

## **THEORETICAL ASPECTS OF INNOVATIVE DEVELOPMENT IN CONDITIONS OF ECONOMIC MODERNIZATION: TENDENCIES, ANALYSES AND FUTURE OPPORTUNITIES**

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The article reveals the essence of modernization and its high relevance. The authors study world experience of economic modernization and its features in various countries, factors influencing it and principles providing efficient modernization of national economies. The article analyzes the theoretical evolution of scientific concepts dedicated to economic modernization. The article elaborates on the models of economic modernization used in international practice, their criteria, classification, general and specific features of functioning. The article reveals the necessity and problems of economic modernization in Uzbekistan. The Strategy of actions on five priority directions of development of the Republic of Uzbekistan in 2017–2021, considers improving competitiveness of national economy by means of deepening structural transformations, modernization and diversification of its leading industries as the main direction. The authors also analyzed the profitability indicators on the example of some enterprises of different industries and the role of technological progress in production. Sustained economic growth in the world practice of the majority of the developed countries is provided on the basis of innovative factors, by implementation of the program of modernization of national economy and its structural transformations. Developing countries perform a transition to a way of innovative progress on the basis of modernization of economy and diversification of its components. Adoption of a project of modernization of social and economic development of the country is followed by a strategy covering the industry, investments and innovative policy. The object of the research is the economic modernization, innovative processes, trends and prospects of economic development of the CIS countries. The subject of the research is a complex of economic relations arising during the development and implementation of the National Economy Modernization Program. The purpose of the research is development of systematic scientific proposals and practical recommendations aimed at further improving the theoretical foundations of the modernization models of the national economy and increasing the effectiveness of its implementation mechanism. Tasks of Research. describe and classify the modernization of economy as an economic category; research and development stages of scientific concepts of modernization of the economy; analyze the essence, necessity, principles, features and factors of modernization of the economy; classification of economic modernization models by their criteria and their general aspects; studying the experience of applying modernization models used in the world economy and elaborating scientific proposals and practical recommendations on the use of Uzbekistan in practice; development of the priorities of the Uzbek economy's modernization strategy and transition to innovative development; elaboration of alternative scenarios for the acceleration of transition to the modernization of the national economy and the transition to the innovative development in the long term. As a result of the research, the authors present their own definition of modernization of economy as an economic category. Uzbekistan displays modernization of the “catching-up” model. Efficient implementation of this model, introduction of structural transformations creates necessary conditions for implementation of deep structural shifts in national economy. We prove that effective implementation of the program of modernization of national economy and structural shifts require gross investments at a level of 25–35% in the period of 20–30 years.

**Keywords:** modernization of economy, models of modernization, investments, principles of profitability, technological progress

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## ТЕОРЕТИЧЕСКИЕ АСПЕКТЫ ИННОВАЦИОННОГО РАЗВИТИЯ В УСЛОВИЯХ МОДЕРНИЗАЦИИ ЭКОНОМИКИ: ТЕНДЕНЦИИ, АНАЛИЗ И ПЕРСПЕКТИВНЫЕ ВОЗМОЖНОСТИ

