



DOES UKRAINE NEED AN INDUSTRIAL POLICY?

Analytical note

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1 Main

An analysis of the current state of industry and state aid has revealed a significant decline in the share of industry in GDP, the lack of a clear strategy for industrial development, and the ineffectiveness of existing state support. Summing up the advantages and disadvantages of using a horizontal approach to industrial policy and the current one (mainly vertical), the government is recommended to gradually reduce the amount of public funds spent on supporting individual industries and enterprises and focus on creating a general favourable environment to stimulate the efficient operation of markets (infrastructure improvement, innovation, support for exporters, etc.).

2 Why this question is important

In recent years, the share of industry in Ukraine's GDP has been declining. Industrial enterprises are forced to respond to growing challenges and threats to their operations, such as declining demand in domestic and foreign markets, worsening access to the Russian market, which is traditional for many industries, rising domestic financial resources, and an urgent need to renew fixed assets. At the same time, attention to industrial policy is growing globally. Governments of many developed and developing countries see industrial policy as a means of stimulating sustainable economic growth and improving the welfare of citizens. In Ukraine, over the 25 years of independence, no clear and systematic approach has been developed to what industrial policy should be and whether it has a place in the country's economic policy at all. The initiatives of various governments to support industry have been limited mainly to decisions (often political) on tax privileges for certain industries and direct financial support for "sensitive" industries due to their social aspect. Such support did not stimulate the restructuring and development of problematic industries, but rather preserved their problems. The tense economic situation requires the government to review its approaches to industrial policy and develop a clear and systematic vision for the future.

3 Situation.

3.1 The role of industry in the economy

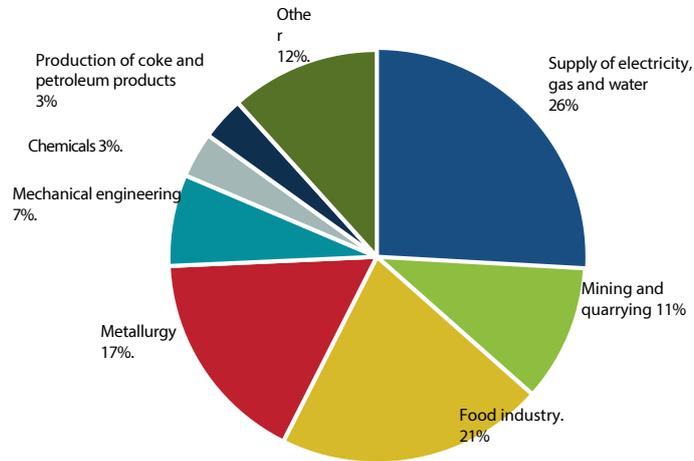
The share of industry in Ukraine's GDP is 20% (2014, according to the State Statistics Service of Ukraine (SSSU)). The industry currently employs 16% of the total employed population. Industry also provides jobs in related sectors, primarily transport and trade. According to the European Commission, one job in the EU manufacturing industry creates 0.5 to 2 jobs in other sectors. In addition, manufacturing is an important source of export earnings, accounting for 75% of merchandise exports or 60% of total exports of goods and services (2014, SSSU).

An analysis of the structure of Ukraine's industry by type of economic activity (Figure 1) shows that the food, mining, metallurgy and machine building industries together account for 56% of total industrial output. Electricity, gas and water supply account for 26%.

The structure shows that downstream industries - mining, coke and petroleum products, metallurgy and chemicals - account for 34% of total sales.



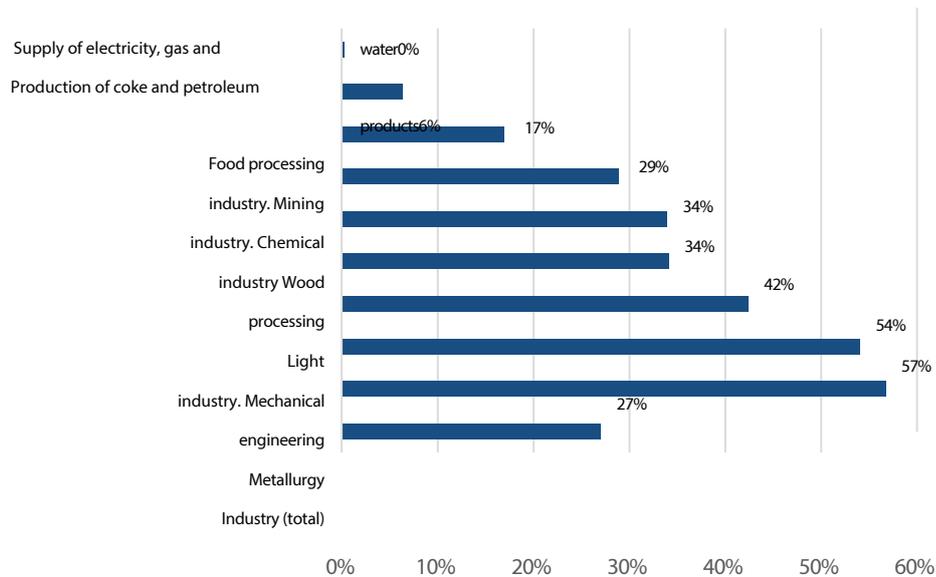
Graph 1. Structure of industrial products sold in 2014, %.



