

# *Tasks with conflicting conditions in terms of negative stabilization: the Dutch Disease and the Middle Income Trap.*

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**Abstract** — Russian economy has entered a depression by the end of 2013. This was the result of a combination of fundamental (middle-income trap) and market factors (depreciation of oil price and international sanctions) enforced by Dutch Disease. The economy found itself in a state of negative stabilization arising after a prolonged depression and leading to a stable equilibrium with a low state of indicators. Taking into account that current global economic trends require the new industrialization Russian economy has faced a number of tasks with conflicting conditions, such as changes in interest rates and changes in taxation, which do not contradict the preservation of budget stability on the one hand and the stimulation of growth on the other.

**Keywords** — *negative stabilization, resource dependence, Dutch Disease, The Middle Income Trap, Tasks with conflicting conditions, new industrialization.*

## I. INTRODUCTION

Geo-economic events of recent years have forced to think again about the prognostic ability of social sciences. International and national experts began to give their forecasts, most of which include expectations of quite sharp reversals in global economic policy: the usual world economic order will change. To describe such phenomena, abnormal and unpredictable current analytics with significant impact on life and quite simply explained retrospectively, there is a special category – “black swans”, introduced by N. Taleb [21]. Despite the relevance of such events for the Russian economy and the attempts to write off the observed negative dynamics, the root of the problems is different.

Among the contours of Russia's vulnerability today is increasingly called the middle income trap, which arose in

connection with the achievement of average per capita income, as well as its resource dependence, weakening the competitiveness of the economic model in the long term and concentrated in the “Dutch disease”.

For economic policy, it is important that the serious decline in our economy since 2014 is a consequence of its resource dependence and the middle income trap, or has this situation become a “black Swan” for us? In the first case, the solution will be technical: modernization, reindustrialization and diversification of the sectoral structure along with institutional changes. This is a long but clear path. In the second case, there will be a question of permanent readiness for such in the future. This will require significant resources, the excess of which is not available for the creation of reserves and their imprecise application.

The economic situation is aggravated by the need to solve all the problems in the conditions of the necessary transition of the Russian economy to the strategy of new industrialization. Without its implementation, The place in the global world may be lost without implementation of this strategy.

Macroregulators were facing the tasks with conflicting conditions that this combination of factors generated the crisis. In monetary policy, it is a decision on the interest rate: to stimulate the economy out of the crisis, it is necessary to reduce it, but to prevent a possible outflow of capital in the crisis, on the contrary, to increase it. In fiscal policy – decisions on tax exemptions: in the interests of economic growth, they should be reduced, but the fiscal stability implies their increase. Whether the totality of the above mentioned factors to stop the process of new industrialization?

## II. RESOURCE DEPENDANCE AND THE MIDDLE INCOME TRAP AS THE FIELDS OF RESEARCH

### A. *Theory of economic policy in resource-dependent countries: institutional deadlocks and the problem of reconciling interests.*

Many economists argue that the “Dutch disease” leads not only to the emergence of economic problems, but also entails serious institutional imbalances. The poor-quality institutions that are generated exacerbate the inadequacy of the economy's response to the crisis and make it difficult to get out of it. At the same time, such institutions are very stable, they become real institutional traps and even deadlocks. This problem, considered in the complex, was named “resource curse”: this term was first used by R. Auty [1] and developed by J. Sachs and A. Warner in the 90s [17].

Many studies are devoted to economic policy in resource-dependent economies, which have a number of features. First of all, it should be noted the work devoted to the analysis of the successful experience of Norway, which managed to overcome the risk zone of “Dutch disease” and implement a fairly liberal version of monetary policy, which does not generate any tendency to accelerate inflation, nor the tendency to hypertrophied expansion of the money supply, nor the tendency to excessive strengthening of the national currency [8], [19], [20]. However, the positive example of Norway is not representative and is of little use in other countries for institutional reasons. Many authors devoted to the issues of monetary regulation in resource exporting countries conclude that, in the end, the choice of monetary strategy is determined by the ratio of factors characterizing the dynamics of export prices and the share of domestic consumption occupied by imported goods.

The distortion of the institutional structure of the economy, which lead to failures of the effectiveness of economic policy is the most emphasized theme in the study of the features of the development of resource-dependent economies. As is known, the oil boom of 1973-1974 led to a surge in corruption, distortion of the ownership structure, increase in borrowing and, as a consequence, to serious damage to the public sector. The beginning of the research of this phenomenon was laid by A. Gelb [9], J. Sachs and A. Warner [17], [18]. The systematizer of the ideas of researchers in this field was R. Auty, who not only summarized the accumulated experience of studying the problem, but also added a significant contribution to its development [1], [2]. Based on the idea of the “Dutch disease”, outlined and justified by M. Corden: the authors show that the short-term economic surge arising on the wave of oil and gas revenues to the country leads to a gradual deindustrialization of the economy, deterioration of the quality of economic growth and, as a rule, to its slowdown, and even to a halt in the long term [4], [5].

