Evaluation of Economic Effectiveness of the State Purchases System: Criteria and Priorities

Aleksey V. Bogoviz\textsuperscript{1}, Yulia V. Ragulina\textsuperscript{2}, Vadim I. Erusalimsky\textsuperscript{3}, Yulia G. Tyurina\textsuperscript{4}, Elena V. Popova\textsuperscript{5}

Abstract:

The purpose of the article is to develop new criteria and priorities of evaluating the economic effectiveness of the state purchases system in modern Russia. The methodology of the work consists of the general scientific methods (induction, deduction, formalization, synthesis, etc.) and specific methods of the economic theory.

The authors conduct the problem analysis of the methodology of evaluation of economic effectiveness of the state purchases system which is applied in modern Russia and analyze the causal connections of its application in practice, as well as conduct the comparative analysis of this methodology and the specially developed proprietary method that allows eliminating the determined problems of the existing methodology.

The authors conduct the criterial evaluation of economic effectiveness of the state purchases system in Russia with the specially developed method and conclude that the effectiveness of the state purchases system in modern Russia is high due to a large per cent of economy of budget assets, domination of orders for domestic products within the import substitution policy, stimulation of economic growth, and increase of the society’s well-being.

Perspectives of further growth of its effectiveness according to the offered criteria and priorities are related to simplification of the procedures of applicants’ participation in auctions for stimulating their competition, increase of the share of electronic orders, and moderate reduction of the average sum of order.

Keywords: economic effectiveness, system of state purchases.

JEL-classification codes: D61, G28, H72.

\textsuperscript{1} Federal State Budgetary Scientific Institution “Federal Research Center of Agrarian Economy and Social Development of Rural Areas – All Russian Research Institute of Agricultural Economics”, Moscow, Russia, Federal Research Institute of System Analysis of the Accounts Chamber of the Russian Federation, Moscow, Russia, e-mail: aleksei.bogoviz@gmail.com
\textsuperscript{2} Federal Research Institute of System Analysis of the Accounts Chamber of the Russian Federation, Moscow, Russia, e-mail: julra@list.ru
\textsuperscript{3} Lipetsk Institute of Cooperation (branch) of Belgorod University of Cooperation, Economics and Law, Lipetsk, Russia, e-mail: chesar@mail.ru
\textsuperscript{4} Orenburg State University, Orenburg, Russia, e-mail: u_turina@mail.ru
\textsuperscript{5} Plekhanov Russian University of Economics, Moscow, Russia, epo495@gmail.com
Introduction

In the modern conditions, perspectives of development of entrepreneurship – the most important source of economic growth and social development – determine the quality of the institutional environment. Reduction of the volume of effective demand under the influence of economic crisis makes the entrepreneurial structures re-orient at new directions of products and services sales. The largest and the most reliable customer in modern Russia is the state.

Only the system of state order supports large industrial companies, which are often strategic, from bankruptcy, which would inevitably lead to mass unemployment and social crisis. Due to that, one of the most important measures of crisis management and stimulation of entrepreneurial activity in Russia is the system of state purchases. Effectiveness of this system is a guarantee of rationality of spending the state budget assets and of efficiency of their spending, as low effectiveness would increase the risk of preferential conduct of state purchases and monopolization of sectorial markets instead of stimulating competition.

Modern information and communication technologies create preconditions and possibilities for optimization of such system, and actual tendencies in the Russian economy and the new strategic course of its development dictates new requirements to the system of state order. Due to that, new requirements should be set to evaluation of its effectiveness. The purpose of this article is development of new criteria and priorities of evaluation of economic effectiveness of the state purchases system in modern Russia.

Literature Review

Theoretical provisions of formation and functioning of the state purchases system are described in the works of many scholars (Cole et al., 2017; Ragulina and Kamaev, 2013; Patrucco et al., 2017 and Romanenko and Kravets, 2013). Applied issues, peculiarities, and problems of functioning of the state purchases system in various countries are studied in the materials of publications of many scholars (Thalassinos et al., 2010; 2012; Thalassinos and Liapis, 2014; Candra and Gunawan, 2017; Domingos et al., 2017; Sazonov et al., 2013; Shakya and Schapper, 2017 and Harper and Sanchez, 2017; Nikolova et al., 2017; Akopova and Przhedetskava, 2016; Kormishkin et al., 2016; Glavina, 2015; Tcvetkov et al., 2015).