Source: State Statistics Service of Ukraine (SSSU)

Certain industrial sectors are export-oriented (Figure 2). In 2014, the highest share of exports in total sales was in metallurgy (57%), machine building (54%) and light industry (42%).

Graph 2. The share of exports in total sales (2014), %.



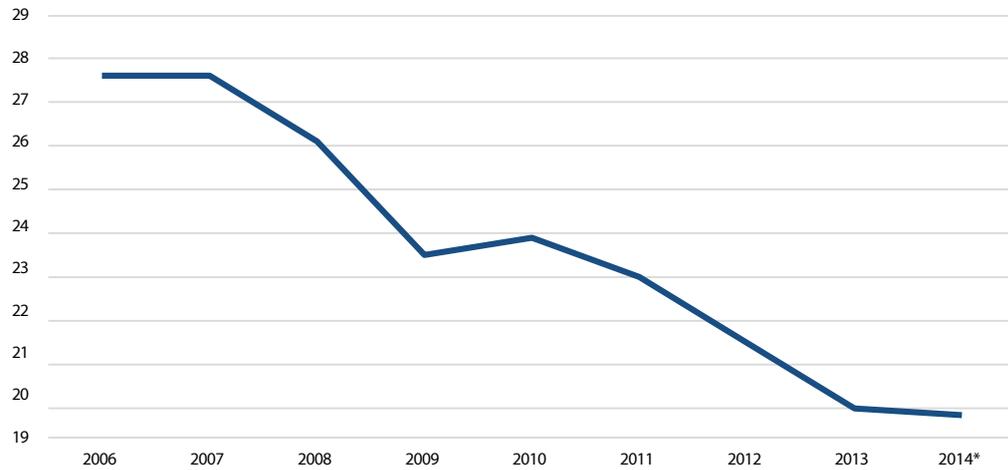
Source: State Statistics Service of Ukraine (SSSU)

3.2 State and development of industry in Ukraine

The contribution of the industrial sector to Ukraine's gross domestic product (GDP) has been declining over the past 9 years (Figure 3). In 2006, the industry accounted for 28% of gross value added, while in 2013 and 2014 it was 20%. The decline in the share of industry between 2006 and 2014 was about 8 percentage points, while in the EU, the share of industry in GDP has remained almost unchanged over the past 9 years, at 19-20% (Figure 4).



Graph 3. Industry as a share of GDP, %.

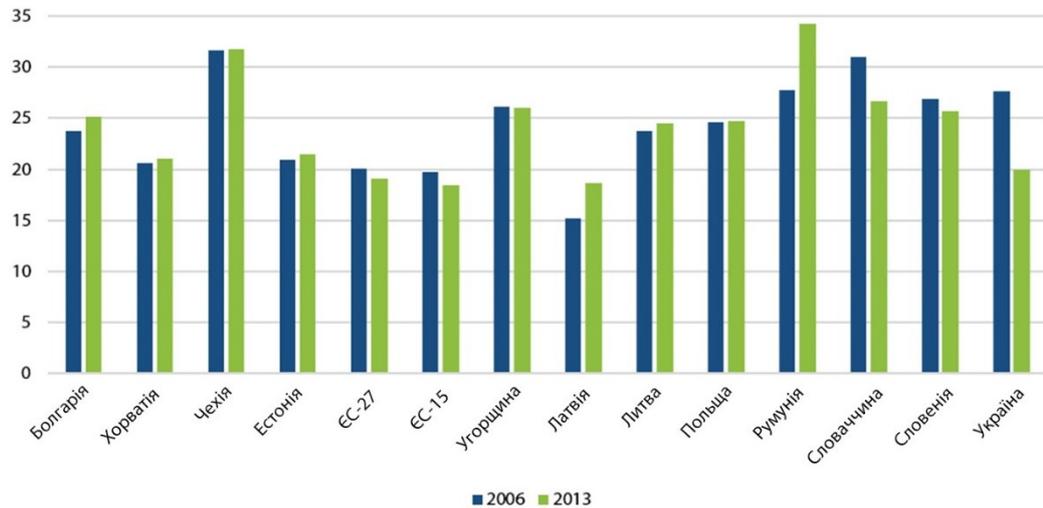


Source: State Statistics Service of Ukraine (SSSU)

* data for 2014 excluding Crimea

According to *the European Commission (EU industrial structure report 2013: Competing in Global Value Chains)*, the gradual increase in the contribution of the services sector to gross value added and the simultaneous decrease in the contribution of industry and agriculture is a long-term global trend. This is explained by the higher income elasticity of demand for services, when demand for services grows faster with income, and by the faster productivity growth in industry compared to the services sector. However, a comparison of the structural changes in gross value added for Ukraine and the new EU member states in recent years (Figure 4) shows that the decline in the share of industry in GDP is more pronounced for Ukraine and is unlikely to be explained solely by objective structural changes. A significant level of underinvestment remains the main constraint on industry. Thus, in 2013, investments in fixed assets amounted to 17% of GDP (SSSU), while for developing countries this figure is usually higher (China - 47%, Korea - 30%, India - 30%, Czech Republic - 25%, Estonia - 27%, Azerbaijan - 25%, Moldova - 23%, Romania - 23%; 2013, World Bank).

Graph 4. Industry to GDP in the European Union, %.



