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HOW DEVALUATION AFFECTS FOREIGN CURRENCY INVESTMENT HOUSEHOLD INCOME

ABSTRACT

The paper examines the impact of the tax burden on the investment strategies of Ukrainian investors, considering the factors of the UAH devaluation, the return of foreign currency financial instruments, and the investment period. Based on the use of correlation analysis and cluster analysis methods, key factors affecting the level of tax liabilities were identified. The influence of tax liabilities on the profitability of an investment portfolio under various macroeconomic conditions was modelled. For the analysis, 136,500 simulated investment scenarios were used, considering variable levels of UAH devaluation, financial asset returns, and investment timing. The simulation results showed that short-term strategies (up to 5 years) have high volatility of tax burden, especially in conditions of significant devaluation of the national currency. If the devaluation increases by more than 40%, the tax burden increases dramatically, especially if the portfolio yield is below 3%. The optimal conditions for a stable level of taxation are the return on the investment portfolio in the range from 7% to 15% per year, with a rate of devaluation of the UAH up to 10% per annum and an investment period of 10 to 25 years. The existing foreign practice of tax benefits and special investment accounts was investigated. A comparative analysis of the existing tax benefits in Ukraine showed that their real impact on investors is limited due to the low level of social compliance, inflated age restrictions, lack of broad asset diversification, and double taxation. Based on the results obtained, recommendations for reforming the tax policy in the investment sector were developed. The introduction of such reforms will increase the tax burden for investors, improve the investment climate, and reduce the risk of capital outflows abroad, which is critical in the context of Ukraine's financial stability.

Keywords: tax burden, devaluation, investment, investment portfolio, tax benefits, household, savings, investment strategies, investment instruments, foreign exchange differences, long-term investment

JEL Classification: H24, G11, G17

INTRODUCTION

The development of financial markets and increasing household access to foreign investment instruments contribute to improving the level of financial literacy of the population and diversifying personal savings. In Ukraine, where there is a high level of currency fluctuations, the issue of taxation of foreign exchange differences is one of the key factors affecting the real return on investment. The high devaluation instability of the UAH complicates long-term financial planning of households and increases investment risks. In addition to currency risk, the additional tax burden on the returns that foreign currency investors receive can negatively affect the returns of investment strategies. In this context, the study of optimal mechanisms for taxation of foreign currency income becomes particularly relevant.

Ukraine also lags far behind developed countries in stimulating long-term investment through tax incentives and specialised pension accounts. Most investors are forced to adapt their strategies independently to the unstable economic environment, which requires additional analysis of the tax burden on investment income. The existing method of calculating tax liabilities considering exchange rate fluctuations of the UAH creates an increased tax burden on Ukrainian households wishing to invest in foreign assets.

Many countries around the world use special tax relief mechanisms to minimise the negative impact of taxation on investing in foreign assets, such as tax benefits or special investment accounts for long-term investments. The study of these mechanisms and the possibility of their adaptation to Ukrainian realities is an important task for the scientific community, financial regulators, and private investors.

LITERATURE REVIEW

In Ukrainian scientific studies related to the topic of the impact of taxes on private investment and its consequences, the role of the state in shaping the financial behaviour of households through taxes, monetary and regulatory policy was investigated (Ramskiy, 2014). Yu.V. Biliak pointed to the negative impact of the devaluation of the national currency on the flow of investment in foreign currency, consumer sentiment on the examples of developing countries. (Kliuchnyk, 2021) substantiated the need to change the approach to taxation from individuals to households, and introduced tax incentives for private investors. (Ukhna, 2018) emphasised the risks associated with the outflow of capital from Ukraine, which threatens state financial security. According to (Trofimchuk, 2023), devaluation is closely correlated and is a significant cause of inflation, which, in turn, reduces investor confidence in the national economy. T. Hudz (2020) examined the impact of inflation and devaluation on the investment behaviour of households and emphasised the need to reform the regulatory and tax policy of the state, and develop financial inclusion to attract investment from a larger share of the economically active segment of the population. As part of a study on the effectiveness of taxation of individuals in Ukraine by (Barannyk, 2017), the focus was on "shifting the tax burden from the income of the poor to the income of the rich".

Foreign researchers paid attention to the mechanisms of protecting investment portfolios from exchange rate fluctuations. (CHEOL S. EUN, 1988) studied how currency uncertainty affects the structure of international investment portfolios. According to the researchers, in the absence of mechanisms to protect against the risk of devaluation, investors change the composition of the portfolio in favour of assets in more stable currencies, avoiding high-risk currencies. (Jeppe Ladekarl, 2004) also highlighted the choice of currencies more resistant to devaluation by investors in developing countries and the direct impact of the openness of their economies on market liquidity and the rate of devaluation of local currencies.

According to (Saha, 2024), in the growing global uncertainty, investors in developing countries are increasingly taking currency risks into consideration when forming portfolios. According to the findings, it is a sharp fluctuation in the exchange rate that is a key factor that reduces confidence in local assets and encourages capital to move to assets denominated in stable currencies.

The nature and extent of the impact of taxes on the structure of the investment portfolio investigated by (Mervyn A. King, 1998) have shown that tax policy plays a key role in shaping the structure of a household's investment portfolio, in particular, by influencing the choice between assets with different levels of liquidity and risk. Their analysis showed that high tax rates can distort investment behaviour, reducing the share of stocks in portfolios and encouraging short-term speculation instead of long-term investments.

Research by (Tullio Jappelli, 2003) demonstrated that tax incentives significantly affect household demand for investment instruments. For example, the introduction of tax incentives for life insurance savings contracts has led to an increase in investor confidence in long-term financial products and contributed to the development of private pension savings. Ukraine, which does not yet have an effective incentive system, could use a similar experience to increase citizens' participation in non-state pension investment.

Despite a significant number of studies devoted to the issues of taxation of investment income, the topic of the impact of taxation of foreign exchange differences on the foreign exchange investment income of a household remains insufficiently covered in the scientific literature. The lack of a comprehensive analysis of this aspect requires further research, which substantiates the relevance and scientific originality of this research.

AIMS AND OBJECTIVES

The purpose of this study was to analyse the impact of taxation of foreign exchange differences on the real return on foreign currency investments of households and search for optimal parameters of investment strategies that allow keeping the tax burden within the nominal (legally defined) level. The study was aimed at determining the relationship between the main characteristics of the investment process (investment period, level of devaluation, rate of return) and the level of tax burden.