Methodology

Methodology of this work includes the general (induction, deduction, formalization, synthesis, etc) and specific methods of the economic theory. The authors conduct the problem analysis of the methodology of evaluating the economic effectiveness of the state purchases system, which is applied in modern Russia, and analyze causal connections of its application in practice, as well as conduct the comparative
analysis of this methodology and the developed new method of such evaluation, which allows eliminating the determined problems of the existing methodology.

The information and analytical basis of this research consists of the official statistical reports of the Federal State Statistics Service of the RF and the portal of state purchases of the RF. Timeframes of the research are dictated by the open-access statistical information and are limited by 2011-2016. The compiled information on the initial data, used for calculation in this article, is given in Table 1.

**Table 1. The initial data on statistics of the state purchases system in Russia in 2011-2016**

| Indicators                                      | Values of indicators for years |
|------------------------------------------------|--------------------------------|
|                                                | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  |
| number of participants of auctions             | 3.38   | 3.52  | 3.52  | 3.15  | 3.52  | 4.26  |
| share of electronic orders, %                  | 22.37  | 24.83 | 25.12 | 56.08 | 54.07 | 50.02 |
| average sum of order, RUB million              | 2.63   | 2.77  | 2.55  | 2.16  | 2.09  | 2.07  |
| economy, %                                     | 12.78  | 9.54  | 13.20 | 6.34  | 5.71  | 5.73  |
| share of orders of domestic products, %        | 68     | 72    | 78    | 84    | 89    | 93    |
| share of orders in GDP, %                      | 8.90   | 8.84  | 8.92  | 7.73  | 7.97  | 8.09  |
| share of purchases oriented at fulfilling the state’s demands, % | 65     | 64    | 62    | 61    | 58    | 55    |

**Source:** compiled by the authors on the basis of: (Federal State Statistics Service of the RF, 2017), (Portal of state purchases of the RF, 2017).

**Results**

The foundations of the work of the Russian state purchases system are set by the Federal Law of the RF “On the contract system in the sphere of purchases of goods, works, and services for provision of state and municipal needs” dated April 5, 2013, No. 44-FZ. This law does not establish the method according to which the economic effectiveness of the state purchases system should be evaluated, but the following principles and priorities of its action are set (The State Duma of the RF, 2013):

- Reliability of a supplier who performs the state order (the announced principle of the contractual system on the purchases sphere, principle of supplier’s professionalism, principle of timely execution of state orders, principle of responsibility for efficiency of provision of state and municipal needs, effectiveness of purchases conduct, and the requirements of the banking guarantee and supplier). This priority means that the system of state purchases in modern Russia is aimed at
satisfaction of state needs. That’s why the supplier selected for performing a state order should be successful in performing it;

- Fairness of selection of supplier who performs the state order (the principle of openness and transparency and the principle of provision of competition within state purchases). The sense of this priority is brought down to optimization of spending the state budget assets during conduct of state purchases for which the competitive basis is created during selection of a supplier;

- moderate character of state purchases (the principle of substantiation purchases, the principle of norming in the sphere of purchases, and the principle of mandatory discussion of purchases). The main sense of this priority is that the system of state purchases is viewed as a means of satisfying the initial state needs which should be brought down to the minimum in order to avoid unnecessary expenditures;

- the state purchases system’s stimulating the society’s well-being and development of economy (the principle of stimulation of innovations, the principle of participation of the handicapped in the purchases, the principle of decentralization of the state purchases system, and the principle of stimulation of development of economy). This priority should solve socio-economic tasks and stimulate realization of the national strategy of development through realization of state purchases.

Based on these principles and priorities, we formulated the main evaluation criteria applied to the system of state purchases in modern Russia:

- Average sum of the deal. It is supposed that it should be larger, in order for government orders to be executed only by large reliable suppliers;

- Number of participants of a competition. The state wants to attract more participants in order to stimulate competition;

- Ratio of GDP and total expenses for state purchases. It should be minimal for minimization of expenditures of the state budget;

- Share of purchases oriented at satisfaction of state needs. It should be as large as possible for avoiding unnecessary expenses;

- Share of saving on state purchases. The larger the better.