Source: EuroStat, SSSU

In recent years, limited demand and a lack of financial resources have been the main factors hindering industrial development. This is evidenced by a survey of enterprises conducted by the State Statistics Service (Figure 5).

Insufficient demand is explained by dependence on global market conditions. Traditional markets for Ukrainian goods are closing (Russia, CIS). Entering new markets is difficult due to high quality requirements (e.g., in the EU) or low competitiveness of products, including high costs as a result of inefficient production technologies and low energy efficiency. Domestic demand for industrial goods is limited, and the purchasing power of the population is declining.

Moreover, due to a significant increase in Ukrainian sovereign risk, international financial markets are currently closed to Ukrainian borrowers. At the same time, the volume of foreign direct investment (FDI) over the years of independence has been insufficient to support sustainable industrial development. FDI in Ukraine per capita amounted to USD 1,497 at the end of 2014, which is significantly less than in the rest of the world. This is significantly less than in Central and Eastern Europe. In addition, a significant part of FDI went to the banking system and wholesale and retail trade, while only 32% was invested in industry (end 2014, SSSU).

Figure 5. Factors restraining production (seasonally adjusted data)



Source: State Statistics Service of Ukraine (SSSU)

Nevertheless, Ukraine's industry has significant competitive advantages - it is endowed with abundant mineral resources (coal, iron ore, peat, shale gas, uranium), land, infrastructure, a convenient geographical location and a promising consumer market. However, it should also be noted that the degree of depreciation of industrial fixed assets is as high as 57% (end-2013, SSSU). This indicates a high need for investment and constraints on further development of the sector.

4 Approaches to industrial policy

Approaches to industrial policy are well illustrated in the diagram from the presentation by Warwick K. *Competitive Industries Policies: Emerging Issues and New Trends*, which is shown in Figure 6.

Figure 6. Approaches to formulating an industrial policy strategy



Source: Warwick K. *Competitive Industries Policies: Emerging Issues and New Trends* (2013)

There are two approaches to industrial policy, each with its own advantages and disadvantages:

1. **A horizontal** approach, where the government creates general conditions for industrial development and withdraws state support for individual industries and enterprises. Under this approach, government intervention is justified only to achieve clearly defined general economic and social interests (e.g. environmental protection, innovation, energy efficiency, support for backward regions, etc.) Government policy has no influence on the structure of the industry, as the structure is shaped by the market. Annexes 1 and 2 provide examples of horizontal industrial policy measures in Poland (access to finance for SMEs and special economic zones), as well as in the Slovak Republic and Russia (industrial parks).

Advantages of this approach:

- equal rules of the game are being introduced for business entities, which improves the investment climate;
- competition is not restricted;
- the structure of the industry is determined by the market, and as a result, competitive companies survive;
- Consumers have access to products at market prices, i.e. situations where the policy of protecting domestic producers leads to inflated prices in the market are excluded.

Disadvantages:

- in some cases, the market is inefficient and unable to overcome obstacles to the necessary output of goods or provision of services (public goods, externalities), which requires government intervention, including in the form of corrective taxes or subsidies (e.g., environmental tax);
- there is a risk that certain industries will be significantly reduced in the face of competition. This will have a negative impact on employment and may lead to social tensions;
- there is a risk that, in the event of unfavourable external conditions, industries with significant competitive advantages will not be able to survive without additional support, thus potential benefits from competitive advantages will be lost.

2. **Sectoral or vertical** approach, when the state is actively involved in redistributing resources in favour of individual sectors and enterprises, and thus influencing the structure of industry. There are two possible options: when support is provided to promising industries, champion industries, and when resources are directed to help unprofitable enterprises. As an example of the sectoral approach, section 5 discusses state support for the coal industry in Ukraine.

Advantages:

- A sectoral approach can help businesses realise their competitive advantage;
- The sectoral approach helps to quickly achieve social goals - employment, payment of wages, and provision of certain types of goods and services to society;
- The sectoral approach is simpler in terms of setting goals and monitoring their achievement.

Disadvantages:

- The selection of industries requires a thorough analysis, which may require significant resources;
- The sectoral approach cannot support all promising sectors due to limited resources;
- the government may make a mistake in choosing the industries to provide assistance to;
- There is a high risk that government decisions will be politically motivated or lobbied by interest groups, including through corruption;



- The sectoral approach creates unequal conditions for market participants, which negatively affects the overall investment climate;
- competition is distorted.

Today, there is no consensus on which industrial policy model is optimal. For example, the current EU industrial policy is based primarily on a horizontal approach, but it also includes sectoral support measures.

In recent years, the debate in developed countries on the optimal industrial policy measures has focused on "soft" industrial policy, which minimises the negative effects of selective intervention in individual industries and enterprises. For a definition of soft industrial policy, see *Warwick, K. (2013), Beyond Industrial Policy: Emerging Issues and New Trends:*

"Soft industrial policy is based on cooperation between the government and industry to increase the productivity of industrial enterprises by removing barriers such as infrastructure, financial, trade, regulatory, information, human resources, technology, etc. Under this policy, the government's role is more of an enabler and coordinator.

The set of soft industrial policy instruments is broad and may include measures to facilitate access to finance, develop infrastructure and institutions, public procurement, export promotion, FDI attraction, formation of territorial industrial clusters, etc.

