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STATE AID BUSINESS FOR TECH INNOVATION AS A GUARANTEE OF ACCELERATING THE DEVELOPMENT OF UKRAINE IN THE POST-WAR PERIOD

Among the primary tasks of the government today and in post-war recovery of the country are the national security, healthcare system, financial stability, jobs and economic growth. The development of the national pharmaceutical industry plays a leading role in achieving these objectives; as experience has shown, the growth of resources in this sector can influence: 1) progress in healthcare (improvement of health status, quality, and duration of life, which affects the ability to learn, educational and professional levels of the workforce); 2) financial, social and economic stability (increased employment, added value, labor productivity, exports; reduce imports); and 3) national security (reducing dependence and vulnerability on external and risk; reducing of threats in the economic and social spheres). The new challenges and threats facing Ukraine underscore the need to find effective mechanisms to reduce dependency and accelerate the development of this vital industry.

One of the most important measures is State aid for R&D and innovation. Such example is Poland's policy on local pharmaceutical production. Let us dwell briefly on some of the features that are very important for the construction of mechanisms of development of the Ukraine's pharmaceutical sector on the basis of new knowledge in post-war recovery of the country.

A. Jasiński [1], after analyzing the implemented tools of innovation policy in Poland, notes that from 1990 to 2004, they were more dependent on the transfer of foreign knowledge than on the influence of state scientific, technological, and innovation policy. However, after 2004, with Poland's accession to the EU, reforms, and substantial funds received from EU funds, Poland began to implement qualitative technological changes. The government had launched a series of stimulating mechanisms that directly influenced the development of the endogenous potential of the industry, among other things, systemic instruments: financial, fiscal, and others provided by new legislation to stimulate business innovation; State programs and projects, including state procurement. In 2002, the leadership of Poland adopted the Pharmaceutical Industry Strategy until 2005 (later extended to 2008), developed by the Ministry of Economy of Poland. The document contained principles for the restructuring and privatization of industry enterprises and measures to adapt it to EU requirements. It also identified instruments to accelerate the modernization of pharmaceutical production as a priority, focusing on enhancing the competitiveness of the industry [2].

The research into the measures implemented by the Polish government after joining the EU revealed [3] that the most significant was the adoption of the Operational Program "Innovative Economy 2007-2013" (Program Operacyjny Innowacyjna Gospodarka - PO IG), which became the national implementation of EU policies in research and development and innovation. PO IG was funded by the European Regional Development Fund (ERDF) at 85% and 15% from the Polish state budget. The program's budget reached 9,7 billion euros, with 1.3 billion euros allocated to projects in the following priorities: increasing R&D in the field of modern technologies, building R&D infrastructure for enterprises, increasing capital for innovations, expanding the presence of Polish innovative products in the international market, etc. Within the framework of PO IG, the Polish government introduced several systemic instruments to enhance the technological level of national manufacturers. These instruments were formalized in the Law on Certain Forms of Support for Innovation Activities dated July 29, 2005 (updated in 2008 as the 2008 Law) and the Corporate Income Tax Law. This allowed pharmaceutical companies to receive assistance for technology and innovation development. After the completion of PO IG, the Polish government adopted the next Operational Program "Smart Development for 2014-2020" (Program Operacyjny Inteligentny Rozwój - PO IR) with a budget of 8,614 billion euros, also implemented using ERDF funds. Within PO IR, mechanisms of state aid were launched, which essentially continued the initiatives initiated in 2007 under the PO IG program, contributing to the development of the pharmaceutical industry. Additionally, tax incentives for R&D were introduced. An analysis of projects, co-financed by the EU under PO IR, revealed that companies operating in the field of pharmaceuticals and related activities (such as packaging and protection against counterfeiting) received non-repayable grants from the ERDF for projects related to pharmaceutical development.

In the "Healthy Society" section, projects directly related to the research sector (NACE 72) predominated. However, this sector was mostly engaged in collaborations with the pharmaceutical industry (NACE 21), supporting the R&D efforts of this industry. Mechanisms through which these projects receive the most ERDF assistance under the PO IR measures were also identified, including: Priority 1 Support for Scientific Research by Enterprises (Measure 1.1. Research Projects by Enterprises, Measure 1.2. Sectoral R&D Programs); Priority 2: Support for the Environment and the Potential of Enterprises for Research and Innovation (Measure 2.1. Support for Investments in Research Infrastructure of Enterprises); Priority 3: Support for Innovation in Enterprises (Measure 3.2. Support for the Implementation of R&D Results).

