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1. Introduction

The article deals with one of aspects of interaction between investors, operating (or intending to operate) in certain country and government of this country. In some detail, this refers to making of behavioral decisions by interacting parties concerning the additional financing for reduction of risks of investor's activity: individually – by investors themselves, and in the framework of the whole economy – by government.

The question at issue is (as practice shows) that the norms of interaction between investors and government, arising in the processof evolution, occasionally are inefficient, i.e. they are Pareto non-optimal. The question now arises of how far such inefficiency is the result of coincidence, and how far it is the result of quite rational economic behavior of interacting parties? The goal of proposed paper consists in attempt to answer this question by way of analytical modeling of interaction between investors and government.

2. Literature review

The problem of interaction between investor and government, particularly the problem of investor's decision-making, has been studied in a number of researches.

W. Tapia & H. Yermo (2007) classified the behavioral economics literature on investment choice. According to them, much of the discussion concerning the implementation of investment choice assumes that individuals are both exceptionally good decision makers and are able to carry out their investment decisions. Behavioral economists, on the other side, have shown that in reality several obstacles and behavioral challenges compromise good investment decision making i.e. the individuals do not follow the traditional assumptions about rational economic decision-making.

Specifically they've separated some behavioral factors, influencing on investment choice. *Choice and information overload*. The increasing number of investment choices often leads to failing of investor's actions. Thus, S. Iyengar& E. Kamenica (2010) find that a larger choice sets induce a stronger investor's preference for simple options. J. Agnew (2002) studied how individual characteristics (age, salary, job tenure, gender), influence an investor's decisions. She found that the increasing number of investment alternatives can lead to investor's inefficient choice.

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Unstable and undefined preferences. Much of the research in this area shows that individuals often do not arrive at the decision with firm preferences in mind. Rather, individual preferences to risk and time, for example, vary depending on the decision to be made.

Heuristic decision-making which is one of systematic violations of rationality that affect investment decision.The decision making process is not a strictly rational one where all relevant information is collected and objectively evaluated. Rather, the decision maker takes mental «short cuts» (D. Kahneman& A. Tversky (1974)). There may be good practical reasons for adopting a heuristic decision making process, particularly when there is time pressure, or when other factors make fully evaluating all choices difficult.

The good evidence of heuristic decision-making is the so called "1/n" investment strategy (naïve diversification strategies), i.e. the strategy to split one's wealth uniformly between the available investment possibilities (V. DeMiguel et al. (2009), G. Pflug et al. (2012)).

D. Dittrich et al. (2005) experimentally tested overconfidence in investment decisions by offering participants the possibility to substitute their own for alternative investment choices. They found that overconfidence increases with the absolute deviation from optimal choices and with task complexity.

The investor's behavior under market imperfection has been discussed in T. Besley (1994), J. Tirole (2006, 2011), K. Kirabaeva (2011). T. Besley (1994) studied market failure, emphasizing the need to consider the full array of constraints that combine to make a market work imperfectly. He discussed various reasons for market failure and considered the problems that may be cited as failures of the market justifying intervention (enforcement; imperfect information, especially adverse selection and moral hazard; the risk of bank runs and so on). T. Besley (1994) concluded that there may be good arguments for intervention, and some may be based on market failure. J. Tirole (2006) in his «Theory of Corporate Finance» introduced asymmetric information between insiders and outsiders at the financing stage. The presented models are based on model of adverse selection in capital allocation and on model of moral hazard in capital allocation. J. Tirole (2006) defined some limitation of model: absence of asymmetric information about investors; absence of informational advantages over issuers for investors and so on. J. Tirole (2011) provided analysis of market jumpstarting and its two-way interaction between mechanism design and participation constraints. He fined that the government can reduce adverse selection enough to let the market rebound, but not too much, so as to limit the cost of intervention.

The behavioral theory touch on psychology, that's why a number of researches combined psychological and economic aspects, related to investor's behavior.

P. Anand et al. (1993) explored the social and moral dimensions of investment via "non-financial" dimensions of utility functions. They identified factors affecting investor's' decision and they found that there are companies whose nature of business are unacceptable to investors due to moral issues.

D. Kent et al. (2002) argued that limited attention and overconfidence cause investor credulity about the strategic incentives of informed market participants. G. Cassar& H. Friedman (2007) examined the affect of overconfidence on the entrepreneurial investment choices of individuals. They found that individual overconfidence is associated with more aggressive entrepreneurial investment decisions.

One of the ways to investigate the interaction between investor and government is the game theory approach.

J. Berg et al. (1995) were the first who introduced the notion of investment game in order to study trust and reciprocity in an investment setting. Their analysis included repeat game reputation effects, contractual recommitments and punishment threats. J. Berg et al. (1995) find that reciprocity exists as a basic element of human behavior and that is accounted for in the trust extended to anonymous counterpart.

G. Coricelli et al. (2006) continued the investigation of «investment game» by introducing asymmetric information into the model. In their experiment, only the trustee knew the size of the surplus. They find that average payback levels increase with the average amount sent and asymmetric information does not reduce the amounts sent and returned.

