



## THE ESTIMATION OF INSURANCE POTENTIAL: METHODOLOGICAL ANALYSIS

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**Abstract** *The development of the insurance sector is a priority for economies around the world, especially for the emerging economies due to their capacity to engage in investment activities. Insurance markets are recognized worldwide as important financial market actors and as factors of economic growth generation. Investment possibilities are determined by impressive financial resources managed by insurance companies. In this article we would like to analyze the factors that determine insurance investment sources and present instruments for analyzing insurance companies' investment potential.*

**Key words:**  
insurance, investment  
potential, insurance  
market

**JEL Codes:**  
G22, C1, G11

### 1. INTRODUCTION

In order to obtain a sustainable economic development substantial funds are required to be allocated through the mechanisms of investment activity. One of the largest holders of investment funds are the insurance companies. By selling policies, the companies accumulate free financial resources from people, businesses and state authorities and turn them into active capital functioning on the financial market. Therefore, the insurance does not only provide protection against risks, but also represents an important source of financial power in the economy.

The insurance mechanism has a specific feature in relation to other types of businesses. Insurer accumulates sources based on premiums paid by the clients at the beginning of the contract term and pays compensation later, when the insured event come. Therefore, clients who come for insurance in fact offer an advance payment that can be use as free investment source (Chechenova and Popovich 2012). In case of life insurance honoring contractual obligations of the insurer may occur over decades, providing stable, long-term opportunities for investment.

In the first part of this article we intend to dimension the investment potential concept and to

present mechanisms of its formation. In the second part, we will analyze the factors that determine the investment potential of the insurance companies and we will present the indicators for measuring this potential. Furthermore, we'll analyze the evolution of the insurance sector investment activity in the Republic of Moldova.

### 2. LITRETURE REVIEW

The assessment of investment potential of the insurance market has not been extensively studied. Exceptions are the work of Mazanova and Timofeeva (2007), Chechenova and Popovich (2012), Ulybina (2012).

Mazanova and Timofeeva (2007) examine the methodical principles of statistical evaluation of the investment potential level of insurance companies in Russia. As result of analysis the authors shown that the low level of investment potential realization is not only the result of a high rate of debtor indebtedness of insurants to insurers but it is the result of inefficient financial management as well. Chechenova and Popovici (2012) evaluate the investment potential of companies as base for investing. The authors presented groups of statistical elements for investment activity of the insurance companies and measured the net and gross investment potential level for 5 life insurance

companies and other 5 non-life insurance companies from Russian Federation.

Ulybina (2012) studied the mechanism of formation and realization of investment potential of insurance sector of the financial market, directions of its functioning and presented the system model of assets management for the insurance companies. Our paper, as the mentioned authors proposed, uses the methodological methods of dimension the insurers' potential investment for Moldovans insurance market.

## 2. INVESTMENT POTENTIAL OF THE INSURANCE MARKET

In this chapter we present the concept of investment potential of the insurance market and we reflect the elements of this potential.

### 2.1. Conceptual dimension of investment potential

The term of the investment potential is pretty little reflected in the economic research. Historically it comes from the Latin concept of investment (investment = to clothe, cover). There are opinions that the term was initially used in the military and means encirclement of a fortress (Nazar, 2013: 66). Thus we do arrive to the Professor's Marian Stoian statement that the investment is "the effort made now hoping of some future rewards" (Stoian, 2003).

There are several approaches to the concept of investment (Vasilescu, 2003, Garbuzov, 1994). Some experts consider that the investment is an expense, the others see investment as resources (goods, properties) which are placed in something, and the third group of scientists believes that the investment is a process of the capital placement. It is certain that the investment is the action or a process of investing money for profit (Oxford dictionaries).

On the other hand, the potential is the power or a capacity to achieve something. Combining the components of the concept we can define the investment potential as assets' allocation capacity in order to obtain profit or other positive effects. The insurance market represents an economic sector consisting of a group of homogeneous entities. The investment potential is the ability of all

insurers to attract investment sources across the market or to participate in the investment projects in order to develop business or to obtain an additional income.

Therefore, there are two aspects of the investment potential in the insurance activity: the ability to attract investments for development, on the other hand the ability to invest in different areas or activities to gain extra income (income greater than invested sources).

In this article we will approach the investment potential as a characteristic of insurance company which determines the possibilities and the ability to generate investment deposits based on the possible or potential level of development based on the evaluation of the most significant factors for the investor (Kuvaldina and Shtele, 2010).

