatility in the US stock market, which is multiplied by the historical market risk premium in the United States. The use of this approach is limited to countries with illiquid stock markets, which include Ukraine.

Country risk premium (RP_c) using the second approach depends on the credit rating of the country and from the spread of default (Default Spread) on government bonds. Although the risk of default on government bonds are not directly associated with the risk of the share capital, but the country's credit ratings take into account the many factors that equally affect both government bonds and shares. These factors include political instability, economic recession, high inflation, currency fluctuations, and others. The spread of default is calculated as the difference between the rate of return on government securities in the local market (eg market of Ukraine) and the rate of return government securities developed markets (eg US Treasuries). As the risk premium is taken the average value of the spread of default for countries with the same credit rating.

From our point of view, the most pragmatic approach for the calculation of premiums for country risk (RP_c) for countries where the capital market is developing (emerging markets) is an approach that is based on the credit rating of government bonds and the calculation of the spread of default according A. Damodarana methodology. To justify the use of this approach has a number of empirical studies and G. Bekaerta K. Harvi (Bekaert, Harvey, 2014), which are based on data from emerging capital markets (emerging markets). Studies have shown that the movement spread defaulting country government bond yields and equity

Table 1

The basic equation to calculate the smoothed bonuses for corporate size (RP_s)

№	Indicator characterizes the corporate	Calculational equation (RP_s)
1	Market value of equities (MVE)	$RP_s = 12,505\% - 2,585\% \times \log(MV)$
2	Balance value of equities (BVE)	$RP_s = 8,469\% - 1,599\% \times \log(BV)$
3	National Income by last 5 years (NI)	$RP_s = 7,428\% - 1,743\% \times \log(NI)$
4	Market value of invested capital (MVIC)	$RP_s = 11,936\% - 2,355\% \times \log(MVIC)$
5	Total assets by balanced value (TA)	$RP_s = 9,690\% - 1,736\% \times \log(TA)$
6	The average amount of income before interest, depreciation and taxes by the last 5 years (ABITDA)	$RP_s = 8,239\% - 1,723\% \times \log(EBITDA)$
7	Net profit (NP),	$RP_s = 8,662\% - 1,405\% \times \log(S)$
8	Number of employees (NE).	$RP_s = 10,011\% - 1,612\% \times \log(NE)$

Source: calculated by author at the basis of (Grabowski, Harrington, Nunes, 2015)

markets are correlated with each other, which indicates that they have the same source of risk.

Figure 2 reflects the dynamics of the credit rating, default spreads of government bonds of Ukraine and the country risk premium in 2006-2015 (data are given at the beginning of each year). As can be seen from Figure 2 the credit rating of bonds of Ukraine for 2006-2016 fell significantly, default spread has increased from 400 to 1000 basis points (4.10%), the premium for the country risk has increased from 6% in early 2006 to 14.9 % at the beginning of 2016, which indicates an increase in the riskiness of investing in Ukraine as a whole and equity in particular.

In order to take into account the country risk premium for the CAPM model are three possibilities. According to the first approach, the premium for country risk is simply added to the model as an independent variable. The second approach involves the approach that the country risk premium for the market increases the risk premium already obtained value is multiplied by a beta coefficient. The third approach taking into account the premium for country risk in CAPM model involves the use of a correction factor λ , which reflects the degree of sensitivity of country risk exposure to a particular stock corporation.

From our point of view, the most versatile and practical to use a third approach, which takes into account the impact of an individual country risk on shares of the corporation as part of corporations, especially those who work on the global world market are less amenable to the risk of a country. Conversely, if the corporate activity is concentrated in only one country, in this case, λ coefficient becomes 1, and means that this corporation completely amenable to country risk.

In view of the above, the modified CAPM model, which can be used to estimate the cost of equity in emerging capital markets should include an additional premium for the size of the corporation (RP_c) calculated using

regression equations developed by financial analysts Duff & Phelps R. Grabovski, J. Harrington, K. Nyunz (Grabowski, Harrington, Nunes, 2015) and an additional premium for country risk (RP_s). In this regard, a modified CAPM model will look like the following:

$$R_e = R_f + \beta_e \times RP_m + RP_s + \lambda \times RP_c \tag{8}$$

This model is compared with the classical model takes into account a number of specific risks that are not reflected in the model and are particularly relevant for emerging market capital. Therefore, from our point of view, this model has a high explanatory power equity value and can be used in practice as an effective tool to assess the value of equity in emerging capital markets.

4. Conclusions

In modern conditions there is a need to develop pragmatic models to estimate the cost of equity of corporations whose securities are traded on emerging capital markets. Very often, these markets are illiquid and inefficient, and therefore there is no real opportunity to use market data to estimate the value of corporate equity.

In order to correctly assess, the value of equity in emerging capital markets need to use the information obtained from the developed capital markets, which is adjusted to the characteristics of individual corporations and the risks that accompany its economic activity. The study received a modified model of the CAPM, which can be used to determine the cost of equity for both developed and developing capital markets.

