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Redakcja wydawnicza: Jadwiga Marcinek
Redakcja techniczna: Barbara Łopusiewicz
Korekta: Barbara Cibis
Łamanie: Beata Mazur
Projekt okładki: Beata Dębska

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tel./fax 71 36 80 602; e-mail: econbook@ue.wroc.pl
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Wstęp

Problemy ekonomii, polityki ekonomicznej i finansów publicznych wydajemy w serii Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu. Niniejsza publikacja, stanowiąca pierwszą z czterech części materiałów konferencyjnych, zawiera 36 opracowań, w tym sześć w języku angielskim. Zostały one poświęcone aktualnym problemom naukowo-badawczym z zakresu teorii ekonomii, realizacji polityki ekonomicznej – w wymiarze mikro- i makroekonomicznym – oraz zagadnieniom związanym ze stanem finansów publicznych w Polsce i na świecie.

Liczne grono autorów prezentuje wyniki swoich dociekań naukowych w postaci teoretycznych i empirycznych analiz związanych z polityką fiskalną na szczeblu centralnym i samorządowym, wykorzystaniem instrumentów polityki podatkowej w odniesieniu do opodatkowania kapitału, pracy i konsumpcji oraz z problemami polityki pieniężnej i rynku kapitałowego w skali krajowej i międzynarodowej. Ponadto zeszyt zawiera opracowania dotyczące nierówności społecznych, polityki regionalnej i lokalnej, rozwoju produkcji rolnej, obszarów wiejskich i przetwórstwa spożywczego, problemów sektora usług turystycznych i transportowych, jak również rozwoju innowacyjności przedsiębiorstw, efektywności wydatków na B+R oraz polityki państwa w obszarze rynku pracy.

Publikacja nasza jest adresowana do środowisk naukowych i studentów wyższych uczelni oraz osób, które w praktyce zajmują się finansami publicznymi, współczesnymi problemami polityki ekonomicznej czy ekonomii. Poszczególne artykuły były recenzowane przez profesorów uniwersytetów, w większości kierowników katedr ekonomii lub polityki ekonomicznej. Za ich rzetelne recenzje chciałbym serdecznie podziękować. Dziękuję również pracownikom Katedry Ekonomii i Polityki Ekonomicznej Uniwersytetu Ekonomicznego we Wrocławiu oraz wszystkim osobom i instytucjom zaangażowanym w powstanie tej publikacji.

Jestem w pełni przekonany, że książka *Problemy ekonomii, polityki ekonomicznej i finansów publicznych* będzie Państwa inspirować do dalszych badań i dociekań naukowych oraz przyczyni się do powstania równie interesujących opracowań w przyszłości.

Jerzy Sokołowski

Kateryna Proskura

Hetman Kyiv National Economic University
e-mail: katarinam@ukr.net

CONCEPT AND RULES OF THIN CAPITALIZATION AS MEANS OF MINIMIZING TAX LOAD

KONCEPCJA I ZASADY NIEDOSTATECZNEJ KAPITALIZACJI JAKO ŚRODKI MINIMALIZACJI OBCIĄŻEŃ PODATKOWYCH

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Summary: The aim of this paper is to study the economic phenomenon of thin capitalization. The paper studies the economic essence of thin capitalization and opportunities to minimize income tax within a group of multinational companies using excessive financing through debt versus equity capital. Ukrainian and international practice of thin capitalization principles' application as means of minimizing the tax load within the group of multinational companies is considered.

Keywords: thin capitalization, tax, tax load, tax load minimization, loan, loan interest, equity.

Streszczenie: Celem niniejszego artykułu jest badanie fenomenu gospodarczego cienkiej kapitalizacji. W artykule przedstawiono istotę ekonomiczną tzw. cienkiej kapitalizacji, badano możliwości zminimalizowania podatku dochodowego w grupie międzynarodowych firm korzystających z finansowania poprzez nadmierne zadłużenie w stosunku do kapitału własnego. Autorka uważa krajową i międzynarodową praktykę zasad niedostatecznej kapitalizacji jako sposób minimalizacji obciążeń podatkowych w ramach grupy przedsięwzięć międzynarodowych.

Słowa kluczowe: cienka kapitalizacja, podatek, obciążenie podatkowe, minimalizacja obciążeń podatkowych, pożyczka, odsetki od pożyczek.

1. Introduction

Modern development of international relations helps to eliminate economic barriers between states, allows significantly to expand the international turnover and increase the mobility of capital flows, but on the other hand, it opens the possibility of building new, more global schemes of tax minimization and tax evasion.

