

# Main mechanisms for stimulating reserves for industrial production growth

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## Article History

Received on 30 February 2025

1<sup>st</sup> Revision on 5 March 2025

Accepted on 19 March 2025

## Abstract

**Purpose:** This article discusses how to stimulate and improve medium- and long-term reserves for the growth of gross industrial production in Uzbekistan. It also provides information about many factors influencing the formation of industrial development reserves, such as labor productivity, the use of production capacity, and fixed assets.

**Method:** This methodology combines strategic planning with a structured evaluation model to support national innovation development.

**Results:** They were identified in the economic analysis of production and economic activities. Such an analysis provides a systematic study of all the elements and conditions of production in their interconnection, the results of which provide a quantitative assessment of the reserves of production growth of industrial enterprises.

**Keywords:** Reserve, production growth, industrial production, technological modernization, medium and long-term, gross industry

**How to cite:** M. Y. D. (2025). Main mechanisms for stimulating reserves for industrial production growth. *Journal of Multidisciplinary Academic Business Studies*, 2(2), 469-472.

## 1. Introduction

Many factors influence the formation of industrial development reserves. The most important are labor productivity, the use of production capacity, and fixed assets. This choice of factors is justified by the fact that their empirical analysis reveals reserves with the greatest potential for further growth and increasing the competitiveness of the industrial sector in the medium and long term. It should be noted that if, in the medium term, the activation of these reserves will have a significant effect, then, in the long term, the same factors will gradually begin to exhaust themselves, and their returns will decline (Mirziyoyev, 2017).

## 2. Literature review

In this regard, in the long term, it is necessary to act and activate new sources and reserves for the growth of industrial production, namely reserves for the development of industrial innovations. The development of innovation is necessary to activate reserves for the formation of technological diversity in industry (Kuboniwa, 2009).

The technological diversity that exists on the scale of the world economy affects the development of the economy, forming a new type of it, changing the behavior of economic actors, and forcing them to develop a new strategy and tactics of activity in modern conditions. In the international division of labor, countries that have technical and innovative potential, which are the first to master new types of products of a modern technological order, win today.

Thus, the analysis allows us to identify significant reserves in increasing the level of utilization of production capacities, increasing labor productivity, modernizing fixed assets, as well as diversifying and increasing the competitiveness of the industry. To maximize the use of available reserves, it is necessary to implement a set of measures. This will allow the realization of the potential of competitive advantages and deep processing of local raw materials in industries such as the food industry, textiles

and garments and knitwear, leather and footwear, electrical engineering, pharmaceuticals, and metallurgy (Muxamedjanovna, Omilovna, & Amanovna, 2022). Modernization, technical, and technological re-equipment within the framework of sectoral programs will ensure an increase in the efficiency of the resources used as the most important reserve for the qualitative growth of the industrial sector.

The basis for this should be joint cooperation with technology leaders in the development and promotion of technologies that are in high demand in the domestic and foreign markets, enterprises, universities, and research institutes - the main participants in the innovation process of the modernized economy (Omilovna, Muxamedjanovna, & Saidboriyevna, 2022). This will speed up the transition to world standards of energy and resource efficiency and competitiveness (Tsimoshynska et al., 2021) and ensure the output of domestic finished products or individual components to world markets (Tsimoshynska et al., 2021; HO КАСЫМОВА, 2022).

### **3. Research methodology**

Necessary to develop and approve the "National Strategy for the Innovative Development of the Country for the Period up to 2030," which provides for the creation of a system of technological modernization of all sectors of the economy and the development of science-intensive areas, improvement of the legislative and regulatory framework for the implementation of effective scientific, technical and innovative activities, mobilization financial resources to improve the level of research and development of research institutes to create competitive innovative products, improve the mechanism for patenting scientific developments and introduce innovations into production, as well as provide innovative activities with highly qualified personnel.

It is necessary to develop a mechanism providing for the formation of state innovative scientific and technical programs for a certain period based on the needs of the real sector of the economy for domestic developments and technologies.