The evaluations of the POIR program's results have shown that state aid had a stimulating effect. An analysis of causal effects revealed that approximately 43% of POIR beneficiaries would not have incurred R&D expenses during the studied period without receiving state assistance. The program's significant impact is particularly noticeable at the level of internal R&D activities; the aid has also had a positive effect on encouraging businesses to engage in external R&D collaborations [4].

The European Funds for a Modern Economy (Fundusze Europejskie dla Nowoczesnej Gospodarki - FENG) 2021-2027 program is a program that is the successor to the PO IR. The Program allocation is 7,973 billion euros EFRR [5]. According to the FENG [6], national smart specializations are industries whose development will ensure: the creation of innovative socio-economic solutions, increasing the added value of the economy and increasing its international competitiveness. Support from European Union funds covers projects that covered by this definition. In the financial perspective for 2021-2027, will finance projects regarding 13 smart specializations, among which is "Healthy Society". For example, Section I of this section – "New Products and Technologies" covers the development of medicinal products from the discovery phase, through preclinical, to the clinical phase and registration; Section III - "Manufacturing Products" implementation in such categories: 1) medicinal products biological, biosimilar, innovative, generic, medical devices, dietary supplements and foodstuffs for special nutritional purposes; 2) active substances of medicinal products; 3) medicinal products for external use, dermatological and cosmetic; 4) medicinal products of natural origin. The Team for Defining Innovation in the Pharmaceutical Industry in Poland has developed recommendations on assessing the innovativeness of research and development projects in the domestic pharmaceutical sector to finance the most projects. The project can receive funding for a maximum of: 80% of expenditure on industrial research, 60% of expenses related to development works. The limit is set for subcontracting, i.e.: the value of works carried out on a subcontracting basis is 70% of the eligible costs of industrial R&D.

During the COVID-19 crisis, the European Commission approved various measures compatible with the internal market, including aid to promote the development of specific sectors or industries (Articles 107(3)(c) TFEU). The EU leadership introduced an investment aid mechanism for the production of products that help combat COVID-19. The intensity of this aid can go up to 80% of project costs. Several countries received approval from the European Commission for such assistance, including Poland [7].

As for Ukraine, from the early years of independence, the foundation was laid for the adoption of legislative acts that defined the European integration vector of the national economy's development and triggered transformation processes in various industries, including the pharmaceutical industry. The European integration processes in Ukraine that have been ongoing for many years primarily aimed to harmonize legislative and regulatory activity related to the production of medicinal products and medical devices. At the same time, while Ukraine has aligned its industry activities with EU requirements, it does not have access (unlike Poland) to the billions of EU funds that partially cover the expenses of Polish companies for the development of R&D infrastructure and the implementation of scientific, technological, innovative, and investment projects. This places Ukrainian companies in a non-competitive position compared to Polish manufacturers, for whom the Ukrainian market has become a promising sales market for pharmaceutical products.

The analysis of the Ukrainian regulatory framework revealed that over the past 20 years, there have been several initiatives from the Ministry of Health to launch mechanisms of state policy for the development of the Ukrainian pharmaceutical industry based on national innovations. Many projects have been developed, and the adoption and implementation of these projects could have reduced dependence on imports, creating a powerful industrial base for the production of medicines and medical products in Ukraine. However, the "Pharmaceutical Development Concept until 2020" was practically the only document that defined the state's regarding the activities of the Ukrainian pharmaceutical industry, as well as the priorities of state policy, which included: encouraging the development and production of essential pharmaceuticals, supporting their exports, including through the implementation of additional funding mechanisms for domestic developments; developing an optimal strategy for pharmaceutical import substitution; introducing new preferences for domestic manufacturers in the production of competitive innovative pharmaceuticals and generics; implementing priority state procurement of domestically produced pharmaceuticals developed with public funds, other measures. In the Action Plan adopted to implement this pharmaceutical development concept, out of the declared 80 points, there was no provision that effectively supported state assistance for business projects related to the development of new pharmaceuticals and their production, the provision of preferences, or the use of the public procurement system in favor of national manufacturers. Therefore, the tasks outlined in the pharmaceutical development concept largely remained on paper. Today, such a document is missing in the country.