METHODS

The study used a comprehensive approach that includes analysis of investment instruments, tax regimes, quantitative methods for assessing the impact of taxation of foreign exchange differences on foreign exchange investment incomes of households, and scenario modelling of the tax burden in various conditions of devaluation, profitability, and duration of investment. To determine the areas of development of the mechanism of taxation of foreign exchange differences in Ukraine, a comparative analysis of the systems of taxation of foreign currency investment income in other countries was carried out. The key features and differences of these systems, and their impact on the financial behaviour of households, were evaluated.

To assess the impact of taxation of foreign exchange differences on the investment attractiveness of assets, the following methods were used: the method of statistical analysis (used to assess the average return, standard deviation and liquidity of assets based on historical data); the method of expert assessment (used to build rating scales of risk, profitability and liquidity of financial instruments based on professional analysis of financial experts); the method of multi-factor comparative analysis to determine the total and integral rating of assets, which allowed assessing their relative investment attractiveness; the method of correlation analysis was used to identify the relationships between the main characteristics of investment assets, in particular, between the level of devaluation, the cluster analysis method was used to identify non-linear relationships between the main characteristics of investment instruments and typical scenarios of their manifestation. RStudio Desktop version 2024.12.1 build 563 was used for quantitative analysis.

Special attention was paid to possible changes in Ukraine's tax policy due to the post-war economic recovery, the influx of foreign investment, and the prospects for EU membership.

The results obtained are important for private investors, financial analysts, and government regulators responsible for shaping tax policy. The conclusions of the study developed recommendations for improving the mechanism of taxation of foreign currency investment income in the context of stimulating long-term savings and investment in Ukraine.

RESULTS

Before making investment decisions, an investor should analyse not only investment instruments and related risks and profits, but also investment costs in the form of commissions and taxes (Kontoghiorghes, 2024). It is these costs that can significantly limit the investor's expected return on investment, and thus influence decisions.

The main document defining the rules of taxation is the Tax Code of Ukraine. According to Clause 170.2.2. (Tax Code of Ukraine), investment profit is "the positive difference between the income received by the taxpayer from the sale of an individual investment asset, taking into account the exchange rate difference (if any), and its value, which is determined from the amount of documented expenses for the purchase of such an asset." However, according to Clause 14.1.96.1 of the Tax Code, the exchange rate difference is "a positive difference between the official exchange rate of foreign currency to the UAH established by the National Bank of Ukraine on the day of purchase and on the day of sale (repayment, other alienation) of a security, if such a security is denominated in foreign currency".

Thus, the Ukrainian tax legislation provides for taxation of investments in foreign currency investment instruments not only depending on their profitability, but also depending on the degree of devaluation of the UAH. To indicate such a tax scenario, the name "tax on foreign exchange difference" will be used later in the text.

Analysis of the historical dynamics of devaluation of the national currency based on its official exchange rate against the USD (Table 1) allows tracing the characteristic patterns of changes in the UAH exchange rate in the context of various phases of the economic cycle and the impact of external crisis phenomena.

During periods of macroeconomic stability (2001-2008, 2010-2013, 2017-2021), relatively low exchange rate volatility was observed, which did not exceed fluctuations in the range of $\pm 5\%$. During global financial shocks, such as the global stock market crisis (1998, 2000, 2008-2009), and during periods of significant political and war upheavals (2014-2015, 2022-2023), there were sharp devaluation jumps, which reached from 19% to 84%.

Table 1. Rates of devaluation and inflation in Ukraine. (Source: developed by the authors based on the materials of the NBU and the State Statistics Service of Ukraine)

Period	USD exchange rate	Devaluation index	Inflation index
1996	1.83	23.65%	39.70%
1997	1.86	1.64%	10.10%
1998	2.44	31.18%	20.00%
1999	4.13	69.26%	19.20%
2000	5.44	31.72%	25.80%
2001	5.37	-1.29%	6.10%
2002	5.32	-0.93%	-0.60%
2003	5.33	0.19%	8.20%
2004	5.32	-0.19%	12.30%
2005	5.12	-3.76%	10.30%
2006	5.05	-1.37%	11.60%
2007	5.05	0.00%	16.60%
2008	5.27	4.36%	22.30%
2009	7.79	47.82%	12.30%
2010	7.94	1.93%	9.10%
2011	7.97	0.38%	4.60%
2012	7.99	0.25%	-0.20%
2013	7.99	0.00%	0.50%
2014	11.89	48.81%	24.90%
2015	21.85	83.77%	43.30%
2016	25.6	17.16%	12.40%
2017	26.59	3.87%	13.70%
2018	27.2	2.29%	9.80%
2019	25.85	-4.96%	4.10%
2020	26.96	4.29%	5.00%
2021	27.29	1.22%	10.00%
2022	32.34	18.50%	26.60%
2023	39.56	22.33%	5.10%
2024	40.01	1.14%	12.0%
Cumulative total		2,703%	3,601%
Average value, % per annum		12.04%	13.15%
Average deviation		17.60%	8.00%
Average value		13.91%	13.61%
Standard deviation		22.88%	10.71%
Correlation coefficient		0.68	

The average annual rate of devaluation of the UAH during the study period was 12% (Table 1), which is quite high compared to other emerging market currencies. Correlation analysis between the level of devaluation and inflationary processes (coefficient 0.68) confirmed a strong relationship between these variables. The high volatility of the national currency directly affects the growth of the cost of capital, imported equipment, goods, and services, which, in turn, causes inflationary pressure in the national economy. Notably, although inflationary processes usually have a smaller amplitude of fluctuations compared to the devaluation of the UAH, their average annual rates are usually higher, and the return to stable values takes a much longer period.

Given such patterns, it can be concluded that the high level of volatility of the UAH and systematic devaluation processes significantly limit the stability of the UAH and the attractiveness of investments in UAH financial instruments for long-term investors. In the face of global uncertainty, long-term investors will prefer assets that are better protected from risk, that is, they are diversified by asset types, markets, including countries and currencies, have higher returns with the level of risk accepted for them, and better liquidity. Further quantitative analysis would allow assessing the attractiveness of investment instruments and empirically confirming this hypothesis based on statistical data.

