Principles of the Economic Policy in the Euroasian Economic Union (EEU): Development of Innovative Productions

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Abstract: The article discusses prospects of further increase in the EEU integration with reference to the target benchmarks that national economies set when making decisions on joining regional integration blocs like the Eurasian Economic Union. The focus is on the possibility of developing high technology production in EEU countries. A two-sector model and analysis of statistical information are used to assess the prospects for the development of innovative production on the territory of the EEU. It is shown that with the developed monopolized structure and low level of production competitiveness, financing innovation by transforming savings into investments is really difficult. The authors suggest a critical assessment of the current inflation targeting policy of the Central Bank of Russia. Based on the macroeconomic model of the interaction of savings and investments and the generalization of data subject to the level of monopolization of the Russian economy, it is argued that the implementation of the inflation targeting policy does not create real prerequisites for the development of high-tech production in Russia and other EEU member countries. It is stated that the current conditions require a policy of mobilizing resources to be invested in innovative projects. It is concluded that in modern conditions, a significant increase in the financing of innovative products is possible only through state support based on the modernization of the taxation system. It is indicated that in the long term, targeted financing of innovative products should be carried out within the framework of the single economic policy of the EEU. The authors suppose that just creation of prerequisites for innovative development in the EEU can increase real attractiveness of this integration block for potential new members.

Keywords: Integration, Economic Policy, Innovations, Taxation

1. Introduction

Nowadays there are ongoing discussions on the prospects of expansion of the EEU in the nearest future[1]. Numerous countries demonstrate their interest in various forms of cooperation with the EEU. On the other hand, there has recently been a tendency for economic activity to fade within the EEU. For the further development of the EEU, it is necessary that attractiveness of membership in this regional bloc for potential member states was not based on mere stimulation of the development of trade ties. Nevertheless, the current economic policy within the EEU is aimed precisely at trade as a priority. The question arises, if modern conditions can provide an alternative policy that would take the EEU member states beyond the narrow framework of trade cooperation.

2. Methodology

The above problem posed is solved on the basis of a two-sector economic system model [15]. In its turn, the two-

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1 Despite the insignificant period of the EAEU's existence, numerous studies are devoted to this block, which analyze historical aspects of EEU member states development and find out prerequisites for creating a new union. [4, 9, 12, 18].Attempts are made to to summarize interim results of the Eurasian integration [2, 20]. Some research consider the problems of political stability of the EEU, the possibilities of accepting new members, the prospects for cooperation of the EAEU countries with other blocks - EU, ACEAN, "Silk Road" countries [10, 11, 17, 21, 24].

sector model relies on the research of V. Leontyev, G. A. Feldman, G. Mensch, K. Clark. However, this model possesses one advantage: it makes it possible to correlate the characteristics of the economy structure with the mechanisms of market and administrative coordination. Besides, it involves the elements of macroeconomic analysis based on modeling the interaction of investments and savings.

This paper examines the relationship between particular dynamics of the EEU structure and the economic policy, which implies strengthening of the role of administrative coordination.

3. Innovations and Competitiveness of EEU-countries

For further development of the EEU, potential participants therein should see real benefits, which must not be limited to mere encouragement of development of the trade relations. The economic policy of the EEU as a regional bloc should make an essential contribution in the accelerated creation of an integral innovation-based regeneration economic model. However, so far there are no visible prerequisites for innovative development within the contemporary EEU functioning model. While the EU R&D costs are 24,1% of the world figures, those for the EEU make only 2,7%; similarly, the EU export share of high-tech goods is 34,44% against only 0,3% for the EEU [3].

Table 1 shows expenditures on development and creation of innovative products in EEU countries and Germany (taken as an example of the most advanced EU country).

