საქართველოს მეცნიერებათა ეროვნული აკადემიის მოამბე, ტ. 17, №1, 2023
BULLETIN OF THE GEORGIAN NATIONAL ACADEMY OF SCIENCES, vol. 17, no. 1, 2023

Economics

The Impact of Tax Policy on Investment Activities in the Context of Ukraine's Integration into the European Union

Iryna Halushchak[*], Iryna Kokhan[**], Veronika Dmytrovska[**], Svitlana Kropelnytska[**], Zoriana Krykhovetska[**]

[*]*Department of Accounting and Auditing, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine*
[**] *Department of Finance, Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine*

(Presented by Academy Member Avtandil Silagadze)

The purpose of this study is to analyse and evaluate the impact that changes and modifications of tax policy have on the investment activities of foreign partners in Ukraine. Achieving this goal necessitates solving a number of tasks, the content of which reflects the sequence of research stages: to study theoretical and methodological aspects of the impact of taxation on investment activities; to analyse the main global trends in the development of the tax system; to examine the experience of advanced countries in the development of investment activities and their methods of influencing the volume of investment; to develop methodological approaches to evaluating the impact of tax policy on investment activities in the context of European integration of Ukraine; to compile a set of proposals for improving the tax system for state bodies. The leading method for studying this problem is analysis, which allows comprehensively considering tax policy as a complex multi-component structure that operates in unstable political and economic conditions. In addition, the following methods were used: logical analysis, comparative, economic, synthesis, deduction, classification, mathematical statistics. The paper presents the results of the study in the form of tables reflecting the level and trends of foreign direct investment inflows to Ukraine. *© 2023 Bull. Georg. Natl. Acad. Sci.*

foreign direct investment, corporate investment, business groups, economic effects, public investment, private investment

The influence of the state apparatus on investment activities can take various forms. There is a distinction between direct and indirect regulation of investment activity. Direct forms include the following regulation methods: the adoption of laws and other regulatory acts for investment activities; providing financial assistance in the forms of grants, subsidies, subventions, budget loans for the development of certain regions, industries, production departments; establishing state rules and standards; determining anti-monopoly measures; regulating investor participation in property privatisation; specifying the conditions for using land, water, and other natural resources; conducting mandatory state expertise of investment programmes and construction projects; ensuring investment protection, etc. Indirect regulation of investment activity includes fiscal policy; monetary policy; depreciation policy; stock market regulation; innovation policy; foreign investment promotion policy; other indirect forms of state regulation of investment activity. This article covers the indirect form of state regulation of investment activity – tax policy.

Investment is the ultimate goal of any country's economy, as it ensures not only sustainable consumption of services in the long run, but also a sustainable development path. In addition to the money levied on firms' profits, taxes affect several economic indicators that can have a decisive impact on investment decisions. Therefore, the purpose of this study is to examine the relationship between the tax system and investment dynamics. Foreign direct investment is the most desirable form of investment for developing economies since it allows implementing large projects; moreover, the country receives new technologies, new corporate governance practices, etc. [1]. Given the crucial role of foreign direct investment in promoting economic development, countries adopt various unilateral as well as bilateral treaties to create a favourable investment environment. The last three decades have been marked by an extraordinary increase in international investment and trade, as well as the integration and openness of international markets. The above-mentioned conditions have led to intense competition among countries, especially developing countries, to attract foreign investment in order to increase the pace of their national investment and accelerate economic development. Foreign direct investment flows are generally preferred over other forms of external financing because they do not create debt, are less volatile, and facilitate the transfer of knowledge, skills, and technologies [2] Meta-economics clarifies that a tax is actually a price paid to ensure that the necessary level of common interests is achieved, such as public administration and education; health care; food and drug standards and safety; it is a socially accepted price for roads, police, fire safety, and the military. Consequently, the tax system is part of other government systems (especially the administrative, legislative, and judicial branches of government) [3].

The tax system has always been considered as one of the most important factors in the development of the country's economy. This created strong links between the system, the state, the economy, business, and taxpayers, which in all years led to changes in the tax system in accordance with the state of related elements. Upon using preferential and stimulating policies, the tax system creates fair and equal conditions for all market players. The way one country makes decisions about the tax system development clearly demonstrates the state of its economy, which is why developed countries put a lot of effort into establishing a balanced tax system. This helps to make the economic system more sustainable and the country's governance easier. Due to economic changes in Ukraine and other regions and countries that are in the process of joining the EU or European integration, fiscal policy remains the only macroeconomic policy to be operated by the government in a certain country [4].

