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## Model of Innovation-Oriented State Economic Policy

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Vera I. Menshchikova<sup>1</sup>, Aleksey V. Sayapin<sup>2</sup>

### **Abstract**

*Among all the tendencies, characterizing major lines of development of the modern global economy, the tendency of national states towards strengthening of social and economic interdependence and extension of their economic relations is gradually moving to the foreground. This can be observed in the boost of volume and sophistication of nomenclature of the international exchange of goods and services between countries, as well as the extension of the international division of labour, and subsequently – acceleration of development of international cooperative production, increase of interdependence between national economies and their integration. Due to this, national economy may develop effectively only by dynamic interaction with the world market of goods and services. Taking high international rivalry into account, innovation activity serves as one of the most powerful and effective instruments of supporting and maximizing the competitive capability of enterprises as individual ones and national economy as a whole. To encourage innovation activity of enterprises, an efficient model of innovation-oriented state economic policy is needed.*

**Key Words:** *innovation-oriented economy, state economic policy, innovation-oriented enterprises, tradition-oriented enterprises, tax incentive.*

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<sup>1</sup>Ph.D., Associate Professor, Vice Director of the Institute of Fundamental Economic Researches, FSBEI HPE «Tambov State University named after G. R. Derzhavin»

<sup>2</sup>Ph.D., Associate Professor, Director of the Institute of Fundamental Economic Researches, FSBEI HPE «Tambov State University named after G. R. Derzhavin»

## **1. Introduction**

In the context of globalization and global competition not only between enterprises but also between states, the problem of ensuring innovation activity of domestic enterprises has become one of the burning issues under discussion. Current models of innovation-oriented state economic policy are simultaneously aimed at all enterprises; however, those instruments that are effective in relation to innovation-oriented enterprises, i.e. those that use innovations in their performance, turn out to be ineffective in relation to tradition-oriented enterprises, i.e. those enterprises that do not implement innovations into their activity (Havlicek et al 2013a; Havlicek et al 2013b).

This is determined by the fact that methods of positive motivation and incentive successfully encourage innovation activity of innovation-oriented enterprises, but do not prevent further disregard to innovations by tradition-oriented enterprises and do not urge them to innovation activity. Therefore, it is necessary to work out a new model of innovation-oriented state economic policy which will be able to provide different measures for different groups of enterprises, and that serves as the purpose of the current research.

## **2. Subject**

The subject of the study is the model of innovation-oriented state economic policy.

## **3. Materials and methods**

Basket of tax measures aimed at encouragement of innovation activity is overall the same, although each country has its own peculiarities in development, methods, and conditions of using those leverages of influence. It is mostly determined by the modern state of the tax system, specific features of its development and regulation objectives of particular segments of the national innovation system. Anyway, the use of positive world experience by adopting corporate governance for example, providing that it is adapted to conditions of economic development in each country, will improve efficiency of state economic policy (Thalassinos et al 2012; Liapis et al 2013).

All traditional tax concessions may be classified into three main groups: tax exemptions; tax abatements; tax credits. Principle of such classification lies in differences in methods of preferential treatment, results of their influence upon the change of some particular element of tax structure. It is also worth distinguishing between two tax groups of incentive character – for the venture (risk) capital and for residents of special economic zones (SEZ), as well as indirect incentives of innovation activity (VAT rate reduction for goods of innovative purposes or exemption from them and many others). The most impressive group is the first one –

tax exemptions – majority of them are used for encouragement of innovation activity.

Tax amnesty is the exemption of the person, having committed an administrative offence, from appropriate penal sanctions for these offences. As a rule, they are used in relation to payers having committed a tax offence by negligence and having voluntarily notified tax authorities of this offence. Tax concession in the form of total tax exemption for some categories of taxpayers (veterans, physically challenged people, etc.) is mainly used in relation to general property tax. Some categories of legal entities may be occasionally granted a remission of taxation as well.

Refund of earlier paid taxes, for instance, advance prepayment that exceeds actual payment, or excessively paid taxes because of technical errors in calculation. As a tax concession, it supposes tax exemption from a part of prospective payment or tax payment by means of extra sum that was already paid up.

Tax immunity represents a partial release from taxation. Tax holiday is a total taxpayer's release from taxation for a certain period of time. Decline in tax rate supposes partial or total tax exemption by the use of privileged tax rate. Creation of taxpayers' consolidated groups may also be considered as one of the types of tax concessions, because it is aimed at reduction of tax obligations within the group as a whole in comparison to summarized tax obligations charged at each payer individually.