Table 1. *Expenditures on development and creation of innovative products in EEU countries and Germany (bln. US- dollars).*

	1996	2000	2006	2009	2014	2015	2016	2017
Belarus	0,148	0,108	0,252	0,331	0,402	0,282	0,238	0,366
Armenia	0,003	0,003	0,013	0,024	0,028	0,026	0,022	0,024
Kazakhstan	0,059	0,031	0,202	0,254	0,332	0,295	0,192	0,217
Kyrgyz Republic	0,003	0,002	0,006	0,008	0,009	0,007	0,007	0,007
Russia	3,79	2,49	12,37	13,7	22,25	15	14,22	17,84
Germany	54,44	44,3	74,5	91,1	111,86	96,8	94,5	110,8

Source: [22]; authors' calculations.

It is evident that the production costs of innovative products in EEU countries are too low, compared to similar figures for Germany. Of all the EEU countries, Russia is the only one which makes more or less considerable investments in innovative products, with Germany expending 5-fold annually (for 1996 and 2000, the difference was even higher). If the situation does not change in the nearest future, the EEU will not have any chance for a breakthrough in production of high-tech innovative products. In the modern context, globalization has sharply increased competition between national economies [6], and nowadays, it is mostly the ability to produce innovative products in various industries, that provides a competitive edge of a state [1, 13]. Countries assess feasibility of participating in a particular regional bloc in terms of prospective improvement of the innovative development [19]. This means that EEU is unlikely to have any chance for a considerable expansion, if they fail to stimulate high-tech production development.
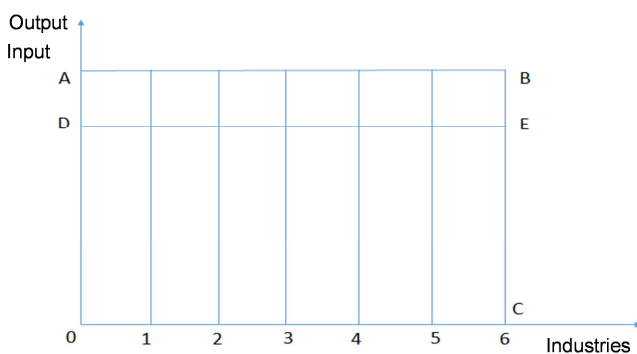

Figure 1. *Simplified model of 6-sector national economy.*

Let us consider a simplified model of the sectoral structure of the national economy (Figure 1).

Figure 1 shows a sectoral structure of the national economy consisting of 6 conventional sectors (industries). Each industry is shown as one double column. For example, for industry № 1, the height of OD column shows the costs and the height of OA column–the output (result). The cost level for all the industries is similar (DE), the result is also similar (AB). All the six industries represented in Figure 1 are traditional, with normal total profits (DABE) and without any considerable investment in innovative development.

Let us suppose that the national economy seeks to increase chances for successful innovative development by participating in international economic and trade blocs (unions). Therefore, this country will find attractive to participate in a regional bloc where the main strategy is technology leadership of the member states. Let us further suppose that an integration bloc comprises N member states with similar sectoral economic structures. We assume that to implement the technology leadership strategy within the integration bloc, one should encourage creation of four innovative industries (Figure 2). Figure 2a practically coincides with Figure 1 with the only difference that now the six-sector structure represents the regional integration union rather than one national economy. Accordingly, each of the six consolidated industries on Figure 2a is particularly distributed among N integration union member states. For simplification purposes this distribution is not shown.

In Figure 2b, the existing integration union economy consisting of six traditional industries adds costs of creation

of four consolidated innovative industries (№ 7–№ 10.). These should actually be developed from scratch, and CEFG figure shows a potential amount of the necessary capital investments. It is natural that there is no output in these

