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Income Tax Planning as a Tool for Achieving Financial Stability

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Increasing the efficiency of a company and its financial stability involves reducing costs, including reducing the amount of taxes paid. One of the legal methods of the latter is tax planning. The study aims to demonstrate the dependence of tax planning on financial stability indicators of an enterprise. The study found that the net income indicator is a statistically significant regressor of financial stability indicators - return on net assets and return on equity. The assumption of statistical significance of income tax as a regressor of return on assets, return on net assets, and return on equity was also confirmed. Modelling the use of tax planning has shown that it has a positive and statistically significant impact on financial stability. The study results showed that reducing the income tax to zero increases the profitability of net assets and return on equity. Depending on the income tax rate, pre-tax income, value of assets, equity, and reserves, the effect of tax planning may increase. The methodological limitation of the study consists in the set of financial stability indicators, which are analyzed in the context of profitability. The focus on profitability, which in the study is the core of the proposed tools, is because its high level provides long-term competitive advantages of a company and the formation of its own financial reserves for technical re-equipment, modernization, and technological development. All this ensures a company's attractiveness for creditors and investors, stability, free disposal of financial resources, and permanent solvency, which enhances financial stability. The study considered income tax planning, for this reason the author chose indicators that depend on this tax. The study considers tax planning only for corporate income tax. The effect of tax planning was considered only in the absence of profit tax paid.

Keywords: *Cost Minimization; Financial Stability; Return on Assets; Return on Equity; Tax Management.*

Introduction

Payment of taxes is a significant cost item for any company. In addition to reducing the amount of income a company has after taxes, these costs also affect financial stability indicators, which are critical in market assessments of business performance. A decrease in the financial stability indicators reduces a company's investment attractiveness, as well as worsens its credit rating. In this regard, it is not surprising that company management is looking for ways to improve tax discipline and this way is tax planning.

Tax planning involves using the provisions of tax law to avoid paying more taxes than necessary. Some companies may be more aggressive in their tax planning and seek to exploit loopholes or interpret uncertainties in the tax laws to their advantage. This type of activity is considered manipulation and is not considered tax planning, which does not involve a dual interpretation of tax law. Tax planning does not involve tax evasion, only income redistribution between different jurisdictions in order to pay less tax, but under the law. That is why most companies actively engage in tax planning to reduce their income taxes.

It is worth noting that not all companies can carry out tax planning. This is due to certain factors of a company, such as its size and tax planning capabilities. If a company has a branch in only one country, then tax planning for it is limited in tools - it can only allocate the payment of income tax between reporting periods. However, if a company has registered subsidiaries in different countries with different tax rates, it can redistribute income so that it pays tax in the country where the rate is lower. In addition, the nature of the business also affects a company's ability to do tax planning. For example, companies in trade, manufacturing, technology, consumer goods, services, and real estate tend to use tax planning more extensively than companies in other industries, such as infrastructure and construction. This is because the production cycle in construction and infrastructure is much longer than in other sectors of the economy. It often exceeds the reporting period (year), so companies recognize the emergence of income in the same period in which they recognize the costs associated with the formation of this income. Therefore, a company cannot recognize expenses in one subsidiary and income associated with those expenses in another.

The study hypothesis is that tax planning can not only reduce the amount of income tax, but also improve the financial stability of a company. Tax planning has two main goals: first, to minimize overall income tax liability, and second, to achieve financial planning goals with minimal tax results. These goals are achieved through three main strategies. The first is aimed at reducing income tax as a result of an arrangement or transaction. The second is associated with a change in the timing of taxation, and the third with the transfer of income to another taxpayer, which reduces the tax liability of the first. As a result, the company pays less tax since the tax is paid by a second company in a jurisdiction with a lower tax rate. Thus, the use of tax

planning allows one to manage not only the financial result, but also financial stability indicators. Financial stability indicators are an important factor in a company's investment attractiveness and in terms of assessing its results. Often, a company's financial strength also affects the possibility of lending: the better the financial strength, the more likely to get a loan. Net income, the amount of which depends on the income tax paid, is one of the key indicators based on which financial stability indicators of a company are calculated. Thus, tax planning allows one to increase a company's financial stability indicators. Based on this, the study purpose is to demonstrate the dependence of tax planning on financial stability indicators of an enterprise. Net profit and profitability are the starting indicators of financial stability formation because a company's equity value depends on them.

Literature Review

This study section attempts to discover how different researchers define the relationship between tax planning and companies' financial stability. Cho showed from empirical data that the sustained tax behavior of multinational corporations increased when international tax law required them to disclose important information about the global distribution of income and taxes paid between countries (Cho, 2020).

Question of interest is what effect tax planning has on financial stability indicators. The results show that the international tax liabilities of multinational corporations with higher intangible asset intensity increased more. Cho demonstrated the response of multinational companies to stricter tax laws and showed that companies use tax planning more intensively but did not disclose the effect of tax planning on companies' financial performance. Disclosing and sharing private information about the global operations of multinational corporations is essential to combating such corporations' activities under BEPS, and intangible assets are indeed an important source of tax evasion. Cho argued that such measures were taken as a response to corporate attempts to reduce the amount of taxes in order to improve company performance for shareholders. However, Cho does not indicate how intangible assets have changed in the financial statements of such companies or how the financials themselves have changed as a result of the increase in intangible asset transactions. Given that, for owners, financial stability is an important criterion of business success, these activities of corporations confirm the relevance of tax planning to improve financial stability.