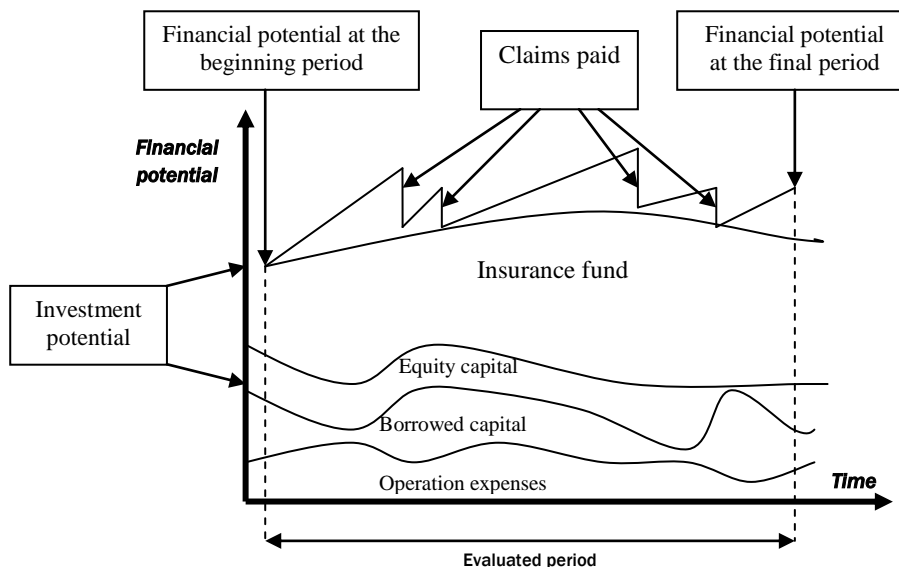
### 2.2. Formation of the investment potential in the insurance companies

The investment activity of insurance companies is based on two categories of sources (Grishenko, 2006):

- *Own resources* for investment' financing, which are: assets, company's property, etc.
- *Attracted sources*, formed by insurance premiums paid by the clients.

One of the basic functions of insurance is to cover risks through financial compensation of losses. In order to fulfill that function, insurers create insurance funds intended for claims and compensation payment. Insurance funds are formed on the principle of mutuality, only in cash equivalent, by insurance premiums collected from policyholders, reinsurance commissions, participation in reinsurer's profit and compensation received from reinsurers (Bistriceanu, 2006: 250). Thus, the investment potential of the insurance company is formed by the own investment resources represented by the own (equity) capital and the attracted resources represented by the insurance fund (Fig. 1).

Figure 1. Formation of insurance company' investment potential



(Source: Chechenova and Popovich, 2012: 302)

### 3.1. Factors that determine the investment potential of the insurers

The insurance fund represents all company assets admitted to cover the insurer's contractual obligations. The biggest part of this is the insurance reserves.

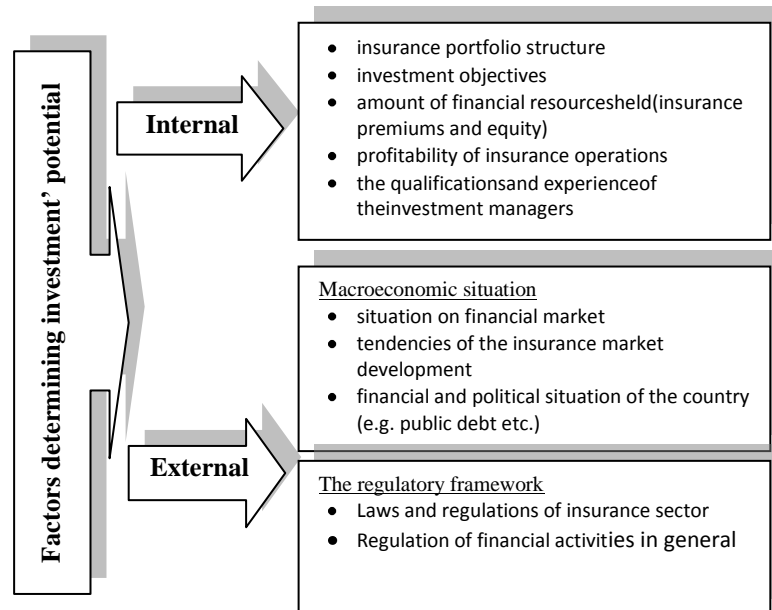
The initial source of money appearance for the insurer is the insurance premiums paid by the insured. If the insured event does not occur, then, along the time (usually a calendar year), a part of the insurance premium becomes the income, which is called earned premiums, and another part becomes the expenses of the following periods. (Grishenko, 2006).