Tax investment premium is a common form of targeted tax exemption frequently used in developed countries – however, not in Russia. It is connected with a general system of measures in the governmental regulation of capital transfers over the state border. Investment premiums are counted as a tax on corporate profits by decrease of tax rates for national companies while exporting capital in the form of direct investment. Premiums for companies are provided from the beginning of direct investment abroad. As a consequence of decrease of profit tax rates, they receive additional financial resources for their performance abroad and assurance of the capital safety by investment activities in other countries.

Tax concessions for intellectual property transactions are granted in order to avoid double taxation. In accordance to this tax concession, a low tax rate may be set for corporate profits, and a withholding tax on royalties may be absent as well. This order, based on the transparent system of common law and international conventions for intellectual property rights protection, ensures a high level of security of intellectual property objects in the country.

Such legislation ensures intellectual property security and protection of results of the intellectual activity at a local, European, and international level. A number of bilateral agreements for avoiding double taxation should be made in order to provide

favourable environment for taxation of royalty by the source of payment in countries of residence of the companies, possessing intellectual property objects.

Tax concessions for venture companies refer to forms and ways of venture capital financing in order to encourage this kind of activity used by companies that are mainly involved in the sphere of high technologies. This kind of tax concessions comprises tax rates and tax means to encourage research and projects including agreements with researches; technological transfer support; possibilities for portfolio companies to exclude percent and charges connected with payment of interest from the tax base.

Tax concessions for SEZ residents build the system of incentives and benefits that are used for residents of SEZ, and especially of technological development zones (TDZ). Funding of innovation activity in TDZ from state budget abroad is being currently applied on the basis of program-purpose approach. Its major purpose is to provide performers (TDZ and their residents) with financial resources by the virtue of competitive selection of targeted research projects and programs.

All domestic investors of SEZ, as well as SEZ investors abroad, use the set of tax concessions guaranteed by the legislation of the Russian Federation. Thus, zero rate of profit tax is set for SEZ residents by payment in federal budget and up to 13.5% by payment in budget of constituent entities of the Russian Federation. Investors of industrial production zones (IPZ) and tourist recreational zones (TRZ) also have the right to use accelerated amortization by determination of multiplying coefficient (though up to 2.0). Investors are allowed not to pay enterprise property tax from the moment of property registration.

SEZ investors are released from payment of land tax (around 1.5%). Investors are fully released from payment of tax on vehicles as well starting from the moment of its registration (depending on engine power, tax rate varies from 10 to 150 RUR/h.p. in various regions). Insurance fee rates have been reduced for TDZ and IPZ residents carrying out tech-implementation activity, as well as for TRZ residents. For the period of 2012-2017, insurance fee rates comprise 14%, in 2018 – 21%, in 2019 – 28%. Tax holiday provided by state authorities at the regional level lasts from 5 up to 10 years.

Second group (tax abatements) comprises a range of tax concessions aimed at direct reduction of the tax base by a set amount of legally permitted deduction of expenses for the purpose of encouraging their expansion and some types of profits. Following forms of tax concessions may be related to this category.

Tax-exempt minimum is set by individuals' income taxation and by estate and gift tax. It is direct initial deduction of minimal sums from gross value of taxable items (by citizens' income taxation – set amount of salary, by estate and gift tax – set property cost, devolving upon an individual by way of inheritance or gift).

Tax deductions present elimination of separate current expenses, property and some other types of income from the tax base. Investment allowance should be singled out as an independent unit of tax deduction because of their special target-oriented focus. Judging from the name, they suppose deduction from tax income of some particular types of investment expenses, as a rule, in certain percent to them or to tax amount.

Excessive deduction of expenses for R&D lies in the use of multiplying coefficient to expenses of the enterprise for R&D for the purpose of taxation. Thus, for instance, according to law in force № 132FZ, there is an exhaustive list of expenditure items that may belong to the expenses for R&D for the purpose of taxation. This law also establishes that taxpayers dealing with R&D including in this list and calculating expenses for outlined R&D with coefficient 1.5 should present a special report about accomplished R&D to taxation authorities. This report is rendered together with a tax declaration at the end of taxation period when R&D or some of its stages were accomplished. In case of failure to provide the report about R&D, expenses for R&D are calculated for the purpose of taxation in the amount of actual expenses.