G. Charness et al. (2008) studied the effect of the possibility of third-party intervention on behavior in «investment game». They assumed that a third-party's material payoff is not affected by the decisions made by the other participants and that a third party may choose to reward a sender who has received a low net payoff as a result of the responder's action. For both punishment regimes they find a strong and significant effect of third-party punishment; at that third parties punish less when reward is feasible.

K. Huisman (2001), K. Zhu & J. Weyant (2003), G.W. Greenwood & R. Tymerski (2008) applied the game theory to study decision-making process in various aspects of investment activity. A game theoretical approach used to incorporate strategic interactions in designing technology investment decision of an individual firm was considered in K. Huisman (2001). The technology investment decision under asymmetric information was studied by K. Zhu & J. Weyant (2003). G. W. Greenwood & R. Tymerski (2008) studied stock market investment as a zero-sum, competitive game with brokerage firms as players, which independently develop investment strategies which compete against each other in the marketplace.

C. Özden& F. J. Parodi (2004), T. Funke& P. Klein using game theory tools estimated empirically the investment relations in various industries.C. Özden& F. J. Parodi (2004) studied the influence of regional trade agreements on FDI using a game-theoretical approach on Mercosur's auto industry. They found that the compensated trade clause (although it is economically inefficient in regards of FDI flowing into the region) is strategically advantageous for the establishment of free trade in automobiles.T. Funke& P. Klein analyzed the biofuels industry in South Africa using game theoretic tools. They developed a model representing the rational strategies of various role players in the industry with respect to investor decision-making.

Despite of a number of studies related to investor's behavior in the process of his interaction with government (i.a. under market imperfections), covering the various aspects of investment activity, the issue of reduction of risks of investor's activity in such interaction actually is under investigated.Sincewe'll study the process of interaction between investors and government, itissuitabletomodelthatprocessby applying the gametheorymethods.

3. Model of interaction between investors and government

Let's consider the strategic choices, which can be used by government – from one side, and investors – from another.

Investor's choice. Let's consider two types of investors: the risk-loving and risk-averse investors.The process of earning of investment income is not well defined, and investor faces the choice: to secure himself and to devote some funds for improving reliability of own operating results or to risk, trying to maximize the profit due to cost minimization.From this perspective, the actions of risk-averse investor aimed to improve safety of operating results due to reduction of payoff (return) can be treat as satisfactory behavior. Conversely, the risk actions aimed to receive of maximum payoff can be treated as maximizing behavior.

Government's choice.The government also has two alternatives of behavior so-called «liberal»and«social». In a simplified form the social behavior can be treated as total investment «insurance» (similar to individual insurance, mentioned above), i.e. the improving of safety of doing business in country. The government spends some funds to improve safety, simultaneously increasing the taxes.

Similarly, the liberal behavior features by minimization of expenses for improving of safety. As consequence, the additional component for "business insurance" in tax rate is absent.

Sincethe decision-makingprocess concerning the financing of reduction of risk of investment activity can be presented as process of interaction between investors and government, itissuitabletomodelthatprocessusingagame-theoreticapproach.

Let's assume that expenses related to reduction of risks of own investment activity are made by investor additionally; they influence on amount of expected income by increasing it. At once, the amount of investment remains unchanged. The same additional expenses related to increase of profitability of investment activity are assumed for government in case of choosing the "social" strategy.

As the model parameters, defining the cost of various strategies, the following basic economic indicators will be used:

- the expected investor's income (R, $R>0$);
- the aggregatetaxburden (τ, $\tau>0$);
- θ – taxrateforgovernment'sassistancefor safety of investment activity ($\theta\geq 0$);
- λ,μ – government'sandinvestor'sexpensesrespectively aimed at reduction of risks of investment activity($\lambda\geq 0$, $\mu\geq 0$);
- p_0 – initialprobabilityofnonreceiptofexpectedincome($0\leq p_0\leq 1$);thegeneralfunctionofprobability p of receiving insufficient income (proceeded from expenses)
- ingeneraltheprobability$p$of receiving insufficient income depends on amount of funds devoted to reduction of risks of investment activity. Thetypeofthisdependencecanbedeterminedbasedonitsbehavioralproperties: limited values, monotonicity.

  Obviously, the absence of expenses means that probability is on the p_0 level; increasing expenses reduce p. It's assumed that p reduces according with lawofdiminishingreturns. Also, it should be considered that probability at any amount of expenses cannot be less than zero. Therefore, the dependence function between income and investment will be monotone decreasing. Those considerations allow supposing that the determined dependence is exponential with negative value of index, which should consider the amount of expenses related to reduction of risks of investment activity (λ or μ). Also it is obvious that the same expenses will lead to greater outcomes for investors with humble income, i.e. λshould be R-scaled. Hence, we obtain the dependence of $e^{-\alpha\frac{\lambda}{R}}$ or $e^{-\beta\frac{\mu}{R}}$ - type.
- α,β – coefficients of parameterization;