The scheme of the investment potential formation (Fig. 1) shows that the insurance fund, established by the insurance premiums, represents the biggest part of this potential. A smaller part is formed by the insurer's equity capital. Therefore, the investment' potential of an insurance company is a relative indicator and depends by some factors. In addition to internal factors that determine investment potential, as premiums volume, equity capital etc., there are external factors which can influence, especially the macroeconomic situation and the regulatory policy. (Fig. 3).

### 3. METHODS OF ANALYSIS

The investment potential is an integral part of the financial potential minus expenses of operation activity, liabilities and compensation. If the amounts of these deductions increase more than the increase insurance fund and equity, then we can talk about the company's financial potential increasing and, at the same time, reducing its investment potential. There are companies having a relatively high financial potential, but nevertheless a modest investment potential.

Figure 3. Factors determining the insurers' investment potential



(Source: developed by the authors, based on Janowicz-Lomott, 2011: 469)

where:  
 Ri – insurance reserves of company i;

SPi – own sources of company i;  
 Ai – assets of company i;  
 N – number of insurance companies.

### 3.2. Measurement indicators

One of the main methodological difficulties in determining the investment potential related to establishing indicators which could quantitatively measure this dimension. Taking into account that the largest source of investment for insurers comes from insurance reserves it is obvious that their volume will be the basis to establish the measurement indicators. At the same time there will be also take into account the company's own resources and assets.

In the specialized literature two indicators are proposed for determining the financial resources of an insurance company which would be potentially available for investment (Mazanava, 2008):

1) *Gross' investment potential level* (Npib) - reflects all financial resources temporarily free from obligations which may be used by insurers for investment and is calculated by formula (1):

$$N_{pib} = \frac{\sum_{i=1}^n (R_i + SP_i)}{\sum_{i=1}^n A_i} \times 100\% \quad (1)$$

2) *Net investment potential* (Npin) – reflects all financial resources free from obligations (excluding debts) that the insurers can use for investment divided to total asset value (formula 2). If Npin grows, than the company's investment potential grows too.

$$N_{pin} = \frac{\sum_{i=1}^n (SP_i + R_i - C_i)}{\sum_{i=1}^n A_i} \times 100\%$$

(2)  
 where:  
 SPi – own sources of company i;  
 Ri – insurance reserves of company i;  
 Ci – debts related to the i company's contracts;  
 Ai – assets of company i;  
 N – number of insurance companies.

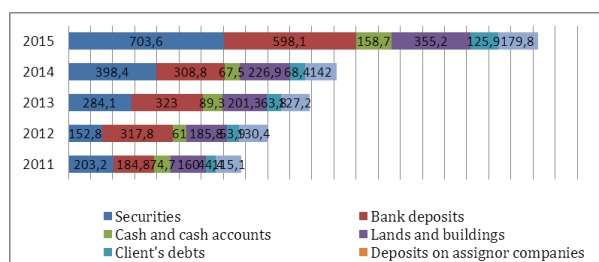
## 4. INVESTMENT ACTIVITY OF MOLDOVANS INSURANCE COMPANIES

### 4.1. Regulatory conditions for investment activity in the Republic of Moldova

In Moldova, the insurance business is running on the base of the Law of insurance Nr. 407-XVI from 21.12.2006 and in accordance with other laws and regulations related to specific areas of activity. The entity responsible for the supervision and control of the business insurance is the National Commission of Financial Markets.

According to regulations, Moldovan insurers should prudently invest in certain asset classes guided by dispersion criteria of investment based on the rules established by the Regulation on solvency margins and liquidity ratio of insurers (reinsurers) approved by the National Commission of Financial Markets nr.2/1 from 21.01.2011. The proportions and absolute value of Moldovan insurance companies' investments are shown in Figure 4.