Tosun and Yildiz (2020) investigated the effect of aggregate tax policy uncertainty on default risk at the firm level. Because of the uncertainties associated with tax policy, firms may find it difficult to determine the optimal level of tax debt. This can increase financial risks and the likelihood of default of a company. At the same time, the uncertainty of tax policy may cause some firms to take less risk, which may reduce their use of debt and, in turn, reduce the likelihood of default. In this case, less risk is realized at the expense of tax planning, but the researchers do not disclose the results of such risk minimization for financial stability indicators. Besides, it is crucial that such risk minimization did not impair a firm's financial stability, but the study results do not disclose this issue. The researchers found that tax policy uncertainty was positively related to the expected probability of firm default. With this conclusion, researchers confirm the relevance of the issue of tax planning to ensure financial stability.

In a study of tax planning effect (Alduneibat *et al.,* 2017), the researchers concluded that tax planning in public industrial joint-stock companies affects the performance of industrial companies (the amount of income increases). This conclusion is obvious, since tax planning itself implies an increase in income. However, the researchers do not consider further consequences of tax planning, and namely its impact on a company's financial stability. The study argues that the number of years of a company's operation has no impact on tax planning effects. Researchers are limited to the issue of tax planning impact on company income, while such effects are much more profound and affect a number of other financial reporting indicators, in addition to income. Tax planning is carried out through equity and asset flow redistribution, which affects the amount of assets, equity, and reserves in a company's statements. Besides, financial stability indicators (which are extremely important for assessing a company's effectiveness) are calculated on the basis of financial statements. All these issues remain unaddressed by researchers.

In a study of tax evasion impact on companies' financial instability, Ozili (2020) concludes that tax evasion can reduce the tax revenues of a country's budget. This could weaken a government's ability to ensure stability in its financial systems. On the other hand, tax evaders believe that they can use tax evasion money to improve their situation. Considering the effect of tax planning at the company level, Ozili is limited to concluding about the use of freed-up funds. However, the researcher does not consider the most important thing in this case, namely, what is the effect of these funds use. The key issue of tax planning remains unresolved, therefore, the question of whether tax planning makes sense remains unanswered. However, it should be noted that tax evasion is an illegal method of tax planning, and this study will not consider it.

The results of another study (Olamide *et al.,* 2019) showed that the effective tax rate (the average tax rate in a country) has a negative and statistically significant impact on financial results. Low capitalization has a significant positive impact on the financial performance of corporations in Nigeria, while capital intensity and leasing capacity have shown little impact on the financial performance of companies in the country. Researchers have partially touched on the issue of assessing tax planning effect but have not disclosed it adequately. Tax planning can increase a company's capitalization, but the question is by how much. It is this effect of tax planning that is important for assessing the effectiveness of tax planning application. However, this effect has not been studied by researchers. In this case, it is necessary to consider the country of the studied companies as it is a kind of influence factor when comparing the income tax rate and companies' capitalization.

The Aspen Institute's report on short-term corporations' financial stability argues that in the short term, corporate tax planning can have negative consequences for the state budget due to a reduction in tax revenues (The Aspen Institute, 2019). At the same time, the positive effect for businesses in the long run can stimulate economic activity,

which will subsequently provide a greater positive effect. Researchers consider this issue more at the macro level, but it remains undisclosed how tax planning can have a positive effect on businesses. Tax planning by reducing the amount of taxes paid will increase the amount of income, but the effect of tax planning is not limited to this. Based on the Aspen Institute's report, tax planning can benefit not only the companies themselves, but also the economy. In this case, the positive effect of tax planning is not only to improve the financial stability of a company, but also to improve the external environment of its activities in the long term. In this study, the effect of tax planning on companies' performance remains undisclosed, therefore, it is unknown whether tax planning will have an unambiguously positive effect on companies.

Jones *et al.* (2020) investigated the impact of multinational companies' use of offshore zones on foreign direct investment. They concluded that the use of tax havens is closely related to the fact that multinational enterprises of developed countries own subsidiaries in developing countries, which are often characterized by significant market imperfections and weak institutions. However, the effect of tax planning is much greater than the impact on foreign investment. The study did not consider other effects of tax planning, which leaves this issue without proper disclosure and requires further elaboration. In addition, the researchers showed that this relationship is also true for developed-country companies that own subsidiaries in regions characterized by significant capital outflows. This is a particular type of market imperfection that has a significant impact on the developing world because it deprives wealth and income that could be used to finance government spending aimed at the poorest members of society. In this case, the researchers focus on the fact that tax planning leads to the outflow of capital from a country. However, the study of the Aspen Institute (2019) shows that tax planning in the long term is positive for both the company itself and the economy of the country. The analyzed studies consider the issue of tax planning in the context of tax evasion. The present study shows that tax planning should be considered in the context of optimizing a company's costs and increasing its financial stability.

The analyzed studies address several important aspects of tax planning. The first problem concerns the directions of the use of tax planning by both companies and the state. The second problem concerns the uncertainty of tax policy as a prerequisite for the use of tax planning by companies. The third problem concerns the level of taxes and tax pressure on business, as a result of which companies use tax planning or register offshore. Consideration of these groups of problems is very relevant for both micro and macro levels.