Advantages:

- Does not require significant financial resources (compared to subsidies);
- It is aimed at improving the overall business environment;
- It restricts competition to a lesser extent;
- It creates incentives for corruption and rent seeking to a lesser extent.

Disadvantages:

- Soft industrial policy measures are more difficult to implement than direct subsidies;
- Soft industrial policy takes time to produce effects, while stakeholders demand familiar actions with quick impact.

5 Industrial policy: the experience of Ukraine

As a rule, Ukrainian governments have provided direct financial assistance (subsidies and grants) to individual industries. This is the so-called sectoral aid, or vertical approach to state industrial policy. The main recipients of such aid have traditionally been the coal industry and agriculture. In 2014, direct subsidies to Ukraine's economy amounted to 2.8% of GDP, and in 2013 - 3.3% of GDP (*Ministry of Finance of Ukraine*). It should be noted that this form of aid has the most negative impact on competition, as it directly reduces the current costs of enterprises, thereby creating unequal conditions for their operation, and does not encourage enterprises to invest in efficiency.

In addition to subsidies, tax privileges were available over the years for enterprises in the mining and metallurgical complex, shipbuilding, aircraft construction, bus building, light industry, chemicals, and energy. The tax breaks primarily concerned the payment of income tax and VAT. Estimates of state budget losses as a result of tax privileges range from 2 to 3.5% of GDP for the period 2010-2013 (*according to the project "Harmonisation of the Public Procurement System of Ukraine with EU Standards"*). Thus, the total amount of state aid in the form of subsidies, grants and tax privileges ranged from 5 to 6% of GDP in different years. For comparison, in EU countries, all state aid usually does not exceed 1% of GDP. For example, in 2011, the volume of state aid in the EU countries was 0.2-1.2% of GDP (*according to the European Commission*).



State aid, in addition to subsidies and tax privileges, in different years also included state guarantees for loans, debt write-offs, preferential pricing/tariff setting, preferential duty rates on imports of equipment and components, and reimbursement of capital expenditures. In most cases, state guarantees on loans were provided to state-owned enterprises (Naftogaz, Ukravtodor, SJSC "Ukrzaliznytsia", etc.). As of the end of 2014, the total public debt guaranteed by the state amounted to USD 9.8 billion.

Sectoral aid currently accounts for the lion's share of total state aid in Ukraine. At the same time, horizontal aid, which is considered less "harmful" in terms of protecting competition and ensuring a level playing field, is negligible. Most horizontal aid programmes in Ukraine are ineffective or remain at the stage of legislative implementation (not implemented). For example, in the early 2000s, 11 special (free) economic zones (SEZs) were created in Ukraine. In practice, they still exist today, but after a number of cases of large-scale abuse of tax privileges, they are subject to general taxation rules and no other instruments to stimulate the activities of enterprises in these zones.

It should be noted that in Ukraine it is virtually impossible to identify and calculate the effects of state aid, as there is no adequate accounting and control over the implementation of aid measures and their results. The lack of control and analysis of results is one of the main reasons for the low efficiency of state aid projects. In addition, decisions on state aid in Ukraine are usually not based on an assessment of the economic efficiency of projects, but are politically driven or lobbied by interest groups.

Effective measures to support industrial enterprises should result in increased production and exports, higher profitability, and the creation of new jobs. However, in Ukraine, state aid is often aimed at supporting loss-making state-owned enterprises and at achieving short-term social goals. For example, state aid to coal enterprises is aimed at preventing non-payment of wages to miners, bankruptcy of enterprises, and dismissal of workers. It does not stimulate enterprises to restructure and strengthen their competitiveness.

There is no doubt that state aid policy and industrial policy need to be reformed. The first important step in this direction has already been taken. On 1 July 2014, the Verkhovna Rada adopted the framework Law of Ukraine "On State Aid to Business Entities". The law introduces the basic principles of state aid in Ukraine, which are generally compatible with those in force in the EU, including transparency, protection of competition, adequate monitoring and control over the provision of state aid, and an independent controlling body. The law will come into force in 2017. By that time, a significant amount of bylaws will have to be developed to establish rules and procedures for implementing the principles set out in the law, and relevant institutions will have to be prepared.

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Support for the coal industry

The coal industry is the largest recipient of state aid in Ukraine. In 2009-2014, the total amount of direct subsidies from the state budget to support coal mining enterprises ranged from UAH 6 to 15 billion per year. State-owned mines received aid for the following purposes:

- partial coverage of expenses from the cost of finished commercial coal products (mainly financing of salary costs);
- Costs of restructuring the coal industry;
- financing of rescue measures;
- financing capital investments, including construction and repair costs;
- repayment of loans to coal mining companies taken out under state guarantees.



The large amount of subsidies is due to the crisis situation of state-owned coal enterprises, which have not been technically re-equipped over the past 25 years. Low operating efficiency leads to high production costs, which are currently not covered by the level of coal prices on the domestic market. Therefore, the state finances part of the operating costs of mines to prevent their closure and the associated increase in social tension. Unprofitable operations and a lack of working capital make it impossible to re-equip mines in the current environment. In 2013, a record UAH 15 billion was allocated from the state budget to support the coal mining industry, while accounts payable of coal mining companies reached UAH 53.5 billion at the end of 2013, exceeding accounts receivable by 2.8 times. Subsidies to the industry do not create incentives to reduce the cost of coal production; on the contrary, mines are interested in increasing the cost of production to increase compensation payments from the budget.