To empirically confirm the significant impact of the tax on foreign exchange differences on investment portfolios, an assessment was made of the main investment instruments that are currently available to Ukrainian households. There are five main groups of tools that can be distinguished:

1. High-profit and moderate-risk: stocks and REITs ETFs.
2. Moderate-risk and moderate-profit: land, bonds, and commodities ETFs.
3. Low-profit and low-risk: deposits.
4. Moderate-profit and high-risk: local investment funds, government bonds in UAH (OVDP) and foreign currency (OZDP), corporate bonds, and stocks.
5. High-profit and very high-risk: local real estate, government bonds, P2P lending, and business investments (private equities).

Three key parameters were evaluated: risk (by the average standard deviation of the instrument's yield in the range of 10-50%); profit (in the range of 0-10% per annum in currency terms); and liquidity (by the time of sale of the asset: from 1 day to 1+ year). The assessment was carried out on a 5-point scale based on statistical data, professional experience of the authors, and analysis of secondary sources of information. The hypothesis of protecting savings from devaluation was used for evaluation, so the yield and risk indicators were evaluated in foreign currency. The results of evaluating the indicators of investment instruments (risk and profit – by coordinates and liquidity – by diameter) were visualised using the RStudio software suite (Figure 1).

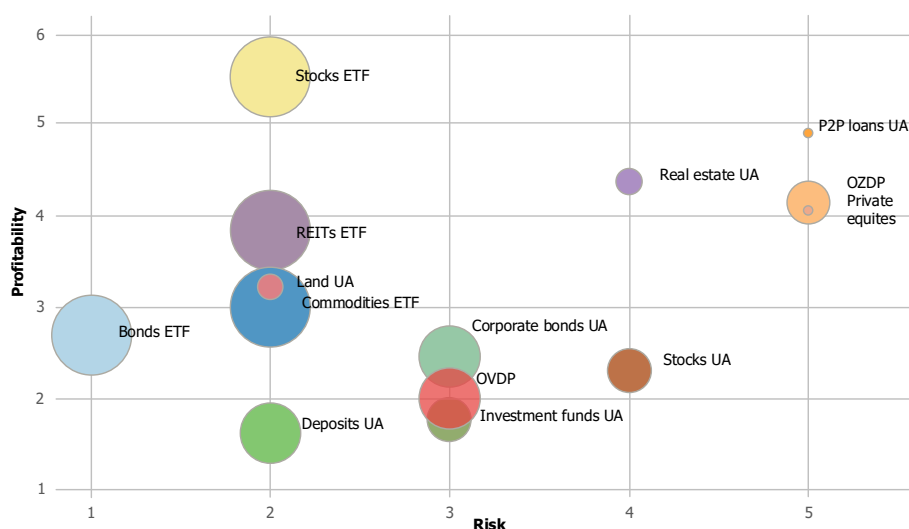


Figure 1. Distribution of investment instrument ratings. (Source: developed by the authors using RStudio software suite)

It is worth noting that the tax on foreign exchange differences has the greatest impact on investment instruments denominated in foreign currency. These are primarily all types of ETFs. To a lesser extent, this affects real estate and land and investment funds (when they are sold, there are tax benefits that depend on the term of ownership of these assets), business investments (private equities), and P2P lending, which have a high entry threshold and risk corresponding to less popularity.

In order to summarise the assessment of instrument indicators, two rating assessments of investment instruments were also introduced:

1. Summary rating: the sum of the authors' expert assessments on risk, profitability, and liquidity.
2. Integrated rating: the sum of the authors' expert assessments on risk, profitability, and liquidity, weighted from the point of view of investor behaviour with a balanced attitude to risk: 50% – risk weight, 30% – profit weight, 20% – liquidity weight.

This approach allows weighing the overall assessment of investment instruments based on the individual characteristics of the investor.

Considering the example of a balanced investor, a trend of decreasing (from left to right) the attractiveness of choosing investment instruments depending on their integrated and summary rating can be observed (Figure 2).

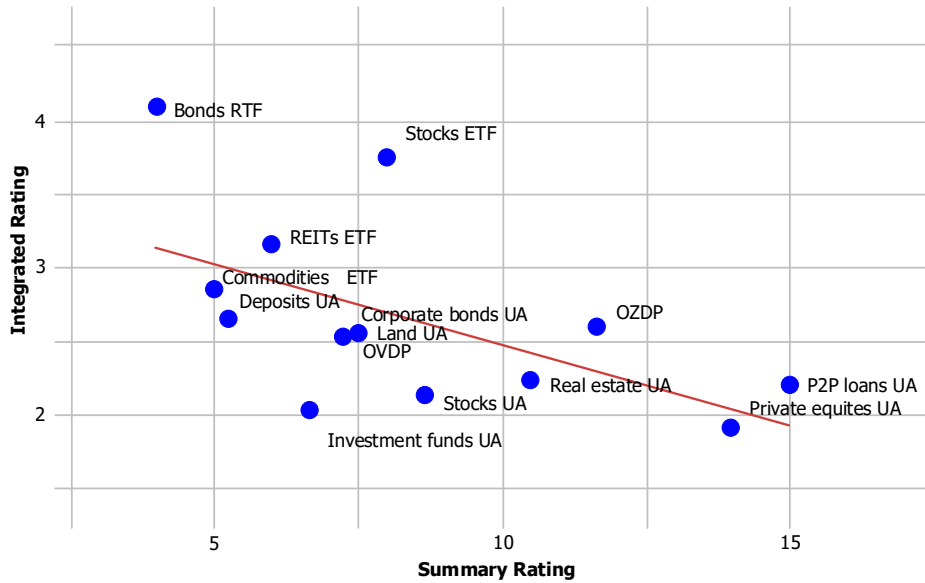


Figure 2. Trends in ratings of investment instruments. (Source: developed by the authors using RStudio software suite)

Based on the results of the analysis of indicators of investment instruments, the following conclusions can be drawn:

1. The most optimal investment instruments for the Ukrainian investor in terms of risk, profit, liquidity, and entry threshold are exchange-traded investment funds (ETFs), whose assets consist of stocks, bonds, shares of real estate funds (REITs), and exchange-traded commodities.
2. The attractiveness of instruments decreases as their diversification decreases.
3. All instruments that are the most optimal from an investment standpoint are affected by the tax on foreign exchange differences, since their value is denominated in a foreign currency.

