
REGIONAL ECONOMY

© T.V. POGODAEVA, D.A. ARTYUKHOV

lsim@utmn.ru

UDC 332.14

THE STRUCTURAL FEATURES OF THE ECONOMY OF THE YAMALO-NENETS AUTONOMOUS DISTRICT*

ABSTRACT. The oil and gas sector of the Yamal-Nenets Autonomous District provides a sustainable socio-economic situation not only for the region but also for the whole country. It is a source of financial resource accumulation needed for the implementation of Russia's transition to innovative development. The problem of accelerating oil and gas development in the region has become especially acute in view of the fact that at present there are no large deposits which could offset the decline in production of hydrocarbons in traditional commodity areas. Under these conditions, oil and gas will continue dominating in the economy of the Yamal-Nenets region in the long term. Increasing raw material export specialization in the region poses a particular strain on the structure of the economy of extracting regions. On the basis of statistical analysis, this article shows the effect of the oil and gas sector on the socio-economic development of the Yamal-Nenets autonomous region and its importance for the development of other sectors of the regional economy, identifying the risks and prospects of the current model.

KEY WORDS. Oil and gas sector, model of socio-economic development, budgetary sector.

The model of socio-economic development of the Yamal-Nenets Autonomous District (hereinafter: the Yamal) is resource-based. Formation of the model took place as part of the planned economy system; the transition to a market economy has not changed the regional specialization. Production and transportation of resources form the basis of the regional economic complex. The goal set by the President of the Russian Federation of weakening the commodity dependence of Russia through technological modernization and accelerating the national economy's innovation development cannot change the paradigm of social and economic development of the

* The article is written in the frame of a Federal programme 'Scientific and educational staff of the innovative Russia' for 2009-2013 on the topic 'The development of innovative region management techniques, based on the usage of social-economic development indicators and techniques approbation in Tyumen Region', ГК 14.740.11.1377

Yamal-Nenets Autonomous District, as this autonomous region has unique resources of hydrocarbons, the effective development of which is of national importance.

Raw material export specialization creates a special strain in the economic structure of extracting regions that can be described as a special form of «Dutch elm disease» related to a number of specific threats to their development [1].

Structural imbalances in the economy of export-oriented resource extraction regions, folding in the face of rising global commodity prices, are well-described by the model of a rapidly evolving sector [2]. The main conclusions of the model for the region with a dominant commodity sector are as follows. The appearance of a fast-growing sector in the economy of the region leads to two types of effects: the effect of resource flows and expenditure effect. As a rule, in resource extraction regions growth in the mining sector has an impact on the regional economy through the effect of expenses. So, if part of the profits of the commodity sector in the region is spent directly by oil and gas companies, or indirectly through government taxes, it leads to accelerated growth of the oil and gas sector as well as the purely public sector. These theoretical constructs were fully confirmed by the global financial and economic crisis of 2008-2009.

The oil and gas complex (OGC) is a basic economic sector of the Yamal-Nenets Autonomous District: gas and oil form the main economic specialization of the region. OGC provides the bulk of the gross regional product and the flow of investment into the region, determines the budget situation, the system of settling, and the structure of exports (Table 1). OGC dominance in the regional economy is even more important in view of its associated sectors (construction and transportation). So, in 2010, OGC Yamal and its associated sectors ensured 70,72% of the gross regional product and 81,4% of tax revenues at all levels of the budget system of the Russian Federation. Taking into account the resource potential of the region, we believe that the dominance of OGC in the country's economy will continue in the long term.

Table 1

The basic sector share of the regional economy in the main indicators of socio-economic development of Yamal, 2005-2010, %

	2005	2006	2007	2008	2009	2010
Share of GRP	61,3	59,3	53,6	52,2	47,6	48,3
Share of tax deductions at all levels of the budget system of the Russian Federation	77,6	77,1	82,9	81,3	76,3	75,2
Share of investment in fixed assets	73,1	70,1	70,8	61,4	58,4	60,2
Share of the population living in company towns, which is the main specialization of oil and gas production	61,9	61,9	62,0	61,9	61,9	60,8
Share in the total exports of the region	99,9	99,6	97,5	97,7	97,1	96,2

* Calculated from data in the collections: Indicators of national accounts in the Tyumen region (2006-2010): Stat.sb. / territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2012, 54 p.; Investments in the Tyumen region (2006-2010): Stat. Sat / territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2011, 201 p., Demographic Yearbook (2007-2011): Stat. Sat in four parts. Part 3 / territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2011, 235 p.; Results National Population Census 2010: Stat. Sat in 10 parts. Part 1. Population and its placement in the Tyumen region / territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2012, 93 p.; Russian Regions. Socio-economic indicators. 2011: Stat. Sat / Rosstat. M., 2011, 990 p.; Reporting NRF Report (Form 1-HOM) of tax payments in the budget of the Russian Federation on the main economic activities.

The oil and gas industry in the economy of Yamal is the only globally competitive sector, reflecting the structure of the region's exports. Thus, in 2010 the proportion of OGC in the sectoral structure of exports amounted to 96, 2% of total exports of the autonomous region.

