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PRINCIPLES OF STOCK PORTFOLIO MANAGEMENT FOR INDIVIDUAL INVESTOR

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Abstract. *The article deals with the management of equity risk in the US market. We investigate methods of diversification, the method of using a simplified version of the index and invest in securities, depending on the coefficient "beta" and the company's capitalization. The paper provides guidance on the easy and simple way of investing that will not use the services of professional intermediaries.*

Keywords: *investing; stock market index; the coefficient "beta"; investing in companies with high capitalization.*

INTRODUCTION

All risks in the securities market are divided into systematic and unsystematic risk. The difference is that the systematic risk can not be managed through diversification, Because it has components such as inflation, political factors, exchange rates, etc. The non-systematic risk, in this case, the principle of diversification is possible to manage. Any investor will try to reduce unsystematic risk through diversification.

Portfolio investment is actual topic. An important contribution to the theory of portfolio investment was made by H. Markowitz, John Tobin, B. Sharpe and J. Lintner. All their models reduce to the relation of risk and profit. Scientists argue that there are no reliable stocks, all of them associated with the risk. These scientists shared the theory of securities portfolio into two parts - the systematic risk and non-systematic risk. Systematic risk is always associated with changes in the value of securities that are traded on the market. The profit of one stock always changes around the average profit of all securities. Therefore, the purpose of financial management is formation a portfolio, taking of various securities in order to reduce risk.

Stock market guru W.Buffett also contributed to the theory of portfolio investment. His strategy is the opposite of portfolio theory. W.Buffett argues and proves to us that a short-term drop in stock prices reduces the level of risk. Also, the financier suggests that success in the marketplace is closely associated with the time period. If the investor has chosen long-term investment, he will receive the probability of success in the future. Theory (Principles) W. Buffett is opposite well-known theory of diversification. Excessive diversification actually increases the risk of a portfolio, but rather focus on a few securities will reduce the risk and increase portfolio profit. Investors look for all information about companies and it allows to carefully investigate their activities, to determine their actual value. If the investors know about the companies, the risk will be low.

To successfully invest in the securities the investor has to acquire knowledge about fundamental and technical analysis. We recommend to combine the two methods that give a high probability of the reliability of stocks forecasts. Can the investor to invest, for example, in the action without the basics of fundamental and technical market analysis and without consultations broker?

We offer convenient scheme investing in securities where the investor makes steps of actions, namely:

1. to select the area of investment;
2. to select the index;
3. to identify the structure of the index;
4. to rank companies according to the level of the coefficient «beta»;
5. to refuse to invest in securities with a high coefficient «beta»;
6. to select companies (which are included in the index) with high capitalization and invest in accordance with the value of the market capitalization of the company.

USING THE STRUCTURE OF THE STOCK MARKET INDEX

Before we understand what "index method", we should understand about the concept of the index. Stock indexes are used in the financial world for a long time. First index is named index Dow Jones. The second was appeared index S&P, which was created by the American company of the same name Standart and Poors (abbreviated S&P). Initially the index was the biggest advantage quantitative superiority. If the Dow Jones index counted 30 companies, the S&P has made to its membership of 200 US companies in different industries. Both quantitative scale was carried out to 500 companies that led to its complement in the title (S&P 500). Quantitative characteristics influenced the effectiveness of the index. The index is popular as an indicator of the state of the stock market and it still used today as a criterion for measuring the market. In calculating the index has been selected arithmetic weighted average method, where shares of each company are weighted based on the value of stocks. Agency requires several conditions to include companies in the index. First of all, it is the territorial affiliation, ie the company must be an American. Secondly, the requirements for the capitalization of the company, this figure must be more than $ 4 billion, and the company must be financially sustainable. Thirdly, at least 50% of the stocks of the company must be in free float.

In this case, the investor must define the territorial focus of investment. If the preference is given to the American market, it uses stock index S&P500, DJ or other. In another case, when investing in European financial markets, in this case particularly popular stock index CAC (France), FTSE (UK), DAX (Germany). The Asian region also has its popular indexes – Hang Seng (Hong Kong), TOPIX, Nikkei (Japan).