Materials and Methods

Evaluation of tax policy impact on investment activity in the context of Ukraine's integration into the European Union should include statistical, physical, and financial indicators, which can be used to determine the impact of taxation on investments. The primary method in this study is systems analysis, which was applied to examine tax policy as a complex multicomponent structure that functions in unstable political and economic conditions. Furthermore, in the course of the study, such research methods were used: logical analysis, comparative, synthesis, deduction, classification.

Systems analysis was used for a detailed consideration of the object of research as a system with many interrelated and interacting elements. The logical analysis allowed reproducing the development of a complex system or object by means of theoretical analysis. A comparison is a method by which two or more objects are collated. The objects for comparison can be phenomena, ideas, and results of the research. The comparative method allows identifying common and different aspects for further classification and typology. In this article, such a method was used to compare quantitative indicators for different time periods. Economic analysis was used to systematically and comprehensively measure the impact of taxation on investors' performance by processing the system of indicators with special and conventional methods. The synthesis method is a way of assembling the whole from the functional parts, providing insights into the relationships between the components of the subject matter. This method made it possible to organise information about the impact of foreign and national investment on each other. The deduction is a research method that transforms knowledge of processes and phenomena from general provisions to private and individual judgements. The deduction is characterised by an ascent from the abstract to the specific. The classification is a general scientific method for knowledge systematisation, which is aimed at organising a certain set of studied objects of various fields, knowledge, and activities into a system of subordinate groups, according to which these objects are distributed based on their similarity in certain essential properties. In this research, it was applied to distinguish categories of investments by type of economic activity. The method of mathematical statistics is a set of interrelated methods of studying mass objects and phenomena to obtain quantitative features and identify general patterns by eliminating occasional aspects from individual observations. It was used to describe phenomena and processes in quantitative terms.

In the course of the study, a theoretical analysis of recent scientific publications was also conducted. Researchers in the fields of investment, economics, and taxation frequently consider and examine issues related to the impact of tax policies on investment. In recent years, foreign and Ukrainian researchers have been exploring the issues and ways of improving their studies on the development and support of the investment climate.

Results

Over the years, similarly to other aspects of the economy, the concepts and features within the tax system began to improve and become more detailed. The practice has shown that the tax system is an indicator of the current issues in the country's economy. Periodically, the tax system requires to be updated in order to achieve the most balanced tax system. The optimal tax system will be balanced provided that the financial burden is fairly distributed among taxpayers, taxes do not cause distortions in the behaviour of taxpayers and investors in various sectors or industries.

In some European Union countries, research has been conducted on how changes in the tax system affect the state budget. This is an example of how the state achieves a balance between spendings and revenues. The highest revenue and moderate levels of government spendings are signs of a promising future for a country and a sovereign state budget. The tax system is not simply a system that needs to be constantly updated or improved – it is a subtle economic process consisting of tax policy makers, taxpayers, agents, and so on. Thus, the tax system is one of the most important processes for planning the country's economy, this system should be taken extremely seriously. Previously, taxation was more concerned with large corporations. As a rule, in the past, in all countries, the financial income of large entrepreneurs was higher than that of other business units. Since large corporations had stable profits even during economic crises, state political leaders began using them as a way to supplement the state budget; this is how policies were created to strike a balance between government spending and corporate revenue.

An optimal tax system, or a system that has no violations or shortcomings, still does not exist, even in countries like the United States or Germany. Frequent changes in the tax system and policy have led to many violations and high levels of taxpayer dissatisfaction. To create a proper tax system or at least one that is inherently close to the leading model, the following recommendations should be considered:

– each subject of taxation must make its own contribution to supporting the government of its state in the means of income than it generates;
– the tax that everyone must pay should be fair, safe, and benefit business entities or taxpayers, and not be distributed arbitrarily;
– after collection, the tax should immediately go to the treasury for its intended use, without remaining outside the system.

