

# The current state of the petroleum industry and the problems of the development of the Russian economy

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**Abstract.** In the article features of resource-raw development of the Russian economy for the period between 2000 and 2014 have been considered. The main features of the resource-raw development of the Russian economy at the present stage have been analyzed. The basic principles of the transition of the Russian economy to a resource-innovative development trajectory have been formulated.

## 1. Introduction

Favorable conjuncture of the world energy markets combined with the presence of an internal potential for the development of the oil and gas complex in the 2000s and the early 2010s provided a significant increase in the role of oil and gas revenues in the Russian economy. The growth in revenues from oil and gas exports with a simultaneous strengthening domestic currency discouraged structural reforms that could diversify the economy, which led to the formation of a resource-inertial model for the development of the Russian economy. Such a development model has a complex of both positive and negative consequences. Generally, positive impact, as a rule, has a more short-term manifestation, whereas negative factors have an increasing influence over time. The main result of the formation of the resource-inertial model was the development of resource-producing and export-oriented industries and the hypertrophied consumer sphere against the background of a significant inflow of income from hydrocarbon exports. At the same time, the high-tech sector, engineering and processing industries did not receive sufficient development. In fact, in the period of high oil prices, there was no incentive to structural reforms in the economy, capable of carrying out its diversification. To a considerable extent, there was no significant investment process in the economy at an essential level of imports of final products, the share of which reached about 70 % in the structure of final consumption of goods and services.

Since 2014, the period of a new economic reality has come, a period of low oil prices and an active reduction of oil and gas revenues in the economy. In these conditions, the issue of the budget deficit, the shrinking balance of payments, and the reduction in the volume of sovereign funds is acute. The reduction of real incomes of the population leads to a narrowing of the consumer sector, which causes a drop in basic macroeconomic indicators.

## 2. Methods of research



The methodological basis of the study is a set of methods of comparative historical analysis of the economic dynamics of the country's economic development. The article considers the current economic situation in Russia and the peculiarities of the impact on it of the oil and gas complex using general (analysis, synthesis, deduction, induction) and private methods (statistical analysis, economic evaluation, retrospective-perspective studies) of scientific research.

As the basic indicators of the modern economic system in Russia, the parameters of the Russian budget system, the indicators of the state's balance of revenues, including export revenues and savings in specialized funds, have been selected for the study.

### 3. Results and discussion

#### 3.1. Features of resource and raw materials development of the Russian economy over the period between 2000 and 2014

*The emergence of resource-inertial development.* In the 2000s, in the first half of the 2010s, two main factors contributed to the emergence of a resource-raw material trajectory for the development of the Russian economy. They are an external one that means a favorable conjuncture of the world's raw material markets and an internal one, namely, the availability of resource and raw materials for increasing production and export of raw materials (figure 1).

Since the early 2000s the improvement of the conjuncture in the international energy markets has become a powerful stimulus for the development of the internal factor for the emergence of resource and raw materials development, i.e., the restoration of production and export of hydrocarbons from Russia. As a result, since the early 2000s the production and export of oil in Russia has almost doubled. During the same period, exports of petroleum products more than tripled (table 1) [3 - 4].

