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ISSUES OF INCREASING THE EFFICIENCY OF WORKING CAPITAL IN AUTOMOTIVE COMPLEXES

Soataliyev Diyorbek Bahodir o'g'li
student of master's degree in NamECI
soataliyevdiyorbek1@gmail.com

Abstract: According to the World Trade Organization (WTO headquarter in New York, US) and the International Trade Center (ITC) for the first quarter of 2024, the automotive industry accounts for 23.41 percent of the GDP of industrially developed countries (in particular, the United States, the European Union, and the countries of Northeast Asia), and its turnover is estimated at $ 24.8 billion. This value is very close to the profit indicator ($ 33.8 billion), and according to Keynesian economics, such situations observed in the financial sector reveal aspects of the issues of increasing the efficiency of working capital in the automotive industry. This article discusses the issue of working capital in specialized enterprises in the automotive industry.

Key words: Keynesian economy, automative industry, amortization, working capital, transformation in economy, diversification, qualification, environmental oof transport in economy, productivity, efficiency.

Introduction. According to Keynesian economics, approaches to improving working capital efficiency are mainly aimed at increasing production efficiency by stimulating demand and increasing economic activity. In Keynesian economics, an increase in demand leads to an increase in production. In the automotive industry, subsidies, tax breaks, or purchase incentives (for example, for environmentally friendly cars) can be used by the government to stimulate demand. This encourages consumers to buy new cars and increases production. Keynes also considered investment to be important for stimulating economic growth. In the automotive industry, investments such as expanding production capacity, introducing new technologies, and automating production processes increase working capital efficiency. To increase efficiency, it is necessary to reduce costs and optimize resources in production processes. For example, in the automotive industry, the efficient use of materials and labor, and the optimization of product production and delivery processes increase the efficiency of working capital. In Keynesian economics, it is possible to increase economic activity by providing state financial support, in particular, by making loans cheaper. Cheap loans and financial support for companies in the automotive industry allow them to expand their production capacities and produce new cars. Increased competition and the development of innovations also increase the efficiency of working capital. In the automotive industry, efficiency can be increased through innovations such as new technologies, such as electric cars, and optimization of production processes using artificial intelligence. In addition, according to Keynesian theory, an active role of the state is important for economic growth. The efficiency of working capital in the automotive industry can be increased by increasing state investment, stimulating the manufacturing sector, and strengthening control.

Methods. Fixed capital creates production capacity in the automotive industry, while depreciation takes into account the wear and tear of this capital and ensures its renewal. Working capital is an important part of the production process, and by effectively managing it, it is possible to ensure the continuity of the production process.

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The renewal of fixed capital and increased investments increase depreciation costs, which in turn requires the management of working capital. Effectively managed working capital helps to speed up the production process and reduces the problems associated with high depreciation costs. On the other hand, high fixed capital and depreciation costs require the introduction of new technologies and increase the overall efficiency of production. In the automotive industry, the relationship between fixed capital, depreciation costs and working capital are important factors for increasing production efficiency. By effectively managing fixed capital, optimizing depreciation costs and properly managing working capital, a company can effectively use its resources and further improve the production process.

In the automotive industry and transport systems, methods implemented through depreciation are important in increasing the efficiency of working capital. Depreciation is the process of accounting for the wear and tear of fixed assets and their decrease in value over the period of their use. Through this process, companies create opportunities for updating production capacities, modernizing technologies, and effectively managing resources. The following are methods for increasing the efficiency of working capital through depreciation:

By accounting for depreciation expenses and spending them on capital renewal, companies can update outdated and inefficient equipment. For example, old production lines and vehicles can be replaced with modern and energy-efficient technologies. By making investments necessary for the production of new generation cars through depreciation, the company increases its competitiveness. This helps to effectively manage working capital in the automotive industry, since new technologies increase production efficiency and reduce the reserves of necessary materials and parts.