At that rate, the model of principal-agent interaction can be described as game (*1-5*):

$$\Gamma=\left(Gov,\ Inv,\ G\left(Gov,\ Inv\right),H\left(Gov,\ Inv\right)\right), \qquad (1)$$

where $Gov = \begin{pmatrix} gov_0 \\ gov_1 \end{pmatrix}$ (2)

= set of government'sstrategies:$gov_0$is the"liberalstrategy", i.e. the government does notspend to improve the safety of investment activity in country; gov_1 is the "social" strategy, i.e. the government devotes some funds for improving the safety of investment activity, that provides the achievement of marginal utility;

$Inv = (inv_0;\ inv_1)$ (3)

= setofinvestor'sstrategies:inv_0denotestheinvestor, whodoesnotdevotefundsfor improving the safety of own activity; inv_1denotes the investor, who devotes some funds for improving the safety of own activity, that provides the achievement of marginal utility;

$$G(Gov, Inv) = (g_{ij}) = \begin{pmatrix} \tau R(1-p_0); & \tau R\left(1-p_0 e^{-\beta\frac{\mu}{R}}\right) \\ (\tau+\theta)R\left(1-p_0 e^{-\frac{\lambda}{R}}\right)-\lambda; & (\tau+\theta)R\left(1-p_0 e^{-\alpha\frac{\lambda}{R}-\beta\frac{\mu}{R}}\right)-\lambda \end{pmatrix} \quad (4)$$

= government'spayoff matrix;

$$H(Gov, Inv) = (h_{ij}) = \begin{pmatrix} (1-\tau)R(1-p_0); & (1-\tau)R\left(1-p_0 e^{-\beta\frac{\mu}{R}}\right)-\mu \\ (1-\tau-\theta)R\left(1-p_0 e^{-\frac{\lambda}{R}}\right); & (1-\tau-\theta)R\left(1-p_0 e^{-\alpha\frac{\lambda}{R}-\beta\frac{\mu}{R}}\right)- \end{pmatrix} \quad (5)$$

= investor's payoff matrix.

Thus, the game (*1-5*) describes the interaction between *2* agents: governmentand investor; each of them has *2* pure strategies of behavior. The variables of game are divided into the control parameters of government (τ, θ, λ), the control parameter of taxpayer (μ) and the parameters (and functions) of environment (R, p_0, α,β).

Analysisofgame (1-5) allowsdeterminingconditions, leadingtooneorother behavioral tendencies of government and investors.

Let's find the conditions of Nash equilibrium in pure strategiesrelative to:

the amount of government's and investor's expenses related to reduction of risks of investment activity in the country (it is obvious that the expenses is non the absolute value, since they depend from measuring scale; for that reason we'll use as indicator the non-dimensional standardized value – the ratio of above mentioned expenses λandμ to investor'sprofitability R):

$$E_{00}: \left(\frac{\lambda}{R} > \tau p_0\left(1-e^{-\alpha\frac{\lambda}{R}}\right)+\theta\left(1-p_0 e^{-\alpha\frac{\lambda}{R}}\right)\right) \wedge \left(\frac{\mu}{R} > (1-\tau) p_0\left(1-e^{-\beta\frac{\mu}{R}}\right)\right); \quad (6)$$

$$E_{01}: \left(\frac{\lambda}{R} > \tau p_0 e^{-\beta\frac{\mu}{R}}\left(1-e^{-\alpha\frac{\lambda}{R}}\right)+\theta\left(1-p_0 e^{-\alpha\frac{\lambda}{R}-\beta\frac{\mu}{R}}\right)\right) \wedge \left(\frac{\mu}{R} < (1-\tau) p_0\left(1-e^{-\beta\frac{\mu}{R}}\right)\right); \quad (7)$$

$$E_{10}: \left(\frac{\lambda}{R} < \tau p_0\left(1-e^{-\alpha\frac{\lambda}{R}}\right)+\theta\left(1-p_0 e^{-\alpha\frac{\lambda}{R}}\right)\right) \wedge \left(\frac{\mu}{R} > (1-\tau-\theta) p_0 e^{-\alpha\frac{\lambda}{R}}\left(1-e^{-\beta\frac{\mu}{R}}\right)\right); \quad (8)$$

$$E_{11}: \left(\frac{\lambda}{R} < \tau p_0 e^{-\beta\frac{\mu}{R}}\left(1-e^{-\alpha\frac{\lambda}{R}}\right)+\theta\left(1-p_0 e^{-\alpha\frac{\lambda}{R}-\beta\frac{\mu}{R}}\right)\right) \wedge \left(\frac{\mu}{R} < (1-\tau-\theta) p_0 e^{-\alpha\frac{\lambda}{R}}\left(1-e^{-\beta\frac{\mu}{R}}\right)\right). \quad (9)$$

theinvestors' profitabilitylevelincertaineconomicsystemandthetaxlevelinsuchsystem:

$$E_{00}: \left(\tau R < \frac{\lambda-\theta R\left(1-p_0 e^{-\alpha\frac{\lambda}{R}}\right)}{p_0\left(1-e^{-\alpha\frac{\lambda}{R}}\right)}\right) \wedge \left((1-\tau)R < \frac{\mu}{p_0\left(1-e^{-\beta\frac{\mu}{R}}\right)}\right); \quad (10)$$