Thus, one of the methods to minimize income tax is payment of dividends under the guise of interest on the loan. The feature of this type of tax evasion is the provision of loan in a large amount and at very high interest rate to related party often enough when there is an insufficient level of solvency, or even unprofitability of the borrower.

Rules to prevent the use of this method of tax optimization are called “thin capitalization rules”. Developing effective practice of using such rules is of high practical importance for Ukraine in the context of a fight against the so-called aggressive tax planning.

The purpose of this paper is to study the economic essence of thin capitalization, describe opportunities for multinational companies to minimize income tax using the thin capitalization rules and consider national and international practice of thin capitalization principles’ application as means of minimizing the tax load within the group of multinational companies.

The analysis of recent publications. Problems of applying thin capitalization rules in order to minimize the tax load of companies are a relatively new phenomenon in the world economy and are not well presented in the papers of Ukrainian and European scientists. The analysis of scientific works, existing and placed in the public domain, shows that thin capitalization rules are quite deeply investigated in the works of O.O. Chumakova, J. Farrar and A. Mavani, M. Mardan, K.A. Nepesov, M. Ruf, S. Webber [Chumakova 2014; Farrar, Mawani 2008; Mardan 2013; Nepesov 2007; Ruf, Schindler 2012; Webber 2010].

2. Studying the essence of thin capitalization

Let us turn to the essence of the thin capitalization principles in the plane of their use in order to minimize the tax load within the group of companies. The concept of thin capitalization is closely associated with company’s capital structure and forms of financing. The parent company can finance its subsidiary by using three methods: participation in equity, debt financing, and use of retained earnings [OECD 2012].

Features of company’s financing types are shown in Table 1.

Table 1. Features of company’s financing types

Debt financing	Joint financing
Interest is paid periodically and independently of financial results	Shareholder receives a proportional part of income (if any)
Debt is returned after the expiration of the loan term	Return on investment by selling shares
Lack of responsibility for the company’s activities	Responsibility for the company’s activities by own share in the capital
Higher capital mobility	Change in the share value with the change in the value of the company
Alternative to equity financing	The right to manage the company

Source: [Kryvyi 2014].

Each type of company's financing has different tax consequences. Thus, interest is related to the costs and it reduces the base for income taxation, while dividends are paid from net profit after deduction of all taxes, and that is why the debt financing is more advantageous. As a result, a significant proportion of company's income derives from the national taxation, if the financing is done through loans from related parties.

Thin capitalization illustrates a situation where the company's debt financing is relatively higher compared to the financing via participation in equity [OECD 2012].

Features of thin capitalization are:

- granting "mixed" loans that give to the lender the right to convert them into equity interests of the borrower;
- including into the contract the term of the interest size's dependence of the borrower's income amount;
- granting a loan to finance long-term investments;
- granting a loan amount that is proportionate to lender's participation in the borrower's equity, or as a condition of such participation;
- granting loan to cover significant losses;
- having low creditworthiness of the borrower on the basis of which it can be concluded that under similar conditions the loan will not be granted by independent lenders.

Multinational companies have the greatest possibilities to use thin capitalization mechanism in order to minimize taxes. Thus, the group consisting of parent and subsidiary companies and located in different countries may pay less amounts of tax in the case of subsidiary's income transfer to a parent in the form of interest, which reduces the subsidiary's income tax base, than in the case of dividends payment. If the group includes intermediate holding companies based in low tax jurisdictions, it allows combining this advantage with the ability to minimize the tax on interest income received.

This mechanism is used for achieving maximum flexibility in the movement of funds within multinational company with the lowest tax costs for it, depending on the tax law of its structural elements' basing jurisdiction, as well as the presence or absence of international agreements, on the avoidance of double taxation between countries concerned.

Thus, thin capitalization may be viewed as a strategy of multinational company on the implementation of foreign direct investments (FDI). When the company initiates activities in another country, it usually creates a local company for such purposes. This company expands using equity and/or debt financing. Debt financing allows reducing income tax. Therefore, investments in countries with high level taxation are made under the guise of debt financing as opposed to investments in countries with low level taxation. This distribution allows to lower global tax costs and is an incentive to invest in jurisdictions with high level taxation.

To prevent an excessive decrease in taxable income due to interest payments on loans, the governments of some countries set legal limits in taxation, reducing the attractiveness of using debt financing between related parties. One of typical limitations is the prohibition to include in tax costs all or part of the amount of interest on credits (loans) received from non-resident related parties.