Companies increase production capacity through fixed capital updated through depreciation, which leads to the effective use of working capital. Through updated technologies and equipment, it is possible to optimize the reserves of materials and semi-finished products. For example, in the process of car production, proper stockpiling and rapid production of raw materials and materials ensures a rapid turnover of working capital. Investment in the production of new equipment and cars through depreciation creates efficient freight and distribution systems in transportation systems. These processes contribute to the rapid and efficient delivery of products and materials, as a result of which the movement of working capital is accelerated.

Companies can reduce their tax liabilities and make profits by properly planning depreciation expenses. This, in turn, improves cash flow and creates the opportunity to attract funds for new investments. When financial resources are managed effectively, the efficiency of working capital increases. The funds accumulated through depreciation are used to improve the production process and introduce new technologies. Through this, the company invests in new generation equipment and upgrades production capacities, which allows it to more effectively manage its reserves of resources and materials. Renewal of obsolete vehicles through depreciation increases the efficiency of the transport system, especially in the logistics and freight sector. New vehicles and energy-efficient transport systems, modernization of roads and terminal facilities ensure a rapid turnover of working capital. By introducing new technologies in transport systems, it is possible to optimize the processes of freight transportation and distribution. This can increase the efficiency of working capital in transport systems, as updated systems reduce unnecessary costs and save time. Renewal of fixed assets through depreciation allows a company to increase its competitiveness. New cars, environmentally friendly vehicles and innovative production processes allow for effective management of working capital. This helps to attract additional funds for the development of new technologies, especially in the automotive industry. By

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directing depreciation funds to the development of electric vehicles and other innovative technologies, a company can increase its competitiveness. This, in turn, ensures a rapid turnover of working capital and increases production efficiency.

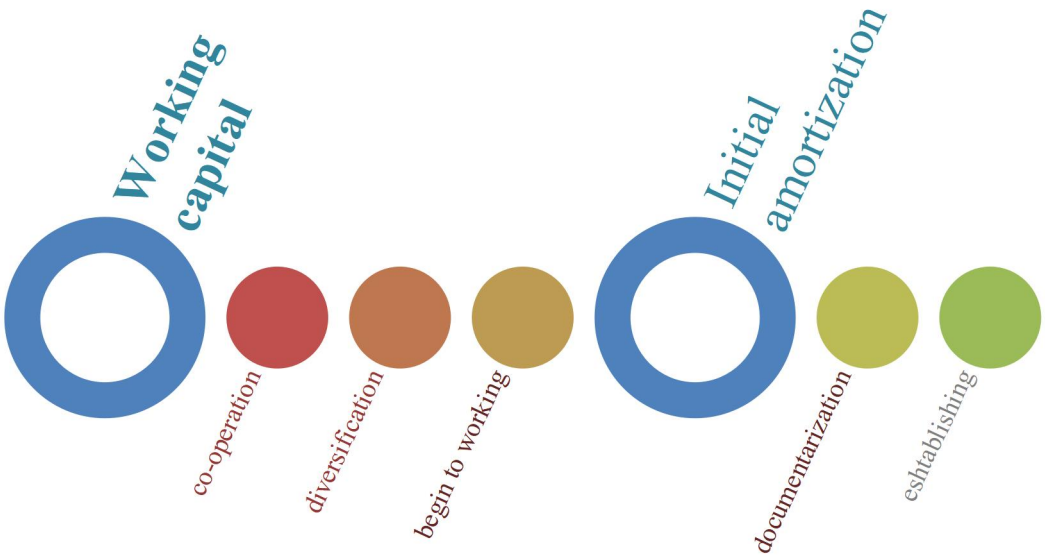

Figure 1. **Transition from primary economic processes to working capital management in the automotive industry.**