Depletion allowances are widely used in many countries. They are granted to enterprises of extractive industries in the amount of extra expenses (in comparison to industry average cost) for extraction of commercial minerals at old depleted deposits. It encourages enterprises to extract minerals out of mines and carriers as effectively as possible. Payment allowance for usage of mines and carriers was also used in Russia by mining of depleted deposits, and since 2012, due to introduction of a tax on the extraction of commercial minerals, mining encouragement of substandard, remaining, or written-off mineral reserves has been carried out by taxation at the rate of 0%.

The privileged regime of amortization in the form of accelerated amortization serves as a kind of tax discount aimed at encouragement of investment growth and implementation of new equipment. This also allows enterprises to decrease tax base by income and property taxation, to reduce taxes and save financial resources that are necessary for replacement of old equipment by new one in a shorter period of time.

Targeted tax credit is replacement of tax payment (some part of tax) by non-monetary fulfillment (in the Tax Code of the Russian Federation – just *tax credit*). To get targeted tax credit, taxpayers should enter into a tax agreement (contract) with authorized authorities. Targeted tax credit is given on conditions of credit recovery (debt repayment in cash or by goods, works, services – subjects of tax contract – by agreement), urgency and payment (in the amount of 1/3 refinancing rate of the Central Bank). In case of violation of the agreement a whole credit amount increased by 25% as penalty ought to be levied against a taxpayer into appropriate budget.

Investment tax credit is a special kind of targeted tax credit that serves as the most perspective form of tax regulation and is connected with the purchase of particular high-tech goods and services by the ultimate consumer. Research tax credit has recently become one of the main types of tax assistance in the majority of countries with market economy. Its essence lies in the possibility to deduct a part of expenses for innovation activity (determined by the interest rate of tax credit) from the profit tax amount. In each country, research tax credit has its peculiarities, and specification of tax base and those types of activity which fall under the regime of tax assistance mostly depends on objectives that are pursued by a state in its policy in relation to enterprises.

To avoid multiple counting, governments of many countries do not include expenses connected with subcontract or cooperation between enterprises in the regime of tax concessions. However, a number of countries take partnership between enterprises in their own tax regimes into account (Great Britain, Spain, Norway). In the majority of European countries (Italy, Spain, France etc.), the regime of tax assistance to innovation projects is centralized, though in some countries it is adjusted depending on location of the enterprise. There are some countries that offer their preferential tax treatment to foreign enterprises. Spain, for example, provides tax credit privileges for expenses of scientific organizations located within EU. In France, since 2004 all expenses for innovation projects carried out by French enterprises within the territory of EU have been included into tax credit.