In general, in the world practice the main ways to combat the use of schemes to minimize tax load using thin capitalization rules are:

- restrictions on the inclusion of all interest amount into the tax costs;
- reverse reclassification of interest into dividends with a simultaneous refusal to accept the amount of “reclassified dividends” in the reduction of taxable income;
- in a number of countries, international agreements on avoidance of double taxation, establishing reduced tax rates are applied with taking into account the thin capitalization rules.

In the world practice there are basic legislative approaches to determine the maximum amount of interest accrued and included in the costs as follows:

1) the principle of *Arm's length*, the use of which in the context of the transfer pricing adjustment is described in detail in “OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations” [OECD 2010].

The amount of taxable income received by the company which is engaged in one or more controlled operations shall be considered relevant to the principle of *Arm's length*, if the conditions of these operations do not differ from the conditions that are applied between unrelated parties in comparable uncontrolled transactions. Otherwise, for the purpose of income taxation, the company while exercising controlled operations has to increase taxation object on the price excess amount determined by the *Arm's length* principle over the contractual price or the excess of the purchase price of goods, works and services over the price determined under the *Arm's length* principle.

The disadvantage of this approach is that it is difficult and costly to administer;

2) a special procedure for establishing a fixed ratio, which is considered as objective market conditions:

- a) establishing the allowable ratio of debt to equity (debt-to-equity ratio),
- b) establishing the ratio of the amount of accrued interest to another variable quantity: taxable income or EBITDA indicator (Earnings stripping rule).

Interest on the “excessive debt”, or the amount of debt that exceeds the fixed ratios, is not included in expenses for tax purposes, or is taxable as dividends.

The advantage of this approach is that it provides a high certainty, reduces the cost of tax administration for businesses and tax authorities, and is simple to implement. The downside is that the definition of a fixed ratio does not always take into account economic realities of activities and sectoral specifics of the company [OECD 2012].

3. Analysis of practice of legislative regulation and application of thin capitalization mechanisms by companies

Mechanisms preventing the application of thin capitalization rules at Ukrainian companies is laid down by the norms of the Tax Code of Ukraine (hereinafter TCU) [Verkhovna Rada of Ukraine 2014]. In particular, let us consider the requirements of the TCU, Art. 140, paragraph 140.2, according to which for the taxpayer whose amount of debt liabilities that arose from transactions with non-resident related parties exceeds the amount of equity capital by more than 3.5 times (more than 10 times for financial institutions and companies providing exclusively leasing activities), the financial result before tax is increased by the excess amount of the interest on loans, borrowings and other debt liabilities accrued in accounting over 50% of the amount of financial result before tax, financial costs and the amount of depreciation according to the financial statements of the reporting tax period in which interest is accrued. Herewith the amount of debt liabilities and equity is defined as the arithmetic average of values of debt liabilities and equity at the beginning and end of the reporting tax period with taking into account interest on credits (loans) mentioned above.

We recall that **equity** is a part of the company's assets, which remains after deducting its liabilities [Ministry of Finance of Ukraine 2013].

The concept of *Related parties* with the aim of tax legislation norms' implementation is regulated by TCU, Art. 14, Paragraph 14.1, Subparagraph 14.1.159, under which the related persons are legal and/or natural persons, relations between which may affect the conditions or economic results of their activities, or the activities of persons they represent, with taking into account the criteria among which are the following: the sum of all credits (loans), repayable financial assistance from one legal entity and/or credits (loans), repayable financial assistance from other entities guaranteed by one entity in respect of another entity exceeds the amount of equity over 3.5 times (more than 10 times for financial institutions and companies that provide exclusively leasing activities). Herewith the amount of these credits (loans), repayable financial assistance and equity is defined as the arithmetic mean value (at the beginning and end of the period).

We recall that the tax adjustment in determining the income tax base is implemented by taxpayers whose annual income from all activities (excluding indirect taxes) defined by the accounting rules exceeds 20 mln UAH over the last annual reporting (tax) period.

That is the taxpayers whose amount of debt liabilities (including interest on debt liabilities), arisen from transactions with non-resident related parties, exceeds the amount of equity capital by more than 3.5 times (more than 10 times for financial institutions and companies providing exclusively leasing activities), have to increase the financial result before tax by amount calculated as follows:

$$A \text{ increase} = IA - (FRT + FC + AD) / 2$$

where: *A increase* is an amount by which the financial result before tax is increased; *IA* is an amount of interest on loans, borrowings and other debt liabilities accrued in the accounting of the taxpayer; *FRT* is a financial result before tax according to financial statements of the reporting tax period in which this interest is accrued; *FC* are financial costs according to the financial statements of the reporting tax period in which this interest is accrued; *AD* is an amount of depreciation according to the financial statements of the reporting tax period in which this interest is accrued.