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Статья раскрывается сущность модернизации и ее актуальность на сегодняшний день. Изучен мировой опыт модернизации экономики и его особенности в отдельных странах, факторы, влияющие на его реализацию, и принципы, обеспечивающие эффективную модернизацию национальной экономики. В статье анализируется теоретическая эволюция развития научных концепций, посвященных модернизации экономики. В статье раскрывается сущность, модели модернизации экономики, их критерии, классификация, общие и специфические особенности моделей функционирования экономики, которые используются в мировой практике. В статье раскрываются необходимость и проблемы модернизации экономики Узбекистана. Исходя из позиции третьего направления действий Стратегии развития Узбекистана учитывают необходимость модернизации экономики страны. В Стратегии действий по пяти приоритетным направлениям развития Республики Узбекистан в 2017–2021 годах, основным направлением является повышение конкурентоспособности национальной экономики за счет углубления структурных преобразований, модернизации и диверсификации ее ведущих отраслей. А также проанализированы показатели рентабельности на примере отдельных предприятий отраслей экономики и роль технического прогресса в производстве. Устойчивый экономический рост в мировой практике большинства развитых стран обеспечен на основе инновационных факторов, путем осуществления программы модернизации национальной экономики и её структурных преобразований. В странах с переходной экономикой на основе модернизации экономики и диверсификации её компонентов, решаются задачи перехода на путь инновационного прогресса. После разработки проекта модернизации социально-экономического развития страны, сформируется стратегия, охватывающая промышленность, инвестиции и инновационную политику. Объектом исследовательской работы является модернизация экономики, инновационные процессы, тенденции и перспективы экономического развития стран СНГ. Предмет исследования – это комплекс экономических отношений, который имеет место при разработке и реализации Программы модернизации национальной экономики. Цель исследования. Разработка систематических научных предложений и практических рекомендаций, направленных на дальнейшее совершенствование теоретических основ моделей модернизации народного хозяйства и повышение эффективности его механизма реализации. В результате исследования представлено авторское определение модернизации экономики как экономической категории. Модернизация, осуществляемая в Узбекистане, соответствует “догоняющей” модели модернизации. Эффективная реализация данной модели, внесение структурных преобразований создают необходимые условия для осуществления глубоких структурных сдвигов в национальной экономике. Для эффективной реализации программы модернизации национальной экономики и осуществлению структурных сдвигов обоснована необходимость нормы валовой инвестиции в 25–35% и сроки её реализации 20–30 лет.

**Ключевые слова:** модернизация экономики, модели модернизации, инвестиции, принципы рентабельности, технологический прогресс

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## Introduction

Sustained economic growth in the world practice of the majority of the developed countries is provided on the basis of innovative factors, by implementation of the program of modernization of national economy and its structural transformations. Developing countries perform a transition to a way of innovative progress on the basis of modernization of economy and diversification of its components. Adoption of a project of modernization of social and economic development of the country is followed by a strategy covering the industry, investments and innovative policy. Modernization involves technical and technological updating of the leading branches of economy and their improvement which leads to diversification of production. At the same time, it brings about the issue of the development of the human factor.

In the conditions of modernization of national economy, "... establishment of an innovative program, training of a new generation of personnel effectively using innovations and investments, support of owners become essential. For this purpose, it is necessary to think deeply over a national idea, a national program of technological development of Uzbekistan and modernization of the domestic market. Implementation of this program has to create new opportunities for Uzbekistan to find its worthy place among the developed countries of the world [1]. Modernization of national economy and implementation of structural transformations are a priority direction in achievement of these long-term goals. The Strategy of actions on five priority directions of development of the Republic of Uzbekistan in 2017–2021 considers "improving competitiveness of national economy by means of deepening structural transformations, modernization and diversification of its leading industries" as the main direction [2, 3].

*The object of the research* is the process of modernization of the economy in the Republic of Uzbekistan.

*The subject of the research* is a complex of economic relations in modernization of the economy in the Republic of Uzbekistan.

*The purpose of the research* is development of systematic scientific proposals and practical recommendations aimed at further improving the theoretical foundations of the modernization models of the national economy and increasing the effectiveness of its implementation mechanism.

*The tasks of the research are:*

- to describe and classify the modernization of economy as an economic category;
- to analyze the essence, principles, features and factors of the economy modernization;
- to classify economic modernization models by the criteria applied and general principles;
- to study the experience of applying modernization models used in the world economy and elaborate scientific proposals and practical recommendations on their use in Uzbekistan;
- to elaborate alternative scenarios for acceleration of the transition to the modernization of the national economy and to the innovative development in the long term.