industries, but if there even was one, then in terms of value, it will be lower than the costs (CEFG> CKLG). It takes long time before innovations start paying off.
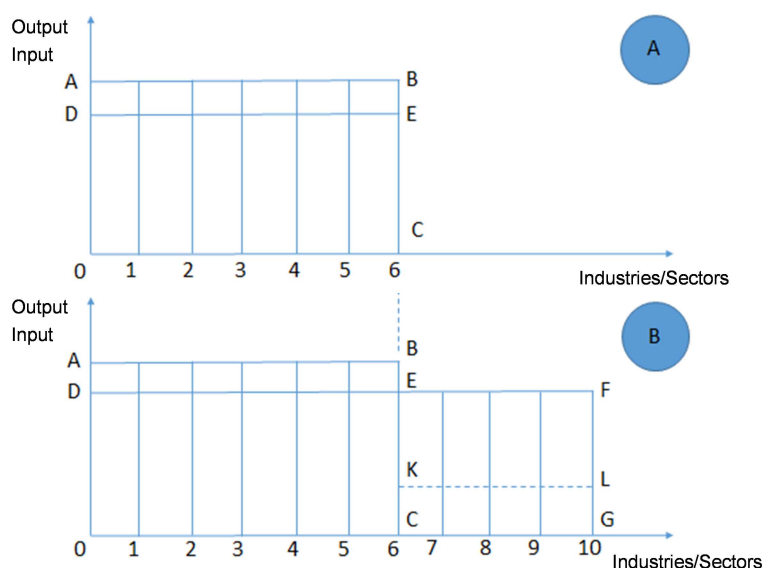

Figure 2. Simplified model of the economic union, transitioning to an innovative type of development.

Figure 2b shows that investments in innovative industries № 7-10 are quite extensive compared to traditional ones: the total profits gained by the traditional industries appears to be less than the amount of the necessary investments (DABE < CEFG). Therefore, it is necessary to involve all the resources of the traditional sector as fully as possible (let us assume that the traditional sector possesses spare capacities which could provide profit gains if there is demand) to develop the innovative sector in accordance with Figure 2. The question is what economic policy should be implemented to solve such a problem? Apparently, there is no clear-cut answer with reference to any regional economic unions. Much depends on the membership, particularly, on their GDP balance. Table 2 demonstrates GDP values of EEU member states as of 2018.

Table 2. GDP of EEU countries, (Total GDP and GDP per capita).

Countries	GDP (bn. dollars) (2018)	GDP per capita (dollars) (2018)
Armenia	12,4	4000,0
Belarus	59,7	6 284,2
Kazakhstan	179,3	9851,6
Kyrgyz Republic	8,1	1265,6
Russia	1657,6	11291,5

Source: [23]

Table 2 shows that the EEU structure is quite asymmetrical: Russian economy, by scales, dominates economies of other EEU member states. As of 2018, Russian accounted for more than 70% of the GDP of EEU member states.[2]. One may conclude that Russian economic policy plays an essential role in terms of assessing the prospects for transforming the EEU into one of the centers of the world innovative development.

4. Policy of Transition to Innovative Development: Fighting Inflation

The main principle demonstrating the targeted character of the economic policy of modern Russia is the idea of inflation targeting. The decrease in the inflation rates to some target level (nowadays, the target inflation rate is considered to be 2%) should improve the conditions of savings-to-investments transformation, which contributes essentially in the economic growth (including the investment based growth). An important tool to suppress inflation is a limit on the amount of the circulating money [8].

It is known that the neoclassical version of savings-to-investments transformation is based on the interest rate fluctuations (Figure 3a). Let us assume that in Figure 3a the interest rate (ro) includes the inflation constituent. This will slow down growth of both savings and investments. In accordance with the famous theoretical statement, inflation is generated by abundance of money in circulation. Therefore, with the reduction in the amount of the circulating money inflation will disappear and the interest rate (ro) will decrease. A stable equilibrium interest rate determines the optimal amount of savings and investment in the economy. Basing on this theoretical provision, one could recognize that the course to reduction in the inflation pursued in Russia corresponds to the target benchmark for the transition to the innovative development model. One could further assume that this economic policy could in the future result in feasible benefits in the form of a large-scale development of innovative products not only in Russia but also within the EEU.