The reviewed studies do not reveal the effect of tax planning on a company. Tax planning and its parameterization are not explained. In this case, the issue of tax planning feasibility remains open, since its clear effect is not disclosed. In the analyzed studies there is no clear assessment of tax planning effects on a company's performance, in particular on financial stability indicators. Based on this, the study purpose is to demonstrate the dependence of tax planning on financial stability indicators of an enterprise. Tax planning involves the reduction of income tax liabilities. As a result, the company increases net income by the amount of income tax payable. The change in the amount of net profit affects the financial stability indicators, the calculation of which includes the company's net profit. The demonstration of this effect will reveal the parameterized effect of tax planning on a company's financial stability, which has not yet been done before. To achieve this goal, the author set the following tasks:

- to analyze a company's financial stability before tax planning;
- to determine the degree of influence of income tax on a company's financial stability;
- to determine the effect of tax planning on a company's financial stability.

The study of the relationship between tax planning and financial stability indicators is conducted in the context of current development problems of the Russian economy, which is under international sanctions. Under such conditions, it is quite difficult for companies to conduct their activities in the international market, and tax planning can improve a company's economic performance and its financial stability. Given that economic cooperation with Western countries is now complicated, Russia's strategic economic partner is China, and Russian companies are increasing their presence in the Chinese market. The study considers the activities of a company that has branches (separate legal entities) in Russia and China and can apply tax planning to improve financial stability indicators. It should be noted that the possibility of using tax planning for such companies is possible due to the differences in tax rates in Russia and China (Table 1).

Table 1

Income tax rates in Russia and China

Taxpayer	**Tax rate**
Russia	
All Russian legal entities (LLC, JSC, PJSC, etc.). Foreign legal entities that operate in Russia through a permanent establishment or simply receive income from a source in Russia. Foreign organizations recognized as tax residents of the Russian Federation in accordance with an international tax treaty. Foreign organizations, which are managed in the Russian Federation, unless otherwise stipulated by an international taxation treaty	20 %
China	
For companies registered in China	30 %
For enterprises not registered in China	20 %
Enterprises with foreign investment	15 %

In addition, there is an international tax agreement between Russia and China on the avoidance of double taxation and the prevention of income tax evasion. This agreement allows avoiding double taxation and paying tax in a tax jurisdiction with a lower rate. In this case, companies' field of activity does not matter - all companies with foreign investment in China have an income tax rate of 15 % and there is no double taxation.

The author chose ‘Trade House “Chin-Ru”’ LLC, whose financial statements are publicly available, as the study object. This enterprise is in Russian-Chinese ownership, and another enterprise is registered in China.

Enterprises are owned by the same owners. Since the company in China has owners from Russia, it is an enterprise with foreign investment, and income is taxed at the rate of 15 %. In Russia, the income tax rate is 20 %, which implies the possibility of redistributing income between the two countries as part of tax planning. 'Trade House "Chin-Ru"' exports products to China. As part of tax planning, the company can sell products to the Chinese company at the lowest price (since the owner is the same, it can be done at transfer prices), and the Chinese company will sell them in the Chinese market and make a profit, which will be taxed in China.

Methods and Materials

The research is based on the understanding of financial sustainability as a state of a company's financial system that is resistant to external and internal shocks. Financial stability is determined by the values of such financial indicators as ROA, RONA, ROE (Deloitte, 2013). These very indicators are the determinants for assessing the level of financial stability of a company by shareholders, for whom the value of a company is a determinant criterion of its success. To achieve the study goal, the author derived from the premise that financial stability indicators are a tax planning function. In turn, tax planning involves reducing the amount of income tax paid. As a source of data and the study object, the author considered the activities of the Russian-Chinese enterprise 'Trade House "Chin-Ru"' LLC, which is engaged in import-export of manufacturing equipment (Trading House Chin-Ru LLC, 2021). This company operates in Russia and China and can legally reduce the amount of income tax by redistributing the income received between the countries. The present study considers a company that has a branch in Russia and in China, so the Chinese branch is a company with foreign investment and the income of this company in China is taxed at a rate of 15 %. The considered tax planning tool is the redistribution of income between branches. To determine the relationship and effect of tax planning, this process was considered from the perspective of a company registered in Russia. The study used financial statements of 'Trade House "Chin-Ru"' LLC since tax planning makes sense for this company because its income is subject to a higher tax rate. The study used information from the financial statements of 'Trade House "Chin-Ru"' LLC (Form 1 'Balance Sheet', Form 2 'Statement of financial performance') for the period 2013–2020, which is available in public sources (FinMozg, 2021). Based on the information in the financial statements, the author calculated the financial stability indicators and determined the effect of tax planning on the latter.

Based on the study premise, the financial stability indicators were considered as a tax planning function:

$$FS = f(TP) \quad (1)$$

where:

FS – financial stability;

TP – tax planning.

In this case, financial stability was considered as a set of indicators that characterize an enterprise's financial condition and its ability to cover its obligations:

$$FS = (ROA, RONA, ROE) \quad (2)$$

or

$$(ROA, RONA, ROE) = f(TP) \quad (3)$$

where:

ROA – return on assets;

RONA – return on net assets;

ROE – return on equity.

ROA, RONA, and ROE were chosen because they consider income tax and net income, which depends on income tax. Since tax planning results in reduction of the tax paid, these indicators were chosen to achieve the goal. Return on assets (ROA) is a profitability ratio that measures the return on resources owned by a business. This indicator is one of the different variants of return on investment (ROI). Return on assets measures the level of net income received by company assets.