## Research methods

Some theoretical, practical and quantitative aspects of modernization of national economy are explored in works of foreign scientists, such as W. Rostow, R. Inglehart, A. Maddison, R. King, J. Natanson, A. Lewis, H. Chuanqi, H. Yamawaki, R. Wade<sup>1</sup>, P. Romer, as well as scientists of the neighboring countries, such as A. Amosov, O. Golichenko, V. Dementiev, D. V. Didenko, L. Yevstigneyeva, R. Yevstigneyev, V.A. Krasilshchikov, V. Mau, R. M. Nureev, N. Obukhov, I. A. Pogosov, V. Polterovich, B. A. Heifetz, K. Hubiyev and others [4–30, 37, 38]. They analyzed modernization of production in the countries of transition economy. In this scientific research, the authors reveal features of models, driving forces and national strategies of economic modernization and systematize mechanisms of their implementation.

World practice shows the increased power and material consumption, capital intensity of products, insufficient use of modern technologies has negative impact on competitiveness of production in the country. Acceleration of the processes of modernization carried out in economy, deep analysis of theoretical and conceptual aspects of implementation of structural transformations, comparative analysis of the best

<sup>1</sup> [https://en.wikipedia.org/wiki/Robert\\_Wade\\_\(scholar\)](https://en.wikipedia.org/wiki/Robert_Wade_(scholar))

practices of implementation of programs of modernization of national economy in the developed countries, research of a possibility of creative application of this experience for improvement and increase in efficiency of modernization strategy in Uzbekistan have a special scientific and practical value. In economic literature, the category “modernization of economy” was analyzed in relation with such terms as “innovation”, “diversification”, “sustainable economic growth”, “transitional economy”, etc. [4–7, 31–36].

In the course of formation of the market relations in transition countries, the theories of modernization were practically not applied while the terms “reform” and “a transitional (transit) economy” were in used in most cases. We elaborate on the idea that in the course of economic reforms, separate market institutions are unable to provide effective economic development, so such terms as “modernization”, “structural transformations”, “national competitiveness” are required. World experience shows modernization in many countries often began as a national program [3, 8–14, 32].

The category of “modernization of economy” and its mechanism were studied in interrelation with such terms as “industrialization”, “innovation”, “liberalization of economy”, “diversification of economy”, “human capital”, “national net wealth”. As a result, the interrelation of these concepts allowed to disclose characteristics of the category and the factors that promoted determination of economic regularity of modernization of economy.

Modernization and diversification of industries of the real economy are necessary to improve the overall economic competitiveness. In this case, modernization coincides with diversification processes in time, so this direct connection lead to innovative development. As a result of the use of high technologies, innovative development promotes production of goods with high added value and increases export volumes. It also provides sustainable economic growth and competitiveness of national economy due to growing national net wealth. As for competitiveness of national economy, it guarantees an increase in living standards of the population.

It is possible to characterize the category of economic modernization proceeding from specific features of each country.

**Table 1. Characteristics of the category of economic modernization\***

Sphere of specific features	Characteristics
Economy	Industrial economy, high rates of economic growth, the increased intellectual capacity, innovative development
Society	Standards of living, state of health of the population, urbanization, employment rate
Personality	Initiative, business, innovation, education, belief
State	Democracy, constitution, bureaucracy

\*Source: the authors' data

Features of modernization in different spheres are shown in Table 1. The category of modernization covers all spheres of activity of society, in particular, economic and social aspects of life.

Analysis of world practice shows modernization can be conditionally divided into two types. The first type is an institutional modernization, or modernization of social life. It generates ample opportunities for creation of innovations by means of intellectual development of various classes and groups. The second type of modernization is a technological modernization, or acceleration of economic diversification and promotion of production policy. In this case, a boost of investments in the fixed capital of the real economy ensures transition to industrial economy. Measures to increase a share of production in the GDP of a national economy are taken.

In both cases co-dependence between subjects of modernization, that is between state, society and business, is an important aspect. The dependence between subjects can be direct or opposite.

A state protects and guarantees the rights of people, members of the society, provides freedom to business and creates a favorable environment. The society contributes to the socio-political development of the state, creates innovative projects for business and also sets business in motion as a human resource and serves to the state as labor. Business increases financial income of the state, leads to accumulation and growth of the capital of the members of the society. Social cooperation in achievement of cost efficiency of interrelation of the mechanism is important.