$$E_{01}: \left(\tau R < \frac{\lambda - \theta R\left(1 - p_0 e^{-\alpha\lambda - \beta\mu}\right)}{p_0 e^{-\beta\mu}\left(1 - e^{-\alpha\lambda}\right)} \right) \wedge \left((1-\tau)R > \frac{\mu}{p_0\left(1 - e^{-\beta\mu}\right)} \right); \quad (11)$$

$$E_{10}: \left(\tau R > \frac{\lambda - \theta R\left(1 - p_0 e^{-\alpha\frac{\lambda}{R}}\right)}{p_0\left(1 - e^{-\alpha\frac{\lambda}{R}}\right)} \right) \wedge \left((1-\tau-\theta)R < \frac{\mu}{p_0 e^{-\alpha\frac{\lambda}{R}}\left(1 - e^{-\beta\frac{\mu}{R}}\right)} \right); \quad (12)$$

$$E_{11}: \left(\tau R > \frac{\lambda - \theta R\left(1 - p_0 e^{-\alpha\frac{\lambda}{R} - \beta\frac{\mu}{R}}\right)}{p_0 e^{-\beta\frac{\mu}{R}}\left(1 - e^{-\alpha\frac{\lambda}{R}}\right)} \right) \wedge \left((1-\tau-\theta)R > \frac{\mu}{p_0 e^{-\alpha\frac{\lambda}{R}}\left(1 - e^{-\beta\frac{\mu}{R}}\right)} \right). \quad (13)$$

4. Results and Discussion

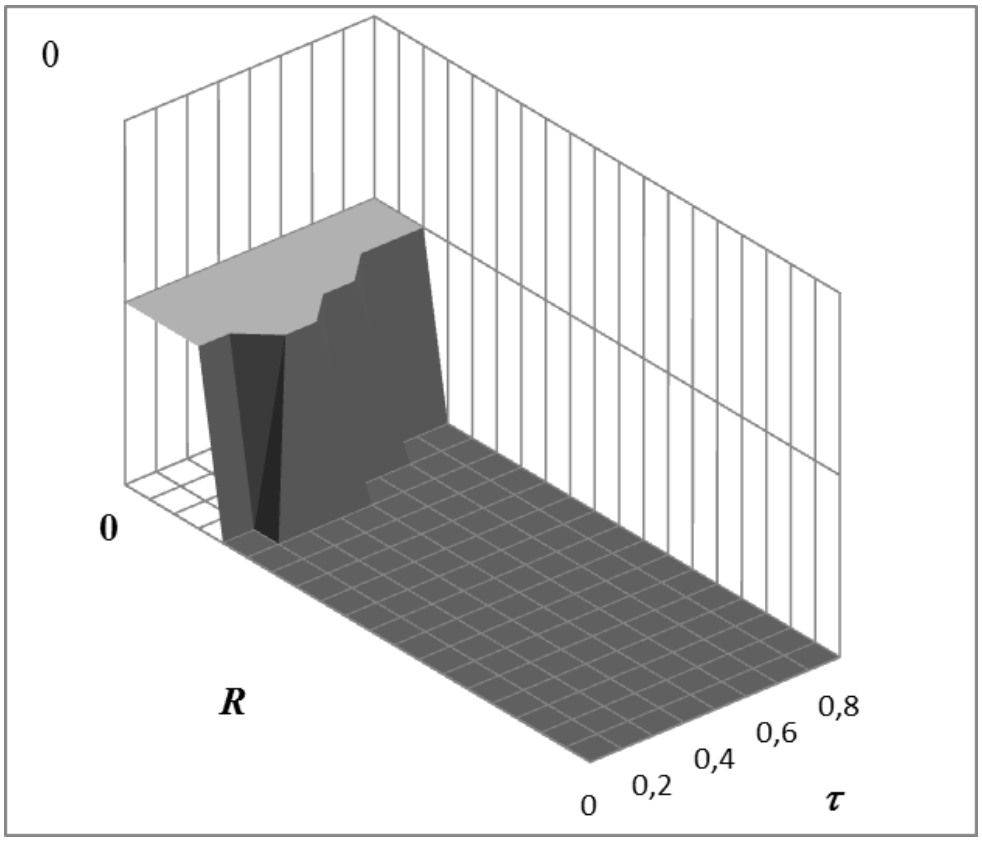
Therefore, the analysis of interaction between investor and government using a game theory tools highlighted in their behavior the set of patterns, which can be suitably characterized for each interaction parameter separately.

4.1. Power of investors (*R*)

If we investigate the interaction between government and single investor, the parameter R will denote the amount of investment of such investor. However, at macro level when the government faces with aggregated investor (on other words, all investors together, operating in the economy of given country), R denotes the aggregate amount of investment in the economy as well, i.e. the capacity of country's economy.Set of definitions of R is expressed by additional semiaxis.