The investor should compare dynamics of several stock market indexes. Because the index shows not only the state of the stock market, also the phase of the economic cycle. The phase of recovery of the economic cycle the most attractive in terms of investment, as in parallel with the growth of macroeconomic indicators and follow stocks index.

Stages of investment for the index method:

- Define the territorial focus of the investment.
- Investigate the structure of the selected stock index – the companies in the index structure, the specific weight of the each company in the index.

This approach is used by many investment and pension funds. After all, in fact, the index is "investment basket", showing what and how much to invest.

The essence of the index method or the method of mirroring the stock index is to ensure that the sample is taken as a specific index and the portfolio follows the structure of the selected index.

The key question for the investor as it is often necessary to change the structure of the portfolio. Saving the structure of the portfolio is possible in the stock markets in stable economies and not in markets with high volatility. Volatility is necessary for an aggressive investor and a strategic investor to invest in the stock market in the medium or long term. However, in developed stock markets have major participants, which will certainly be taken into account as a risk factor. The role of the major players in the market is high. On the one hand, they support the liquidity of the stock market as stock buyers and sellers. But buying and selling of shares would result in a significant change (to increase or decrease) in share prices, which causes the value of a specific asset, and this in turn on the yield of the portfolio.

For calculations we use the index method based on the most popular index S&P 500. S&P 500 is widely practiced in the stock market for several reasons:

- Coverage of a large number of issuers. There are no one the stock index with this characteristics. The index includes 500 of the largest companies, which traded on the stock exchanges NYSE (389 companies) and NASDAQ (111 companies).

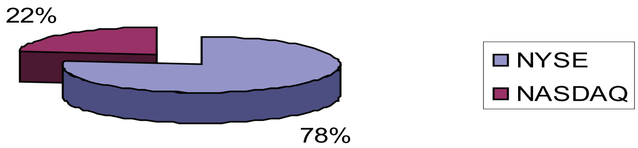

Fig. 1. *Distribution of S&P500, depending on stock exchange*

The leading position is New York Stock Exchange. Weight of companies included in the form of index occupies 78% of the total stock index. Less than a quarter of the company are traded in the NASDAQ.

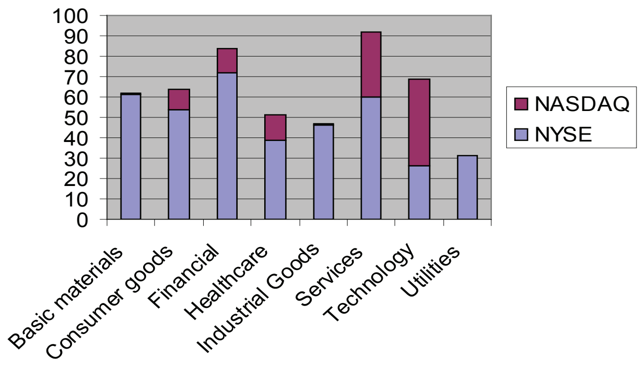

Fig. 2. *The composition of the S & P500 index by sector*

Figure 2 shows us the characteristic structure of the index, depending on the sector. The structure of the index is distributed between the 8 sectors of the economy – raw materials, consumer goods, financial services, healthcare, industrial goods, services, technology and utilities sector. Almost all sectors have an advantage NYSE. However, the technology sector has another trend. In this case, technology companies occupy a large share in NASDAQ. This is not surprising, as the NASDAQ stock exchange called "technology companies".

The composition of the index has a stable character, ie, companies included in the index are not excluded by random factors. The index includes major companies of the US economy, such as Apple, Chevron, Exxon Mobile, Johnson & Johnson, Microsoft Corporation, Pfizer Inc., The Procter & Gamble Company, Wells Fargo & Company, Wal-Mart Stores Inc and other companies with a capitalization of more than $ 200 billion.