In 2015, the government sharply reduced subsidies to cover the difference between the cost of production and the market price of coal to UAH 400 million. With only 35 of the 90 state-owned mines remaining in the government-controlled area in 2014, total fiscal spending on the coal industry fell to the UAH 2.7 billion planned for 2015. In addition to budgetary allocations, coal mining companies also benefit from tax privileges and state loan guarantees, but their effects on the performance of the companies are insignificant.

Table 1: State budget expenditures to support the coal industry in 2009-2015, UAH million

	2009	2010	2011	2012	2013	2014	2015 plan
Partial coverage of costs from the cost of finished commercial coal products	4664	5807	6710	10172	13302	8705	400
Restructuring of the coal and peat mining industries	789	1092	1597	1078	1178	355	1554
Mining rescue measures at coal mining enterprises	196	275	379	414	430	288	238
Capital investments, technical re-equipment, fulfilment of debt obligations on loans raised under state guarantees	692	337	1719	1232	346	316	336
Replenishment of working capital or increase in the authorised capital of coal mining companies to pay off overdue wage arrears to employees, which were formed on 1 January 2015	-	-	-	-	-	-	200
Total state budget expenditures to support the coal industry	6341	7511	10405	12896	15256	9664	2728

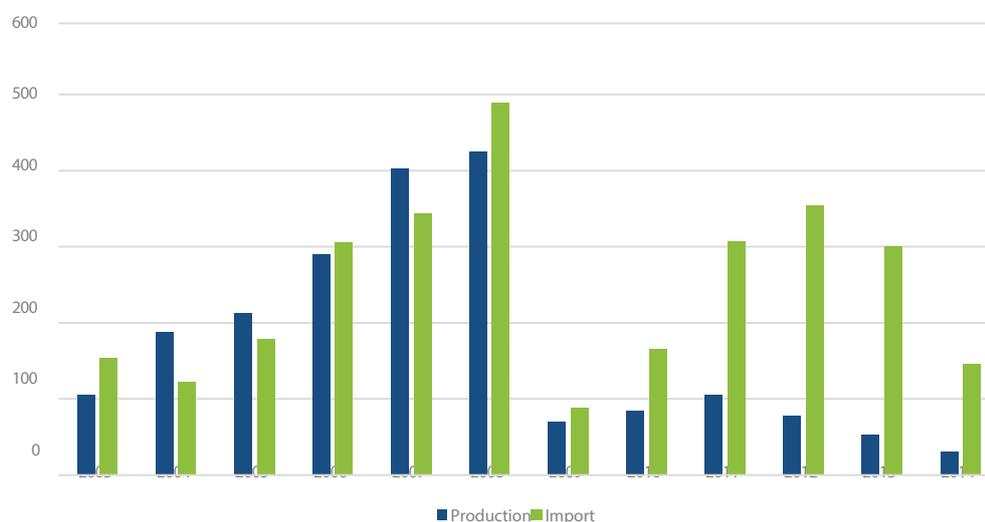
Source: Ministry of Finance of Ukraine, State Treasury Service of Ukraine



Government support for the automotive industry

Government support for domestic car manufacturers in Ukraine is limited to the introduction of protective duties on car imports. Prior to Ukraine's accession to the WTO, an import duty of 25% was applied. In 2008, the import duty rate was reduced to 10% in line with Ukraine's WTO commitments. It is worth noting that during 2003-2008, the volume of passenger car production in Ukraine grew and reached a maximum of 490 thousand units in 2008, although the level of localisation was extremely low and did not allow the industry to achieve sustainability. Following partial trade liberalisation and the 2008 crisis, the volume of domestic car production in 2009 dropped sharply - by 6 times to 70 thousand units - and did not exceed 100 thousand units per year in subsequent years. Today, domestic cars account for less than 20% of sales.

Graph 7. Dynamics of car production and imports, thousand units



Source: SSSU, Ukravtoprom

Statistics on production volumes in 2013-2014 indicate that safeguard duties do not help to strengthen the position of Ukrainian car manufacturers. Safeguard duties only increase the price of cars in the domestic market and increase the risk that trading partners will introduce similar measures in response. The main problems of the industry remain unaddressed by the government, including outdated technologies, low localisation, low energy efficiency, the need to establish automotive sheet production, lack of investment funds, low purchasing power of the population, and expensive loans. In 2014, the government adopted the Concept of the State Targeted Economic Programme for the Development of the Passenger Car Industry until 2020. The Concept defines the main objectives of the automotive industry development, namely, to increase the production of passenger cars to over 700,000 units and the export potential to over 220,000 units by 2020. However, the document does not specify any specific support measures and is more declarative in nature.

6 Industrial policy: the experience of the European Union

Ukraine has set a course for European development and signed the Association Agreement with the EU. Fulfilment of the obligations under the Agreement will have an impact on the industry and industrial policy of Ukraine due to the consequences associated with the establishment of a free trade area, as well as agreements on cooperation in the areas of business and competition. For example, Ukraine committed to implement a strategy for the development of small and medium-sized enterprises based on the principles of the European Charter for Small Enterprises, as well as to take measures to improve the business environment by simplifying regulation. In addition, Ukraine has committed to adopt state aid legislation in line with EU legislation and to establish relevant institutions. In this section, we analyse the approaches and principles of industrial policy, as well as the regulation of state aid in the EU.