Deep analysis allows us to see that these priorities contradict each other. For example, the priority of reliability of suppliers and their competition. Thus, in practice a problem emerges – for the purpose of protecting the state interests, suppliers are faced with very high requirements that could be satisfied by only several companies. Due to this, the competition for a government order includes a small number of applications for execution of a government order.

In addition to that, while striving for saving the budget assets, the system of state purchases does not fully stimulate the development of economy, placing a relatively
small volume of investments from the positions of the post-Keynes theory. In order to solve these and other problems that are peculiar for the Russian practice of government order, we offer the following recommendations, which are to correct and supplement the existing criteria – in order to optimize the system of state purchases in modern Russia.

Firstly, this system should conform to the actual needs of formation of the information economy. That’s why one of the criteria of its evaluation should be the share of government orders performed electronically. For stimulating the competition of the applicants, the requirements for them should be reduced, and the number of the participants of the auctions should be large enough in order to avoid a conspiracy.

Secondly, in order to avoid the negative influence of the processes of economic globalization and integration and to overcome the consequences of the economic crisis, this system should stimulate the development of the Russian economy. That’s why one of the evaluating criteria of this system should be the share of orders for the domestic products, while the ratio of GDP and total expenses for the state purchases should be sufficient for placing the necessary investments into economy from the point of view of the post-Keynes theory.

That is, instead of maximization of the share of expenses oriented at execution of the state needs, it is necessary to pay attention to the increase of the share of government orders that support domestic production (the second component in the structure of orders according to the criterion of the satisfied needs). Criteria are to be evaluated in points from 1 (minimum correspondence to the criterion) to 3 (maximum correspondence to the criterion). Evaluation should be performed by finding the direct average of all indicators. If the final value is less than 1.5, it shows low effectiveness of the state purchases system; if it is in the interval from 1.5 to 2.5, effectiveness is high; if it exceeds 2.5, effectiveness is very high.

Table 2. Recommended scale for conduct of the criterial evaluation of effectiveness of the state purchases system

| Priorities                     | Criteria                                | Evaluation scales for assigning points |
|-------------------------------|-----------------------------------------|--------------------------------------|
|                               |                                         | 1 point | 2 points | 3 points |
| Fairness                      | number of participants of the actions   | ≤5      | (5-10)   | ≥10      |
|                               | share of electronic orders, %           | ≤50     | (50-80)  | ≥80      |
| Budget economy                | average sum of the order, RUB million   | ≥2      | (1-2)    | ≤1       |
|                               | economy, %                              | ≤5      | (5-10)   | ≥10      |
| Stimulatio n of economy       | share of orders for domestic products, %| ≤50     | (50-80)  | ≥80      |
|                               | share of orders in GDP, %               | ≤5      | (5-10)   | ≥10      |
Let us perform the criterial evaluation of economic effectiveness of the state purchases system in Russia with the help of the offered method (Table 3).

**Table 3. Results of the criterial evaluation of economic effectiveness of the state purchases system in Russia with the help of the offered methodology**

| Indicators                                      | Values of indicators for years, points |
|------------------------------------------------|----------------------------------------|
|                                                 | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  |
| number of participants of the actions           | 1     | 1     | 1     | 1     | 1     | 1     |
| share of electronic orders, %                   | 1     | 1     | 1     | 2     | 2     | 2     |
| average sum of the order, RUB million           | 1     | 1     | 1     | 1     | 1     | 1     |
| economy, %                                      | 3     | 2     | 3     | 2     | 2     | 2     |
| share of orders for domestic products, %        | 2     | 2     | 2     | 3     | 3     | 3     |
| share of orders in GDP, %                       | 2     | 2     | 2     | 2     | 2     | 2     |
| share of purchases oriented at execution of the state’s needs, % | 3     | 3     | 3     | 3     | 3     | 3     |
| Effectiveness of state purchases                | 1.8   | 1.7   | 1.8   | 2.0   | 2.0   | 2.0   |

**Source:** compiled by the authors.

As is seen from Table 2, economic effectiveness of the state purchases system in Russia is high and grows with time. The perspectives of further growth of its effectiveness according to the offered criteria and priorities are related to simplification of the procedures of applicants’ participation in auctions for stimulation of their competition, increase of the share of electronic orders, and moderate reduction of the average sum of the order which allows the larger number of economic subjects to receive a state order, which makes it impossible for state order to be a means of monopolization of markets.