The purpose is to catch up with the level of social and economic development of the developed countries by means of modernization, and to protect the benefits of all subjects equally. Economic literature presents various points of view concerning the category of modernization.

V. Gelman understands modernization of economy as a set of measures, aimed at economic growth, increase in the standards of living and development of the human capital. A drawback of this definition is that a set of measures is not enough for modernization, it requires their correct implementation.

E. Yasin claims economic modernization is “an achievement of international competitiveness of a country in general and of a wide range of its industries for the purpose of providing sustainable development of economy and a worthy place among the most prospering nations”. This definition of modernization most fully discloses its content since it ensures sustainable development and promotes an increase in rates of growth in real economy including industrial sector.

V. Krasilshchikov gave a more complete definition to the category of modernization. In his opinion, “generally, modernization can be defined as a set of public and technological changes made to advance society to the state and level of development reached by the leading countries of Western Europe and North America, as well as Australia and New Zealand at the beginning of the second half of the past century” [32]. The definition provides no specific features of the state where the program of modernization will be carried out. It is impossible to achieve the expected result by mechanical transfer of experience of some countries. According to certain economists, the conceptual idea of economic modernization is for the state “to admit an economic, technological and institutional lag, and the need for its transition to the new level of development”. In this definition the explanation of a concept of a lag is necessary. Today, modernization for the purpose of formation of the society based on innovative modernization of economy, technological, economic and socio-political paradigm is considered as complex changes.

Modernization of economy as economic category acquires wider contents, than technical and technological updating. Disclosing the distinctions between modernization and updating, B. Hakimov systematized modernization on various attributes [35].

A certain group of economists applies the categories of “modernization” and “innovation” in a generalized view as a concept of “innovative modernization”. The second group of economists defines “modernization of economy” as one of the stages of transition to a way of innovative development. The third group of economists accepted Western Europe as a standard for modernization of economy. We can give the following definition of modernization of economy as an economic category:

Modernization of economy is a continuous process consisting of measures of ensuring steady growth rates of various sectors of economy on the basis of improvement of production factors.

To determine similarities and differences between models of modernization of economy, we estimated the following attributes: terms of implementation of the project of modernization of economy, a role of the state in economic processes and influence of driving forces of modernization.

According to the criteria of similarity and difference between them, we can divide the models of modernization of economy in the following groups (Table 2).

**Table 2. Criteria of models of modernization of economy\***

Criteria \ Model	Organic model	Catching-up model	Revolutionary model
Role of the state	Providing regulation	Top-level	Top-level



Terms	20–25 years	20–25 years	15–20 years
Driving factors	Endogenous (internal)	Endogenous, exogenous	Exogenous (external)

\*Source: the authors' data

Table 2 shows “organic” and “catching-up” models of modernization of economy require 20–25 years.

The state plays a prominent role in the “catching-up” and “revolutionary” models and exogenous factors have a high impact.

In particular, if the “revolutionary” model develops generally at the expense of external debts, the “catching-up” one proceeds due to endogenous factors and exogenous DFI (direct foreign investments).

Features of the “catching-up” model are as follows:

1. During modernization the state acts as the initiator and organizer of economic reforms, and using efficient regulation directs all the efforts to engage investments and implement of the industrialization policy.

2. It is necessary to rely on driving forces of modernization to maximize the output of the agricultural sector after the stages of industrialization and post-industrialization.

**Table 3. Industry structure of GDP (as a percentage)<sup>2</sup>**

Indicators	2000	2005	2010	2015	2016	2017	2018	Changes in 2000-2018
Gross added value of the industries	87.5	89.4	90.8	91.2	91.3	89.8	88.8	1.3 p.p.
Manufacturing*	14.2	21.1	23.9	25.7	25.7	30.1	32.0	11.8 p.p.
Construction	6.0	4.8	6.5	7.3	7.2			
Agriculture*	30.1	26.3	18.0	18.3	17.6	17.2	32.4	2.3 p.p.
Transport and communication	7.7	10.6	11.5	12.2	12.5	42.5	35.6	-1.6 p.p.
Trade and public catering	10.8	8.8	9.2	10.3	10.5			
Other industries	18.7	17.8	21.7	17.4	17.8			

\* According to data of the State Committee of statistics of the Republic of Uzbekistan, since 2015 the gross added value of manufacturing is considered together with construction, agricultural together with fishing and forest industries.