**Table 1.** Oil and gas extraction and export from Russia 1995-2013.

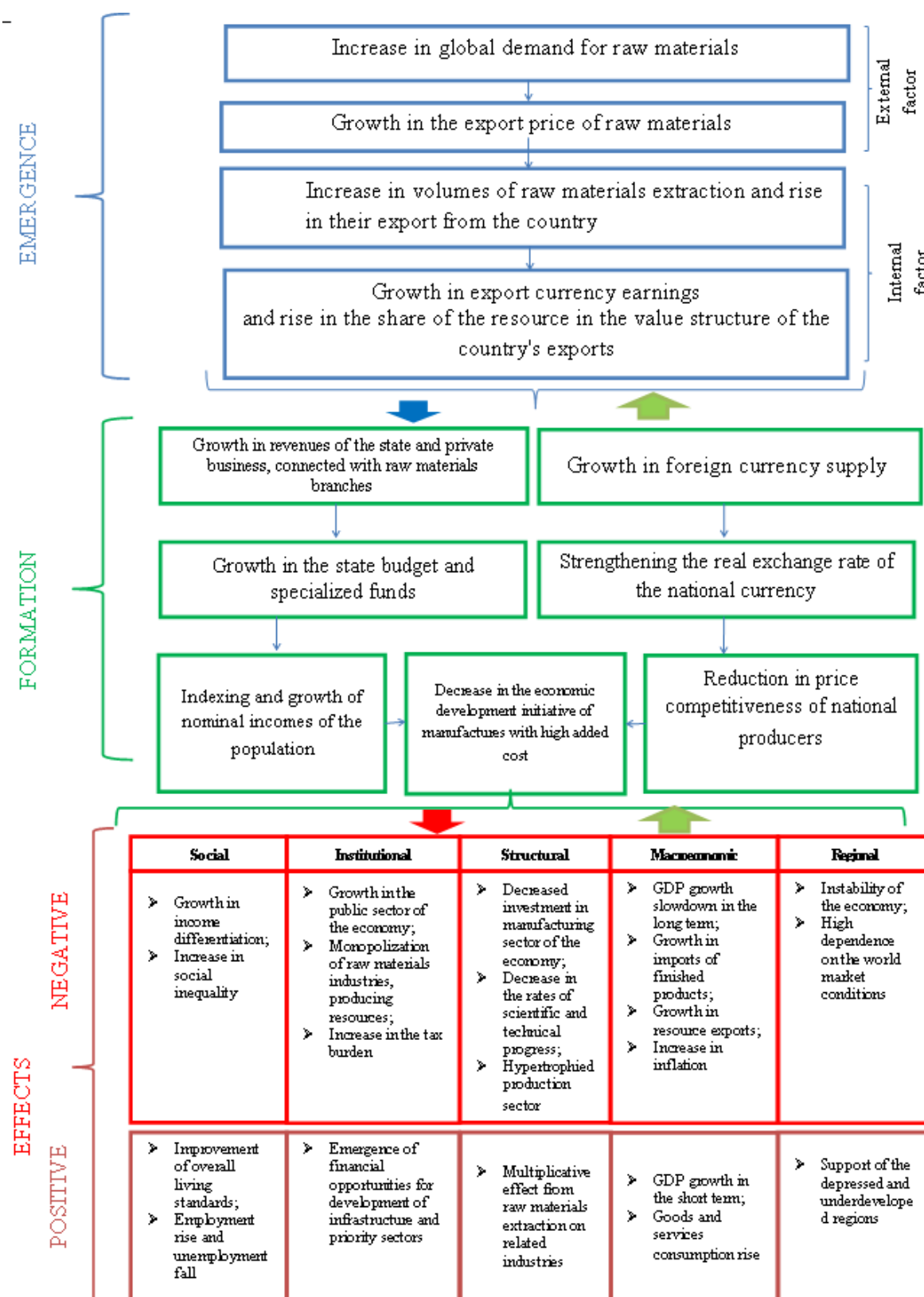
	1995	2000	2005	2010	2011	2012	2013
Extraction							
Oil, million tons	307	323	470	505	511,4	518	523
Petroleum products, million tons	131	125	149	175	181	182	188
Gas, billion cubic meters	595	584	641	650	671	654	668
Export							
Oil, million tons	122	144	253	244	241	240	237
Petroleum products, million tons	45	63	97	131	125	138	151
Gas, billion cubic meters	192	194	209	178	190	186	203

\*Sources: Fuel and Energy Complex of Russia // Fuel and Energy Complex of Russia, No.1, 2000-2013; Summary indicators of energy resources production in the Russian Federation // Info Energy, No.1, 2000-2013.

The bulk of the increase in hydrocarbon production was exported. The growth in the volume of hydrocarbon supplies to world markets stimulated the rapid growth in the construction of transport infrastructure. Large oil (BPS-1, BPS-2, ESPO-1, ESPO-2, etc.) and gas (Blue Stream, Nord Stream, South Stream, etc.) export channels were formed [5].

In conditions of growth in extraction and export of raw materials, issues related to the reproduction of the raw material base, efficient processing and the skilled use of raw materials (crude oil, associated petroleum gas, high-condensate natural gas) were unsatisfactorily solved, which points to the resource-inertial trajectory of development in the raw materials sectors themselves.