In the medium term, even if oil prices remain high, the real exchange rate of the national currency is rising in the exporting countries and net exports are falling under the influence of the crowding-out effect in the open economy. The

impact of the positive price shock on the economy is gradually being exhausted by the loss of competitiveness of the non-commodity sector. This is what is called “Dutch disease”. In other words, the export of natural resources with the parallel substitution of domestic goods production by imports almost inevitably leads to a decrease in the real potential of the exporting country, weakening its economy. This is the general conclusion of most researchers.

The decline in oil prices in this situation in most cases leads to a sharp deterioration in the balance of payments and will create a high probability of a currency crisis and devaluation of the national currency in one of the scenarios formalized in the known models of currency crises by P. Krugman [13]. It is during periods of decline in world energy prices that currency and financial crises or a slowdown in economic growth and a decline in per capita income in oil exporting countries (Russia, Mexico, Venezuela, Nigeria, etc.) occur.

We should also note the works that substantiate the problems of resource-abundant countries not so much by the presence of a significant resource component in the structure of their economy, as by the inability to effectively dispose of the income received from it and effectively reinvest them. In particular, K. Brunnschweiler showed that many of the countries-economic leaders developed their economy in the conditions of high availability of resources a hundred years ago [3]. The resource abundance did not cause the consolidation of poor institutions and an obstacle to long-term economic growth for these countries.

Thus, the researchers come to the conclusion that resource availability does not necessarily lead to a “resource curse”: in order to avoid this, it is necessary to create a powerful industrial sector, which will develop the available resources, create new value added and ensure quality and sustainable economic growth. However, there are many pitfalls and poor-quality institutions that hinder sustainable development on the way to the formation of such an economy [10], [11].

Of particular note are the works of H. Mehlum, K. Moene and R. Torvik, in which the problem of “grabbering” as a specific institutional phenomenon, almost inevitably arising in a resource-dependent economy, is brought to the fore [15], [16]. The authors see the main cause of economic failures in the institutional weakness of the state, which is unable to form institutions focused on supporting the development of the industry (producer friendly institutions) at the early stages of development of resource deposits. In such an environment, poor-quality institutions that impede economic growth (grabber friendly institutions) are strengthening. These institutions realize short-term goals, understanding that over time the state can eliminate them. Therefore, their guideline is to monetize the utility of the available resources as soon as possible. Since the grabbers are stronger and more adaptive than the producers, their share in the economy is growing rapidly, which increasingly hinders the development of the latter. The economy is beginning to focus more on redistribution than on production. Moreover, as the number of “producers” decreases, “grabbers” are increasingly competing

with each other for the right to redistribute. This leads to armed conflicts and sometimes to civil wars (e.g. Nigeria, Angola). As a result, in the worst case, economic growth in such conditions becomes impossible.

In the end, resource-dependent countries implement a fairly typical economic policy of pumping the economy with money in the short term, hoping to make an economic breakthrough [14]. As a rule, they tend to restrain significant currency inflows during periods of high global market conditions, so as not to provoke inflationary surges (for example, Russia in 2002-2008). In the worst case, even this is not done, and the country simply enjoys super-profits from resource exports in years of high market conditions and also suffers from “Dutch disease” when the market falls (e.g. Venezuela).

That is, in most cases, macroeconomic policy simply sterilizes excess liquidity in the economy. Meanwhile, we need a structural industrial policy and a new industrialization capable of directing export revenues to investment and development of promising sectors of the economy (Norway, UAE). But in most countries, as mentioned above, this is hampered by rapidly consolidating substandard institutions. And, therefore, to achieve the strategic economic goals it is necessary to look for other ways.

#### *B. Ongoing research of the middle income trap*

While the deindustrialization of the resource-dependent economy is largely a consequence of the “Dutch disease”, the causes of the middle income trap are more fundamental. The middle income trap is a period of sharp and prolonged economic slowdown that inevitably falls into as the average level of well-being is achieved.