Return on Net Assets (RONA) is an alternative measure of traditional asset-based profitability. RONA shows how well company assets and net equity are performing in terms of generating net income. Return on net assets is usually used for capital-intensive companies and is an important indicator for determining how effectively a company generates income from net assets.

Return on equity (ROE) is a measure of a company's annual profitability (net income). The return on equity indicator is similar to the return on assets. A company has two sources of assets: borrowed and own. Return on equity focuses on the latter. This indicator shows the efficiency of the use of resources invested in the company by investors.

The value of financial stability indicators depends on the amount of income tax. Consequently, the study considered the tax planning effect as the absence of income tax in the company registered in Russia. The absence of income tax in line 2410 of Form 2 'Statement of financial performance' affects the net income figure and, consequently, the financial stability indicators. To determine the tax planning effect, the study covered the period from 2013 to 2020 (the company filed financial statements for this period). Since, according to the tax legislation and regulatory documents governing accounting, the accounting policy of the company is approved for the year, tax planning is considered on the basis of a period of one calendar year. Thus, the figures on the amount of tax liabilities for income tax and profit of the company are taken for the year. In addition, any changes in tax law imply a change in tax rates from the beginning of the year following the year of adoption of the change in such rates.

The study consisted of three stages. At the first stage, the author analyzed the dependence of financial stability indicators on the variables based on which they are calculated: income before taxation, net income, the amount of equity and reserves, and the amount of assets. The results of this stage determined how significant the net income variable (which depends on the amount of income tax) is. For this, the following three models were tested:

Model 1: $ROA = f(Income\ before\ Tax; Assets)$

$$ROA = \beta_0 const + \beta_1 Income\ before\ Tax + \beta_2 Assets + \varepsilon_t$$

Model 2: $RONA = f(Net\ Income; Assets)$

$$RONA = \beta_0 const + \beta_1 Net\ Income + \beta_2 Assets + \varepsilon_t$$

Model 3: $ROE = f(Net\ Income; Capital)$

$$ROA = \beta_0 const + \beta_1 Net\ Income + \beta_2 Capital + \varepsilon_t$$

In the second stage, the author analyzed the dependence of financial stability indicators on income tax. It is worth noting that the value of ROA, RONA, ROE do not depend only on the amount of income tax, but to achieve the study objectives, only the amount of income tax is considered as an independent variable. The results of this stage determined the significance of an income tax variable for financial stability indicators. If the income tax is statistically significant, then the tax planning is significant for financial stability indicators. In this case, the tax planning result, expressed as a zero amount of income tax to be paid, directly affects an enterprise's financial stability. For this purpose, the following three models were tested:

Model 4: $ROA = f(Tax)$

$ROA = \beta_0 const + \beta_1 Tax + \varepsilon_t$

Model 5: $RONA = f(Tax)$

$RONA = \beta_0 const + \beta_1 Tax + \varepsilon_t$

Model 6: $ROE = f(Tax)$

$ROE = \beta_0 const + \beta_1 Tax + \varepsilon_t$

In the third stage, the author simulated the effect of tax planning by analyzing the financial stability indicators of 'Trade House "Chin-Ru"' LLC for the period 2013-2020 in the absence of income tax. For this, the following three models were tested:

Model 7: n$ROA = f(Income\ before\ Tax; Assets)$

$nROA = \beta_0 const + \beta_1 Income\ before\ Tax + \beta_2 Assets + \varepsilon_t$

Model 8: n$RONA = f(Net\ Income; Assets)$

$nRONA = \beta_0 const + \beta_1 Net\ Income + \beta_2 Assets + \varepsilon_t$

Model 9: n$ROE = f(Net\ Income; Capital)$

$nROA = \beta_0 const + \beta_1 Net\ Income + \beta_2 Capital + \varepsilon_t$

All models were built and tested in the software product GRETL using linear regression with ordinary least squares (OLS). For the convenience of presenting the information graphically, all diagrams were constructed in Microsoft Excel.

Results

The financial stability of the studied company was calculated before applying tax planning. These values are the outgoing data to determine the effect of tax planning. It is important to note that changes in the ruble/yuan currency pair exchange rate affect the revenue figures, which are displayed in rubles in the financial statements. Consequently, the income redistribution between branches in Russia and China can also have a positive effect in terms of converting income in another currency. Based on the financial statements of 'Trade House "Chin-Ru"' LLC for the period 2013–2020, the financial stability indicators such as ROA, RONA, and ROE were calculated.

Table 2 shows the results of calculating the financial stability of 'Trade House "Chin-Ru"' LLC for the period 2013–2020.

Table 2

Financial Stability Indicators of 'Trading House "Chin-Ru"' LLC for the Period 2013–2020

Year	ROA, %	RONA, %	ROE, %
2013	0.00	0.00	0.00
2014	1.11	0.88	7.24
2015	20.12	16.06	42.41
2016	-0.03	-0.05	-0.13
2017	0.26	0.18	0.54
2018	0.66	0.51	3.05
2019	10.26	8.16	25.76
2020	7.25	5.78	17.87

To determine the significance of net income variable (which depends on the amount of income tax), it is necessary to test models of financial stability indicators' dependence on the indicators based on which they are calculated.