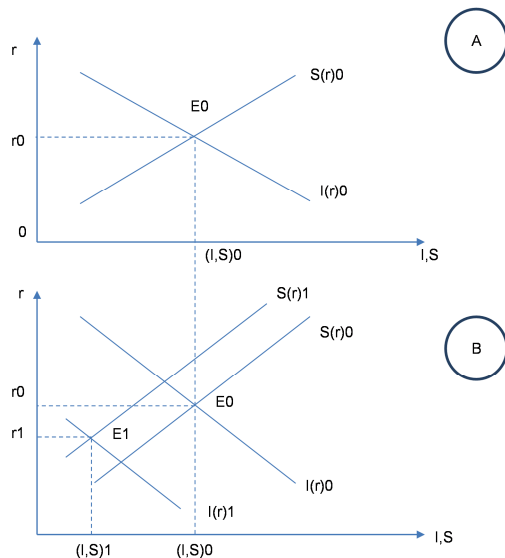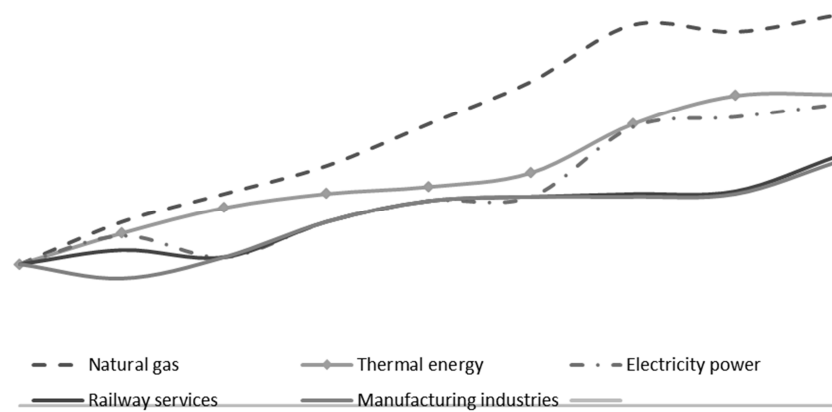2 See more details on indicators characterizing EEU economies in [5].

Figure 3. *Possible savings-to-investments transformation model in modern Russia.*

However, there are at least two problems. The theoretical provision on the abundance of money as the main reason for inflation could be legitimate for the market economy where low inflation rates changed for its growth because of the specifics of the Central Bank's policy. In this case, it is true that inflation reduction to the target level may provide more favorable investment conditions, also applicable for developing and manufacturing innovative products. The situation in Russia is fundamentally different. High inflation rates were inherent in the Russian economy at the very beginning of the transformation processes. This was due to the highly monopolized economic structure that had already developed under the planning era and was inherited thereafter. High economy monopolization level characterizes Russia to this day [7] being one of the most important factors of widening of the inflation spiral. Figure 4 shows the price dynamics in various economic sectors involving natural monopolies.

Source: Stolypin Institute for Economic Growth.

Figure 4. *Price dynamics in selected sectors of the Russian economy in 2007-2015.*

Figure 4 clearly shows that all the natural monopoly-based industries are characterized by a faster price growth than the manufacturing industry. This testifies to the essential role of the economy monopolization as a factor of widening the inflation spiral.

In accordance with our hypothesis, inflation of this kind cannot be suppressed by using exclusively the instruments of the Central Bank. In the current circumstances, actions of the Central Bank aimed at the inflation suppression have a negative impact on the savings and investment level. Figure 3b. shows that partial elimination of the inflation brings the interest rate (r_1) down. However, this takes place for a lower savings ($S_1 < S_0$) and investment ($I_1 < I_0$) level.