**Conclusions**

It is possible to conclude that effectiveness of the state purchases system in modern Russia is high due to a large share of budget assets savings, domination of orders for domestic products within the policy of import substitution, support for economic growth, and increase for the society’s well-being.

At the same time, a restraining factor on the way of further increase of effectiveness of this system is non-conformity of the criteria applied for its evaluation and the set
priorities to the actual tendencies in the Russian economy and its national and strategic course for overcoming the crisis consequences and development of the modern market information economy.

Development of new criteria and priorities of evaluation of economic effectiveness of the state purchases system in modern Russia eliminates this problem and creates the correct guidelines which help the state officials to place government orders, to increase its effectiveness and interested parties to evaluate this effectiveness.

References:

Akopova, S.E., Przhedetskaya, V.N. 2016. Imperative of State in the Process of Establishment of Innovational Economy in the Globalizing World. European Research Studies Journal, 19(2), 79-85.

Candra, S., Gunawan, F.E. 2017. The impact of e-Procurement practice in Indonesia government: A Preliminary Study (The case of Electronic Procurement Service at Bekasi District). Journal of Physics: Conference Series, 801(1), 12-23.

Cole, M.T., Davies, R.B., Kaplan, T. 2017. Protection in government procurement auctions. Journal of International Economics, 106, 134-142.

Domingos, S.L., Carvalho, R.N., Carvalho, R.S., Ramos, G.N. 2016. Identifying it purchases anomalies in the Brazilian Government Procurement System using deep learning. Proceedings - 2016 15th IEEE International Conference on Machine Learning and Applications, ICMLA, 722-727.

Glavina, S. 2015. Influence of Globalization on the Regional Capital Markets and Consequences; Evidence from Warsaw Stock Exchange. European Research Studies Journal, 18(2), 117-134.

Harper, L., Sanchez, D. 2017. Electronic government procurement in Latin America and the Caribbean. Digital Governance and E-Government Principles Applied to Public Procurement: 203-228.

Kormishkin, D.E., Sausheva, S.O., Gorin, A.V and Zemskova, S.E. 2016. Innovation and Investment Safety as the Condition for Neo-Industrial Development. European Research Studies Journal, 19(3) Part A, 94-109.

Nikolova, V.L., Rodionov, G.D., Afanasyeva, V.N. 2017. Impact of Globalization on Innovation Project Risks Estimation. European Research Studies Journal, 20(2B), 396-410.

Romanenko, E.V., Kravets, A.G. 2013. Development and implementation of multi-agent approach to support the process of requests execution in a distributed information system "Toureast: CRM AI". World Applied Sciences Journal, 24 (24), 145-150.

Sazonov, S.P., Lukyanova, S.P., Popkova, E.G. 2013. Towards the Financial Budgeting Governance in Transitive Economies. World Applied Sciences Journal, 23(11),1538-1547.
Shakya, R.K., Schapper, P.R. 2017. Digital governance and e-government principles: E-procurement as transformative. Digital Governance and E-Government Principles Applied to Public Procurement: 1-28.

Tcvetkov M., Tcvetkova I. and Chkalova O. 2015. Transaction Costs under Globalization: The Example of Russian Economy. European Research Studies Journal, 18(2), 107-116.

The State Duma of the RF. 2013. Federal law “On the contract system in the sphere of purchases of goods, works, and services for provision of state and municipal needs” dated April 5, 2013, No. 44-FZ. URL: http://www.consultant.ru/document/cons_doc_LAW_144624/

Thalassinos, I.E., Deceanu, L. and Pintea, M. 2010. New Dimensions of Country Risk in the Context of the Current Crisis: A Case Study for Romania and Greece. European Research Studies Journal, 13(3), 225-236.

Thalassinos, I.E., Ugurlu, E. and Muratoglu, Y. 2012. Income Inequality and Inflation in the EU. European Research Studies Journal, 15(1), 127-140.

Thalassinos, I.E. and Liapis, K. 2014. Segmental financial reporting and the internationalization of the banking sector. Chapter book in, Risk Management: Strategies for Economic Development and Challenges in the Financial System, (eds), D. Milos Sprcic, Nova Publishers, 221-255.

The Federal State Statistics Service of the RF. 2017. Information on the course of purchases for the state needs. URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/finance/ostatistics/