Please note that the indicator of financial results before taxes with deduction of financial costs and depreciation, laid down in the TCU's norms, is so-called EBITDA indicator, which is used in the world practice of financial analysis.

Let us discuss the nature of this indicator in more detail. EBITDA means earnings before interest, taxes, depreciation and amortization. EBITDA shows the financial results of the company, excluding the impact of the capital structure (i.e., interest paid on borrowed funds), tax rates, and depreciation policy of the company. EBITDA allows assessing fundamentally the cash flow, excluding such a non-monetary item of costs as depreciation. The indicator is widely used as a component of various financial efficiency ratios (e.g., EV/EBITDA, return on sales, etc.). Investors are oriented on EBITDA as an indicator of the expected return of their investments. The negative EBITDA shows that the activities of the company are unprofitable just at the operating stage, yet before the payment of interest on use of loan capital, taxes, and depreciation.

Thus, the fact that Ukrainian companies have significant loans received from non-residents under the unprofitability of activities and negative value of EBITDA is the identifier of application of thin capitalization rules and minimization of the tax load at the international level within the group of related companies.

Let us return to the norms of Ukrainian tax legislation. According to the TCU, Art. 140, Paragraph 140.3, the interest which exceeds the amount of limit determined in TCU, Art. 140, Paragraph 140.2, and which increases the financial result before tax, reduces the financial result before tax of future reporting tax periods in the amount, reduced by 5% annually until its maturity with taking into account the limitations established by TCU, Art. 140, Paragraph 140.2.

That is taxpayers that in accordance with TCU, Art. 140, Paragraph 140.2 increase financial result before taxes by a certain amount are eligible in future reporting tax periods to reduce the financial result before tax on this amount, reduced annually by 5% of this amount until its maturity. The reduction must be done with taking into account the restrictions established by TCU, Art. 140, Paragraph 140.2.

These standards allow to reduce the amount of income tax payer's costs by the amount of excessively paid interest on loans received from non-resident related parties, but do not provide size adjustment of debt capital and special rules aimed at

manipulating the size of attracting economically unfounded credits (loans) from related parties. Consequently, these rules are not full thin capitalization rules, since the transfer of interest, which is not related to expenses during the reporting period, to the results of future tax periods does not meet the international practice of the establishment of thin capitalization rules, as it does not reduce the base of income tax, but only delays the reduction. In this regard we propose to make changes in the TCU on unconditional ban to refer the excessive interest to costs.

Let us consider the calculating algorithm on a specific example and group the results of calculations in the tables offered below. Let conditional company “Bagel” have the following performance by results of 2015.

Table 2. Initial data for the calculation of the adjustment of financial result before tax on the amount of interest

Indicator	As of December 31, 2014, USD	As of December 31, 2015, USD
Equity	-70,000	-75,000
Financial result before taxation		-5,000
The total amount of debts on credits (loans) received from non-resident related parties:		
– principal amount of the credit (loan)	1,500,000	1,450,000
– loan interest (accrued per year)		135,000
Depreciation, accrued per year		90,000

Source: own study.

To determine the need to make adjustments, i.e. if the credit (loan) amount received from non-resident related party exceeds more than 3.5 (10) times the average annual amount of equity, we propose to use Table 3.

Table 3. Determining the amount of debt liabilities’ excess over equity capital, according to the requirements of Tax Code of Ukraine, Art. 140, Paragraph 140.2, Subparagraph 2

Indicators	As of December 31, 2014, USD	As of December 31, 2015, USD	Arithmetic average value of debt liabilities and equity at the beginning and end of the tax period with taking into account interest (column 2 + column 3) / 2
Equity	-70,000	-75,000	-72,500
The total amount of debt to non-resident related parties (loan body + annual loan interest)	1,500,000	1,585,000	1,542,500
Calculated arithmetic average amount of equity that meets the criterion on adjusting the amount of financial result before tax (arithmetic average amount of debt / 3.5)			514,167

Source: own study.

The last line of Table 2 is important in cases where company's equity is negative. As can be seen from our example, in order not to adjust financial result of this debt amount to the loan received from non-resident, the equity of the company "Bagel" should be not less than 514,167 USD. Since the equity is actually less than the calculated indicator ($-72,500 \leq 514,167$), so adjusting the financial result before tax by the amount of accrued interest on the loan has to be made.