In the B. Eichengreen, it is shown that all countries, quickly reaching the average level of income per capita (\$16000 in 2005 prices), dramatically slow down, they find themselves in a state of stagnation, if not sink into recession [6]. At the same time, growth could be qualitative - due to industry and technology, or wealth came with high oil prices. Quickly reaching a ceiling of growth, the country is not able to change the structure of its economy and to replace exhausted their potential development model. In the economy, there is an excess of factors of production from the previous model, leading to a drop in productivity in the new conditions. After several years of stomping in the trap (according to research - up to seven) should be a period of long recovery, the success of which is not guaranteed – the country can remain trapped.

Getting out of the trap is difficult. Capital productivity is declining, the factor of new technologies is practically not working, the state is confused, the level of inequality is growing, which prevents the economy from returning to growth. According to the hypothesis of S. Kuznets, income inequality is acceptable at the initial stage of economic growth, then it either begins to decline (in successful countries), or slows economic growth. The results of the research of B. Eichengreen say that the high quality of exports and human capital reduces the risk of deepening the traps,

resource dependence increases them. A number of economists see the essence of the problem in the exhaustion of sources of cheap growth.

Using more detailed data B. Eichengreen pointed out that trapped the country fall twice, once on the \$11000 per capita, and the second for \$16000 [7]. In 2007-2008, Russia has already passed the trap, but all ended well after the shock of the crisis of 2008-2009 (when growth stumbled, while the real income is not affected). There are observations that countries with a large share of technological exports are less susceptible to a slowdown. Help this high-quality human capital. In addition, even statistics show that it is easier to grow from a low base to an average level than from an average to a high one.

V. Inozemtsev describes the trap as a situation “when the growing welfare of the population makes wages too high for the country to be able to compete with less developed countries at their expense, but there is not the right amount of enough skilled workers to compete with more developed ones. In other words, people want to earn as in a developed country, and they are able to work only as in a developing country” [12]. This is combined with the behavior of the elites, who get used to the period of rapid growth to super-profits, are not ready to limit themselves, increase inequality and shift the severity of the crisis reduction to the middle class (this is an institutional problem).

Economists point out that one of the key tasks that arise in the state of the trap is to restore productivity growth. In the studies of Eichengrin, the rapid growth before the shutdown in most cases was provided by the explosive increase in the “total productivity of factors of production”, and in the main, by the expansion of the labor market. This can be caused by technological changes, urbanization, accompanied by a massive flow of labor to more efficient sectors, improving the quality of human capital due to the growth of the level of education in the country. The subsequent stop is caused by a sharp decline in productivity growth. This can happen, for example, because of a technological shock (due to the inability to quickly master more complex technologies that allow to increase productivity further) or because of the exhaustion of the reserve of cheap labor.

Traditionally, the authorities are trying to start the growth of labor productivity through increasing investment, tax maneuvers, the restart of the policy of “new industrialization” on new technologies. As world experience shows, important changes in the system, such as the fight against corruption and bureaucracy, the modernization of institutions, the elite resist. But the state can push them with reforms from above, which, as world experience shows, is the most profitable scenario.

Thus, dynamically growing economies slow down at some point due to the exhaustion of simple ways to increase productivity to the level of developed countries. It is times when the economy can no longer rely on technological borrowing and simply copying good practices or, for example, reallocating resources from low-productivity agriculture to higher-productivity that become the middle-income trap. It is becoming increasingly difficult for the country to maintain

high growth rates, and eventually it stops. Russia fits well into this theory. Economic growth in 1999-2008 was supported by import substitution, a boom in commodity prices and capital inflows. Real GDP has almost doubled. There was a significant increase in productivity, which was, among other things, a consequence of the presence of significant unused resources left over from the time of large reforms, which were redirected to more productive sectors of the economy. It is obvious that such problems only aggravate the economy going on the way of new industrialization. However, their failure to address the strategy puts the development at risk.

Thus, from an institutional point of view, the trap means that the economy is stuck between the two models of development. Given the reluctance of elites to change the situation, the only way out of the trap is the development of education and the service sector, that is, areas in which rapid growth and significant employment are possible. In all likelihood, it is in this way that the Russian economy will slowly move. But we must understand that the way out of the middle income trap, although it will eliminate one of the fundamental problems of our economy, will not solve all the issues at once.

**III. GRAPHIC DYNAMICS**

This work opens a series of studies, the ultimate goal of which is to build a model of macroeconomic policy, which will be able to solve the problems with conflicting conditions that have arisen before the Russian economy and prevent the recovery of economic growth. At the moment, we will try to clearly justify the situation in which the economy was in order to further simulate the likely scenarios. To do this, we use graphical analysis tools.