Figure 4. Insurance companies' investment structure, mln. lei



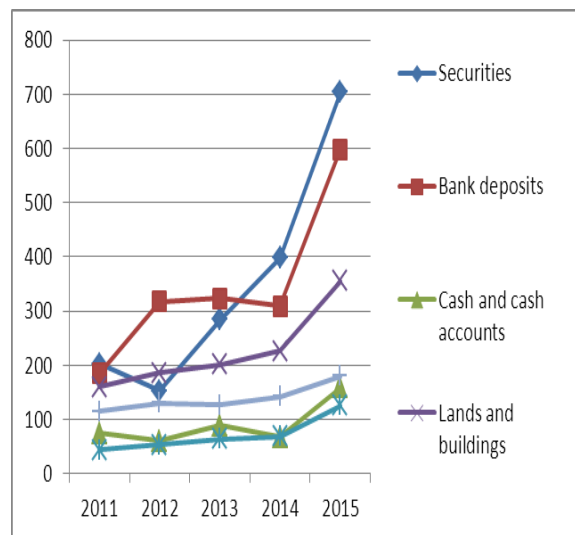
(Source: author's calculations, based on National Commission for Financial Markets)

From the above mentioned data results that in Moldova the main direction of placing financial resources of insurance companies is bank deposits and securities. The same investment directions are practiced by international companies, but they are oriented mainly towards financial market and invest funds in securities.

According to regulations, sources of the Moldovan insurance companies can be placed in government securities in any quantum. For other types of securities there is a limit of 20% and for bank deposits allowable

limit is 40%. There are also restrictions for other asset classes admitted for investing temporarily free funds. However the most practiced placement of assets in domestic companies is bank deposits (Figure 5).

Figure 5. Evolution of the assets admitted to cover the insurance reserves over the 2008-2012 period



(Source: author's calculations, based on National Commission for Financial Markets)

### 4.2. The evolution of investment potential indicators in the Republic of Moldova

On the Moldovan insurance market, the investment potential can be presented in the analysis of balance sheets. Unfortunately, the analysis was realized on the basis of balance sheets until 2013, in the limit of available data on the official site of National Commission for Financial Markets of the Republic of Moldova.

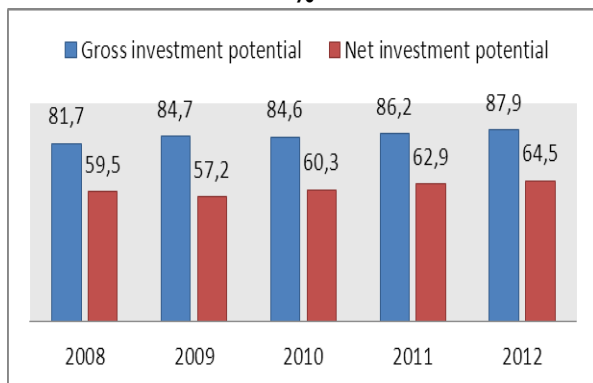
Table 3. Dynamics of basic indicators of investment potential for

	Moldovan insurers, mln. lei				
	2008	2009	2010	2011	2012
Assets - total	1264,47	1527,96	1886,39	2209,52	2375,10
Equity capital	619,06	807,75	1081,74	1175,14	1241,78
Reserves and insurance funds	414,64	486,94	515,64	731,57	847,89
Debts	281,19	420,2	459,18	516,05	556,92

(Source: author's calculations, based on National Commission for Financial Markets)

Using formulas from subsection 3.2, we show the evolution of the Moldovan insurance sector's investment potential (Figure 6).

Figure 6. The evolution of the Moldovan insurance companies' investment potential, in %



(Source: author's calculations, based on companies' balance sheet)

From Figure 6 we can observe that insurance companies in Moldova have a pretty big investment potential, which is stable over the last five years. There is a slow increase due to increased capital and insurance reserves. In 2009, net investment potential decreased by 2.3 percentage points due to the increased debts and the difficulties connected by the global financial and economic crisis of that period. However, we can note that since 2010 the investment opportunities of domestic insurance companies are growing. This opens the possibilities for the development of the national economy based on resources which could be invested by the insurers. The main reason for this is correct and efficient exploitation of the potential and application of effective investment strategies.

## CONCLUSIONS

Insurance is one of the most significant long-term funding sources and therefore insurance companies are major players in the investment market. Faced with extreme situations, people try to cover their risks by setting up mutual funds managed by insurers. These funds are quite large, and in case of life insurance they are also long-term funds. Insurers' ability and opportunity to use these funds for fructification and development represents insurers' investment potential indeed. Most of this potential consists of insurance premiums collected from clients and a smaller part comes from equity capital sale. This structure shows that the investment potential of the insurance companies is a relative measure that depends on particular factors.

The main goal of this research was quantitative sizing of insurance investment potential as an economic indicator and determining the factors that influence this potential. As a result of achieving that goal, we have established two indicators. Their calculation on the example of Moldova has demonstrated that the potential investment of insurance companies is a stable one and its efficient using can bring sustainable positive effects.

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