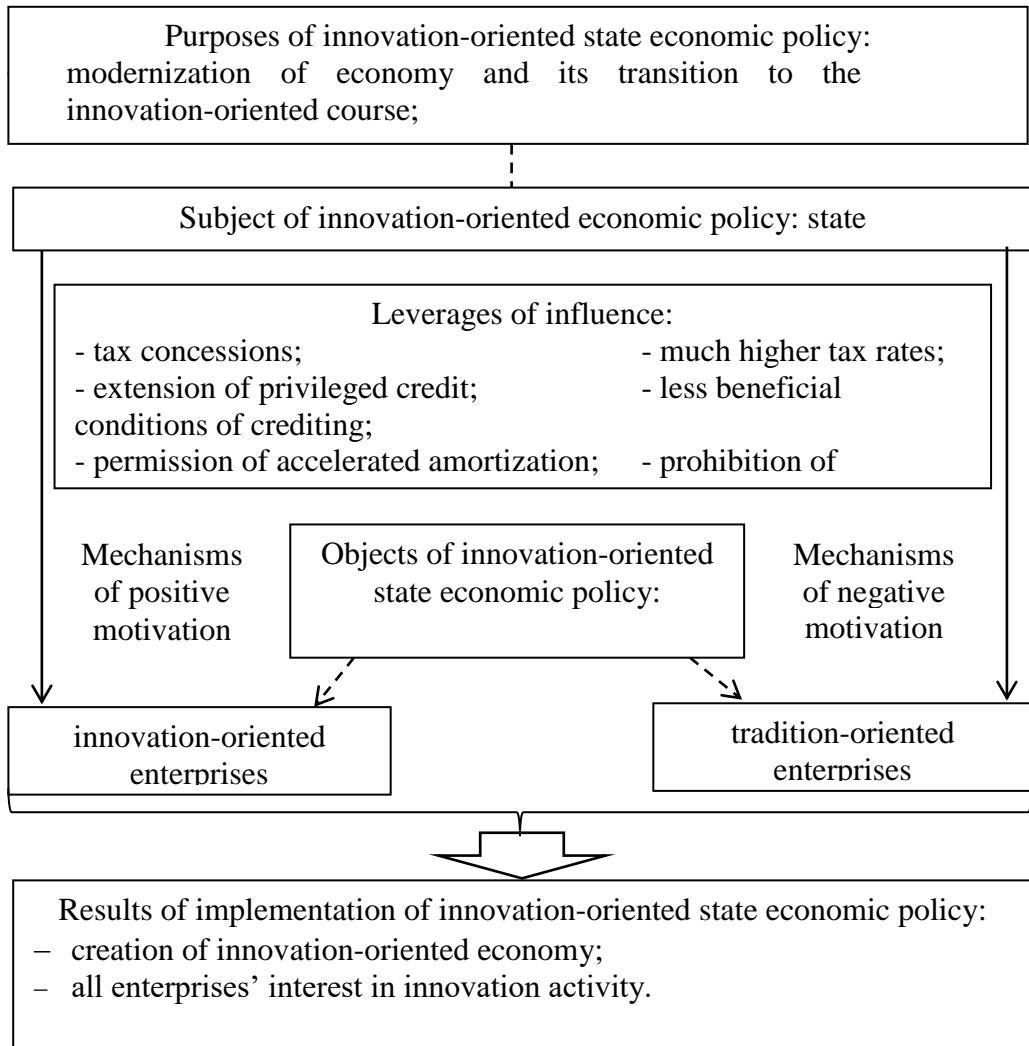
Tax salary research credit presents reduction of salary costs that include social contributions, and reduction of research worker's income and social tax. In other words, this is the deduction of research worker's income and social tax in the amount set by interest rate. Focus on preferential tax treatment of research worker's income is peculiar to countries of North Europe (Denmark, Sweden, Finland, Netherlands and others).

#### **4. Results**

To foster economic growth and increase competitive capacity of national economy at the world market, investment and purposeful technical rearmament of the producing sector are needed, as well as diversification and development of export-oriented branches. It is commonly known that there are direct and indirect system connections between investment and economic dynamics: investment growth in the actual business activity promotes economic growth, and vice versa – decrease in the volume of investment may cause economic recession.

Business entities are often not interested in elaboration and implementation of innovations into their activity and do not possess necessary resources, above all, investment ones. Therefore, for the construction of innovation-oriented economy, innovation-oriented state economic policy is needed.

In the current research the following author's model of innovation-oriented state is shown in Figure 1.



**Figure 1.** Implementation Model of Innovation-Oriented State Economic Policy

As Figure.1 shows, the implementation model of innovation-oriented state economic policy supposes not only encouragement of innovation-oriented enterprises, but also withhold of possible profitable conditions for tradition-oriented enterprises, thus encouraging all enterprises towards innovation activity. The key tool of the model of innovation-oriented state economic policy is represented by the taxation system. Taxation system is a powerful resource for stimulation of domestic investment at the state level. The system of economic measures and tax concessions is traditionally

formed within the state economic policy. It promotes investment into production and sci-tech research. Vast majority of countries use tax concessions as a tool of encouraging innovation development. Thus, in 2000, this form of stimulation was used in 12 countries, whereas in 2014 – already in 19 OECD countries, as well as in a number of rapidly developing countries, including People's Republic of China.

Let's consider the list of main measures and tools of tax incentive of innovation activity that contributes to implementation of the author's model of innovation-oriented state economic policy:

- tax concessions – much lower profit tax rates for innovation-oriented enterprises and much higher profit tax rates for tradition-oriented enterprises;
- provision of privileged credit – much lower interest rates for innovation-oriented enterprises due to means of public funding and higher interest rates for tradition-oriented enterprises;
- permission of accelerated amortization – possibility to use the mechanism of accelerated amortization and to set higher product prices for innovation-oriented enterprises, and prohibition to use such mechanisms by tradition-oriented enterprises;
- subsidies, grants – provision of subsidies and grants for innovation-oriented enterprises, and withhold of subsidies and grants for tradition-oriented enterprises.