Further, the authors performed mathematical modelling to assess the impact of the tax burden on foreign currency investment tools (Capital gain tax, CGT % from net P&L). As part of the study, 136,500 combinations of investment scenarios were modelled, covering all possible variations of the following parameters:

1. Investment Period: 1-30 years (in 1-year increments).
2. Devaluation Rate: -5% to + 80% (in 0.1% increments).
3. Return Rate: -20% to +29% (in 0.1% increments).

The data was processed in R Studio using regression analysis and clustering techniques. An annual investment of USD 1,000 with reinvestment of the received profit was provided. The rate of devaluation was considered based on historical data for 1996-2024 (Table 1). The investment period was defined in the range from 1 to 30 years. The expected portfolio return was calculated using Portfolio Visualiser software for a portfolio containing 60% of stocks ETF and 40% of bonds ETF of US companies.

Table 2. Degrees of impact of the tax burden. (Source: developed by the authors based on the results of modelling)

Tax in % to foreign currency investment profit (CGT % from net P&L)	Number of scenarios	Range of investment periods	Range of UAH devaluation rates	Investment return rate	Specific weight of scenarios in the total number
Tax is paid on losses	50,550	Between 1 and 30	Between 2% and 85%	Between -20% and 0%	37%
Tax rate from 0 to 23% (nominal)	14,999	Between 1 and 30	Between -5% and 85%	Between -20% and 28%	11%
Tax rate from 23% to 50%	43,540	Between 1 and 30	Between -5% and 85%	Between 1% and 29%	32%
Tax rate from 50% to 100% of profit	15,654	Between 1 and 30	Between 1% and 85%	Between 1% and 29%	11%
Tax rate over 100% of profit	11,757	Between 1 and 30	Between 2% and 85%	Between 1% and 29%	9%
Total	136,500	Between 1 and 30	Between -5% and 85%	Between -20% and 29%	100%

Based on the modelling, the following nature of the tax burden when investing in foreign currency investment instruments was revealed (Table 3):

1. In 11% of cases, the tax burden will not exceed the nominal level (the total level of which is 23%, and the amount of 18% – personal income tax and 5% – military duty).
2. In 43% of cases, the tax burden on investment income will be greater than its nominal rate.
3. In 37% of cases, the payment of taxes will be provided even if the investor receives losses.
4. In 9%, the payment of tax will be provided in an amount more than the profit received.

The results obtained confirm that the tax on foreign exchange differences can significantly reduce the effectiveness of foreign currency investment instruments, which creates additional barriers to long-term investments for Ukrainian investors.

The study also analysed the dependence of the tax burden (CGT % from net P&L) on key investment parameters by constructing a correlation matrix (Figure 3).

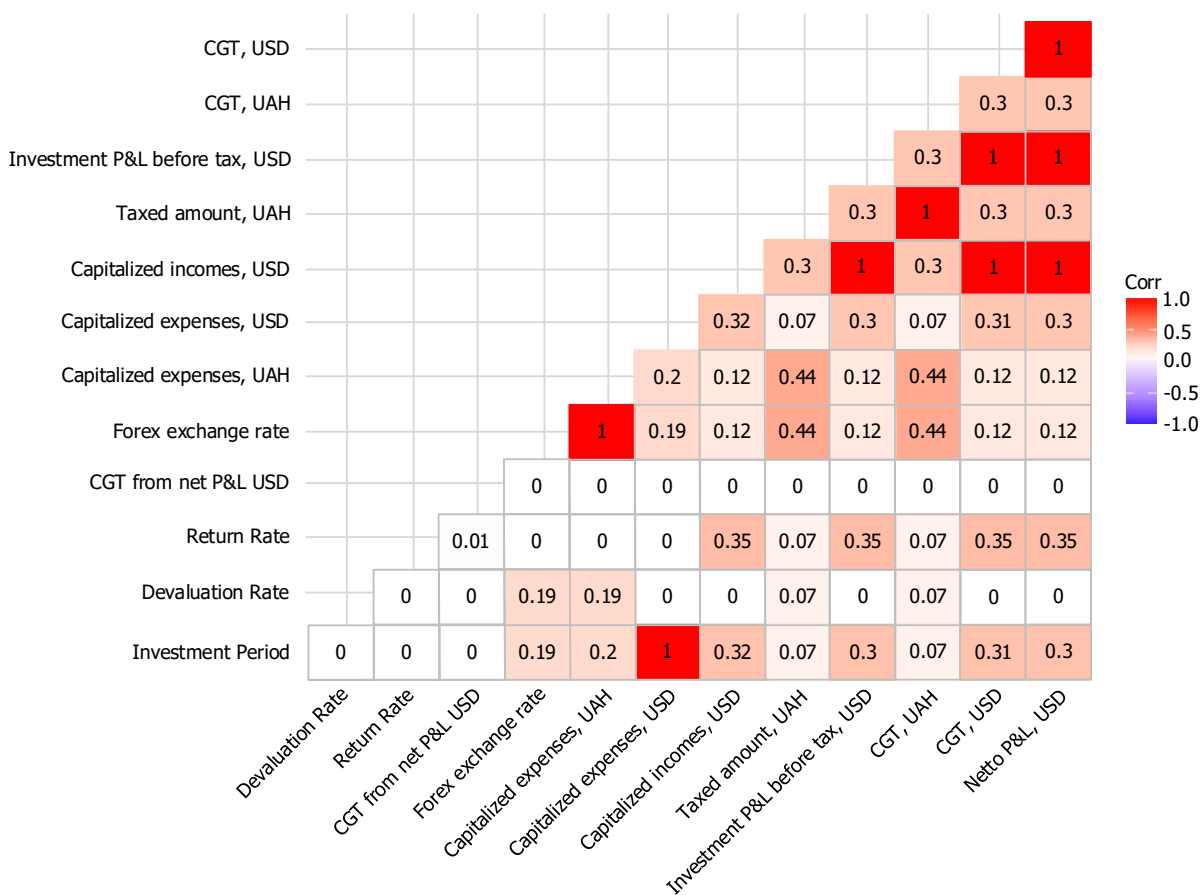


Figure 3. Modelling variables correlation matrix. (Source: developed by the authors using RStudio software suite)

Analysis of the correlation matrix showed that there are no clear linear relationships between variables, which may indicate their non-linear nature. To further test this hypothesis, a logarithmic regression analysis was performed, the results of which confirmed the non-linear interdependence between the parameters under study. It was found that the tax burden decreases with the lengthening of the investment period and an increase in profitability, but increases with an increase in the level of devaluation. These results are important for investors who want to minimise tax liabilities within their nominal rate through long-term strategies and currency risk optimisation.