Based on the Polish experience and the realities of Ukraine, the post-war recovery of Ukraine's economy should prioritize the innovative development of the pharmaceutical industry. This requires the formulation of a policy that balances the interests of consumers and pharmaceutical product manufacturers with the interests of the state, considering its goals: safeguarding the health of the nation, ensuring the efficiency of the economic system and social stability, promoting the emergence of new effective medicines based on advanced technologies, reducing dependence on imports, and addressing threats to national security. Such a policy should be based on the synergy and complementary measures of pharmaceutical (medical) and industrial policies, as well as policies ensuring national security. It should aim to stimulate technological (product and process) innovations based on advanced technologies, enhance the competitiveness of the pharmaceutical industry.

This requires the development of a Strategy for the development of the pharmaceutical and related industries in Ukraine [8]. Its objectives should be based on the principles of comprehensiveness and complexity, encompassing research and development as well as the production not only of medicines and medical devices but also pharmaceutical ingredients (chemical and biotechnological), fillers, packaging materials, and equipment and machinery for pharmaceutical manufacturing. To implement projects within the defined strategy priorities, it is necessary to develop a Cabinet of Ministers of Ukraine Resolution project titled

"On State Aid for Scientific, Technical, and Innovative Activities in the Pharmaceutical and Related Industries" in accordance with paragraph 7 "support for scientific research, technical development, and innovation activities" of Article 6, Part 2 of the Law of Ukraine "On State Aid to Business Entities." Among the recipients of state aid, identify business entities in the scientific and industrial sectors with experience in the development of biological and chemical substances and medicinal products, medical devices, new fillers and packaging materials, as well as equipment for pharmaceutical manufacturing. One of the requirements is that the project implementation should involve at least one Ukrainian resident manufacturer (who will implement the created innovative product), as well as a research institution and/or a higher education institution.

In these critical conditions for the industry, the question of Ukraine obtaining a pharmaceutical visa-free regime with the EU is being addressed. However, the key question remains whether the products of Ukrainian industry are competitive in the European market. The dialogue at the intergovernmental level regarding the mutual recognition of GMP (Good Manufacturing Practice) certificates and state inspections as part of the process of updating the Association Agreement between Ukraine and the EU, as well as the extension of the Agreement on Conformity Assessment and Acceptance of Industrial Products (ACAA) to the pharmaceutical sector in ongoing negotiations, will bring benefits to the Ukrainian pharmaceutical industry in the long run only if there is a strengthening of the endogenous potential for innovation development in the sector. In this process, given the limited resources for post-war economic recovery, the role of state aid is crucial.

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СТРАТЕГІЧНІ НАПРЯМКИ ЗАБЕЗПЕЧЕННЯ СТІЙКОСТІ ФІНАНСОВОЇ СИСТЕМИ УКРАЇНИ

Екстремальні умови функціонування реального сектору української економіки, зумовлені повномасштабною російською інтервенцією, стали катализатором пріоритетної необхідності модернізації та налагодження прогресивної системної роботи по забезпеченню і підтримці фінансової стійкості України.

Вітчизняна фінансова система, перебуваючи в прямому взаємозв'язку та взаємозалежності з економічним станом країни, гостро відчула на собі наслідки його стрімкого падіння в першому півріччі 2022 року [1]. Так, руйнування енергетичної, промислової, критичної інфраструктури, логістичні виклики, кадрові та безпекові загрози воєнного часу обумовили рецесію фінансових і економічних процесів в середині України.

За даними Звіту про діяльність Ради з фінансової стабільності (серпень 2022 – липень 2023), інфляція у 2022 році сягнула 26,6%, а значний дефіцит зовнішньої торгівлі та зниження експорту призвели до рекордного відпливу валюти у звітному періоді [2]. Разом з тим, жорстка монетарна політика Національного банку України дозволила мінімізувати рівень інфляції до 12,8% на кінець червня 2023 року, що, в свою чергу, позначилося на зниженні ключової відсоткової ставки НБУ й забезпечило державним інституціям спроможність підійти до контрольованого регулювання та стабілізації