It can be seen from (10)-(13) that gradual increase of R leads to certain evolution of investor's and government's priorities. A relatively small economy with low powered investors requires the maximum liberalization both on the part of government, which does not desire to devote additional funds (or there are no such funds at all) for improving the safety of business activity and on the part of investors, who prefer to risk rather than to devote additional own funds for reduction of risks of own activity (Fig. *1*).

Fig. *1*.ValuesofRand τ for the Nash equilibriumE_{00}



Source: Data source – authorial calculation

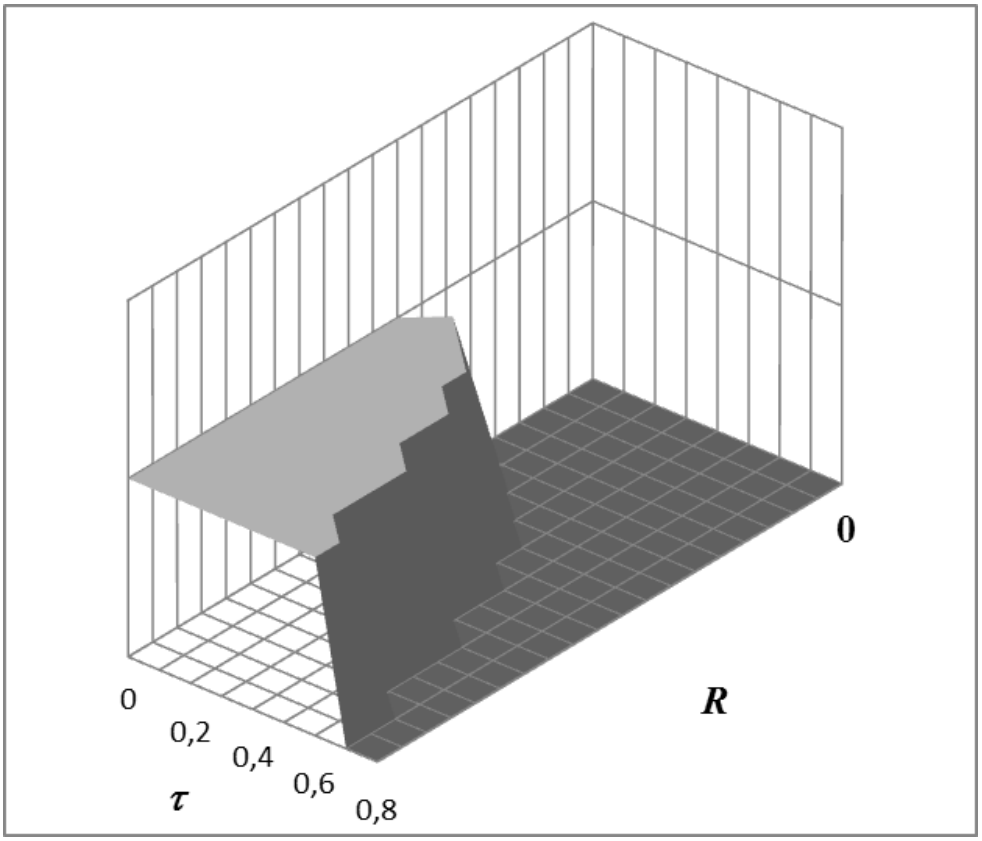
Surely, they can aim to get not only into liberal economy, but also into social one (depending on sign of expression $(1-\tau)p_0\left(1-e^{-\alpha\frac{\lambda}{R}}\right)-\theta\left(1-p_0e^{-\alpha\frac{\lambda}{R}}\right)$: «+» means the investor's intention to get into social economy, «–»means the investor's intention to get into liberal economy. However, beginningwithcertainvalueof "socialization" coefficientλ, the devoting funds to improving the safety of business activity becomes unprofitable for government; and it either curtail this process and shifts to liberal strategy or by some means tries to dispose of low powered investors.

Conversely, the more powerful are the investors, the more efforts they make to reduce risks of own activity regardless the level of liberality of government policy. Formally, investors change their risk-loving behavior on risk-averse one when their profitability increase insomuch that ratio μbecomes fewer than $(1-\tau-\theta)p_0e^{-\alpha\frac{\lambda}{R}}\left(1-e^{-\beta\frac{\mu}{R}}\right)$.

Concerning the government's behavior one can observe the similar situation as for low powered investors discussed above: beginningwithcertainvalueofλ, the devoting funds to improving the safety of business activity in jurisdiction becomes unprofitable for government. Although it may be caused by other reason: for example, the investors' effort necessary to secure their own activity, virtually, set the ratio "expenses – safety of activity" on the level of

marginal utility. Therefore, the additional government expenditures in that process are unprofitable (Fig. *2*).

Fig. *2*. Values of *R*and τ for the Nash equilibrium E_{11}



Source: Data source – authorial calculation

Generally in can be concluded that the vector of evolution of interaction between investors and government is directed from mutual strategy of reciprocal absence of financing of safety of investment activity till maximum possible financing, realizing both by every investor (with regard to its own activity) and by government (with regard to all investment activity in the economy). Let's call this vector as "policy of mutual support" or "bilateral behavior".