The option of negative value of income tax payer's equity is not provided and not described by norms of the TCU, though it is a fairly widespread among Ukrainian companies, many of which have poor financial condition. In part, this situation is caused by the existence of indebtedness in foreign currency since in result of this monetary item's revaluation the company annually gets huge costs in the form of negative exchange rate differences. However, a variant of the negative value of equity is not contrary to the general principle of the application of thin capitalization rules.

Consequently, in the case of negative value of equity we calculate the maximum amount of equity, at which on the given amount of debt it is possible not to use an adjustment: the amount of the credit (loan) liabilities * 3.5 (10). If the amount of equity is negative, the calculated value is always less than the maximum allowable index of equity at which the adjustment is made.

Thus, if the value of company's equity is negative at any amount of indebtedness to non-resident related party, the financial result before tax is increased by the full amount of interest on such indebtedness.

What brought to such a conclusion? As shown below, the financial result before tax is increased by the part of credit (loan) interest received from non-resident related party that exceeds 50% of the financial results before taxes, financial costs and the amount of depreciation according to the financial statements. For the ease of calculation of this indicator we propose Table 4.

Table 4. Calculating the excess amount of the interest on loans accrued in the accounting over 50% of the amount of financial results before taxes, financial costs and the amount of depreciation according to the financial statements of the reporting tax period in which this interest was accrued

No.	Indicators	Amount, USD
1	Amount of accrued interest on loans	135,000
2	Calculation of 50% of amount of the financial results before taxes, financial costs and depreciation amount ((line 3 + line 4 + line 5) × 50%)	-115,000
3	The financial result before tax over the year 2015	-5,000
4	Amount of depreciation (Dr: 92, 94; Cr: 13)	90,000
5	Amount of financial costs (Dr: 95; Cr: 6841)	135,000
6	Excess amount that increases financial result before tax (line 1 – line 2), but not more the accrued interest amount	135,000

Source: own study.

In this example over 2015, the EBITDA indicator for the company “Bagel is (-230,000 USD). 50% of this value is $-115,000 \leq 135,000$ (the amount of interest on the loan). Consequently, the financial result before tax is increased by the full amount of accrued interest on loan, or 135,000 USD.

Where the value of the company’s equity is negative, the calculated indicator of 50% of EBITDA is always negative, and the arithmetic act of *Amount of interest minus 50% of EBITDA* has no economic sense because finally before the adjustment we get the value greater than the amount of interest. Therefore, we consider appropriate to note that the amount of adjustments on credits (loans) received from non-resident related party cannot exceed the amount of accrued interest on such credits (loans).

Regarding the implementation of legal mechanisms to prevent the use of thin capitalization rules by taxpayers, it should be noted that the determination of the marginal amount of interest included in the costs, without committing to a debt capital and equity set by the ratio is contrary to the principle of non-discrimination in taxation of international entities in accordance with World Trade Organization (WTO) rules [Verkhovna Rada of Ukraine 1994]. Inclusion of the condition of debt to equity ratio provides that due to the variety of comparability factors of controlled operation’s conditions with market ones, the clearly established in national legislation debt to equity ratio belongs to the market. It means that under normal market conditions the loan is not granted by an unrelated lender, in result of which the total amount of debt exceeds the borrower’s equity. Failure to comply with set ratio indicates non-market relations between a related non-resident creditor and a resident debtor and therefore restrictions on including interest to the costs cannot be regarded as unduly limiting non-residents’ corporate rights.

Agreed international standards for the development of the debt to equity ratio do not exist. To assess the level of financial stability among other indicators, funding coefficient is used, which is calculated as the ratio of borrowed funds to own ones and characterizes company’s dependence on borrowed funds. The growth of this coefficient in dynamics indicates strengthening dependence on external investors and creditors, i.e. the reduction of financial stability, and vice versa [Chumakova 2014].

4. Conclusions

The concept of thin capitalization is grounded on the features of forms of financing the company. Granting to the recipient company the funds as a credit (loan) from non-residents (e.g., parent or other affiliated structure) is more beneficial for the investor than participation in corporate rights, since the interest on credits (loans) is referred to as the costs and allows to reduce the tax base. Abusing the ratio of debt to equity offers opportunities to minimize tax base, which are used by multinational companies. To prevent this, countries establish thin capitalization rules, which aim

to limit the amount of interest that may be included in the costs. To date, the Ukrainian tax law contains the relevant rules, the use of which is first being practically tested in calculating the corporate income tax by payers.

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