In the European Union, attention to industrial policy is growing. This is evident in the latest Communiqués of the European Commission to the European Parliament and the Council on industrial policy (*For a European Industrial Renaissance COM/2014/014, A Stronger European Industry for Growth and Economic Recovery Industrial Policy COM/2012/0582*) and in the EU Strategy 2020, where the priority task of industrial policy is to increase the share of EU industrial value added in GDP from 16% in 2011 to 20% in 2020.

Increased attention to industrial policy is mainly driven by economic trends. Developed industrialised countries are gradually losing their competitive position to developing countries, which have significantly increased their industrial capacity in recent years, including through active industrial policy. For example, China, in its 12th 5-year Strategic Industries Development Plan (2011-2015), identified a list of industries to be developed as a priority and set targets for their growth relative to GDP (including through fiscal policy and financial assistance).

In addition, countries that had large current account deficits and weak industrial bases on the eve of the financial crises experienced much more severe crises and slower recoveries (e.g. Greece and Portugal, as well as various countries during the 2008 crisis).

EU industrial policy today is mainly based on a horizontal approach, but sectoral support is also present. Sectoral aid in the EU is strictly regulated as harmful to competition and subject to clear conditions and restrictions:

- It is provided for those industries that are in a difficult economic situation;
- It is aimed at financing specific restructuring measures that should have a positive long-term effect;
- sectoral assistance is time-limited;
- it should not hinder competition;
- It should have clear performance evaluation criteria.

The main principles of the EU industrial policy were formulated, for example, in the Action Plan for State Aid Reform in the EU for 2005-2009:

- Competition and market economy are the main conditions for raising living standards in EU member states;
- Strong control over state aid and transparent procedures are necessary to ensure a level playing field for common market entities and to protect competition;
- the need to prioritise state aid, as state resources are limited and the lost benefits from possible alternatives can be significant;

- focus on gradual reduction of state aid;
- an economic approach to decision-making on state aid, i.e., such decisions are based on economic analysis and on weighing the positive effects of aid against its negative effects on competition and trade.

It is worth noting that any state aid in the EU is interpreted as distorting market mechanisms and limiting competition. State aid that favours certain enterprises or products and impairs trade between countries is incompatible with the common market. The EU clearly defines the conditions and types of aid that are permissible, including:

- assistance for the development of regions where living standards are particularly low or where there is significant unemployment;
- assistance for the implementation of important projects of common European importance;
- assistance for the recovery of member states in times of significant economic downturns;
- assistance for the development of regions and economic activities that will not have a negative impact on trade.

In addition, the European Commission defines priority areas of industrial policy. In 2014, the following priorities were identified:

- improving the competitiveness of the industry;
- development of a strong single market;
- regional development;
- Improving resource efficiency, including energy efficiency;
- Better access to finance, especially for SMEs;
- internationalisation (support for European producers in foreign markets);
- development of human resources.

An analysis of EU state aid in recent years shows that there is a clear downward trend in the volume of state aid. For example, the volume of EU state aid, excluding special anti-crisis programmes, decreased from 0.9% of GDP in 1992 to 0.5% of GDP in 2011 (*according to the European Commission*).

The structure of state aid is dominated by horizontal aid programmes, which accounted for 90% of the total in 2011 (*European Commission*). For comparison, in 1992 their share was 56%. Sectoral aid, on the contrary, has been declining - from 0.38% of GDP in 1992 to 0.04% of GDP in 2011. Subsidies are the exception rather than the rule and are strictly regulated by the Commission, as they pose the greatest threat to competition. The main forms of state support for industry today are grants (54% of total aid for the EU27 in 2009-2011) and tax privileges (40%). Concessional loans, guarantees and equity participation account for about 6%.

The European Union has a strict system of monitoring and control over the implementation of state aid programmes. Importantly, monitoring and control take place at three stages:

1. preliminary control, when the project of state aid and its potential impact on trade and competition are analysed; as a result, the Commission decides on the adequacy of state aid in accordance with certain principles;
2. monitoring the implementation of existing assistance programmes;
3. analysis and monitoring of the results of assistance programmes.



Ex-ante control is ensured through the mandatory pre-notification procedure, when EU member states inform the European Commission of their intention to introduce new or modify existing state aid programmes. After analysing the programmes for compliance with certain principles and EU legislation, the European Commission approves or rejects (or recommends changes or revisions to) national and regional state aid programmes.

In addition to analysing the impact of aid programmes on trade and competition, the European Commission checks their compliance with the principle of "less aid, more effective aid". In other words, the amount of state aid should be limited to the minimum necessary to help achieve the goals set, which are compatible with the common market. The aid should have a stimulating effect, i.e. contribute to positive changes in the activities of beneficiary enterprises that would not have occurred or would have occurred to a limited extent without the aid.

Ex-post control is carried out at the national and supranational levels and involves the assessment of the effectiveness and efficiency of aid programmes by independent (from the aid provider) experts. The supranational control consists of mandatory regular reporting by national controlling authorities in the field of state aid to the European Commission on existing support programmes. If the Commission finds that an aid programme is illegal or if there is a misuse of resources, the national controlling authority or the Commission initiates the return of the aid provided. The right to such a refund is preserved for 10 years from the date of receipt of the aid.