Characteristics of the taxation regime of intellectual property objects within the author's model of innovation-oriented state economic policy are the following:

- release from taxation of 80% income in the form of royalty and from income received by implementation of intellectual property objects;
- absence of restrictions in relation to loss records of former periods, including carry-forward of losses;
- total income from intellectual property objects, lessened by expenses connected with provision of such income, is subject to taxation;
- possibility to use accelerated amortization within 5 years;
- a long list of intellectual property objects that fall under this regime;
- effective tax rate up to 2%.

Having analyzed the tax incentive system used in countries with market economy, we may conclude that main measures of tax incentive within the author's model of innovation-oriented state economic policy are the following:

- tax incentive due to R&D (USA, Japan, Korea, China, India, Finland, Ireland, and the Netherlands);
- tax holiday (China, India, Israel);
- stimuli for venture capital (China, Singapore, Malaysia);
- tax concessions for transactions with intellectual property objects (Cyprus, Ireland);
- indirect taxation (Japan, China, India).



At that, it is worth noting that due to R&D, ranges of measures for tax incentive differ from each other in countries with mature market economy and countries with transition economy. Thus, according to results of the research conducted by Russian and American Centers of Technologies and Innovations of the firm *PricewaterhouseCoopers*, in countries with mature economy (USA, Japan, Finland, Ireland, Netherlands, Israel, Korea), tax credit for carrying out R&D is the prevailing measure of tax incentive, whereas in countries with transition economy (China, India, Malaysia, Singapore) excessive deduction of expenses for R&D fulfills this function.

Within the author's model of innovation-oriented state economic policy, the following problems may occur. Problems of legislative character:

- established measures are inconsistent with other taxation norms and rules and therefore become either inefficient or rarely used by taxpayers;
- rather a great number of changes being recently introduced into the tax legislation and aimed at provision of extra preferences for companies that deal with the high technological sector are connected with various gaps in legislative regulation, and this fact may also decrease efficiency of tax concession as the tool of state economic policy, i.e. tax concession that has generally proved its efficiency in some countries, for instance in the Russian Federation, may be inefficient in other countries;
- conditions and rules for the use of tax concession, which are outlined in legislative documents, allow various interpretations. To clarify such guidelines and legislative rules, the Ministry of Finance of the Russian Federation regularly publishes explanatory notes, though they occasionally contain ambiguous interpretation as well;
- privileged groups in relation to which tax concessions are applied may often be ignored in the norms of common tax regulation, and that brings tax concessions to naught.

Problems of conceptual character:

- a major obstacle for implementation of tax concession into the innovation sector is a potential possibility to use tax concessions for the purpose of getting baseless tax profit by companies that have nothing to do with innovation process. This fact may significantly decrease efficiency from the use of tax concessions, as the latter ones may be used for the purpose of tax avoidance;
- it is not always obvious that particular tax concessions may additionally encourage innovation activity, and not just save tax payments for innovation companies (even admitting that they legally use this tax concession).

The problem of measure administration of tax incentive in general and system construction of tax concessions in particular should be solved for the following conditions. Firstly, tax concessions should be resistant to unreasonable use. Secondly, tax concessions should be maximally guaranteed for those who really need them. In the context of absolute priority of innovational aspects of economic development, state policy should be aimed not at the support of particular branches and enterprises, but at risk reduction for investment and innovation, creation of various incentive tools corresponding to the level of the enterprise competitive ability.

In accordance to this, it is necessary to mention that among negative factors of enterprise, innovation development, unpredictability in state policy and frequent revision of measures without estimation of previous experience obviously stand out. It does not let enterprises plan their business for the long term, despite the fact that innovation activity and expenses for it appear to be long-range investments. To work out and implement effective taxation tools for encouragement of innovation activity, it is reasonable to address to positive experience of industrially developed countries.

Main directions for improvement of tax incentive system, in our opinion, are the following:

- improvement of amortization policy and provision of business with the right to use tools of re-evaluation of the major measures for the purpose of taxation;
- release R&D conducted by non-governmental organizations from VAT, as well as permission to deduct expenses for R&D enterprises according to the standard procedure that is applied to the rest expenses of enterprises (during the period when they took place, but not once a year);
- establishment of a so-called “marginal tax concession”, when an enterprise has the right to attach current expenses for R&D to the prime cost with a multiplying coefficient that depends on growth dynamics of expenses for R&D;
- establishment of a zero rate of VAT by import of manufacturing equipment (or tax deferral before the commencement of equipment operation).