During 2005–2017 the average annual growth rate of GDP in Uzbekistan was more than 7%, and these steady rates of economic growth provided corresponding increase in gross domestic product per capita. As the industry structure of GDP and the dynamics of a contribution of the different industries to ensuring GDP growth show, the national peculiarity of modernization of economy begins with industrialization (Table 3).

Table 3 shows that in 2000–2018 the gross added value of the industries grew by 1.3 p.p. (percentage point), the production share grew in a corresponding way by 11.8 p.p., the added value of agriculture by 2.3 p.p. During the analyzed period the manufacturing growth rates were higher than the growth rates of agriculture, thus, the share of manufacturing increased in structure of GDP.

The “catching-up” model uses import-substituting and export-oriented strategies. The import-substituting strategy provides replenishment of domestic markets due to diversification of the industry and only after that provides export-oriented strategy. The international industrial cooperation becomes the main criterion in export-oriented strategy.

<sup>2</sup> It is made on the basis of data of Committee on statistics of the Republic of Uzbekistan.

The concept of “strategy of modernization of economy” is meant as a change of economic policy of the state and communication between the institutes carrying out this policy at a certain stage. The strategy of modernization of economy interacts with legal-institutional changes. In this case, problems of modernization of national economy are defined and the directions of the solution of these problems on the basis of peculiar features are developed. The goals to be achieved in the terms specified in the strategy of modernization of economy are defined precisely. In particular, adoption of the national program of technological development of Uzbekistan and modernization of internal market allow to create new opportunities for Uzbekistan to take a worthy place among the developed countries of the world. This strategy presupposes that GDP per capita will double by 2030 and a share of manufacturing (together with the construction industry) will increase from 32% in 2018 up to 40%.

On the basis of modernization of economy and structural changes “... we pass to a way of the innovative development aimed at radical improvement of all spheres of life of the state and society” [1].

Institutional changes and reforms in these areas have direct influence on modernization of economy. Therefore, the efficiency of activity of the state and the enterprises which are the main subjects of economy depends on society. Creation of new or improvement of the existing institutions provide modernization of society. By this we mean modernization of all spheres of society, in particular, modernization of the society itself. World experience shows the strategy of modernization of national economy has to be flexible, i.e. it has to adapt to domestic and international market changes in due time.

As for achievement of a steady rate of economic growth for effective implementation of the concept of modernization of economy it is necessary to lean on one of the following approaches:

1. Achievement of steady growth rates of national economy by improvement of institutional bases of modernization.

2. Steady rates of economic growth contribute to the development of institutional infrastructure serving modernization of national economy.

As for improvement of legal bases of modernization of society and economy of Uzbekistan, the development and adoption of the bill “About Modernization” is required.

This law, in our opinion, will give an opportunity to provide a legal and institutional basis for modernization of national economy and acceleration of processes of modernization.

Investment policy has importance for the strategy of modernization of economy, investments are one of its driving forces. “Without investments there is no progress, no technical, technological updating and modernization of production and the country in general”. Investments in fixed capital play a leading role in the national investment policy. Sources of investments in fixed capital in 2000–2018 and changes of their structure in branches of economy (Tables 4–5) are given below.

**Table 4. Investments into fixed capital on financing sources (as a percentage)**

Financing sources	2000	2005	2010	2015	2016	2017	2018	Changes in 2000-2018
Republican budget	29.2	12.2	5.6	4.5	4.5	5.5	3.9	-25.3 p.p.
Means of the enterprises and population	39.1	57.5	49.0	52.9	53.0	43.9	39.4	0.3 p.p.
Bank credits and other borrowed funds	7.2	3.8	9.7	11.8	11.1	11.0	14.9	7.7 p.p.
Foreign investments	23.2	21.7	28.3	19.9	21.3	26.9	13.8	-9.4 p.p.
Means of off-budget funds	1.3	4.8	7.4	10.9	10.1	12.7	28.0	26.7 p.p.