Although the currency union has created conditions for improving economic and financial integration into the euro area, in the context of financial and sovereign crises, the European integration is accompanied by serious imbalances in savings and investment, credit and housing boom in some countries, and a redistribution of resources to less productive sectors of the economy. The global financial crisis and the euro area sovereign debt crisis have led to considerable and drastic changes, as the risks caused by the large imbalance have sharply manifested themselves. Although the institutional shortcomings of the European Union, which led to the imbalance and the subsequent financial crisis, have been largely eliminated since 2008, the adjustment process has not yet been completed. From a macroeconomic standpoint, imbalances in external accounts caused the accumulation of high levels of external liabilities that need to be reduced, which in

Table 1. Foreign direct investment in Ukraine from 2002 to 2021 (USD million) since 2014, data excluding the occupied territories (Crimea, Sevastopol, parts of Donbas)

	FDI to Ukraine		FDI from Ukraine		Balance	
2002	693		-5		+698	
2003	1424	+731	13	+18	+1411	+102.1%
2004	1715	+291	4	-9	+1711	+21.3%
2005	7808	+6093	275	+271	+7533	+340.3%
2006	5604	-2204	-133	-408	+5737	-23.8%
2007	9891	+4287	673	+806	+9218	+60.7%
2008	10913	+1022	1010	+337	+9903	+7.4%
2009	4816	-6097	162	-848	+4654	-53.0%
2010	6495	+1679	736	+574	+5759	+23.7%
2011	7207	+712	192	-544	+7015	+21.8%
2012	8401	+1192	1206	+1014	+7195	+2.6%
2013	4499	-3902	420	-786	+4079	-43.3%
2014	410	-4089	111	-309	+299	-92.7%
2015	-458	-868	-51	-162	-407	-236.1%
2016	3810	+4268	16	+67	+3794	+1032.2%
2017	3692	-118	8	-8	+3684	-2.9%
2018	4455	+763	-5	-13	+4460	+21.1%
2019	5860	+1405	648	+653	+5212	+16.9%
2020	-868	-6782	82	-566	-950	-118.2%
2021	6687	+7555	-198	-280	+6 885	+824.7%

Source: [1].

turn weakens investment and therefore burdens growth prospects and potential. In terms of macro prudence, long-term imbalances have added systemic risk and made the euro area more vulnerable to change [5].

The Ukrainian tax system can be considered quite balanced since the taxation of foreign direct investment (Table 1) does not have an impact as substantial as, for example, the consequences of global economic crises and revolutions in Ukraine.

Table 2. Foreign direct investment in Ukraine in 2021 (USD million) data excluding occupied territories (Crimea, Sevastopol, parts of Donbas)

2021	FDI to Ukraine		FDI from Ukraine		Balance	
Q1	1541	+2066	24	+4	+1517	+378.3%
Q2	1201	-340	8	-16	+1193	-21.4%
Q3	2386	+1185	-138	-146	+2524	+111.6%
Q4	1559	-827	-92	+46	+1651	-34.6%
Per year	6687	-	-198	-	+6885	-

Source:[1]

The data are confirmed by the number of foreign direct investments in 2021 on a quarterly basis (Table 2). The decrease in investment volume in and from Ukraine is primarily caused by the COVID-19 pandemic, the subsequent global economic crisis due to a massive lockdown, fluctuations in oil prices, and so on.

The largest investors in Ukraine during 2015-2021 (Table 3) were the following countries: Cyprus, The Netherlands, Austria, and the United Kingdom. The Netherlands invested the most among these countries in the Ukrainian economy during the period under review, namely, 8.4 USD billion. The United Kingdom is the smallest investor – 1.0 USD billion. In total, Ukraine received 15.3 USD billion of direct investment from these countries over seven years.

The most popular areas of investment (Table 4) were finance and insurance, professional, scientific, and technical activities, as well as IT. Investments

Table 3. Foreign direct investment in Ukraine from the top 5 investor countries, USD billion

	Cyprus		Netherlands		Austria		United Kingdom	
2015	0.5	*	0.8	*	0.5	*	*	*
2016	0.4	-29.60%	0.3	-68.00%	0.2	-48.50%	0.4	*
2017	0.5	+17.10%	0.3	9.70%	0.1	-58.40%	0.3	-32.70%
2018	0.5	-4.70%	1	+240.30%	0.2	+95.90%	0.1	-63.70%
2019	1	+102.20%	0.3	-67.60%	0.1	-48.90%	0.1	+2.50%
2020	1	-1131.3%	3.8	-158.6%	*	181.4%	0.1	191.2%
2021	0.9	-15.27%	1.9	+29.96%	*	-1.72%	*	+3.48%

*Non-publicly disclosed data.
Source: [6].

