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**The efficiency of investment in open-end
funds in Poland in the years 2007–2014**

Summary of doctoral dissertation

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1. JUSTIFICATION FOR THE RESEARCH PROBLEM SELECTION

The dynamic development of financial market, including the investment fund market, has a great impact on the subjective and objective development of investment fund offers, which in consequence provides wider and wider possibilities of investment, and at the same time provides greater difficulties in the process of assessment and the choice of effective investment fund. The general understanding of effectiveness means the same as a result of undertaken action, which in economy is provided by the relation of the effects to the expenditures. The aforementioned relation allows to verify whether the investments were effective, that means if the financial results were commensurate to the expenditures¹.

In relation to the investment fund market the effectiveness should be understood as the ability and efficiency of fund management, which results in achieving superior investment performance returns weighted by investment risk. Therefore, the high-efficiency fund is a fund of which manager can accurately predict changes in the market conjuncture, has the ability to select financial instruments to the particular fund as well as consequently realizes assumptions concerning the investment risk and the statutes of the fund².

The analysis of the efficiency of asset management by particular investment funds and in consequence the effectiveness of money investment in the participation of these funds is a complicated process mainly due to the continuous development of funds offer as well as the group of factors which may determine the results achieved by particular subjects.

Among the major factors that could affect the evaluation of funds effectiveness we should point to the situation on financial market as well as the factors that are directly related to the fund which are: the investment policy character, the assets under management and the results achieved in the past. Despite of the lack of simple and unequivocal method of efficiency assessment we should notice that this research plays an important role in the face of global financial crisis, which allows to compare the quality of asset management collected by the funds in the stock market boom – bust cycle.³

The subject of discussion within the trial are investment funds, investment funds market as well as the efficiency of investment by open-end funds in Poland in the years 2007 – 2014.

¹ J. M. Kowalski. 2008, Statistical measures of investment funds efficiency by ECM(I), Śląska Biblioteka Cyfrowa, p. 4.

² K. Perez The efficiency of investment funds. Technical and fundamental approach. Difin. Warszawa 2012, p. 10.

³ K. Jurek-Wasilewska., The efficiency of investment in open-end investment funds in Poland in the years 2001-2012, Finances and financial law 1/2014.

In the context of justification for the choice of the theme of this dissertation, one should notice theoretical, empirical and utilitarian premises. Among the theoretical premises we should pay attention to the problems connected with decision-making under risk as well as investors' behavior in the capital market.

An important empirical asset is the analysis of factors that influence the process of financial participants and thus the value of accounting units of investment funds in time. The following essential asset is the effectiveness of subject both from the point of view of individual investors as well as fund managers. The issues raised in the dissertation are related to the context of causes connected to financial crisis influence on investment fund in Poland. Therefore, the phenomena discussed in the dissertation are closely related to each other.

2. OBJECTIVE AND HYPOTHESES

The main aim of the dissertation is the analysis of effectiveness of open-end investment funds in Poland in the years 2007 – 2014.

In correlation to the main aim one should notice the detailed objectives listed below:

- the assessment of open-end investment funds effectiveness from the point of view of manager and funds participants,
- measure of investment efficiency,
- the verification of the effectiveness of investment factors of open-end investment funds in Poland,
- the analysis of financial situation of open-end investment funds in Poland,
- the cost analysis conducted by investors of open-end investment funds,
- the verification of effectiveness measures in comparison to ordering open-end investment funds in Poland,
- the comparative analysis of the effectiveness of investment in open-end Polish funds with foreign funds in Poland.

In connection with the aforementioned objectives of this dissertation the following research hypothesis was formulated:

The effectiveness of open-end funds investment in Poland in the years 2007-2014 was mainly dependent on the managers' skills.

The fulfillment of the main hypothesis are some sub hypotheses:

H1: The management abilities of formulating correct micro-forecasting in the range of instrument prices that created the portfolio, had the influence on the efficiency level of investment funds in Poland in the years 2007-2014

H2: The abilities of managers to prepare relevant macro-forecasting connected to the forecasting of movements of the whole market on the basis of historical trading stock indexes significantly affects the results of investment funds.

H3: The effectiveness of investing in open-end funds in Poland in the years 2007-2014 was mainly dependent on the abilities of investment instruments selection to the appropriate fund as well as the microeconomic factors: investment funds results, market development (in terms of products), the size and structure of costs in investment funds as well as fund family size, the degree of the sales network expansion and the intensity of marketing actions.

H4: The effectiveness of foreign funds investment in the years 2007-2014 is higher than one of open-end Polish investment funds.

3. METHODOLOGY

Analyzing the efficiency of investment funds one should take into consideration some basic measures of selection and market sensing. Selectivity is an ability to predict the overall market performance that would affect the portfolio prices of investment funds. While analyzing the selectivity measures of investment funds the measures of Sharpe, Treynor, Jensen and Sharp's alfa are taken into consideration. The market sensing is the ability to forecast the boom and bust phases in asset prices as well as the adequate reaction to these changes by ensuring the proper proportions in the investment portfolio between dangerous assets and safe assets. The market sensing of managers that control the portfolios will be assessed via Henriksson-Merton model as well as Treynor-Mazuy model. A very important part of the research is the analysis of the dynamics of performance indicators of investment funds changes. It will be conducted on the basis of time series of calculated performance indicators. The application of the techniques that are appropriate for the time series, such as trend analysis, seasonality, autoregressive processes and moving average (ARIMA model) would allow to follow the evolution of management abilities of people that are responsible for investment fund assets management as well as possible periodization of effectiveness results of various kinds of investment funds. The comparative assessment of funds is conducted with the use of statistical, taxonomy and econometric tools. Taking into consideration the main features describing the