Table 4 shows in 2000–2018 the share of investments from the republican budget into fixed capital decreased by 25.3 percentage points. Investments of the enterprises and the population in 2000–2018 increased by 0.3 percentage points. The analysis suggests growth of investment activity of the enterprises

and the population which are the leading source of financing of modernization. Off-budget investments into fixed capital, including fund of reconstruction and development, significantly increased. In 2018 extrabudgetary share funds increased by 26.7 percentage points in comparison with 2000.

As data testify, in 2000–2017 the share of public sector significantly decreased from 63.9% to 24.7%, or by 39.2 p.p. The share of the non-state sector on the contrary increased from 36.1% up to 75.3%.

The manufacturing industry has to take the leading place in structure of GDP during modernization of economy. In 2005–2018 Uzbekistan reached prompt and steady rates of economic growth in such industries of real economy as manufacturing, agriculture, construction, transport and communication. As you can see, these rates of economic growth were due to investments to fixed capital of those industries.

In 2000–2018 the manufacturing industry had the leading place in the investments to fixed capital, including of foreign investments (Table 5).

**Table 5. Structure of investments into fixed capital on branches of economy<sup>3</sup>**

Name of the branches	2000	2005	2010	2015	2016	2017	2018	Changes in 2000–2018
Manufacturing	29.7	32.6	30.4	40.9	39.4	48.8	52.3	22.6 p.p.
Agriculture	5.7	4.4	3.5	3.3	3.3	3.3	3.3	-2.4 p.p.
Transport and communication	16.8	24.1	29.7	11.2	13.8	11.8	8.3	-8.5 p.p.
Housing construction	13.0	11.0	15.1	21.9	22.3	17.9	16.5	3.5 p.p.
Other industries	34.8	27.9	21.3	22.7	21.2	18.2	19.6	-15.2 p.p.
Including, the foreign investments to fixed capital								
Manufacturing	62.4	46.4	23.6	70.8	87.8	74.0	82.9	20.5 p.p.
Transport and communication	24.7	38.7	68.3	20.5	8.4	19.0	7.0	-17.7 p.p.
Agriculture*	4.6	3.0	0.9	0.8	1.0	7.0	10.1	*
Other industries	8.3	11.9	7.2	7.9	2.8			-2.8 p.p.

\* Investments to agriculture, in structure in other industries, in 2017–2018.

Table 5 shows an increase in investments to fixed capital in the manufacturing industry by 22.6 percentage points and by 3.5 p.p. in construction in 2018, in comparison to 2000. In 2018 the investments to fixed capital in the industries of transport and communication decreased by 8.5 percentage points, foreign investments in the industries decreased by 17.7 p.p.

During the analyzed period, foreign investments to fixed capital of the manufacturing industry grew by 20.5 percentage points. It proves that the state pays special attention to the manufacturing investment policy.

**Table 6. Technological structure of the investments to fixed capital in 2000–2018<sup>4</sup>**

Structure	Years							
	2000	2005	2010	2015	2016	2017	2018	Changes in 2000–2018
Total (percentage)	100	100	100	100	100	100	100	
Building and construction works	58.1	48.7	52.1	54.9	56.9	60.3	49.7	-8.4 p.p.
Equipment and stock	30.6	38.7	39.0	34.0	35.4	31.5	39.7	9.1 p.p.
Other capital works and expenses	11.3	12.6	8.9	11.1	7.7	8.2	10.6	-0.7 p.p.

<sup>3</sup> The statistical year-book – T.: 2007. Page 289, 297.; 2013. Page 257, 265. Construction in Uzbekistan T.: 2017. Page 52, 53.

<sup>4</sup> Almanac Ўзбекистон 2013. T., 2013. It is calculated according to Center for economic research. The statistical collection construction in Uzbekistan. T., 2017. C.33; Economic and social situation of the Republic of Uzbekistan for 2017. T., 2018. 69 pages.