Table 3

Dependence of Return on Assets on Income before Taxation and Assets

Model 1: OLS, using observations for 2013-2020 (T=8) Dependent variable: ROA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	1.44041	1.67086	0.8621	0.4280	
Income before Tax	0.00157908	8.46773e-05	18.65	<0.0001	***
Assets	−2.42237e-05	2.04713e-05	−1.183	0.2899	
Mean dependent var	4.953750	S.D. dependent var		7.251242	
Sum squared resid	4.752888	S.E. of regression		0.974976	
R-squared	0.987087	Adjusted R-squared		0.981921	
F (2, 5)	191.1000	P-value (F)		0.000019	
Log-likelihood	−9.268751	Akaike criterion		24.53750	
Schwarz criterion	24.77583	Hannan-Quinn		22.93010	
Rho	0.518183	Durbin-Watson		0.973454	

Profitability depends directly on a company's net income and inversely on the size of its assets. Identifying the dependence of return on assets on profit and assets is important for company management in the context of determining the level of costs and profitability in comparison with competitors in the industry.

Regression results (Table 3) show that income before taxation is a statistically significant regressor of return on assets (p-value<0.0001) and has a positive effect. With an increase in income before taxation by 1 thousand rubles, the return on assets increases by 0.002 %.

Table 4

Dependence of Return on Net assets on net Income and Assets

Model 2: OLS, using observations for 2013–2020 (T=8) Dependent variable: RONA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	1.13317	1.34220	0.8443	0.4370	
Net Income	0.00157942	8.51942e-05	18.54	<0.0001	***
Assets	−1.90951e-05	1.64495e-05	−1.161	0.2981	

Mean dependent var	3.940000	S.D. dependent var	5.791597
Sum squared resid	3.068799	S.E. of regression	0.783428
R-squared	0.986930	Adjusted R-squared	0.981702
F (2, 5)	188.7785	P-value (F)	0.000020
Log-likelihood	−7.518888	Akaike criterion	21.03778
Schwarz criterion	21.27610	Hannan-Quinn	19.43037
Rho	0.516206	Durbin-Watson	0.975384

To identify the relationship between the profitability of net assets and net income and assets is necessary to develop measures to improve the management of the structure of capital and a company's ability to grow assets by increasing the return on each thousand rubles invested.

The data in Table 4 show that net income is a statistically significant regressor of return on net assets. The increase in net income per 1 thousand rubles leads to an increase in return on net assets by 0.002%.

Table 5

Dependence of return on equity on net income, equity, and reserves

Model 3: OLS, using observations for 2013-2020 (T=8) Dependent variable: ROE					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	6.47038	2.15455	3.003	0.0300	**
Net Income	0.00451562	0.000149269	30.25	<0.0001	***
Equity	−0.000327715	0.000115498	−2.837	0.0364	**

Mean dependent var	12.09250	S.D. dependent var	15.46296
Sum squared resid	7.225488	S.E. of regression	1.202122
R-squared	0.995683	Adjusted R-squared	0.993956
F (2, 5)	576.6037	P-value (F)	1.22e-06
Log-likelihood	−10.94420	Akaike criterion	27.88840
Schwarz criterion	28.12673	Hannan-Quinn	26.28100
Rho	−0.504171	Durbin-Watson	2.167441

Analysis of the relationship between return on equity, net income, and reserves is necessary to control the limits of profitability values, because low values indicate a violation of financial stability and risks of insolvency, while too high values indicate an inefficient allocation of funds and excessive tax burden.

The regression results in Table 5 show that net income, equity, and reserves are statistically significant regressors of return on equity. An increase in net income per 1,000 rubles leads to an increase in the return on equity by 0.005 %, and an increase in equity and reserves leads to a decrease in the return on equity by 0.0003 %. In general, the results of the models tested show that the regressors (whose value depends on the amount of income tax) are statistically significant. Based on this, the author concludes that tax planning, the purpose of which is to minimize the amount of income tax paid by legal means, can improve the financial stability of a company.

It was found that all regressors, the values of which depend on the volume of income tax, are significant. The results of testing the models of financial stability indicators' dependence on income tax are presented in Tables 6–8.

Table 6

Dependence of Return on Assets on Income Tax

Model 4: OLS, using observations for 2013-2020 (T=8) Dependent variable: ROA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	−0.561983	0.459051	−1.224	0.2668	
Tax	−0.00796352	0.000420232	−18.95	<0.0001	***

Mean dependent var	4.953750	S.D. dependent var	7.251242
Sum squared resid	6.048475	S.E. of regression	1.004031
R-squared	0.983567	Adjusted R-squared	0.980828
F (1, 6)	359.1138	P-value (F)	1.40e-06
Log-likelihood	−10.23297	Akaike criterion	24.46593
Schwarz criterion	24.62482	Hannan-Quinn	23.39433
Rho	0.449994	Durbin-Watson	0.996103

The correlation between the profitability of assets and profit tax shows the magnitude of the reduction in profitability due to the growth of the tax burden on the conditional 1 thousand rubles.

The regression results (Table 6) show that income tax is a statistically significant regressor of return on assets. The income tax increase by 1 thousand rubles leads to a decrease of the return on assets indicator by 0.008 %.

Table 7

Dependence of Return on Net Assets on Income Tax

Model 5: OLS, using observations for 2013-2020 (T=8) Dependent variable: RONA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	−0.465321	0.367236	−1.267	0.2521	
Tax	−0.00636033	0.000336182	−18.92	<0.0001	***

Mean dependent var	3.940000	S.D. dependent var	5.791597
Sum squared resid	3.870932	S.E. of regression	0.803216
R-squared	0.983514	Adjusted R-squared	0.980766
F (1, 6)	357.9405	P-value (F)	1.41e-06
Log-likelihood	−8.447724	Akaike criterion	20.89545
Schwarz criterion	21.05433	Hannan-Quinn	19.82384
Rho	0.451164	Durbin-Watson	0.991846

The regression analysis also showed the dependence of a company's equity profitability (without its liabilities) on the profit tax. Return on net assets is the ratio of net profit after tax to the sum of non-current assets, net working capital, and fixed assets.