## **5. Discussion**

All in all, the following conclusions could be made. Governments of many countries have been currently strengthening support of innovation processes in the private sector and national economy, and tax incentive serves herewith as one of the main factors in creating favourable environment for innovation encouragement. Analysis of state policy in the innovation sphere reveals that best results are achieved by reasonable combination of different measures for regulation and stimulation of innovations. In the course of model implementation of innovation-oriented state

economic policy, it is necessary to rely on rich world experience of different countries, using various political strategies to support innovations.

Science, especially fundamental, is international, however innovation activity in the sci-tech sphere is determined by such national traits as the state of mind, national origins, national traditions, economic structure, educational system conditions etc., and in many ways it is national. National soul and spirit are reflected in innovation activity. It is clearly demonstrated by such countries as Japan and China. The country which wants to feel secure about the future should have not only powerful fundamental science, but also powerful innovation policy, powerful innovation activity sphere and well-formed national innovation capability.

## 6. Conclusion

In order to provide economic growth and increase the competitive ability of national production in the current economic environment, it is necessary to carry out industrial and structural policy, to invite investment into renewal of main funds, infrastructure, construction of new enterprises, and to encourage scientific and technological solutions. All these measures will meet the needs of the society in goods and services, provide extra workplaces, and improve standards of living and the quality of life.

For this purpose, the author's model of innovation-oriented state economic policy has been developed. It takes differences in behavior of innovation-oriented and tradition-oriented enterprises into account and supposes implementation of various incentive methods into their innovation activity. Testing of the elaborated model and working-out of detailed guidelines for its application in various economic systems may serve as prospective lines of further research in the field of innovation-oriented state economic policy.

## 7. References

- Atkinson, R.D. and S. J. Ezell, *Innovation Economics: the Race for Global Advantage* (New Haven, CT: Yale University Press, 2012).
- Atkinson, R.D., et al., *Taking on the Three Deficits: An Investment Guide to American Renewal* (ITIF; Breakthrough Institute, November 2011), <http://www.itif.org/files/2011-taking-three-deficits.pdf>.
- Domenici and Rivlin. "Achieving a Sustainable Fiscal Path" (report, The Concord Coalition, Bipartisan Policy Center, and CSIS, December 2012), [http://concordcoalition.org/files/uploaded-pdfs/soa\\_initiative\\_report.pdf](http://concordcoalition.org/files/uploaded-pdfs/soa_initiative_report.pdf)
- Havlíček, K., et al (2013a), "Quality Management as a Part of CRM", *European Research Studies Journal*, 16(4), 15-28.
- Havlíček, K., Thalassinou, E., & Berezkinova, L. (2013b), "Innovation Management and Controlling in SMEs", *European Research Studies Journal*, 16(4), 57-70.
- Liapis, K., Rovolis, A., Galanos, C. and Thalassinou, E. (2013), "The Clusters of Economic Similarities between EU Countries: A View under Recent Financial and Debt Crisis", *European Research Studies Journal*, 16(1), 41-66.

- Popkova, E.G. and V.I. Tinyakova, 2013a. New Quality of Economic Growth at the Present Stage of Development of the World Economy. *World Applied Sciences Journal*, 5: 617-622.
- Popkova, E.G., and V.I. Tinyakova, 2013b. Drivers and Contradictions of Formation of New Quality of Economic Growth. *Middle-East Journal of Scientific Research*, 11: 1635-1640.
- Popkova, E.G., S.S. Morkovina, E.V.Patsyuk, E.A. Panyavina and E.V. Popov, 2013. Marketing Strategy of Overcoming of Lag in Development of Economic Systems. *World Applied Sciences Journal*, 5: 591-595.
- Stewart, A. L. and Atkinson, D. R. (2013), "Restoring America's Lagging Investment in Capital Goods" (ITIF, October), <http://www2.itif.org/2013-restoring-americas-lagging-investment.pdf>.
- Stuart M. Butler, S.M., Alison Acosta Fraser, A.A., and William W. Beach, W.W., 2011, *Saving the American Dream: The Heritage Plan to Fix the Debt, Cut Spending, and Restore Prosperity* (Washington, DC: Heritage Foundation, May 2011), <http://www.heritage.org/research/reports/2011/05/saving-the-american-dream-the-heritage-plan-to-fix-the-debt-cut-spending-and-restore-prosperity>.
- Thalassinos, E., et al., (2012), "How Corporate Governance and Globalization Affect the Administrative Structure of the Shipping Industry", *Journal of Global Business and Technology*, 8(1), 48-52.