Monitoring and control of state aid in the EU is based on the principle of transparency. Mandatory disclosure of information on state aid programmes at the national and supranational levels helps the public to monitor the provision and use of state aid.

7 Recommendations

If the current trends continue, there is a threat that the share of industry in Ukraine's GDP will fall below the optimal level in terms of the country's potential and competitive advantages. The factors behind this threat are the sector's chronic underinvestment, which is further exacerbated by the current level of access to capital, and the loss of its traditional export market, Russia.

Despite ongoing negative processes, Ukraine still lacks a clear strategy for industry. The current state aid programmes are ineffective in stimulating industry and improving its competitiveness. Therefore, it is necessary to fundamentally revise approaches to industrial policy, based on the positive experience of developed countries. For Ukraine, the best option for such a policy may be a "soft" industrial policy, when the role of the government is limited to stimulating and coordinating measures to remove barriers to the development of industrial enterprises, including regulatory, financial, trade, infrastructure, etc. Close cooperation between the government and industry representatives is required to identify such barriers. Soft support measures include measures to facilitate access to finance (preferential loans), infrastructure development, export promotion, development of industrial clusters, as well as public procurement, innovation and investment promotion, etc.

Another priority for the government should be to reduce sectoral support measures, which most distort competition and discourage companies from developing. In Ukraine, direct financial assistance is most often provided to loss-making enterprises and helps to preserve their problems. It is clear that for "sensitive" industries (e.g., the coal industry), the withdrawal of subsidies can be gradual in the process of their restructuring. Decisions on sectoral aid should be based on a clear list of strict criteria and conditions. In particular, sectoral aid should be provided exclusively to finance specific restructuring and financial recovery measures that will have a lasting positive effect. Such assistance should be temporary and should provide for clear results as a result of the assistance. It should be noted that without strict control, any state aid in the context of corruption and non-transparency cannot be effective. Before choosing between specific forms of support and between sectors to be assisted, the procedures for selecting and implementing aid programmes should be changed. The first important step in this direction has already been taken with the adoption of the framework law on state aid. Reforms in this area should be continued, especially with regard to procedural issues of monitoring and control at all stages of the implementation of aid programmes. The principles of transparency and accountability are extremely important. It is necessary to provide for the possibility of refusing or terminating aid if the principles are violated at any stage or if there is a misuse of funds.

8 Action plan

1. Defining long-term goals of industrial policy (e.g., productivity growth, sectoral growth, employment growth, development of specific industries or regions, etc.)
2. Working with industry representatives to identify barriers to industry development.
3. Develop a list of measures (horizontal and vertical) to remove barriers. Preference should be given to horizontal measures, which are less harmful from the point of view of competition protection.
4. Conduct an inventory and analysis of the state aid already provided.
5. Create a register of state aid.
6. Setting strict conditions and criteria for providing sectoral aid.
7. Introduce strict control over the implementation of state aid at all stages.
8. Implementation of the transparency principle - maximum public awareness of state aid programmes and their results.

Appendix 1

Industrial policy in Poland

Over the past two decades, Poland's economy has grown significantly, living standards have more than doubled (in terms of GDP per capita), and the economy has become the eighth largest in Europe by GDP. Accession to the EU and the government's effective and rapid reforms boosted economic growth and helped to avoid a recession during the 2008 financial crisis. Until 2008, since 1991, Poland's GDP grew by an average of 4.6% annually, and after the crisis it grew by 3%, the highest rate among EU countries (according to *the World Bank*). Economists point out that deep structural reforms in the early 1990s helped the government to move from a planned economy to an efficient market economy, and that low production costs and a favourable investment climate stimulated foreign investment in Poland. Significant investments in infrastructure and human capital by European partners have further supported Poland's economic development.

The evolution of Poland's industrial policy took place in two stages: 1) 1993-2003, when industrial policy was based on a vertical approach and served the purposes of restructuring and privatisation of industries; and 2) after 2003, when, with the completion of privatisation (in 2003, 90% of industrial enterprises were already privately owned) and Poland's accession to the EU, a shift to a horizontal industrial policy took place. Today, horizontal support measures account for more than 70% of total state aid in Poland (*European Commission* data). The concept of horizontal industrial policy in Poland was defined in 2007 and is based on the following priorities: market conditions, stable and predictable legislation, access to finance, access to human resources and innovation. The horizontal industrial policy is not implemented in industries that are prioritised in terms of national security (energy and defence) and that have not completed privatisation processes (coal and shipbuilding).

One of the most important areas of Polish industrial policy is **facilitating access to finance for small and medium-sized enterprises (SMEs)**. SMEs play an important role in the Polish economy. In 2013, their contribution to gross value added was 51% and their share in total employment was 68% (according to the European Commission). The government stimulates the creation and development of SMEs, especially in innovative industries and industries producing higher value-added products.

There are many government programmes for SMEs in Poland. The majority of these programmes are coordinated at the national level by the Polish Agency for Enterprise Development (PARP), which reports to the Ministry of Economy and was established in 2000. In 2007-2013, the PADD implemented state support programmes for entrepreneurship worth EUR 7.2 billion, financed from the state budget and European funds. The state support was provided mainly in the form of grants and soft loans and covered three areas of development: innovative economy (€3.9 billion), human capital (€672 million), and regional development (€2.6 billion). For example, the PARP's Innovative Loans programme aims to provide loans to SMEs for the following innovative purposes: financing research and development, purchasing national and international licences, purchasing equipment, construction, and purchasing consulting services. The maximum loan term under the programme is 10 years, and there is a 2-year grace period during which the borrower does not pay interest or principal.