Investor can focus on this method, spreading their money among 500 companies, taking into account the share of each company in the index. However, in our view, the index method must be used in compliance with several rules. It is necessary to sort the company depending on two factors – the values of "beta" and depending on the capitalization.

Ranking companies according to the coefficient "beta", and the share of the market capitalization of the company

We use different fundamental indicators of stocks to effectively analyze. Among them, in practice, it is widely used coefficient "beta stocks." What is this figure and how an investor can use to manage a stock portfolio?

Systematic risk can be measured by beta – coefficient. The beta coefficient measures the relative volatility of a security, calculated by the stock index securities.

This ratio shows a linear relationship between the investor's profits depend on investment and profits of the market. Coefficient "beta" shows us how the profit share varies in accordance with the dynamics of market profits. If the value of the indicator "beta" is positive, the trend continues to stock market direction. In the opposite sense, ie, when the value of this indicator has negative characteristics, it shows us the opposite of the trend of the stock relative to the market.

In passive investment (when the investor invests without resorting to daily operations) we should be investing money in stocks with a positive value of this indicator. However, it should take into account the level of the coefficient. The big advantage of this indicator is its publicity on the part of investment companies and news agencies, which facilitates the investor to find information or to identify its values.

If the index is 1, it shows that the movement of prices will be identical to the movement of the market. For example, the FTSE rise or fall by 6 points, while the stock, which is the part of the value of the index, has a beta coefficient of 1. As a result, the stock price will change in the same limit. When the beta coefficient of 0.5, the stock price will change only half (ie 3 points). If the index is 2, then the stock price will change up or down depending on the index by 2 times, that is, 12 points.

Table 1

The interpretation of the values of beta coefficient

Beta	Orientation	interpretation
2,0	In one direction the market	2 times riskier than the market
1,0		The risk is equal to the market
0,5		The risk is equal to ½ of the market
0	No correlation	-
-0,5	Opposite direction to the market	The risk is equal to ½ of the market
-2,0		2 times riskier than the market

Thus, if the index coefficient is positive, but it has a value closer to zero, the stocks of the company will be considered low-risk stocks. Because they have minimal volatility. If the index has a value closer to unity (approximately 0.9-1.5), the stocks have a medium risk. And the «beta» with a high degree is high volatility stocks, which is not efficient in passive management.

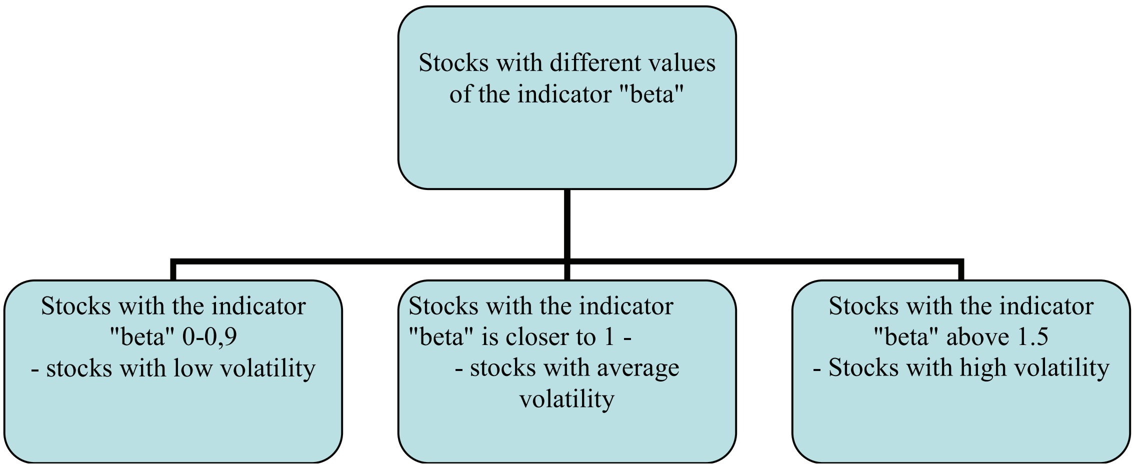

Fig. 3. *Ranking of shares depending on the value of the indicator "beta"*

Indicator beta stocks comprising the index FT-500 ranges from -0.26 to 2.90. If you rank the companies in terms of the beta, we will be able to make a ranking of sectors, depending on the correlation with the index.