The second problem connected with the neoclassical savings-to-investments transformation model appears to be more serious. It is about fundamental motivation of the private sector to invest money in the development of innovative industries. This motivation does not automatically result from the reduction of the inflation rates to the target level. Figure 2b clearly shows to reach the innovative development level comparable with the EU or China, the EEU needs huge investments in the industries which are not supposed to be profitable for a long time (area CEFG, Figure 2b). No anti-inflation move will solve this problem. Никакая борьба с инфляцией не решит этой проблемы. Profits of the traditional sector (area DABE, Figure 2b) will either be invested in the expansion of the latter, or move offshore by means of direct investments or currency speculations. It should be noted that since the beginning of the market reforms, Russia and other post-Soviet countries have started rapid saturation of their market with foreign goods (including high-tech ones). This led to tough competition between manufacturers of the innovative industries and foreign companies, the former having few chances to maintain any considerable high-tech market share without government support. The experience of the developed countries shows that actually in any of them there are companies taking well-established positions in high-tech industries. This makes the basis for high level of public wealth in these countries. In this context, Chinese experience is quite noteworthy, where high economy growth rates are largely due to development of high-tech manufacturing.

Therefore, creation of conditions for development of the EEU as an integration bloc is inseparable from conducting a policy oriented at innovative industry support. This strategic task should become the main target of the economic policy of the EEU for the decades to come. In our opinion, this policy should be based on large-scale subsidizing of high-tech industries, which should be financed from taxation of traditional industries, namely the commodity sector. The fundamentals of this policy is illustrated by the model below.

Let us assume that some abstract integration union strives to produce certain volumes of innovative products. Figure 4 shows the dependence of the necessary volume of investments (I) on the planned output of the innovative products. To simplify our reasoning, we assume that this function is linear. The amount of the necessary investments is determined by function $I(P_t)$, based on the capital intensity of the innovative products which sets the slope of the investment curve. Previously, the volume of investments necessary for manufacturing of innovative products was shown in Figure 2b (area of CKLQ rectangle).
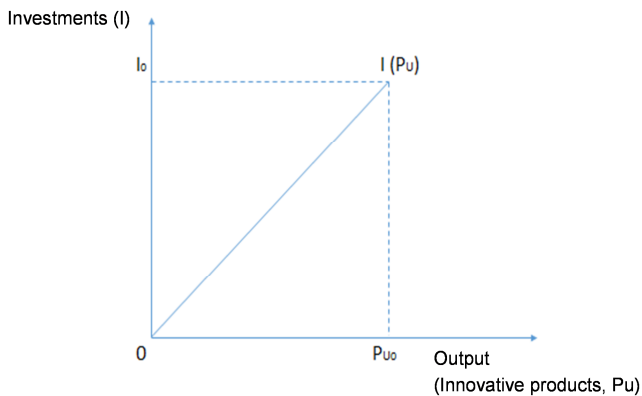

Figure 5. *Investments as a function of the output of the innovative products.*

Next, we determine the amount of budget revenue of the conventional economic union, which is necessary for maintaining investments in high-tech production (Figure 6).
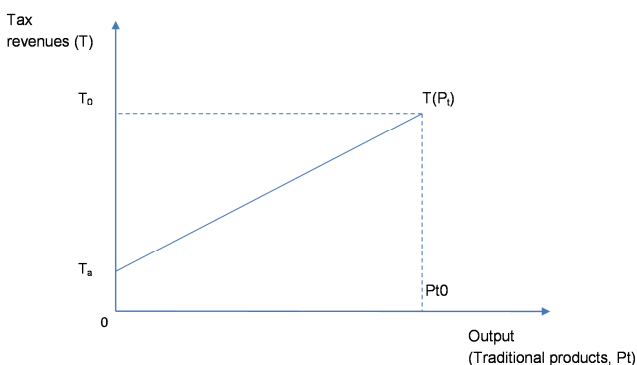

Figure 6. *Tax revenues as a function of the output of traditional products.*

In Figure 6, the tax function $T(P_t)$ is determined by the average taxation rate per ruble of traditional product. OT_a is the amount of taxes collected regardless of the output.