In addition to financial support for SMEs in the form of grants and loans, Poland has state loan guarantee programmes for start-ups and businesses that cannot provide collateral to the bank. For example, under the state programme "Support to Entrepreneurship through BGK Guarantees" (Bank Gospodarstwa Krajowego is the only state-owned bank in Poland), BGK provided 40,853 loan guarantees totalling EUR 1.8 billion from 2009 to 2013. Loan guarantees are also provided by the National Credit Guarantee Fund.

The Polish Ministry of Economy, which provides grants for entrepreneurship development, also performs a control function over the implementation of support programmes. Experts from the Ministry and governmental organisations (PARP) visit beneficiary companies and monitor the proper use of the funds received. If there is any misuse of funds or other abuse, Polish law requires the recipient of state aid to repay the aid in full, including interest on the use of funds.

Another successful example of effective horizontal aid in Poland is **special economic zones (SEZs)**. SEZs in Poland are an important tool for attracting investment and creating jobs. As noted in Ernst & Young's research¹, over the 18 years of SEZs' existence in Poland, investments worth more than EUR 20 billion have been attracted and more than 186 thousand jobs have been created. In addition, the unemployment rate in the districts where SEZs operate is on average 2.3-2.9 percentage points lower than in other districts. The regions where SEZs operate have a higher GDP per capita, by 3.9-7.5%, compared to the average level in other regions.

At the end of 2013, the area of all 14 SEZs exceeded 15,800 hectares, of which 40% are free for investment. The possibility of expanding the SEZs by another 4,000 hectares is currently being discussed. The Polish government has recently extended the life of the SEZ for 6 years - until 2026. The main incentive for investors to invest in SEZs is tax benefits, in particular, exemption from corporate income tax. The amount of tax relief is typically 30-70% of capital investment (depending on the SEZ) or two years' worth of employee salaries. The permit to receive benefits from investments in SEZs is granted provided that the investment is at least EUR 100 thousand and the conditions for creating new jobs are met. The definition of clear investment requirements, the fulfilment of which gives the right to receive benefits, is an important condition for obtaining concrete results from the introduction of SEZs. It should be noted that SEZ territories in Poland are not limited to the existing borders, but can be extended to private land if the investment meets certain criteria.

The control over the fulfilment of investment requirements by SEZ residents is entrusted to the companies managing the SEZ. The majority shareholders of such companies are the state treasury or municipalities. SEZ management companies regularly check the activities of SEZ residents for compliance with investment obligations. In case of violations, SEZ residents lose their permission to operate within the SEZ and are obliged to pay all taxes (and interest) that they did not pay as a result of tax privileges.

It is worth noting that the attractiveness of SEZs for investors has significantly decreased since July 2014. This is due to changes in the European Union's policy on regional state aid to member states, namely a reduction in the maximum level (intensity) of aid in most Polish voivodeships and the introduction of stricter requirements for investment projects to qualify for tax benefits.

¹Ernst & Young "Poland - a True Special Economic Zone" (2013) and Ernst & Young "Special Economic Zones beyond 2020" (2011)

Annex 2

Industrial parks in the Slovak Republic

Legislation regulating the establishment and operation of industrial parks in the Slovak Republic was introduced in 2001. The initiators of industrial parks were usually municipalities, but there are also parks established by private investors. The legislation provides for the right of municipalities to receive financial assistance from the state for the creation of industrial parks. Such assistance is usually used to cover the costs of technical arrangement of the parks (construction of roads, communications, infrastructure development) and land acquisition. According to the legislation, the state subsidy can be used to finance the purchase, lease, exchange or expropriation of land plots planned for the construction of an industrial park. Since the adoption of the legislative framework until 2009, 80 industrial parks have been established in the Slovak Republic.

Attracted investments in industrial parks of the Slovak Republic by region, 2001-2007

Region.	Amount of investments raised, EUR million	Number of jobs created	Amount of state aid, EUR million
Trnava	1773	7215	313
Zilina	1507	4732	256
Kosice	747	5369	148
Trencin	654	8453	100
Nitra	528	4889	116
Banska Bystrica	223	1950	57
Presov	15	138	7
Bratislava	139	2037	22
Total	5587	34783	1018

Source: Kyseláková, D. and Kyselák A.: Analysis of the Effects of Establishment of Industrial Parks on Regional Development and Competitiveness

Industrial parks of the Kaluga region in the Russian Federation

Today, the Kaluga Region is one of the most successful in the Russian Federation in terms of attracting investment and creating jobs. At the end of 2014, there were 10 industrial parks in the region with a total area of 5,900 hectares. Between 2007 and 2014, more than 100 investment projects were implemented in the region, 25,000 jobs were created, and USD 10.8 billion of investments were attracted. Separate industrial clusters have been formed within the industrial parks: automotive, pharmaceutical, transport and logistics, agricultural, IT, and tourism. Today, more than 70 international companies operate in the Kaluga Region's industrial parks, including Volkswagen, Skoda, Volvo, Renault, Peugeot, Nestle, Samsung, L'Oreal, Berlin-Chemie, Continental, John Deere, General Electric, Lotte and many others.