Results. The capital commitment period of the original equipment manufacturers (OEMs) has increased by 10 days in the last five years and stood at an average of 27 days at the end of 2024(1-qrt). Crisis-struck 2023 accounts for a large portion of this deterioration: Due to industry-wide plant closures and supply chain difficulties, the capital commitment period even rose to 53 days in the second quarter of 2023. However, in the second half of the year the industry was slowly able to recover and further improve its performance in the area of working capital management. Nevertheless, at the end of 2023 the 57 OEMs analysed had committed capital of around € 100 billion – money that is missing elsewhere, for instance for innovations.[1]

The economic statistics of improving the efficiency of the transport system and improving the efficiency of working capital vary across countries and regions. In 2023, the transport sector accounted for around 5% of the global economy. This includes the road, rail, air and water transport sectors. The transport sector is expected to grow by 4% in 2023. Growth is relatively slow in Europe and North America, but high growth is observed in the Asia and Africa regions.

Investments and borrowings are directed to transport sector infrastructure and technologies to improve the efficiency of working capital. China is expected to invest 20 trillion yuan (about 3 trillion dollars) in transport infrastructure by 2023. This will certainly help to improve the efficiency of working capital and have a significant impact on the growth of the country's economy. In the United States, the volume of investment in the transport sector in 2021 was 1.6 trillion dollars. In 2023, this figure reached $2 trillion, and this annual growth rate was 6%. The annual investment volume for the European Union transport sector for 2020-2027 is expected to

[1] Financial times. 11st issue of march,2024. New York press-centre.

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reach €15 billion. In addition to the transport system in Europe, the funds allocated for the introduction of innovative technologies are also important.

Investments aimed at increasing the eco-efficiency of transport also increase the efficiency of working capital. As a result, the transport sector is focused on increasing energy efficiency and reducing its carbon footprint. Investments in green transport in Europe are expected to exceed €200 billion by 2023. This will certainly help to increase the efficiency of working capital. Investments in green transport technologies in the United States exceeded $10 billion in 2021.

The transport sector accounts for a significant share of global jobs. By 2023, the global transport and logistics sector will provide more than 60 million jobs. This figure is expected to increase further as new technologies and infrastructure develop.

Asia is expected to invest $1.2 trillion in transport infrastructure by 2023. Africa is expected to invest $70 billion in transport infrastructure by 2023. Efficiency indicators for the transport sector (e.g., vehicle management systems, intelligent transport systems) are expected to increase by 15% by 2020. Investments in these technologies will help increase the energy efficiency of the transport network by 10-15%. Investments in electric and hybrid technologies in transport systems are expected to reach $60 billion by 2023. New technologies will increase the energy efficiency of transport. These indicators can be used to improve the efficiency of transport systems and analyze the economic impact of working capital. Working capital efficiency is the key to developing a transport system, which in turn can lead to economic growth and environmental sustainability.

Figure 2. **Turnover efficiency of private sector automobile manufacturing in various developed countries.**

Conclusion. The relevance of working capital efficiency in the automotive industry is very important in the modern economy, especially in the era of global competition, technological innovation and increasing environmental requirements. This issue is related to production, sales, research and development (R&D), energy efficiency, and sustainability in the automotive industry. Working capital (i.e., short-term loans, borrowings, or operating funds) in the automotive industry is necessary for the effective management of production processes, production capacities, and raw material supply. Working capital efficiency helps to increase the speed and efficiency of the production chain. Improving working capital efficiency, for example

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through a "just-in-time" system, helps automobile manufacturers avoid excessive storage costs.The automotive industry requires investment in technological innovations and new models. Today, the demand for electric vehicles is increasing. Automobile companies need to attract large investments to develop new technologies and adapt existing production capacities.Working capital management is essential for the development of next-generation vehicles, batteries, and safety technologies. The funds required for R&D are key to driving innovation.Improving working capital efficiency in the automotive industry helps to improve the speed and efficiency of the production process. Manufacturing efficiency can be improved by introducing robotics and automated manufacturing systems. Effective working capital management allows a company to upgrade technologies and expand automation processes. Optimizing the supply chain and improving the delivery of raw materials and semi-finished products increases working capital efficiency.

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