Described in the modified CAPM model takes into account the effect of a greater number of factors determining the cost of capital in emerging capital markets and ensure a more correct estimate of the cost of equity capital under conditions of lack of reliable information from emerging stock markets. The resulting research model has a practical use in the process of assessing the equity value.

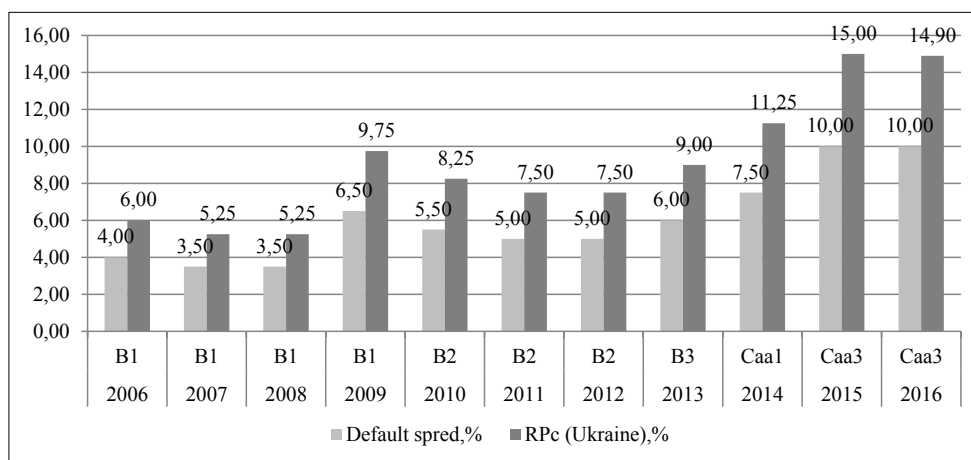


Figure 2. Credit rating dynamics, spread Default (Default Spread) on government bonds of Ukraine and the premium for country risk (RP_c) in the years 2006-2016 (Damodaran, 2016)

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PRAGMATICS OF USING A MODIFIED CAPM MODEL FOR ESTIMATING COST OF EQUITY ON EMERGING MARKETS

Аннотация. Целью работы является формирование прагматических рекомендаций для разработки и имплементации модифицированной модели оценки капитальных активов CAPM в процесс оценки стоимости акционерного капитала на развивающихся рынках (*emerging markets*). Оригинальная модель CAPM позволяет оценить стоимость акционерного капитала на развитых рынках капитала (*mutual markets*). При этом она требует информации, полученной на основе рыночных данных. Но, как показывают последние практические исследования, классическая модель не всегда даёт приемлемые результаты оценки стоимости акционерного капитала. Кроме того, в классическом виде модель CAPM невозможно использовать для оценки стоимости акционерного капитала для стран, рынок капитала которых развивается. Это связано с более низкой эффективностью развивающихся рынков капитала, более низким уровнем ликвидности и капитализации, что делает информацию, полученную с таких рынков, не совсем достоверной. В связи с этим, на практике всё чаще используются разные модификации модели CAPM, которые учитывают больше специфических факторов, влияющих на стоимость акционерного капитала. К этим факторам, которые не учитываются в классической модели CAPM относят размер корпорации, и страновой риск. Первый фактор актуальный как для развитых (*mutual markets*) так и для развивающихся (*emerging markets*) рынков капитала и требует учёта во время оценки стоимости акционерного капитала и вследствие модификации модели CAPM. Страновой риск связан с различиями и особенностями экономик разных стран и в первую очередь должен быть учтён при оценке стоимости акционерного капитала на развивающихся рынках капитала (*emerging markets*), которые рассматриваются инвесторами как более рискованные для капиталовложений. Этот фактор также должен быть учтён в процессе оценки стоимости собственного капитала. *Методика.* В процессе построения модифицированной модели CAPM были использованы теоретические и методические положения, которые изложены в работах Р. Банза, Г. Бекаерта, М. Гоедхарта, Р. Грабовски, Р. Гринольда, Д. Весселса, А. Дамодарана, М. Демпси, Дж. Жанга, Р. Ибботсона, П. Каплана, Т. Коллера, К. Кронера, Л. Крушвица, М. Лонга, А. Льофлера,

Г. Мандла, М. Миллера, Ф. Модильяни, К. Ньюнз, Дж. Петерсона, Ш. Пратта, Л. Сигела, Ю. Фамы, П. Фернандеса, К. Харви, Дж. Харрингтона, С. Хассета. *Результаты*. В результате исследования получена модифицированная модель CAPM, с помощью которой можно определить стоимость акционерного капитала на развитых и развивающихся рынках капитала. *Практическое значение*. Полученная в результате исследования модель может иметь практическое использование в процессе оценки стоимости акционерного капитала и предназначена для определения уровня доходности, требуемого инвесторами за вложение денег в акции корпораций, находящиеся в обращении на развивающихся рынках. *Значение/оригинальность*. Описанная в работе гибридная модифицированная модель CAPM позволяет учитывать влияние большего числа факторов, определяющих стоимость капитала на развивающихся рынках капитала, и обеспечить более корректную оценку стоимости акционерного капитала в условиях нехватки достоверной информации с развивающихся рынков капитала.