investment funds i.a. in terms of investment policy, risk aversion, the level of experience, the classification and grouping of investment funds will be presented. In order to perform it, I would use the hierarchical and nonhierarchical clustering analysis, zero unitarization method and multilevel regression function. The results achieved by the use of various methods were necessary to distinct groups of funds with similar efficiency, investment risk level and similar dynamics of change in the structure of investment portfolio. The application of taxonomic methods allowed to order the funds linearly in the multiple-criteria analysis. The considerations will be conducted on 15 chosen funds: stocks, bonds, money market and balanced funds. Each kind of funds will be analyzed separately, due to the fact that each fund was based on different investment policy. The source of data to perform the calculations will be the financial reports of investment funds, the current pricing of fund units, St. Ex., the National Bank of Poland and Central Statistical Office. The dissertation will be interdisciplinary. The research of return of investment will be conducted using the tools of modern portfolio theory as well as behavioral finance theory and the theory of efficient market together with CAPM model.

4. THE STRUCTURE AND CONTENT OF THE WORK

The following dissertation starts with the introduction and is completed by the conclusion. It consists of four chapters which content and the structure are dependent on the verification of research hypotheses, completing the main objectives and solution of the researched problem.

In the first chapter the main concept of investment fund as the institution of collective investment as well as the method in which it participates to perform the function of financial market were presented.

In the following part the legal and economic conditions of investment funds beginning from the first act of 22nd March 1991 concerning public trading in securities and trust funds, by the act of 29th August 1997 about investment funds and the novelization of 16th November 2000, and the currently in force act of 4th 2008 concerning the change of act of investment funds (Law Journal No. 231, as amended 1546).

The classification of investment funds in Poland in terms of economic and legal criteria, as well as possible legal and organizational forms. The conclusion of the chapter is the analysis of investment funds influence on capital market. In the following part the emphasis was put on the informative efficiency of capital market. The main aim was to emphasis the importance of

transmission speed and the availability of market information affecting the degree of accuracy with which the market which is the resultant of investors, values various financial instruments. On this basis one could define the level of so called informative effectiveness of financial market, which particularly in its form determines the effectiveness of investment funds. The presentation of efficiency factors assigned to people managing portfolios of funds. The particular attention was paid to the behavior of participants and people managing the investment funds, which largely determines the necessity to examine the efficiency of funds, not only technically but fundamentally as well.

In the third chapter the conditions of the current financial crisis and its impact on the investment fund market in Poland were analyzed, and the issues of financial stability, conjunctural cycles, the concept, types and reasons for financial crisis, the signs of crisis, their leveling determinants of the current financial crisis in Poland and around the world on the situation of foreign investment funds market, and the situation of Polish investment fund market, as well as the development of the investment funds market and the financial crisis in Poland.

The fourth chapter has a scientific form, the empirical research was presented, the results of research on issues such as the efficiency of investment of open-end investment funds in Poland, the evaluation of investment efficiency factors of open-end investment funds in Poland, and financial as well as efficiency measures to organize open-end investment funds in Poland, a comparative analysis of investment efficiency of open-end investment funds in Poland with the efficiency of foreign funds. The whole chapter is closed by the discussion on the macroeconomic and microeconomic factors of investment efficiency of open-end investment funds in Poland.

ADMISSION

CHAPTER ONE

INVESTMENT FUND AS THE SUBJECT OF FINANCIAL MARKET

- 1.1. The essence, the concept and the functions of investment funds
- 1.2. Legal – economic conditions for the establishment of investment funds in Poland and their activity
- 1.3 Types of investment funds in Poland
- 1.4 The influence of investment funds on the growth of fluency of capital market in Poland

CHAPTER TWO

THE EFFECTIVENESS OF CAPITAL MARKET VERSUS THE ACTIVITY OF INVESTMENT FUNDS

2.1 Effective markets theories

2.2 Measures of investment efficiency of open-end investment funds.

2.3 The behaviour of people managing the open-end funds and their participants

CHAPTER THREE

FINANCIAL CRISIS AND ITS INFLUENCE ON INVESTMENT FUND MARKET IN POLAND

3.1. Financial stability versus conjunctural cycles

3.2. The concept, types and causes of financial crisis

3.3. The indicators of financial crisis and their elimination

3.4. Determinants of financial crisis of 2007-2013 in Poland and in the whole world

3.5. The influence of global financial crisis on Polish investment fund market situation

CHAPTER FOUR

THE ANALYSIS OF INVESTMENT EFFICIENCY OF OPEN-END INVESTMENT FUNDS IN POLAND IN THE YEARS 2007-2014

4.1 Methodology of research and the verification of hypothesis

4.2 The analysis of efficiency indicators of investment in open-end investment funds in Poland.

4.3. Efficiency of funds

4.4 Macroeconomic and microeconomic efficiency factors of investment in open-end investment funds in Poland in the years 2007-2014.

4.5. The assessment of financial situation of open-end funds in Poland in the years 2007-2014

4.6. The comparative assessment of investment efficiency in national and foreign investment funds in Poland.

CONCLUSIONS

BIBLIOGRAPHY