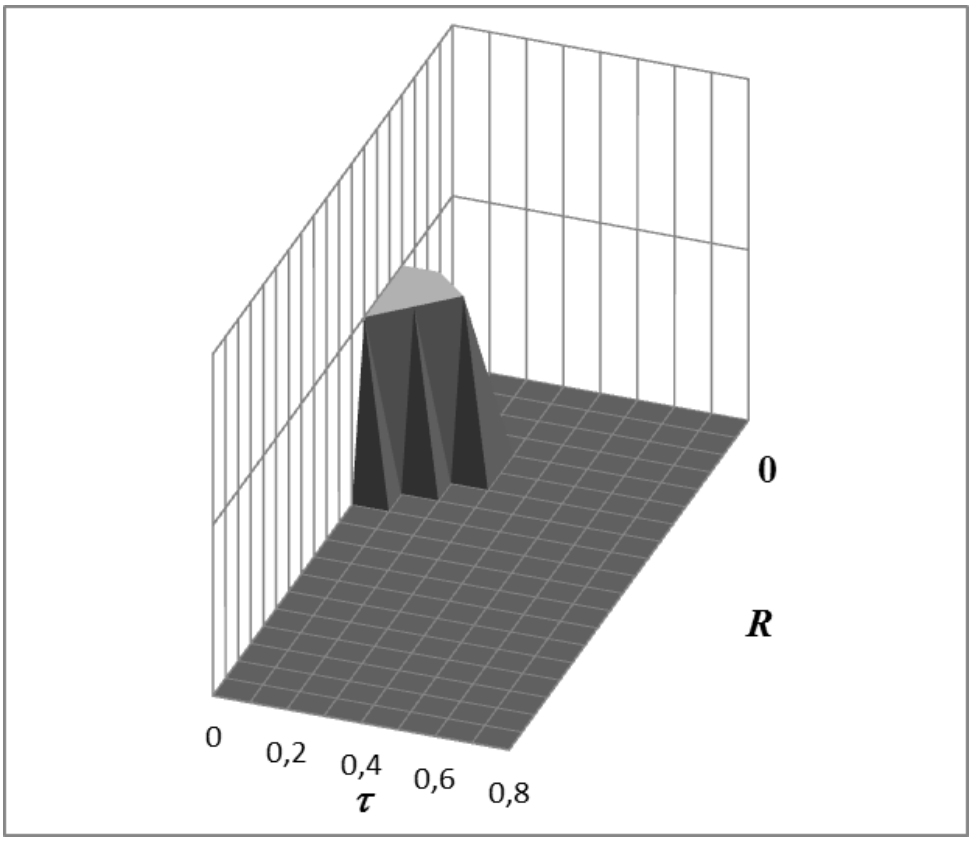
4.2.Total tax burden (τ)

Our study investigates the tax level τ on macro level that can be described either as the major"budget-generating" tax or as the most important tax for corporations (not for individuals, since we consider the investment activity as the activity of corporations), for example the corporate income tax. But the most reasonably, to our mind, is to consider τ as aggregate tax burden on corporations. Obviously, the set of determinations for $\tau$is closed interval[*0*; *1*].

The aggregate investor'sand government's behavior,as well as for case for *R*, can be determined from analysis of (10)-(13). But as opposed to case for *R*, the interaction between investors and government evolves from financing of safety of investment activity (due to liberal government strategy) by each investor independently towards the government social strategy, in consequence of which investors curtail their individual expenses, entirely relying on centrally-controlled measures.

I.e. the small tax burden permits to investors to devote some funds for improving the safety of their own business. Another factor, favoring to financing of safety, is the relatively large after-tax profit, and thus the larger efficiency of financing of own safety. Because of the same reason related to smaller tax revenues, it is unprofitably for government to devote additional funds for reduction of risks of investor's activity (Fig. *3*).