In YaNAO the domination of OGC formed the two-sector model of the regional economy. OGC forms the base, the main sector, and other industries the «Non Basic Scenario» sector, dependent on OGC. Economies that function within the resource-based model are characterized by a direct relationship with the price of hydrocarbons on the world market. The «Non-basic» sector is usually dependent on regional budget revenue from the base sector. The Basic sector during increase in hydrocarbon prices, by attracting additional investment and labor, changes the structure of the regional economy in the direction of even greater dominance of OGC. In a period of falling prices, the basic sector begins to optimize capital and operating costs, which is reflected in a reduction of the number of employees and curtailing of investment programs. Laid-off workers tend to find an equivalent job, and often cannot move out of the district, which in a crisis period always increases the migration mobility of the population.

The «Non Basic Scenario» sector, except paired with basic sector industries, includes a budget sector. The budget sector in a resource-based economy is entirely dependent on the state of the basic sector, which forms a large proportion of the revenue of the regional budget. Paired with OGC industries included in the «Non Basic Scenario» sector, they are also heavily dependent on the state of the basic sector, because, as a rule, they offer various services (transport, construction, exploration, oil and gas processing, etc.).

In the Yamal-Nenets Autonomous District, the budget sector is characterized by high security. An exclusive role in the economic structure of an OGC autonomous region determines the strong dependence of the budget on the state of oil and gas. During the growth of income in the public sector through OGC, budget redistribution usually swells.

Thus, the development of OGC determines the proportions of the regional economy and the scale of its diversification. For example, an increase in tax revenue from the sector is a basic condition for the growth of capital expenditure in the social sector, housing and utilities, housing and road construction, agriculture. An increase in OGC provides growth in the capital expenditure budget.

A reduction in revenue of the basic sector due to by lower hydrocarbon prices is reflected in the public sector, primarily through a reduction in public investment. This dependence was found in the Yamal economy in the global crisis of 2008-2009. According to the Ministry of Regional Development of the Russian Federation [3], at the beginning of 2009 most federal subjects adjusted the parameters of the budget for 2009 in the aftermath of the financial crisis. The crisis of 2008-2009 was much less dramatic for the budget sector of Yamal than industries in such «non-basic» sectors as construction, transportation, geological exploration. In the public sector during the crisis, the main activity of the organizations funded by the budget was at a reasonable level. Therefore, in the public sector during a crisis employment usually persists, but in market services it is significantly reduced. An intersectoral resource-based model of social and economic development of Yamal is shown in Table 2.

In 2009, as a result of lower prices for hydrocarbons and the related decline of oil and gas in the Yamal-Nenets Autonomous District, the revenues of OGC decreased to 93,1% compared to 2008. Revenues associated with the autonomous region OGC industries decreased in proportion to the fall of the revenue in the base sector. The average number of employees of organizations in the sectors «extraction of fuel and energy resources» and «construction» decreased in 2009 more than in the economic activity «health.» Thus, during the crisis of 2008-2009 contraction of the Yamal economics public sector was minimal amid significant recession in the regional OGC and its associated industries.

Table 2

**Intersectoral resource-based model of social
and economic development of Yamal, 2007-2010**

	2007	2008	2009	2010
The price of oil, \$ / bbl	69,3	94,4	61	78,2
Revenue of the basic sector at current prices as a percentage of the previous year	110,2	119,0	93,1	111,1
Consolidated budget revenues at current prices as a percentage of the previous year	109,8	125,4	99,8	120,3
Revenue associated with the basic sector industries (construction, transport) in current prices, percentage change	114,2	144,0	93,8	116,3
Government expenditure on education, health and sports, current prices, as a percentage of the previous year	120,4	103,5	98,9	118,6
Average number of employees of organizations by kind of economic activity «extraction of fuel and energy resources» as a percentage of the previous year	105,7	99,1	95,9	99,8
Average number of employees of organizations by kind of economic activity «building» as a percentage of the previous year	118,3	101,4	93,9	96,8

Average number of employees of organizations by kind of economic activity «health» as a percentage of the previous year	100,6	99,4	100,0	101,7
---	-------	------	-------	-------

* Calculated from data in article collections: Indicators of national accounts in the Tyumen region (2006-2010): Stat.sb. / Territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2012, 54 p., Regions of Russia. Socio-economic indicators. 2011: Stat. Sat / Rosstat. M., 2011, 990 p., Labor and Employment in the Tyumen region (2007-2011): Stat. Sat / Territorial body of the Federal State Statistics Service of the Tyumen region. Tyumen, 2012, 230 p.

Socio-economic development in the Yamal by 2020 and 2030 is projected in the resource-based model, which is due to the unique resource potential of the region. Under this model, the parameters of the budget sector must be optimized. The idea of optimizing the public sector is based on the prediction of conservation within the period of high prices for hydrocarbons. Therefore, taking into account the basic laws of the relationship and the «non-basic» sectors suggests that under future conditions unjustified swelling of the budgetary sector of the regional economy is likely. High budget revenues should be transformed into modernization and innovative development of the Yamal budget sector, which involves increasing the efficiency of budget spending and structural reforms.

REFERENCES

1. Zabelina O. Russian Specificity of the «Dutch Disease» // Problems of Economics. No. 11. 2004. P. 59-75.
2. Mihjeeva N.N. Problems of the Development of Resource Regions and Evaluation of their Role in the Russian Economy. Russian Economic Congress 2009, Moscow, 7-12 December 2009. URL: <http://www.econorus.org/consp/files/4b26.doc>
3. Report on the Socio-economic Situation of the Russian Federation Subjects in May 2009 // The official website of the Ministry of Regional Development of the Russian Federation. URL: www.minregion.ru