The regression results (Table 7) show that income tax is a statistically significant regressor of return on net assets. The increase in profit tax by 1 thousand rubles leads to a decrease in the return on net assets by 0.006 %.

Table 8

Dependence of Return on Equity on Income Tax

Model 6: OLS, using observations for 2013-2020 (T=8) Dependent variable: ROE					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.295404	0.784928	0.3763	0.7196	
Tax	−0.0170324	0.000718552	−23.70	<0.0001	***

Mean dependent var	12.09250	S.D. dependent var	15.46296
Sum squared resid	17.68416	S.E. of regression	1.716788
R-squared	0.989434	Adjusted R-squared	0.987673
F (1, 6)	561.8718	P-value (F)	3.70e-07
Log-likelihood	−14.52442	Akaike criterion	33.04884
Schwarz criterion	33.20772	Hannan-Quinn	31.97724
Rho	−0.179317	Durbin-Watson	1.700683

Identifying the relationship of return on capital from profit tax is important for company executives and investors because the detection of the ratio of tax growth and profitability reduction will allow one to control the tax burden and the timely allocation of profits between countries with favorable tax rates.

The regression results (Table 8) show that income tax is a statistically significant regressor of return on equity - the efficiency of its investment. The increase in income tax by 1 thousand rubles leads to a decrease in the return on equity by 0.017 %. Thus, one can argue that the income tax has a small impact on financial stability, but it is statistically significant, that is, in practice, in 99 % of cases, an increase in income tax will lead to a decrease in the value of ROE. The insignificant impact of income tax is due to a number of factors. Thus, the degree of influence depends on the ratio of income tax to net income, assets, equity, and reserves. For companies with large amounts of assets and equity, the effect of income tax on ROE will be less compared to companies with a smaller asset and equity to income tax ratio. For companies with different ratios of income tax, assets and equity, the degree of impact of income tax on financial stability will be different.

The statistical significance of income tax as a regressor of financial stability indicators was confirmed. Now it is time to model what could be the effect if the studied company during the study period (2013–2020) used tax planning, and no profit tax would have been generated in the company registered in Russia. With the help of tax planning, 'Trade House "Chin-Ru"' LLC would legally redistribute income in such a way that it would be taxed at a lower rate in China. Different income tax rates are possible in China. While the basic rate is 30 %, for companies with foreign investment it is 15 %. In Russia, the tax rate is 20 %, which makes it advantageous to tax income in China. For this, the author calculated models similar to models 1, 2, 3, but with certain changes. Thus, the values of some initial indicators were changed. Income before taxation, assets, equity, and reserves remain unchanged. Net income figure is increased by the amount of income tax, and the income tax is equated to zero.

Given the simulated changes in the initial indicators, the author calculated new financial stability indicators of LLC 'Trade House "Chin-Ru"' for the period 2013–2020 (new financial stability indicators are denoted with the prefix n).

Table 9

Simulated Financial Stability Indicators of 'Trading House "Chin-Ru"' LLC for the Period 2013-2020 under tax Planning Application

Year	nROA	nRONA	nROE
2013	0.00	0.00	0.00
2014	1.11	1.11	9.16
2015	20.12	20.12	53.16
2016	-0.03	-0.03	-0.08
2017	0.26	0.26	0.76
2018	0.66	0.66	3.97
2019	10.26	10.26	32.37
2020	7.25	7.25	22.40

Based on the data in Table 9, one can conclude that return on net assets and return on equity increased after the application of tax planning. For clarity of changes, the dynamics of financial stability indicators are represented in the graphic form (Figure 1).

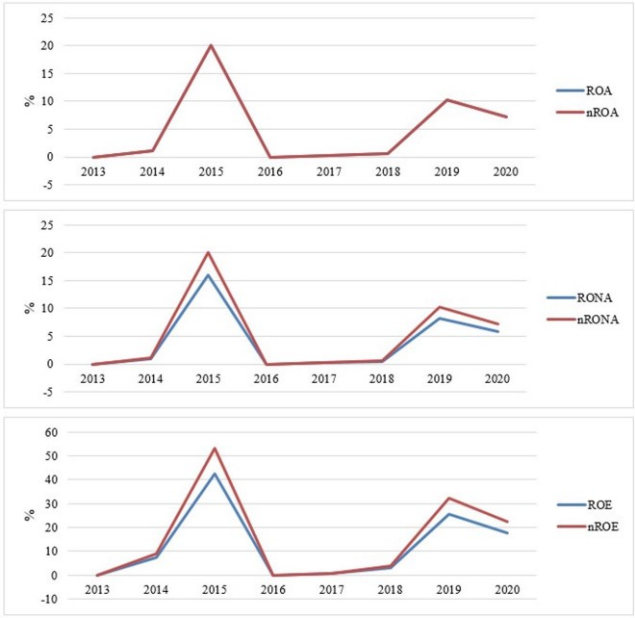

Figure 1. Dynamics of financial stability indicators of LLC 'Trading House "Chin-Ru"' for the period 2013–2020 under tax planning application

Figure 1 shows that the simulated return on net assets (nRONA) and return on equity (nROE) are higher than the calculated actual values based on the data of financial statements. This confirms the study assumption about the relationship of tax planning and financial stability of a company. In order to determine the significance of

regressors' impact on financial stability indicators under tax planning, it is necessary to test the following models (Tables 10–12).