Because the rational use of industrial production growth reserves is impossible without their preliminary assessment, an approach was developed that presupposes an assessment of both internal and external factors in relation to the production growth reserves of industrial enterprises. Accordingly, a comprehensive assessment of industrial production growth reserves is carried out according to the following algorithm.

### **4. Results and discussions**

They were identified in the economic analysis of production and economic activities. Such an analysis provides a systematic study of all the elements and conditions of production in their interconnection, the results of which provide a quantitative assessment of the reserves of production growth of industrial enterprises.

The first three blocks of the algorithm make it possible to assess the possibility of increasing the degree of resource use and production factors. On this basis, it is possible to obtain an estimate of the size of the resource and the factor potential of production growth (H. O. КАСЫМОВА & Якубова, 2022).

#### **The calculation formula is as follows:**

$$R_{\text{vnutr.}} = B_{\text{max.}} - W_{\text{fact.}} \quad (1)$$

Where  $R_{\text{vnutr.}}$  - Reserves for the growth of industrial production due to internal factors and resources  
 $V_{\text{max.}}$  - The maximum possible annual output of commercial industrial products and services - Actual annual output of commercial industrial products and services

From formula (1), it can be seen that the assessment of the reserves for the growth of production of industrial enterprises, determined by internal factors and resources, is reduced to determining the maximum possible output of industrial products and services (HO КАСЫМОВА, 2023).

In the second stage of the algorithm, the amount of production growth reserves determined by external factors is estimated. Its peculiarity lies in the difficulty of considering many interrelated factors of a heterogeneous nature. We propose assessing the reserves of production growth, determined by external factors, as an opportunity to reduce the balance of finished products in the warehouses of industrial enterprises. This indicator, although it does not fully take into account the action of all heterogeneous factors of the external environment, nevertheless, provides a generalized assessment of the possibility of growth in sales of previously produced products (H Касымова, 2024).

This indicator, although it does not fully take into account the action of all heterogeneous factors of the external environment, nevertheless, provides a generalized assessment of the possibility of growth in sales of previously produced products. In the third stage of the algorithm, an aggregate assessment of the reserves of production growth of industrial enterprises is made, owing to the action of factors of both production and sales of products (H. O. Касымова & Якубова, 2022).

**The calculation is proposed to be carried out according to formula (2):**

$$R_{sov} = Int. + Rout. (2)$$

Where  $P_{vnesh}$  - Reserves for the growth of production of industrial enterprises, determined by external factors (balance of finished products).

However, owing to the limited statistics for Uzbekistan, this methodology has been modified and is based primarily on the method of comparing indicators for Uzbekistan with reference countries (HO Касымова, 2023). For the whole group of selected reference countries and Uzbekistan, the average value and maximum value for the indicator will be calculated (Table 1).

Table 1. Medium- and long-term reserves for the growth of gross industrial output, considering innovative factors. (Billion soums) (Rachmawati & Wibisono, 2024).

	<b>Medium-term reserve(2022-2025)</b>	<b>Long-term reserve (2026-2031)</b>
<b>Average annual growth, %</b>	<b>20</b>	<b>10</b>
<b>Gross production volume</b>	<b>203977,3</b>	<b>549424,0</b>
Internal reserve	47309,5	148151,6
External reserve	156667,8	401272,4
At their own expense		
Unsold products	18748,5	37497,0
R&D costs	413954,5	972556,8
Number of researchers	37300,5	193763,4

Source: Authors' calculations.

## 5. Conclusion

In the long term, potential growth could be seven times the current level, with an annual growth rate of 10% in the period 2022-2031 (Nugrahani, Soma, & Sitorus, 2024). These results show how great the potential for the introduction and development of innovations in industry is, and how insignificant the level of its development and contribution to the growth of industrial production is today. From this, we can conclude that the activation of innovative factors is the most difficult but promising way to increase industrial production (Susanti, Reniati, & Altin, 2025).

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