Table 2

The ranking of sectors according to the beta coefficient

Sectors	Total	beta coefficient			
		below 0	***0.1-0.99***	***1.00-1.99***	***above 2.00***
Basic materials	62	2	10	46	4
Consumer goods	64	4	35	22	3
Financial	84	2	26	48	8
Healthcare	51	2	35	13	1
Industrial Goods	47	0	11	34	2
Services	92	1	42	47	2
Technology	69	3	23	42	1
Utilities	31	0	29	2	0
Total	500	14	211	254	21
Weight, %	100	2,8	42,2	50,8	4,2

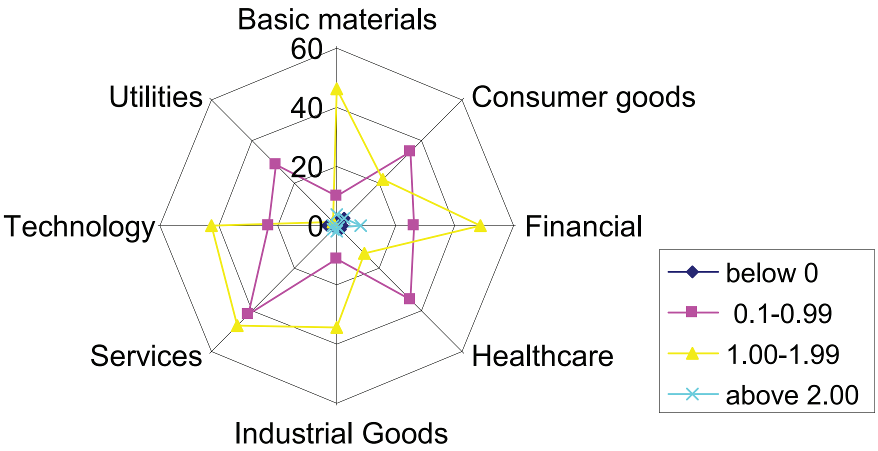

Fig. 4. *The distribution companies depending on the beta (in the index S&P)*

Stocks of US corporations have the beta coefficient with value of between 0.5-1.5.

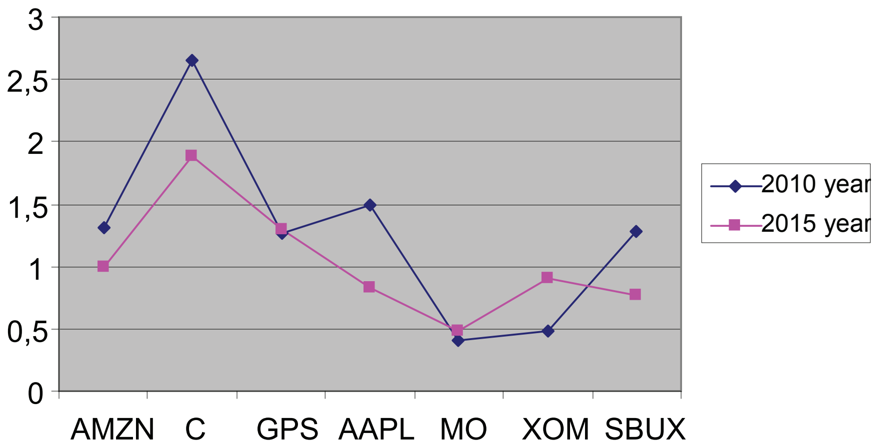

Fig. 5. *Changes of the beta coefficients of American companies in 2010 and 2015 **

Amazon.com – AMZN
Citigroup – C
Gap – GPS
Apple – AAPL
Altria – MO
Exxon Mobil – XOM
Starbucks – SBUX

Value of the coefficient "beta" for the last five years of selected companies tends to decrease, which gives us information about reducing your risk and a high probability of a correlation with the market.