Table 10

Dependence of Return on Assets on Profit before Taxation and Assets (When Using Tax Planning)

Model 7: OLS, using observations for 2013-2020 (T=8) Dependent variable: nROA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	1.44041	1.67086	0.8621	0.4280	
Income before Tax	0.00157908	8.46773e-05	18.65	<0.0001	***
Assets	−2.42237e-05	2.04713e-05	−1.183	0.2899	

Mean dependent var	4.953750	S.D. dependent var	7.251242	
Sum squared resid	4.752888	S.E. of regression	0.974976	
R-squared	0.987087	Adjusted R-squared	0.981921	
F (2, 5)	191.1000	P-value (F)	0.000019	
Log-likelihood	−9.268751	Akaike criterion	24.53750	
Schwarz criterion	24.77583	Hannan-Quinn	22.93010	
Rho	0.518183	Durbin-Watson	0.973454	

Model 7 regression data (Table 10) show that income before taxation is a statistically significant regressor (p-value<0.0001). The increase in income before taxation by 1 thousand rubles increases return on assets by 0.002 %.

Table 11

Dependence of Return on Equity on Net Income, Equity, and Reserves (When Using Tax Planning)

Model 8: OLS, using observations for 2013-2020 (T=8) Dependent variable: nRONA					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	1.44041	1.67086	0.8621	0.4280	
Net Income	0.00157908	8.46773e-05	18.65	<0.0001	***
Assets	−2.42237e-05	2.04713e-05	−1.183	0.2899	

Mean dependent var	4.953750	S.D. dependent var	7.251242	
Sum squared resid	4.752888	S.E. of regression	0.974976	
R-squared	0.987087	Adjusted R-squared	0.981921	
F (2, 5)	191.1000	P-value (F)	0.000019	
Log-likelihood	−9.268751	Akaike criterion	24.53750	
Schwarz criterion	24.77583	Hannan-Quinn	22.93010	
rho	0.518183	Durbin-Watson	0.973454	

Model 8 regression data (Table 11) show that net income is a statistically significant regressor of return on net assets (p-value<0.0001). An increase in net profit by 1 thousand rubles leads to an increase in return on net assets by 0.002 %.

Table 12

Dependence of Return on Equity on Net Income, Equity, and Reserves (When Using Tax Planning)

Model 9: OLS, using observations for 2013-2020 (T=8) Dependent variable: nROE					
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	8.17495	2.70073	3.027	0.0292	**
Net Income	0.00451672	0.000149491	30.21	<0.0001	***
Equity	−0.000413781	0.000144829	−2.857	0.0355	**

Mean dependent var	15.21750	S.D. dependent var	19.35840	
Sum squared resid	11.35804	S.E. of regression	1.507186	
R-squared	0.995670	Adjusted R-squared	0.993938	
F (2, 5)	574.8958	P-value (F)	1.23e-06	
Log-likelihood	−12.75345	Akaike criterion	31.50689	
Schwarz criterion	31.74522	Hannan-Quinn	29.89949	
Rho	−0.498165	Durbin-Watson	2.157677	

Model 9 regression data (Table 12) show that net income (p-value<0.0001), equity, and reserves (p-value=0.0355) are statistically significant regressors of return on equity. An increase in net profit by 1,000 rubles leads to an increase in return on equity by 0.004 %, and an increase in capital and reserves by 1,000 rubles leads to a decrease in return on equity by 0.0004 %. In this case, it is advisable for the company to use tax planning to reduce the amount of income tax, thereby increasing net income, and improve return on equity. In this regard, the main task for the top management of the company is to organize the financial flows so that income will be generated in the Chinese branch, where it will be taxed at a lower tax rate. This effect of tax planning is achieved by increasing the amount of net income, while the basis of its distribution (net assets), remains the same as before the application of tax planning.

Considering the medium- and long-term prospects that tax planning opens for the owners of 'Trade House "Chin-Ru"', it is worth noting the opportunities for business transformation. A Russian company may eventually become an exporter not of finished products, but of semi-finished products, which have a lower value compared to the finished product. This will reduce the tax base due to the formation of less added value. In turn, the Chinese company will become the main distributor of products in the Chinese market and will generate the bulk of the profits. In addition, it should be noted that in China there is the possibility of applying lower income tax rates for companies registered in the areas of special economic zones. It may make sense to register a company in such an area in order to reduce the tax rate.

As for the redistribution of income after taxation, some of it can be returned to the Russian company as an investment. The investment is not tax deductible, and the funds can be used to develop the company. Tax planning, therefore, will not only improve financial stability indicators, but also increase the amount of money available for use by the company without taxation.

Discussion

Comparing these results with the results of other studies on the impact of tax planning on financial performance and financial stability of companies, it is worth noting the following. The study of long-term tax planning (Baker, 2019; Campbell *et al.,* 2018) states that in all OECD countries there is a tightening of control over the payment of taxes and counteraction to tax optimization of companies, which are often carried out by 'gray' methods. In this regard, the issue of legal reduction of taxes paid becomes relevant. The present study confirms tax planning effectiveness as a way to legally reduce the amount of income tax paid and improve the financial stability of the company.