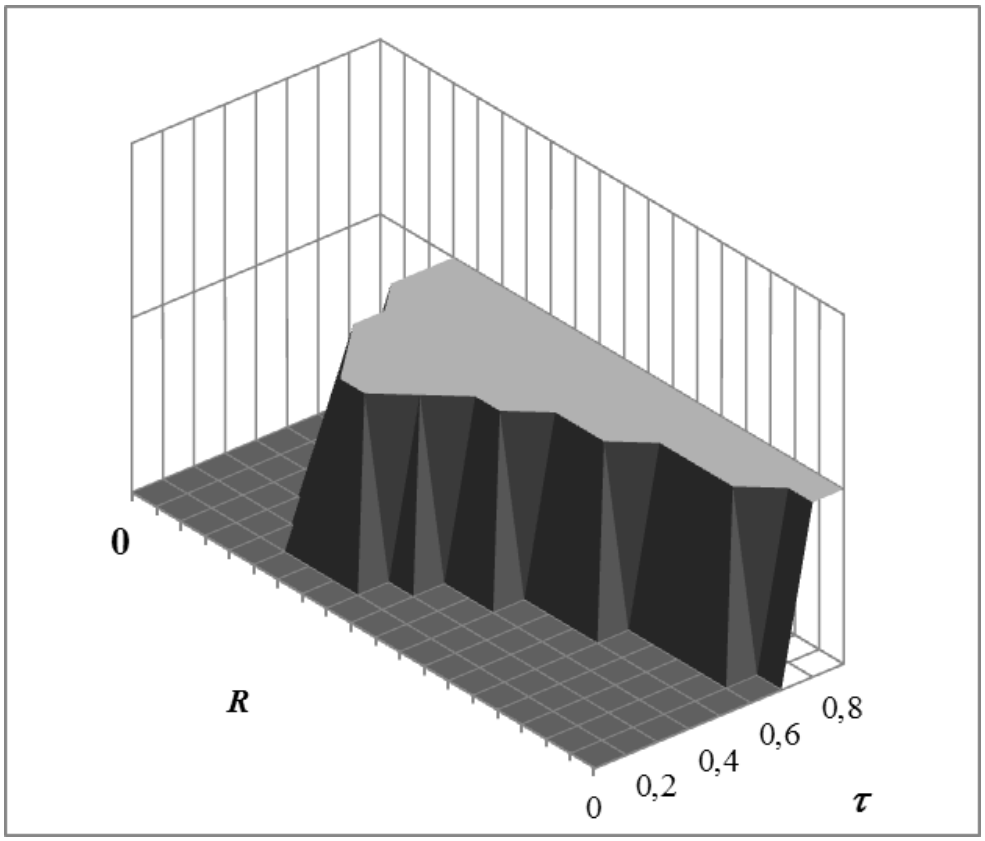
Fig. *3*. Values of *R* and τ for the Nash equilibrium E_{01}



Source: Data source – authorial calculation

The gradual increase of τ leads to changes in government's and investors' behavior. Finally, the high tax level and, thus the high tax revenues, make the additional financing of safety of investors' activity economically advantageous for government. However, the amount of unallocated funds of investors (who in this case pay heavy general taxes, and also the additional tax for improving the safety of business activity) reduces considerably. Therefore, the investors tend to rely on government's activity and in addition do not reduce the risk of own activity individually (Fig. *4*).

Fig. *4*. Values of *R* and τ for the Nash equilibrium E_{10}



Source: Datasource – authorialcalculation

Such evolution can be called as "policy of complement" or "compensatory behavior".

This situation seems not quite logical: it can be assumed that developed countries with large volume of investments can increase the degree of liberalization of their economies and reduce the tax burden for the purpose of creating the favorable conditions for attracting investment. Also it is no wonder that powered investors, capable to secure independently the reduction of risk of their own activity, would tend to operate in economies with small tax burden that would allow increasing of their profit.

Conversely, the government policy, consisting in centrally-controlled reduction of risks of investment activity though with simultaneous increasing of tax burden, could attract the small investors who have no additional funds to secure independently the safety of own activity.

I.e. finally, it will be naturally when the most powerful and investment-attractive economies would use the more liberal tax system by contrast to developing and LDC countries, the investment activity in whose is accompanied by high risk.

But statistical data demonstrates us another state of things, confirming conclusions, obtained in the process of model analysis. The direct statistical relationship between size of economies and the level of tax burden is rather obvious. Table 1 demonstrates the rates of corporate income tax, amounts of GDP and total investment for 2011 in OECD countries (except forIreland, Island, Israel and Mexico). The correlation coefficient between corporate income tax and GDP is 0,65; the correlation coefficient between corporate income tax and total investment is 0,69.

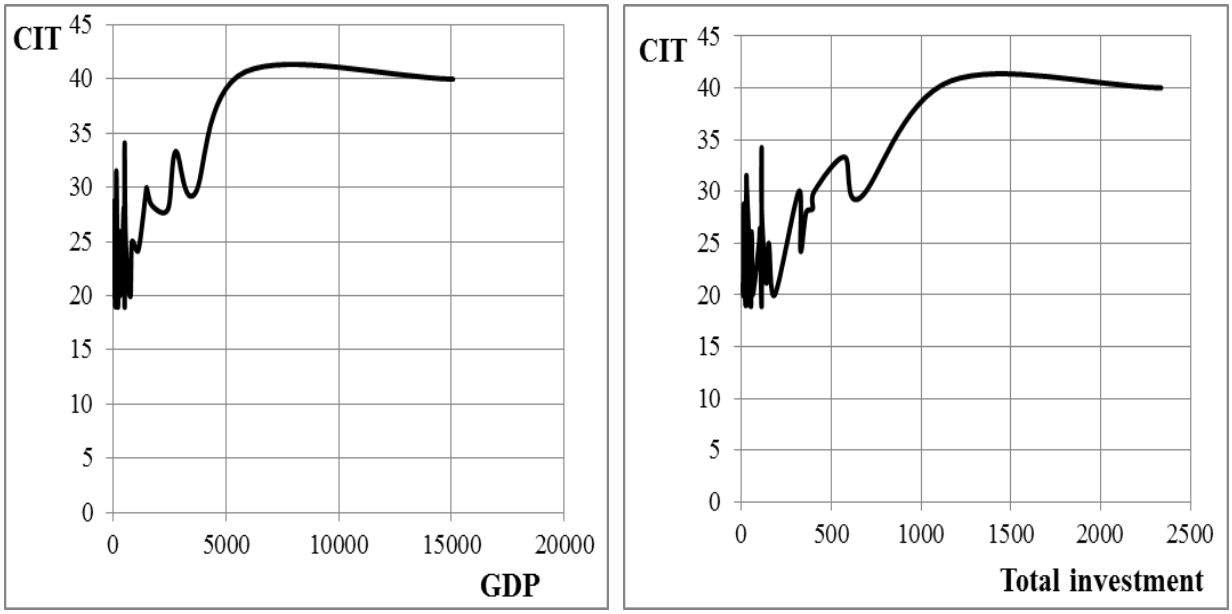
Tab. 1: Rates of corporate income tax, amounts of GDP and total investment in OECD countries for 2011