*Formation of resource-inertial development.* The increase in extraction and export of raw materials against the backdrop of high world prices for hydrocarbons, which is the basis of resource and raw materials development, has led to several major multidirectional trends:



**Figure 1.** Scheme of the stages of emergence, formation and effects of resource-inertial development under favorable conditions of international energy markets.

- growth in state revenues, replenishment of the federal budget and specialized funds, which potentially creates favorable conditions for carrying out a set of measures that have a positive impact on economic development (table 2);
- an increase in the supply of foreign currency on the domestic market led to a strengthening of the real exchange rate of the national currency. As a consequence, in conditions of an overvalued national currency, domestic goods “lost” in price competition to foreign counterparts, both on domestic and international markets; this led to a number of negative effects destroying the country's economic potential;
- rapid growth in revenues from raw materials exports has another effect; there is a “sense of well-being”, leading to a reduction in the economic initiative to differentiate the structure of the economy, and to develop processing industries characterized by the release of products with high added value.

*Effects of resource-inertial development.* The resource and raw materials development with a favorable conjuncture in the world energy markets and the availability of opportunities for a significant increase in the volume of raw materials for export leads to an increase in state and business incomes related to extraction and export, as well as related industries, consumer and service sectors. This undoubtedly gives a powerful positive effect in the area of raising the living standards of the population, increasing employment and reducing unemployment, which causes an increase in consumer demand, the volume of the domestic market for goods and services. In the short term, this leads to an increase in GDP and industrial production and contributes to the accumulation of funds and reserves that can potentially be used to carry out structural reforms in the economy, supporting priority economic and social programs [6, 7, 8, 9].

**Table 2.** Indicators characterizing the role of hydrocarbon resources in the Russian economy, 2000-2016.

Indicator	2000	2005	2008	2011	2012	2013	2014	2015	2016
The share of petroleum industry in the gross added value of industries (constant prices)	no data	no data	no data	32	31	31	31	31	31
The share of petroleum industry in the gross added value of industries (cost related prices)	no data	34	31	37	38	39	37	34	33
Share of oil and gas revenues in the federal budget, %	no data	42	47	50	50	50	51	44	36
Share of hydrocarbons in the total value structure of exports, %	50	62	64	69	67	67	66	59	53
Share of investments in petroleum industry in total investment, %	no data	13	13	14	13	14	15	18	20
The volume of the Stabilization, Reserve and National Welfare Fund, billion rubles.	no data	1237	6612	3606	4576	5760	9334	8868	5331
The volume of international reserves, billion dollars.	35	125	479	479	499	532	510	368	378

\*Source: Rosstat, Treasury of the Russian Federation

### 3.2. Features of resource and raw materials development of the Russian economy at the present stage

The fall in oil prices in 2014 and up to the present time has led to a significant deterioration in the main macroeconomic indicators in the country. It is worth noting the change in income coming from the oil and gas complex during the crises from 2015 to 2016. Over that period the share of oil and gas revenues in the structure of the federal budget fell by 30 % to 36 %, thereby causing a significant deficit. At the same time, the exchange rate and the increase in the rate of oil and gas taxes provided a significant compensating effect on budget revenues in rubles.

The main problematic area of the Russian economy is a tremendously low volume of investments. If the share of investment in the Chinese economy is about 50 %, then half of the total surplus produced is returned to the economy in the form of investment. In Russia in recent years this indicator has varied in the range of 19-24 % in the GDP structure. The lack of modernization of the existing industries, not to mention the large-scale extended reproduction, leads to the stagnation of the mono economy.

## 4. Conclusions

At present, the main problem area of the Russian economy is a tremendously low volume of investments. The lack of modernization of existing industries, not to mention the large-scale extended reproduction, leads to the stagnation of the resource mono economy. Structural reforms in the economy should concern, first of all, the investment sphere. Modernization of economic sectors should be carried out first of all in raw materials and related industries. It is necessary to change the paradigm of subsoil development and implement the transition from an extensive development path to an intensive one to ensure sustainable economic development on the basis of increasing technological development while building production and technological chains with the production of high added value products. In this connection, it is necessary to identify the opportunities for the formation of extensional specialization in resource-type regions, to develop the basic principles when choosing the innovative technological extensional specialization of resource regions.

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