Table 4. Foreign direct investment in Ukraine by type of economic activity in Q1 2019-2021, USD million

Types of economic activity	Q1 2019	Q1 2020	Q1 2021
Administrative and support services	+28.5	+8.4	+13.2
Construction	+12.4	-29	+4.1
IT	+60.3	+53	+61.2
Arts, sports, entertainment and recreation	-2.5	+0.2	-1.8
Real estate transactions	+35.2	-52.4	+18.6
Wholesale and retail trade, repair of motor vehicles	+35.6	-122.1	+11.1
Education	-2.5	-4.2	+2.5
Health and social assistance	+7	-2.1	+3.4
Production	+278.4	-1593.8	-1128.2
Professional, scientific, and technical activities	+30.3	+109.6	+86.1
Agriculture, forestry, and fisheries	-36.3	-9.8	-14.8
Transport, warehousing, postal and courier services	+15	-122.1	-15.9
Finance and insurance	+482.3	+237.5	+244.1
Other	+14.1	+37	+18

Source: [6].

in other industries were moderate, in some industries, such as production, much less money was invested than in the same quarters of previous years. This trend can also be attributed to the global crisis.

In this study, an empirical model to estimate both linear and non-linear correlations between tax policy and investment was developed. In addition, an attempt to examine the possible non-linear consequences of changes in the tax system revealed that there are optimal thresholds for tax rates for investment changes. The results indicate that there is a certain investment threshold for certain sources of tax revenue. In particular, with the exception of taxes on personal income, an increase in revenues from tax harms the dynamics of investment.

Discussion

Taxes provide the income needed for important public services such as social security, health care, national defence, and education [7]. The country's tax policy is expressed by the country's tax system, which aims to supplement the state budget and manage macroeconomics, and the tool for implementing the above purposes is a specific type of tax. Each type of tax, along with mobilising financial resources for the state budget, also plays different roles in creating a tax system that meets the state agenda, depending on the economic period and the current economic conditions [8].

It is well known that investment is one of the key channels of money transfer in a number of standard macro models. Despite this, there is still relatively little information about the influence of monetary policy on the investments of firms and how they are likely to respond to changes in monetary policy with varying financial heterogeneities [9]. Previous research has shown that investment managers tend to neglect information that is difficult to integrate into financial metrics, such as environmental, social, and management criteria. However, countries that are able to provide a politically stable environment and control the level of corruption will receive the largest amount of foreign direct investment [10].

Venture capital plays a considerable role in economic development due to the emergence of new firms, technologies, industries, and markets. However, this role is associated with systemic uneven development at the regional level, as venture capital supply and investment in new and growing enterprises are highly concentrated at the level of central economic regions in the country. Over the past decade, this intra-state regional concentration has been accompanied by a growing internationalisation of the venture capital industry, as cross-border investments become increasingly important [11]. Tax incentives can specialise economic activities with higher added value. Furthermore, higher taxes on consumption, property, and social security contributions tend to reduce current consumption. This tax policy can influence the movement of interest rates by suppressing them and facilitating investment decisions [12].

However, tax cuts can also have negative consequences for the supply [13]. If tax cuts increase employees' after-tax income, some of them may choose to work less and rest more. This "income effect" is opposed to the "substitution effect", where lower tax rates on margins increase the financial remuneration of employees. Tax cuts can also hinder long-term economic growth by increasing the budget deficit. When the economy functions in this way, government borrowing is financed by redirecting capital that should have been used for private investment, or by borrowing from foreign investors. Thus, government borrowing displaces private investment, reducing future production capacity or cuts the amount of future income from these investments for citizens. In any case, tax cuts can worsen future well-being [14].

Contrary to the expectations of some observers, the continued reduction in the corporate tax rate constrained investment, rather than stimulated it. The reason for this phenomenon is associated with the way companies finance their investments and expenses they can deduct from their taxable income. Partly for reasons related to the tax system, companies tend to finance most of their investments through debt. Companies that borrow to finance investments can deduct their interest expenses. In addition, companies can deduct their investment expenses faster by using bonus depreciation or other forms of accelerated depreciation. The combination of two tax regimes (interest deduction and accelerated depreciation) acts as an investment subsidy. Thus, the value of tax liabilities decreases, which makes investments cheaper. The cost of two tax shields and the subsidy amount increases along with the corporate tax rate, so reducing the corporate tax rate reduces the subsidy amount and hinders investment [15].

Taking into account that corporate tax policies can have a substantial impact on the economy, a large share of accounting and economic studies examine the relationship between tax incentives at different levels (for example, state corporate taxes, international corporate taxes) and investment decisions. The optimal capital accumulation theory implies that tax cuts should reduce the cost of investment and therefore encourage greater capital inflows. However, empirical evidence is mixed: some studies show a positive and considerable association between corporate income tax cuts and foreign investment, while other studies do not show an impactful association [16].