Country	CIT, %	GDP, $ billions	Total investment, $ millions
Australia	30,00	1486,914	404,277
Austria	25,00	418,414	97,097
Belgium	33,99	514,593	111,991
United Kingdom	28,00	2431,310	359,396
Hungary	19,00	140,303	26,761
Germany	29,37	3607,364	658,849
Greece	20,00	299,275	43,494
Denmark	25,00	332,019	57,967
Spain	30,00	1479,560	318,712
Italy	31,40	140,303	26,761
Canada	28,30	1738,954	396,255
Korea	24,20	1116,247	328,735
Luxembourg	28,80	59,582	12,317
Netherlands	25,00	838,112	151,539
New Zealand	30,00	158,869	29,844
Norway	28,00	485,404	112,531
Poland	19,00	514,503	111,765
Portugal	25,00	237,831	41,532
Slovak Republic	19,00	96,089	21,092
Slovenia	20,00	50,330	10,130
United States	40,00	15075,675	2335,071
Turkey	20,00	774,336	184,447
Finland	26,00	263,488	54,924
France	33,33	2778,085	573,397
Czech Republic	19,00	215,180	52,799
Chile	20,00	248,431	61,238
Switzerland	21,17	660,761	137,128
Sweden	26,30	544,681	103,037
Estonia	21,00	22,205	5,447
Japan	40,69	5866,540	1165,623

Source: Datasource (IMFWorld Economic Outlook Database, October 2012;SokolovskaO. (2012))

Fig. 5 demonstrates the graphical interpretation of above mentioned correlation. It can be seen that economies with large GDP have the high corporate income tax; on the other side, economies with high corporate income tax have the largest investment.

Fig. *5*.Dependence between CIT, GDP&Totalinvestment



a) dependence between CIT and GDP

b) dependence between CIT and Total investment

Source: Datasource – authorialcalculation

I.e. it can be stated that in practice the powered investors tend to operate in secured – "social" economies, and the low powered investors, primarily, are accordant to operate in economic systems with maximum liberalization, but also with minimum tax burden.

Finally, such behavior can (comparing with other conditions, for example, the equal distribution of investors in economic systems) increase the risk of bankruptcy for most of small investors; the powered corporations would not use their capacities to the full extent due to excessive precaution. I.e. given norm of interaction will lead to Pareto non-optimal decision that allows identifying it as inefficient.

5. Conclusion

One of the important questions related to interaction between investors and government within certain economy is the decision-making by both parties concerning the financing of improving the safety of investment activity.

The analysis of relations between the parties by applying the game model permits to affirm that decisions, made by parties often leads to formation of Pareto inefficient norms of mutual behavior, especially for the smallest and the biggest investors. Those Pareto inefficient norms are that both investors and government simultaneously tend either to finance or to not finance the improving of safety of investment activity.

One of the consequences of that situation is the high tax burden in powerful economies, i.e. economies with high GDP (but not necessarily in the developed countries) where the bulk of investment flows into those economies, in despite of high taxes. The analysis of statistical data of OECD countries generally confirms this conclusion, especially with regard to the biggest investors.

The directions of future research of investigated problem are related with modeling of structures and categories of institutional economics: norms, institutes, routines, contracts etc., aimed to avoid forming of ineffective norms, and also to reform

The determination of factors, influencing on forming norms of mutual investors' and government's behavior will encourage the development and realization of specific management decisions, aimed to avoid and to remedy such situation. This could lead to more rational allocation of available funds by investors and government, and consequently to more profitable investment activity.

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The problem of arising the Pareto inefficient norm in relations "investor – government" type

Summary

The article deals with problem of forming of Pareto non-optimal norms of mutual behavior of investorsandgovernment in the process of decision-making related to financing of reduction of risks of investment activity in economy.

The game-theoretical analysis suggests that inefficiency of arising norms is non-casual; it follows from the behavior of interactive parties.

Empirical verification based on statistical data of OECD countries confirms in general the established conclusion.

Key words: investors, government, economic behavior; game theory, Nash equilibrium, Pareto-optimality

JEL classification: C*72, E22, H30*