To find clearer patterns in the relationship of modelling parameters with different levels of tax burden, the K-means clustering method was used (Figures 4-6). There are 5 clusters that allow investors to navigate the levels of different tax burden from less than 0 (when tax is paid on losses) to more than 50%, depending on their chosen strategy (conservative, moderate, aggressive).

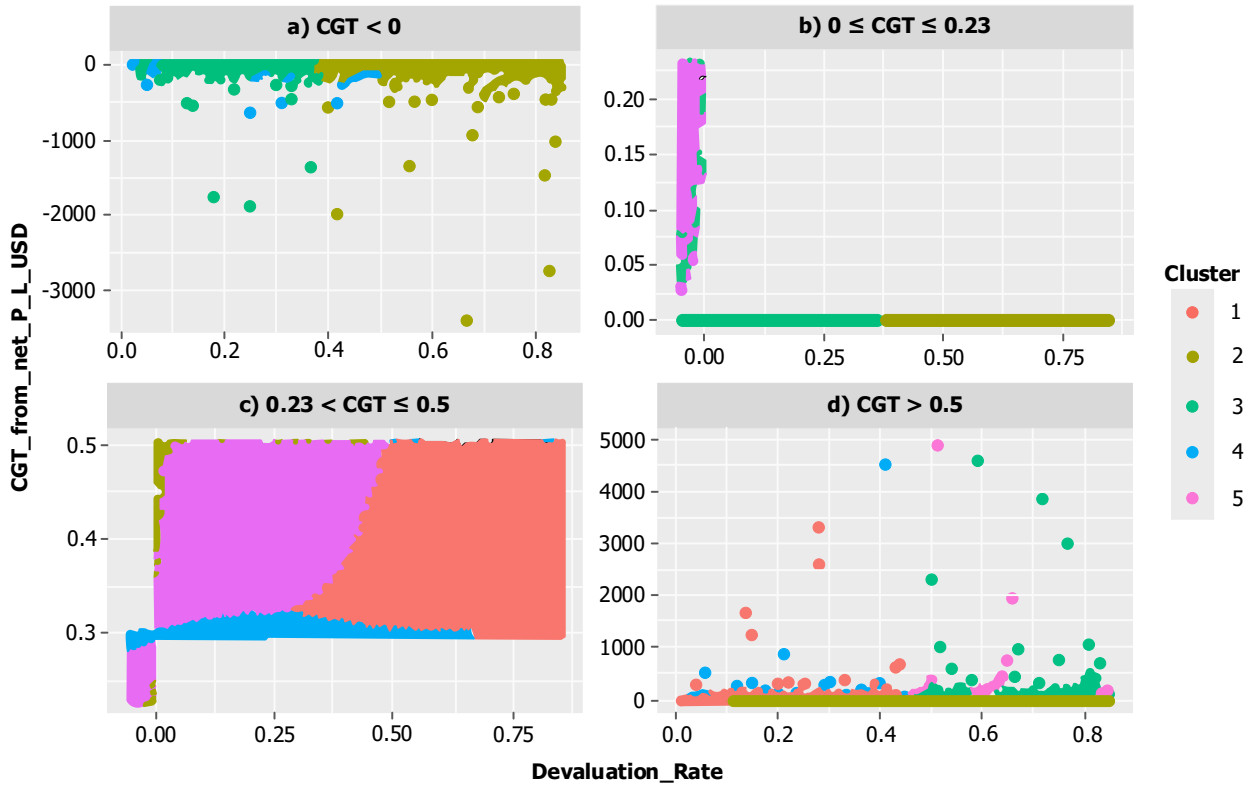


Figure 4. Tax burden depending on the level of devaluation. (Source: developed by the authors using RStudio software suite)