The next stage – the sort of companies with capitalization. The selected index includes different companies with different levels of capitalization, as shown in table 3.

Table 3

The capitalization of companies whose shares are included in the S& P500 index

Market capitalization	**quantity**	**Shares, %**
More 200 billion USD	12	2,40%
10 billion USD – 200 billion USD	367	73,40%
2 billion USD – 10 billion USD	120	24,00%
300 million USD – 2 billion USD	0	0,00%
50 million USD – 300 million USD	1	0,20%
Total	500	100,00%

Stocks of companies from the list of the index are traded on the stock exchanges – NYSE, NASDAQ. The weight of each company in the index is proportional to its market capitalization. However, the stock indexes affect companies with high capitalization (over $ 200 billion). Thus, the investor does not need to invest money in 500 companies for effective passive management. It is sort of well-capitalized and invested in accordance with the criterion of the company's share in the index structure.

We selected 12 companies with a market capitalization of over 200 billion dollars. These companies are the best objectives for quality investment.

However, it is necessary to make a selection depending on the ratio of beta before investment.

Table 4

Investing in shares by the index method (depending on the value of the coefficient beta)

Companies	Market capitalization	Beta	Risk feature of stock	The proportion of investment in each company,%
Apple	740.21B	0.83	low	19,24
Chevron	213.20B	1.18	middle	5,54
General Electric	252.56 B	1.43	middle	6,57
Google Inc	373.67 B	1.06	middle	9,71
Johnson &Johnson	278.85 B	0.56	low	7,25
JP Morgan	223.06 B	1.60	middle	5,80
Microsoft Corp	359.90 B	1.04	middle	9,36
Pfizer Inc	218.25 B	0.76	low	5,67
The Procter & Gamble	231.97 B	0.42	low	6,03
Wells Fargo & Corp	286.07 B	1.17	middle	7,44
Wal-Mart Stores Inc	276.58 B	0.47	low	7,19
Exxon Mobile Corp	392.25 B	0.90	low	10,20

Value of the coefficient is low or middle. Thus, we include in the portfolio of all 12 companies, but invest in depending on the share of the company in our index S&P12 (selected from the S&P 500).

CONCLUSION

High dynamics of development of the securities market is need to find new and effective management methods. One of these is index method. The method based on market indicators will serve as a reference point in the direction of the market and the valuation of the portfolio. It is no secret that the forecast growth or depreciation of the securities can not always be predicted with accuracy. The method of index gives the minimum amount of information used in conjunction with the efficiency of wasting time. Therefore, using the structure of the index, we can be confident in the profitability of our investments, as in the index includes the largest companies of the relevant market.

It is no secret, the Rating agencies help investors and professional participants in the selection of issuers of bonds (notes). The Rating agencies evaluate the companies-issuers and we make a decision about investing in bonds. Therefore, the publication of the coefficient “beta” also gives investors more advantages in investing. Comparing the values of these indicators, the investor is convenient to rank security on the level of risk and select the security in accordance with the types of investors. We propose to eliminate or minimize the investment in stocks with a high value of this ratio.

The company's capitalization is major factor in the stock market. Company with high market capitalization is more attractive. Stock index includes a lot of companies and investing 500 companies inefficient process for the private investor. We recommend selecting companies with high capitalization and investing in their stock in accordance with the share of each company in the market.

Using these simple techniques the investor could solve several problems. First of all, it is the efficient allocation of time. The structure of the index and its share has a stable character. So there are not necessary daily operations of buying and selling. Secondly, copying the index, we could take an acceptable profit of the portfolio. Thirdly, we will distribute the assets according to the principle of effective diversification, which means that investments are placed in different companies with different levels of risk and industry sector.

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