From the theoretical perspective, public investment can affect private investment positively and negatively. The increase in public investment is expected to increase the flow of private investment, as it will allow companies to have greater access to markets through the construction of roads, ports, railways, etc. It is also expected that public investment growth will increase private investment by improving marginal capital productivity [17]. Therewith, public investment can also displace private investment by reducing the availability of savings for the private sector and/or increasing the cost of financing[18].Investment enlargement should be the main task for the state, which aims to improve the living standard of citizens and promote economic growth. Increasing government spending on education, health, knowledge, research and development can expand human and physical capital. This can be done at the expense of national and international funds [19-21].

Conclusions

This analytical study recommends tax policy makers ensure the constant attraction of public investment along with private investment, not allowing the public one to displace the latter. In the absence of a trend towards an increase in private investment, policy makers should exercise caution with financing sources so as not to cause an interest rate growth. Considering the negative link between exchange rate instability and private investment, the National Bank of Ukraine should implement the necessary policies to control frequent exchange rate fluctuations. At last, policy makers should focus on attracting global foreign investment, encourage the spread of technology, and promote collaboration and exchange of experience with foreign colleagues, which will ultimately attract private investment and improve consumer well-being.

For that purpose, it is necessary to develop and implement policies to reduce corruption, bureaucracy, nepotism, and activities that require bribes, as this will improve the quality of public institutions, reduce investment costs associated with administration, and ultimately encourage private investment. Finally, it is worth noting that in general, the investment climate in Ukraine primarily depends not on the tax system, but on the stability of the political conditions in the country, the successful fight against corruption, professional training, and overall economic and social development.

ეკონომიკა

საგადასახადო პოლიტიკის გავლენა საინვესტიციო საქმიანობაზე ევროკავშირში უკრაინის ინტეგრაციის კონტექსტში

ი. ჰალუშჩაკი*, ი. კოხანი**, ვ. დმიტროვსკა**, ს. კროპელნიცკა**, ზ. კრიხოვეცკა**

*ვასილ სტეფანიკის სახ. კარპატისპირეთის ნაციონალური უნივერსიტეტი, ბუღალტრული აღრიცხვისა და აუდიტის დეპარტამენტი, უკრაინა
**ვასილ სტეფანიკის სახ. კარპატისპირეთის ნაციონალური უნივერსიტეტი, ფინანსური დეპარტამენტი, უკრაინა

(წარმოდგენილია აკადემიის წევრის ა. სილაგაძის მიერ)

ნაშრომში კვლევის მიზანია უკრაინაში უცხოელი პარტნიორების საინვესტიციო საქმიანობაზე საგადასახადო პოლიტიკის ცვლილებებისა და მოდიფიკაციის ანალიზი და შეფასება. მოცემული მიზნის მისაღწევად აუცილებელია გარკვეული ამოცანების შესრულება, რომელთა შინაარსი ასახავს კვლევის ეტაპობრივ თანმიმდევრობას: საინვესტიციო საქმიანობაზე დაბეგვრის გავლენის თეორიულ-მეთოდოლოგიური ასპექტების შესწავლა; ძირითადი გლობალური მიმართულებების ანალიზი საგადასახადო სისტემის განვითარებაზე; მოწინავე ქვეყნების საინვესტიციო საქმიანობის გაზიარება და მათი მეთოდების გათვალისწინება საინვესტიციო მოცულობაზე; საინვესტიციო საქმიანობებზე საგადასახადო პოლიტიკის შეფასებისათვის მეთოდოლოგიური მიდგომების განვითარება უკრაინის ევროინტეგრაციის კონტექსტში; მთელი რიგი შეთავაზებების კომპილაცია საგადასახადო სისტემის გაუმჯობესების მიზნით სახელმწიფო სტრუქტურებში; ამ ამოცანის შესწავლის წამყვან მეთოდს ანალიზი წარმოადგენს, რომელიც განიხილავს საგადასახადო პოლიტიკას, როგორც მრავალკომპონენტიან სტრუქტურას არასტაბილურ პოლიტიკურ და ეკონომიკურ პირობებში. აქედან გამომდინარე, გამოყენებული იყო შემდეგი მეთოდები: დედუქცია, ლოგიკური ანალიზი, შედარებითი ანალიზი, ეკონომიკური, სინთეზი, კლასიფიკაცია და მათემატიკური სტატისტიკა. ნაშრომში წარმოდგენილია კვლევის შედეგები ცხრილების სახით, რომელიც ასახავს უკრაინაში პირდაპირი უცხოური ინვესტიციების შემოდინების დონესა და ტენდენციებს.

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Received December, 2022