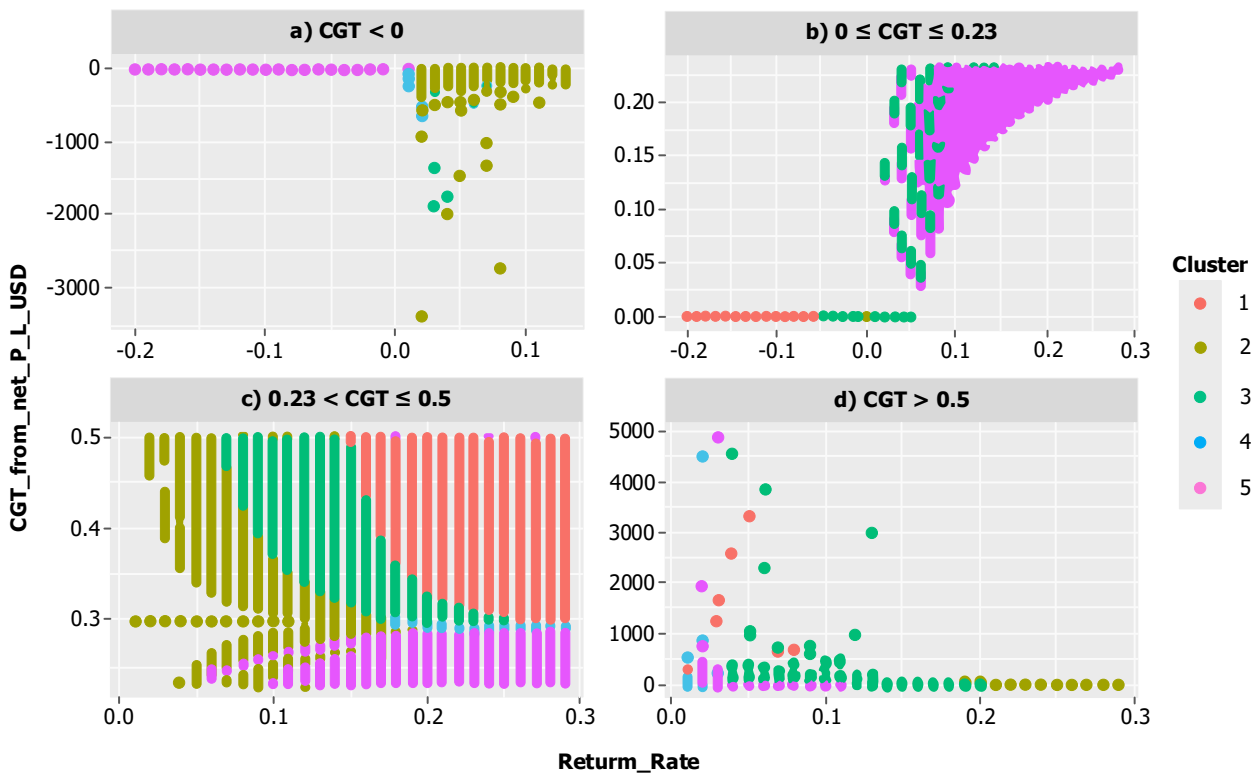


Figure 5. Tax burden depending on the level of profitability. (Source: developed by the authors using RStudio software suite)

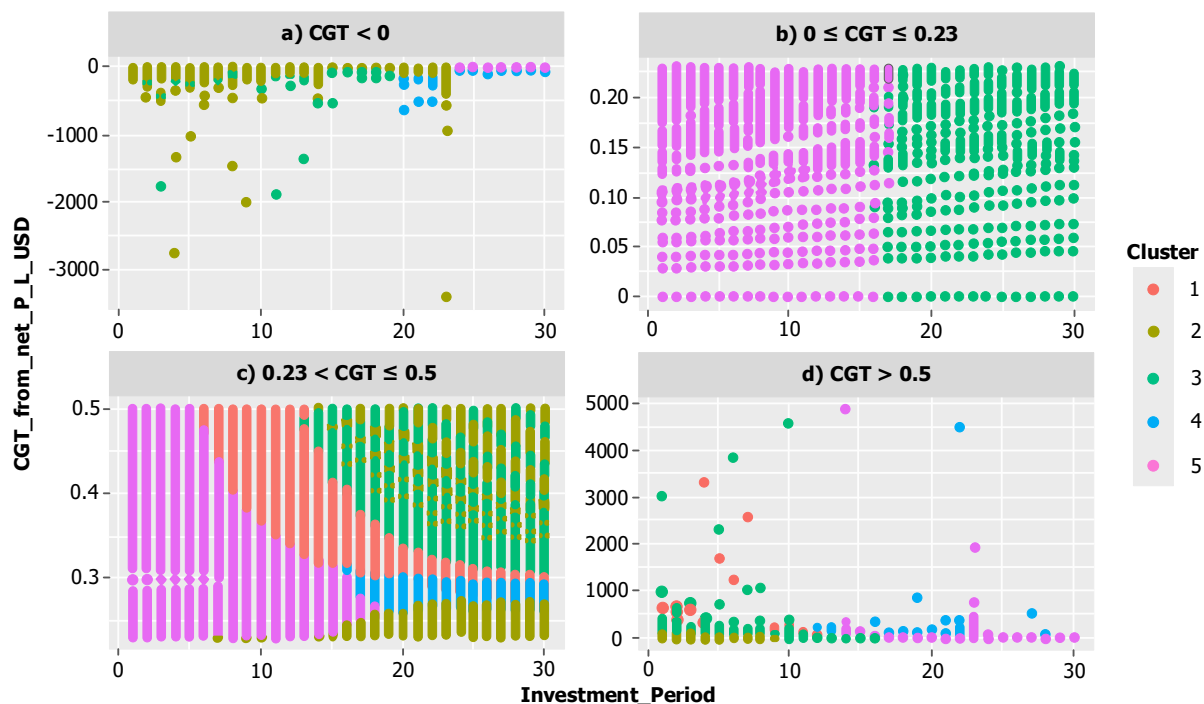


Figure 6. Tax burden depending on the investment period. (Source: developed by the authors using RStudio software suite)

1. The use of the cluster method determined the patterns of influence of key modelling parameters on the level of tax burden.
2. Analysis showed that the optimal investment period is from 10 to 25 years, since it provides a more predictable tax burden. Short-term strategies (up to 5 years) show significant fluctuations in the level of taxation, especially in conditions of high devaluation, which increases tax risks for investors.
3. Simulation results showed that with a low level of devaluation (0-10%), investors have a high chance of keeping the tax burden within the nominal level (up to 23% of profit). However, with a high devaluation (more than 40%), the tax burden can increase significantly, especially if the investment return rate is low.
4. The optimal profit range for a stable level of tax burden is 7% -15%. In this case, the level of tax liabilities remains relatively predictable. However, a profit below 3% leads to an increased tax burden, especially if it is accompanied by a high rate of devaluation.
5. Analysis also showed that the initial capital and the amount of annual investment have a relatively weak impact on the level of tax burden. However, in cases of short-term investments with significant initial capital or large annual investments, the tax burden is higher compared to investors who use more moderate strategies with less initial capital.

Summarising the above conclusions, based on cluster analysis, 3 main strategies for investors were identified – conservative, moderate, and aggressive (Table 3).

Table 3. "Investment strategies adaptive to the level of tax burden."

Level of tax burden	Investment Period	Return Rate	Devaluation Rate	Recommended investment strategy
Conservative	15-25 years	5-7%	<10%	Balancing stocks and bonds in a portfolio
Moderate	10-20 years	7-12%	<30%	Giving preference to stocks and less to bonds
Aggressive	5-15 years	12-20%	>30%	Adding high-risk assets to generate more profit = offset the increased tax burden

In this part of the study, a mathematical model was developed that, based on historical data on the devaluation of the UAH and the return on the global stock market, allows estimating the level of tax burden on investment income in the

period 2022-2024 for a Ukrainian investor with a long-term portfolio consisting of an ETF on the stock index (60% of the portfolio, ETF SPY) and bonds (40%, ETF TLT). The simulation results are shown in Figure 7.