The experts of the European Commission (2017), as well as Balakrishnan *et al.* (2019), argue that aggressive tax planning occurs in response to a state's harsh tax policies. In this connection a number of passive and active indicators for identifying aggressive tax planning and methods for combating them are proposed (Loretz *et al.,* 2017). At the same time, the European Commission does not claim that tax planning itself is a violation or undesirable activity. Companies have a certain degree of freedom in order to reduce the cost of paying taxes. The present study results confirm the effectiveness of tax planning for a company. Freedom with respect to tax planning allows one to increase financial stability of a company, which is undoubtedly a positive effect.

Sivolapenko and Sapozhnikova (2020) conclude that the application of tax planning is relevant to the activities of any organization, regardless of the number of employees and the amount of annual income. Many modern organizations in the context of the economic crisis prefer to use methods aimed at reducing labor costs and the purchase of cheaper raw materials, which reduce the cost of production. The consequence of these methods is not only economic benefits, which have a beneficial effect on an enterprise, but also an increase in unemployment and often a decrease in product quality. At the same time, the use of tax planning to reduce costs is quite effective, but little used. Similar results were obtained in the study of OECD specialists (Johansson *et al.,* 2017). The present study results confirm tax planning effectiveness in the context of costs and indicators of a company's financial stability. In addition, tax planning does not provoke the growth of unemployment in a country and, in the long term, can even have a positive effect on economic development by improving companies' financial stability.

In a study of the effects of tax planning in industrial companies in Nigeria (Akintoye *et al.,* 2020), the authors concluded about both negative and positive effects of tax planning strategies on the profitability of manufacturing companies in Nigeria. Researchers recommend that such companies reduce the intensity of capitalization to balance manufacturing firms' income source. The results showed that there was no significant effect of tax planning on return on assets (ROA). The present study showed the same result, but it is explained not by the inefficiency of tax planning, but by the nature of the indicator itself. Its calculation is based on income before taxation, on the amount of which tax planning has no effect. However, tax planning has a positive effect on the profitability of net assets and capital. This is also evidenced by the results of a study on tax planning practices in corporations (Atwood & Lewellen, 2019; Austin & Wilson, 2017; Beasley *et al.,* 2021).

Reallocation of profits between countries is seen as an effective method of tax planning (Yuan & Ma, 2018). When businesses operate internationally, they can reduce tax deductions in the process of business change, which can maximize the overall value of the supply chain. It is the integration of tax management with supply chain management. This type of international tax planning is the most current and new idea of planning at the international level (Cen *et al.,* 2017). Tax-effective supply chain management is the use by an enterprise of tax planning in its supply chain management. Researchers confirm the relevance of the issue at hand and their results are similar to the present study results regarding the positive effect of tax planning for a company. In addition, the results also confirm the desire of companies to use tax planning in response to the increasing tax rates (Dyreng *et al.*, 2016).

The present study results can be directly applied in companies and used for research on enterprises in certain sectors of the economy and of different internationalization degrees. The results prove the positive effect of tax planning for a company that redistributes income to a country with a lower tax rate. Further research can be conducted to assess the effect of tax planning within the company where the income is redistributed.

Conclusions

The study results showed that the variables that depend on income tax are statistically significant regressors of a company's financial stability indicators. Return on net assets and return on equity are statistically significantly influenced by net income, the amount of which depends on income tax paid. The study also confirms the statistically significant impact of the amount of income tax paid on a company's financial stability indicators: return on assets (ROA), return on net assets (RONA), and return on equity (ROE). At the same time, an increase in income tax leads to a decrease in financial stability of a company, which confirms the relevance of tax planning.

Modeling the effect of tax planning has shown that it has a direct effect on a company's financial stability indicators. There is a positive trend in the values of return on net assets and return on equity. The results obtained can be used as evidence for the feasibility of tax planning in companies that operate internationally and can reallocate income between different countries with different income tax rates.

The study has limitations. The methodological limitation is that depending on the set of financial stability indicators, the observed effect of tax planning may vary. As the study demonstrated, tax planning had no effect on return on assets (ROA). This is because this indicator is calculated on the basis of income before taxation, hence, income tax has no effect on ROA. However, if tax planning is expanded to include more taxes (such as VAT), the results can change significantly. The VAT rate affects the value of goods purchased by a company, which affects the value of assets. As a result, tax planning will influence ROA. In addition, the methodological limitation of the study opens the prospect for new research, in which the list of financial stability indicators can be expanded, thereby getting rid of this limitation.

The implementation limitation of the study is that not all companies will be able to apply tax planning and get a positive effect from it. The study proceeded from the assumption that in China the income tax rate is lower than in Russia and for this reason the company 'Trade House "Chin-Ru"' LLC organized its activities in such a way that income is taxed in China. However, this requires that a company has representatives in both countries. In addition, if one considers the complex effect of taxation, it is necessary to take into account not only the absence of income tax in Russia but also the income tax paid in China. Consequently, the distribution of tax planning effect should be considered in the context of both companies.

Discovering the close relationship between companies' tax costs and profitability will help optimize the use of a company's capital and assets, thereby increasing its ability to cover its liabilities and generate profits. In addition, based on tax planning and tracking the dynamics of the relationship between costs and profitability, companies can transform their business processes, shifting their focus to the production, sale, or export of semi-finished products rather than finished products, which significantly reduces the added value of business and, consequently, the tax base. Thus, companies can redistribute their profits between countries depending on tax rates and minimize taxation.

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