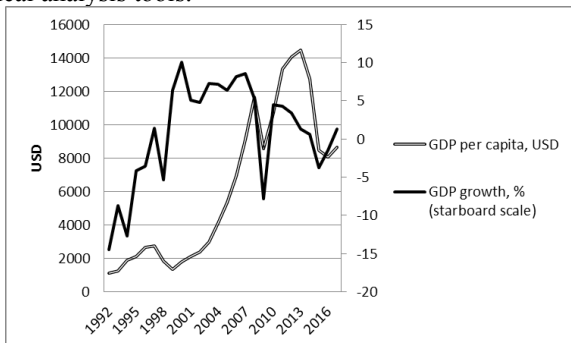


Fig. 1. Comparative dynamics of GDP per capita and GDP growth rates in 1992-2017.

In fig. 1, we clearly see an unstable trajectory of the Russian economy approaching the state of the trap. The observed dynamics indicates an explosive growth of the critical indicator for the trap, which could not but affect the future state of the economy. At the same time, the interval of the first entry of the Russian economy into the trap in 2007 is also noticeable. Here we see that a significant decline in GDP per capita, which was largely due to the depreciation of the ruble in 2014, did not lead to the exit of the economy from the trap, leaving it in a depressed state.

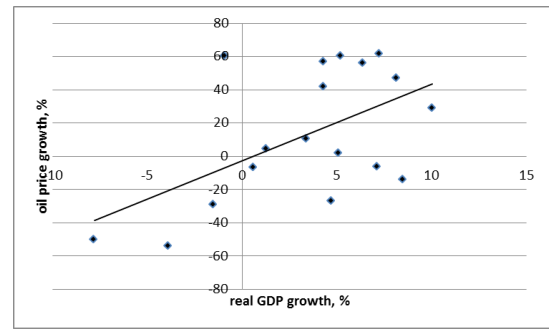


Fig. 2. The ratio of GDP growth and the rate of change in world oil prices in 2000-2017.

Figure 2 compares the rate of economic growth and the dynamics of world oil prices to see their correlation. At the same time, it is clear that the recovery of oil prices in 2017 did not return the economy to growth. It is noticeable that the maximum growth rate of GDP was observed just at low oil prices, however, the economic recession has always occurred against the background of cheap oil. This suggests that the recovery of once important economic parameters (such as oil prices) will not in itself lead to a recovery in growth rates without significant changes in the economic model itself. The current economic model no longer responds to the previous positive signals. This once again confirms the imbalance of the previous economic model by the middle income trap. The driving forces of growth are no longer here.

Figure 3 shows a fairly strong correlation between labour productivity and oil price dynamics, which also indicates a serious resource dependency and a worsening of the middle income trap.

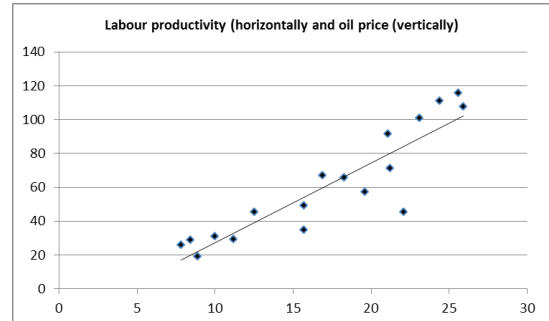


Fig. 3. The ratio of labor productivity dynamics and the rate of change in world oil prices in 2000-2017.

Finally, Figure 4 shows the mutual dynamics of per capita income and productivity. The configuration of this chart confirms the critical importance of the latter for sustainable economic growth. These are fundamental figures that show that the way of new industrialization is the single right way for Russian economy. The success of economic development in the modern world is largely determined by the achieved productivity, which is critically insufficient today.

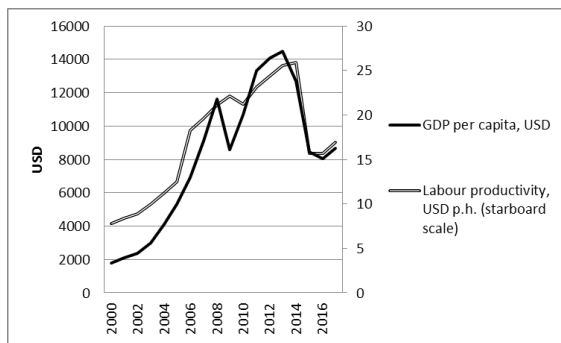


Fig. 4. Dynamics of labor productivity and GDP per capita in 2000-2017.

Thus, the set of formed empirical regularities accompanying the current development of the Russian economy is clearly revealed by the analysis of graphical dynamics, which in the future can serve as a basis for building a model of macroeconomic policy.