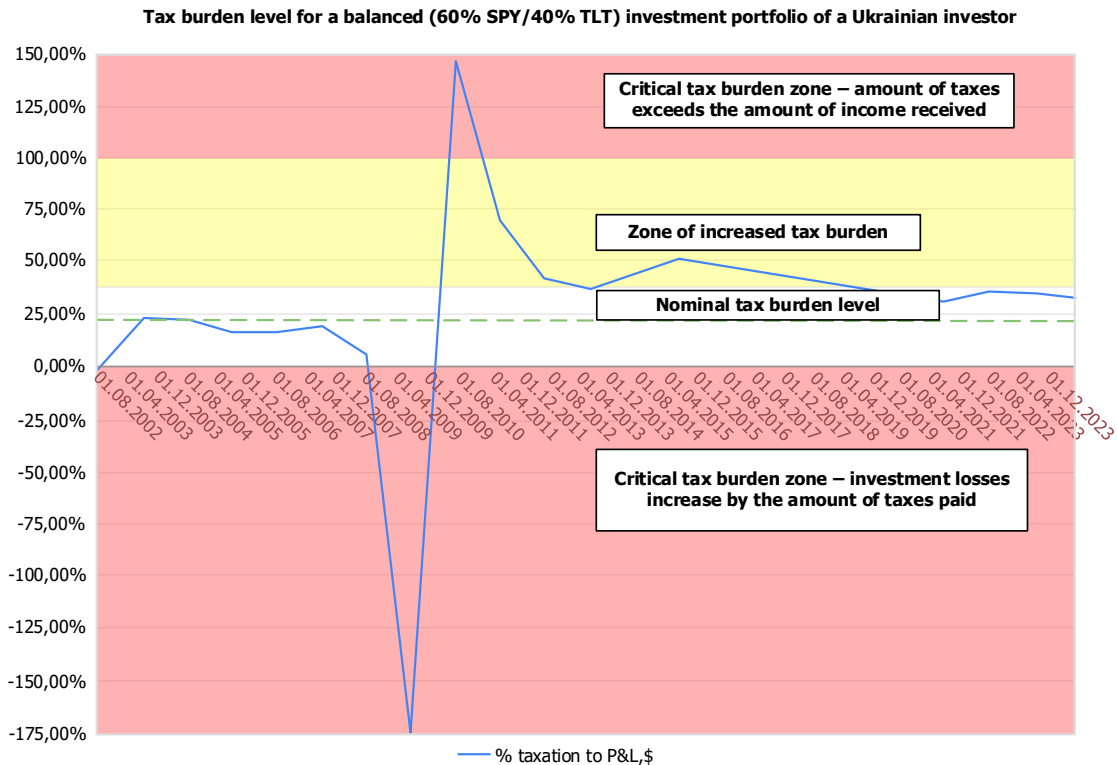


Figure 7. Model of the tax burden level in 2002-2024. (Source: compiled by the authors using Microsoft Excel software suite)

The analysis showed that the tax burden for the investor was in the zone of nominal tax burden in 5 out of 22 years (23% of cases), another 15 years under elevated tax burden (68% of cases), and 2 years (9% of cases) in the zone of critical tax burden. The distribution of cases not only correlates with the results of previous modelling, but also emphasises the relevance of the problem in modern conditions of the world and the national economy.

Thus, if the investment period decreases or the devaluation increases, the investor should take on more risk to compensate for the growing level of tax burden on foreign exchange differences. But the desire for more profit does not always end with the expected result, so the impact of the tax burden can be perceived as a negative factor from the investor's standpoint. This, in turn, can lead to tax evasion or a change in tax residences in favour of those where the reporting currency is less devalued.

One of the ways to encourage long-term investment is to provide tax incentives, which could motivate Ukrainian investors to keep their capital in the country and pay taxes at the nominal rate. However, the analysis of the current tax benefits in Ukraine shows a number of systemic shortcomings that significantly reduce their effectiveness.

First, the failure to comply with international social standards of tax benefits for investors. One of the available tax benefits is the opportunity to reduce taxable income by the amount of contributions under long-term life insurance savings contracts and non-state pension insurance contracts (for a period of 10 years or more), limited to 140% of the official monthly subsistence minimum per economically active individual (as of 01.01.2025, which is UAH 3,028 or ~USD 75). This level does not meet international standards, in which the recommended level of income replacement is 45-55% of the last salary. Also, the world practice of taxation of similar mechanisms, where benefits are linked to the minimum or average salary.

Another type of tax benefit is the preferential tax rate (60% of the nominal tax rate) of regular and consecutive payments (annuities) under long-term life insurance savings contracts and non-state pension insurance contracts. A condition for applying the preferential tax rate is the age of the recipient, which "may not be less than 10 years from the retirement age that entitles a person to a pension under mandatory state pension insurance" (Tax Code of Ukraine). However, the tax legislation "forgets" about the investor's expenses for contributions under such contracts, and at the rate of 13% = 23% × 60%, all income is taxed, and not the profit from investing.

Another benefit is exemption from taxation of payments if the recipient of payments has not reached the age of majority or is 70 years old. However, according to the State Statistics Service of Ukraine (State Statistics Service of Ukraine, 2025), the average life expectancy in Ukraine as of 2021 was 69.7 years, and this figure is decreasing due to the war. This means that the majority of citizens simply will not live to the age required to receive a tax benefit, which calls into question its practical effectiveness.

Second, weak asset diversification. According to state regulators (National Securities and Stock Market Commission, 2024), (National Bank of Ukraine, 2024), at least 90% of the assets of funds related to long-term life insurance and non-state pension insurance consist only of Ukrainian investment instruments: government bonds, bank deposits, corporate bonds, etc. The diversification of such assets in the context of the unstable economic and political situation in Ukraine is weak. In addition, the commission costs of management companies and fund administrators reach 10% of assets, which is 50 times higher than the average commission of a broad-market ETF.

Third, low tax attractiveness of assets—given that government bonds account for about 50% of the assets of pension funds and in accordance with Clause 165.1.52 of the Tax Code of Ukraine, income from local government bonds for individuals is not taxed, the question arises of the feasibility of investing in such funds, since the same government bonds through the pension fund are taxed at the rate of 13% of all income.

The analysis shows the need for drastic changes in the mechanisms of taxation and promotion of long-term investment. First of all, this refers to the need to optimise the mechanism of tax incentives with real incentives for investors, eliminate excessive age restrictions, and expand opportunities for international asset diversification. The development of long-term investment is critical for the financial stability of citizens and the economic development of the country, especially in the face of military challenges.

Special attention was paid to possible changes in Ukraine's tax policy due to the post-war economic recovery, the influx of foreign investment, and the prospects for EU membership.