Table 6 shows in 2000–2018 along with an increase of investment to the equipment and stock by 9.1 percentage points, there is also a notable decrease in a share of investments to fixed capital and on installation and construction works. This situation is connected with an emergence of new high-tech industries in national economy that, in turn, can lead to growth of an active part in structure of fixed capital in economy. In the investments in fixed capital in 2000, installation and construction works made 58.1%, the equipment and stock 30.6%, and in 2017 installation and construction works increased by 60.3%, the equipment and stock by 31.5%.

In our opinion, investments should not be directed entirely on construction of new objects, it is preferable to direct them to modernization of the hi-tech processing plants which promotes the structure of investments, increases output and efficiency.

The results of the research show that modernization is closely connected with structural transformations. Annual GDP growth is related to growth rates of its industries, increase in production of industrial goods, volume of investments, status of fixed assets, share of population employed in branches of economy, etc. The Strategy of actions on five priority directions of development of the Republic of Uzbekistan in 2017–2021 sets a goal to increase a share of processing industry in manufacturing in 2021 up to 85%. By our calculations, to achieve this goal the share of the processing industry in manufacturing in 2018 has to increase up to 81.6%, in 2019 up to 82.4%, in 2020 up to 84.4%. In 2021 the output of manufacturing has to increase by 1.5 times in par value, in comparison with 2017, while the volume of processing industry will increase by 1.6 times.

## Conclusions

On the basis of the research the authors can submit the following conclusions:

1. Modernization of economy is an economic category related to a certain social and economic system with economy acting as the system in the whole, and the state, society and the individuals being its subjects. The authors define the category of modernization of economy as follows: “Modernization of economy is a process consisting of complex measures aimed at sustainable development in branches of economy on the basis of improvement of factors of production”. This advanced theoretical approach to category of modernization of economy gives an opportunity to improve conceptual bases of modernization of economy and to define priority directions of its implementation.
2. Use of methodological recommendations to define and classify endogenous and exogenous factors influencing the process of modernization of economy promotes improvement of methodological bases for programs of modernization in the leading branches of economy and its structural transformations.
3. The methods to assess distinction criteria of models of modernization of national economy on the basis of driving forces promotes improvement of methodological bases for target state programs of modernization of the leading industries, and spheres of national economy and the mechanism of their implementation.
4. Trends and features, driving forces of the “organic”, “revolutionary” and “catching-up” models of modernization of economy and criteria of distinctions, conditionality of strategy of modernization of economy of Uzbekistan to changes, increase of high technologies in the branches of economy, definition of the directions based on innovative development gives an opportunity to modernize Uzbekistan’s economy to ensure sustainable development of the country from the socio-political point of view and define strategic objectives of structural changes.
5. We prove that effective implementation of the program of modernization of national economy and structural shifts require gross investments at a level of 25–35% in the period of 20–30 years.
6. Uzbekistan displays modernization of the “catching-up” model. Efficient implementation of the “catching-up” model of economy, introduction of structural transformations creates necessary conditions for implementation of deep structural shifts in national economy.

7. Proceeding from requirements of modernization of the manufacturing industry and structural transformations and diversification in investment policy of Uzbekistan, in technological structure of the investments involved in economy, it is necessary to bring the ratio between installation and construction works and a share of the equipment and stock to 1:2. In this case the main attention needs to be paid to resource-saving, high-tech means, production of import-substituting goods that will promote effective use of investments.

8. Development and adoption of law “About Modernization” will give an opportunity to provide a legal and institutional basis for modernization of national economy and acceleration of processes of modernization.

9. The Strategy of actions on five priority directions of development of the Republic of Uzbekistan in 2017–2021 sets a goal to increase a share of processing industry in manufacturing in 2021 up to 85%. To achieve this goal the share of the processing industry in manufacturing in 2018 has to increase up to 81.6%, in 2019 up to 82.4%, in 2020 up to 84.4%. In 2021 the output of manufacturing has to increase by 1.5 times in par value, in comparison with 2017.

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