Let us compare incomes and expenditures on creation of

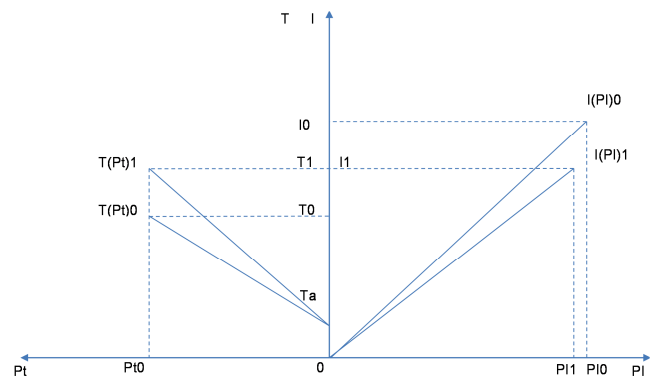the innovative sector of the economy (Figure 6).

Figure 7. *Correlation between tax revenues and investments in the innovation sector.*

From Figure 7 we see that the amount of planned tax revenues appeared to be lower than the investment requirements (T0 < I0). Then, one can, on the one hand, try to reduce the capital intensity ratio by economizing on the secondary qualities of the planned innovative products. Then function I (PI) 0 shifts to I (PI) position. On the other hand, one can increase taxation of the traditional sector, as well as by tightening measures against tax evasion and capital flight abroad It is evident from Figure 6 that marginal tax increase resulted in an increased tax levies at the amount of T1. When balancing the T1 and I1 values, it turns out that it is necessary to reduce the planned production of innovative products to the value of PI1.

A simplified and schematic variant of the alternative economic policy given in Figures 4, 5, 6 is based on the assumption, that in the conditions of the monopolized structure and market saturation, inflation targeting and bank interest rate management cannot be seen as the tools that can really lead to building high-tech productions in Russia and EEU countries. These tasks require target subsidizing of the innovative activities. This strategic task can be solved by more large-scale reallocation of funds within the EEU aimed at creation of target funds to support high-tech products. A relatively low GDP level of EEU members (as of the present time) assumes difficulties in looking for sources of additional taxation. Besides, Russia (and other EEU countries) faces a serious problem of capital outflow abroad, and any measures related to the increase of the tax rates can only aggravate it. Nevertheless, Russia and EEU countries do possess some capacities for modifying their tax system. For example, nowadays, taxation rates for high-income people in European countries are much higher than in Russia (table 3). A rise in the tax rates for the rich population will help not only in finding funds for financing the innovative projects, but also contributed in solution of the social differentiation problem. Besides, it is necessary to develop and implement a system of tax incentives for the enterprises investing in the development and creation of innovative products throughout the entire EEU.

Table 3. Taxation rates (%) for high-income citizens in selected European countries and in Russia for 2018.

Countries	Tax rate (%)
Belgium	53,7
Italy	44,3
Germany	45
The average for the Euro Zone	43,3
Russia (income tax)	13

Source: [14]

In the specific situation that we observe in the EEU today, this is the only policy that could get the EEU countries out of the technological lag, which will make their interaction within the EEU more beneficial than beyond the union. However, transition to this policy should be a stage process which might take more than one decade. Though, implementation of this very policy will finally justify the geopolitical meaning and significance of the creation of the EEU as a new integration bloc in the post-Soviet space and its possible expansion to Europe and Asia. Further expansion of the EEU will increase its resource base necessary for creation of innovative products.

5. Conclusions

The Eurasian Economic Union has existed since 2015. At present, its status is slightly fading taking on formal outlines. Integration processes within the EEU can gain new impulses only subject to real prerequisites for innovation development therein.

The historical structure of the economy of the EEU member states is inferior to developed industrial countries in terms of competitiveness. Currently, many enterprises registered on the territory of the EEU are inferior to similar foreign producers in terms of the quality of their products, primarily in high-tech industries. This is why transition to innovation development of EEU countries requires very large amounts of capital investments.

In the recent years, Russia has pursued an inflation targeting policy. In the current conditions, it does not allow to mobilize a sufficient amount of resources for radical changes in the economy structure, aimed at the development of the high-tech sector. According to the authors, this strategic task could be solved by coherent implementation in the EEU of the principle of administrative coordination, which, in particular, refers to the reform in the taxation system in order to find additional funds to develop innovative sectors of the economy.

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