DISCUSSION

The results of the simulation confirm that the devaluation of the UAH has a significant impact on the real level of tax burden for households that invest in foreign currency assets. The greatest burden is observed in short-term strategies, where the tax on foreign exchange differences not only significantly reduces investment profits (43% of simulated cases), but also creates situations where such tax is paid in case of losses (37% of cases), or even leads to them (9% of cases). This confirms the findings of Saha (2024) and Eun (1988), who pointed to the destabilising effect of currency uncertainty on the portfolio structure of developing countries.

Comparison with the experience of developed countries shows that it is long-term incentives – investment accounts, preferential rates, tax deferrals – that help citizens accumulate capital and not withdraw it abroad. In Ukraine, the tax system does not yet distinguish between a short-term speculator and a long-term investor, which creates the risk of loss of confidence in the financial market. Therefore, in comparison with the studies by King (1998) and Jappelli (2003), which prove that tax incentives can be a key factor in long-term investment, the Ukrainian tax system so far shows the opposite effect – it restrains the accumulation of capital.

All this indicates the need to reform the mechanism of taxation of foreign currency income and create long-term incentives. In particular, the introduction of individual investment accounts with deferred tax liabilities or preferential rates for instruments with an ownership period of more than 10 years could significantly reduce tax asymmetry.

However, the findings also show hope: if the investment horizon exceeds 10-15 years, and the yield remains within 7-15% per annum, the level of taxes becomes stable and predictable. This confirms that long-term investments are the key to the financial stability of households and the development of the capital market.

A limitation of this study was the lack of consideration of investor behavioural factors and changes in tax regimes over time, which requires further empirical research.

CONCLUSIONS

The results of the study confirmed the key role of the tax burden as a determinant of the investment behaviour of Ukrainian long-term investors. Analysis of the dependence of the level of tax burden on the investment period, the level of devaluation, and the profitability of the investment portfolio indicates the presence of critical imbalances in tax policy, which may limit the attractiveness of long-term investments.

First, the results of the analysis confirm that the tax burden significantly depends on the investment period, the level of devaluation of the national currency, and the profitability of the investment portfolio. An investment horizon of 10 to 25 years is optimal for minimising tax burden, while short-term strategies (up to 5 years) show significant volatility of the tax burden, especially in conditions of high devaluation.

Second, with a low level of devaluation (0-10%), the probability of remaining in the nominal tax burden zone (23% of profit) is high. However, with a devaluation of more than 40%, the tax burden increases significantly, which requires investors to search for compensatory mechanisms. Similarly, the optimal return on an investment portfolio for a moderate tax burden is in the range of 7-15% per annum, while returns below 3% lead to an increase in tax costs, especially in conditions of currency instability.

Third, the study revealed significant shortcomings in the tax policy to encourage long-term investment in Ukraine. The current tax benefits do not meet international standards and do not actually create favourable conditions for investors.

Fourth, the study revealed a tax paradox – income from government bonds for individuals is not taxed, but payments from pension funds investing in the same government bonds are subject to taxation at the rate of 13%. This creates irrational motivation for investors to choose long-term savings mechanisms.

Thus, the study confirms that the existing system of taxation of long-term investments in Ukraine is inefficient and requires significant reform. The lack of reforms in the taxation of long-term investments not only creates incentives for tax evasion but also contributes to the relocation of capital to jurisdictions with more favourable conditions. The introduction of a sound, flexible, and stimulating tax policy will be an important step towards creating a favourable investment climate in Ukraine, improving the financial stability of citizens, and ensuring sustainable economic development of the country.

Further research is required to evaluate the impact on the state budget and the savings behaviour of private investors under two possible scenarios. The first scenario entails a modification of the tax regime applicable to exchange rate differences or investment gains in the context of long-term investment. The second scenario assumes no change to the current arrangements, whereby private investors independently undertake measures to protect themselves from excessive tax burdens, such as relocating to alternative tax jurisdictions, engaging in “washing sales”, or utilising derivative financial instruments and similar mechanisms.

ADDITIONAL INFORMATION

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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ЯК ДЕВАЛЬВАЦІЯ ВПЛИВАЄ НА ВАЛЮТНІ ІНВЕСТИЦІЙНІ ДОХОДИ ДОМОГОСПОДАРСТВ

У статті розглянуто вплив податкового навантаження на інвестиційні стратегії українських інвесторів, урахувавши фактори девальвації гривні, прибутковість іноземних валютних фінансових інструментів та інвестиційний період. На основі використання методів кореляційного аналізу та кластерного аналізу були визначені ключові фактори, що впливають на рівень податкових зобов'язань. Було змодельовано вплив податкових зобов'язань на прибутковість інвестиційного портфеля за різних макроекономічних умов. Для аналізу було використано 136 500 змодельованих інвестиційних сценаріїв з урахуванням змінних рівнів девальвації УАН, доходності фінансових активів і таймінгу інвестицій. Результати моделювання показали, що короткострокові стратегії (до 5 років) мають високу

волатильність податкового навантаження, особливо в умовах значної девальвації національної валюти. Якщо девальвація зростає більш ніж на 40%, податкове навантаження різко зростає, особливо якщо дохідність портфеля нижча за 3%. Оптимальними умовами для стабільного рівня оподаткування є дохідність інвестиційного портфеля в діапазоні від 7% до 15% на рік, ставка девальвації UAH до 10% на рік і інвестиційний період від 10 до 25 років. Було досліджено нинішню іноземну практику податкових пільг і спеціальних інвестиційних рахунків. Порівняльний аналіз чинних податкових пільг в Україні показав, що їхній реальний вплив на інвесторів обмежений через низький рівень соціальної відповідальності, завищені вікові обмеження, відсутність широкої диверсифікації активів і подвійне оподаткування. На основі отриманих результатів були розроблені рекомендації щодо реформування податкової політики в інвестиційному секторі. Упровадження таких реформ збільшить податкове навантаження для інвесторів, покращить інвестиційний клімат і зменшить ризик відтоку капіталу за кордон, що є критично важливим у контексті фінансової стабільності України.

Ключові слова: податкове навантаження, девальвація, інвестиції, інвестиційний портфель, податкові пільги, домогосподарство, заощадження, інвестиційні стратегії, інвестиційні інструменти, валютні різниці, довгострокові інвестиції.

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