#### IV. LOGISTIC MACROECONOMIC POLICY IN CURRENT ENVIRONMENT

The results of the primary graphical analysis allow us to formulate theses that determine the reasons for the current state of the Russian economy and are of practical importance in terms of developing specific actions to bring it to growth.

The first of these reasons is the formed heavy resource dependence of the economy. Despite the occasional claims about the growing diversification of the economy, and that the quotes of the Russian ruble are less responsive to changes in oil prices, this problem remains acute. The fact that the same oil prices were accompanied in different years by different rates of economic growth and different budget conditions, again, does not speak in favor of the qualitative changes that have occurred in the country's economy in the last decade. Resource dependence has increased, making it impossible to maintain decent growth rates at moderate oil prices, which until recently was enough for a rapid economic recovery. The dependence of the state of the budget on unmanaged oil prices leads to decisions by the authorities to compensate for falling revenues by increasing the tax burden on the private sector, which reduces disposable incomes and reduces aggregate demand at the very moment when the economy needs them most to support growth.

Despite the fact that the emergence of the stabilization Fund in 2004 removed the primary symptoms of the “Dutch disease” from the economy, the “carrier” was the state, which fell into the budget dependence on oil prices. Taking into account the above-mentioned thesis about the non-working previous economic model in the conditions of non-diversified economy and dwindling reserves, the authorities have, in fact, only one tool to maintain nominal budget revenues. These are equalizing devaluations, which are able to stimulate recovery growth through real import substitution, but only after the preliminary collapse of real incomes. This makes the immediate Outlook for the economy very bleak, because even without it, real disposable income is declining for the fourth consecutive year, dragging down consumption-the largest

component of aggregate demand. All of this calls into question the prospects for a rapid recovery in economic growth.

Based on the analysis of the dynamics of the selected indicators of the Russian economy, we put forward the hypothesis that the fundamental reason for the slowdown in economic growth in Russia at the end of 2013 was the fall of the economy into the trap of average income. In this situation many countries and international experience tells us that competent management of the economy allows to overcome the trap of three years. In our case, the trap was exacerbated by the exhaustion of the potential of the old model of development, as well as the inability to diversify and escape from resource dependence. Finally, a number of decisions of the authorities led to the emergence of an unfriendly economic growth of the foreign market background.

We can see that the new industrialization is able to solve a number of economic problems, as well as the solution of these problems will contribute to the success of reindustrialization. Thus, there is a reflexive system with positive feedback. And this is a serious challenge for economic policy.

Due to the limited time period, which is advisable to analyze, we have insufficient number of observations to build a good mathematical model or for qualitative regression. Therefore, striving for maximum argumentation of conclusions, we will rely more on Analytics.

So, the Russian economy faced two difficult problems. She also got into the middle-income trap and in the trap of deindustrialization, losing at the same time and the growth rate of the industry. Next, we consider the causes of the current stagnation to confirm or refute the proposed hypothesis.

#### V. CONCLUSION

Russia's transition from a middle-income economy to a wealthy economy depends on the consistent implementation of sound macroeconomic policies and high levels of investment. As noted above, the middle-income trap means that the economy will no longer be able to rely on replicating the good practices of rich countries or increasing productivity by moving additional labor. In order to break the trap, the country will have to rely on higher investment rates as part of the evolutionary transition to an updated development model. And to do this, the monetary authorities need to provide the country with affordable funds, which is now hampered by the desire to maintain a stable exchange rate of the national currency.

Thus, economic regulators are faced with a serious challenge with conflicting conditions: to restore economic growth is necessary, first of all, stimulating monetary policy, combined with import-substituting growth through devaluation. However, all of this runs counter to the credibility of current achievements: exchange rate stability and low inflation. In the long term, the current economic model does not allow combining a stable currency and high growth rates.

Society, as well as the economic authorities are interested in solving these problems, which will pave the way for sustainable development in the framework of the strategy of new industrialization.

The economic authorities do not have much time to make a decision, because the world economy, and with it the economy of Russia, live in conditions of regular appearance of “black swans”, and, as a rule, non-positive. Postponing the recovery of economic growth increases the price that society pays for solving fundamental economic problems.

There is little doubt that the economic authorities will ultimately focus on promoting long-term sustainable economic growth at the expense of inflation and a stable exchange rate. This means that in the very near future we expect a fairly noticeable depreciation of the ruble, acceleration of inflation and economic growth, similar to our experience in 1999-2008, albeit less modest in the absence of such a large stock of idle capacity, which we relied on in those days.

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