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# Approaches of Russian oil companies to optimal capital structure

## T Ishuk<sup>1,3</sup>, O Ulyanova<sup>2</sup> and V Savchitz<sup>1</sup>

e-mail: 3 tana.itl@mail.ru

**Abstract.** Oil companies play a vital role in Russian economy. Demand for hydrocarbon products will be increasing for the nearest decades simultaneously with the population growth and social needs. Change of raw-material orientation of Russian economy and the transition to the innovative way of the development do not exclude the development of oil industry in future. Moreover, society believes that this sector must bring the Russian economy on to the road of innovative development due to neo-industrialization. To achieve this, the government power as well as capital management of companies are required. To make their optimal capital structure, it is necessary to minimize the capital cost, decrease definite risks under existing limits, and maximize profitability. The capital structure analysis of Russian and foreign oil companies shows different approaches, reasons, as well as conditions and, consequently, equity capital and debt capital relationship and their cost, which demands the effective capital management strategy.

#### 1. Introduction

Oil companies are known to be the main sector of Russian economy. They manufacture more than a quarter of the industrial production volume in Russia whereas their share of income in the Federal budget comes to about 50%. Oil sector accounts for more than half of all export and one third of total capital investments [1]. Furthermore, at present there is an idea that this sector due to raw material profits will lead the Russian economy onto the way of innovative development like a locomotive. Therefore, the urgent problem now is to provide favorable internal and external conditions to fulfil this idea.

### 2. Material and Methods

The special feature of Russian oil companies is a large capital output ratio with a great part of equity capital in the source of financing: their debt capital comes to only 15–20 %, while the debt capital share in foreign oil companies can be up to 50 % [2].

The purpose of the article is to find out the reasons for differences in capital structure and to choose the approaches to its optimal structure for Russian oil companies. Therefore, to achieve this purpose, it is necessary to define the concepts and criteria of the optimal capital structure, and to analyze the capital structure by the example of Russian oil companies which are included into the 10-top

<sup>&</sup>lt;sup>1</sup> Department of Natural Resources Economics, National Research Tomsk Polytechnic University, 30 Lenin Ave., Tomsk, 634050, Russia

<sup>&</sup>lt;sup>2</sup> Department of Foreign Languages for Specialists in Natural Resources, National Research Tomsk Polytechnic University, 30 Lenin Ave., Tomsk, 634050, Russia

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companies, to find out their main problems in making the optimal capital structure, and to suggest the solutions of the problem.

The capital structure decision is believed to find a compromise between risk and profitability. The growth of debt capital share increases risk and at the same time raises profitability of equity capital. Accordingly, the companies using only equity capital, on the one hand, have maximal financial stability (equity to total assets), on the other hand, considerably decrease the development rates losing additional source of financing assets growth.

The optimal capital structure implies such a combination of equity capital and debt capital (leverage ratio) that provides maximal market-value capital of the company and, consequently, enterprise value as a whole. The fundamental criteria to make optimal capital structure are the following:

- 1) Financing Policy which is intended to find out the required amount and the share of financing sources by analyzing leverage ratio.
- 2) Enterprise Value (EV). The capital structure is considered optimal if it provides maximal enterprise value.
- 3) Cost of Capital. Any financing source has its cost. The capital structure is defined optimal if debt capital cost is minimal.
  - 4) Risks (unpaid interests, loan default, bankruptcy, etc).
- 5) Profitability. Raising debt capital can increase return on equity due to degree of financial leverage.

There is no doubt that each criterion is important for the optimal capital structure. The analysis of some of them is given below.

Company	Ca	Dept capital, %				
	2011	2012	2013	2011	2012	2013
OJSC "Gazprom"	10 786 140	11 956 836	12 555 820	29.8	29.1	27.9
OJSC "Surgutneftegas"	1 653 382	1 797 066	1 962 162	6.4	6.0	7.5
OAO LUKOIL	1 182 920	1 187 985	1 253 476	47.7	37.8	31.9
JSOC Bashneft	272 649	339 572	366 406	62.9	54.2	53.7
JSC TATNEFT	462 243	474 563	487 569	28.9	20.2	18.7

**Table 1.** Debt capital share in oil companies capital structure (2011 – 2013), mln. RUB [3].

According to table 1, the companies seek to decrease the debt capital share. Oil company OAO LUKOIL decreases by 15.8%, JSOC Bashneft – 8.7%, JSC TATNEFT – 10.2%, only company OJSC "Surgutneftegas" shows a growing tendency of 1.1%. The above mentioned data make it possible to draw the conclusion that the debt capital share in oil companies varies from 6% (OJSC "Surgutneftegas") to 62% (JSOC Bashneft). It makes us think deeply about existing capital structure efficiency of these companies and choose the most efficient structure. For this purpose, the analysis of return on equity and equity to total assets is required.

**Table 2.** Return on equity (ROE) and equity to total assets [3].

Company	DuPon	t ROE	Equit	Equity to Total Assets		
Company	2012	2013	2011	2012	2013	
OJSC "Gazprom"	6,3	6,6	0.7	0.7	0.7	
OJSC "Surgutneftegas"	6,0	8,5	0.9	0.6	0.9	
OAO LUKOIL	36,5	18.3	0.5	0.9	0.7	
JSOC Bashneft	6.1	8,3	0.4	0.5	0.5	
JSC TATNEFT	4.6	7.0	0.7	0.8	0.8	

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According to the data obtained, the largest return on equity is 36% (OAO LUKOIL), while 15–20% indicator is considered as enough. However, 36% indicator is not pernicious for the company; but it means company OAO LUKOIL is taking more risky business than other companies. It proves the main business law: the higher risk, the higher profitability.

Also, it is shown, profitability decreases up to "safe" indicator (18.3%) over time. Return on equity in other companies is considerably lower (4–8%). That fact proves that the companies are not employing its capital effectively.

Further, equity to total assets is required to be analyzed in order to make a conclusion about capital structure. Maximal indicator with value of 1, shows full financial independence of the company, which is a good sign of business effectiveness. On the other hand, the company is considered financially sound if the indicator is more than 0.5. Paying special attention to OAO LUKOIL, one can conclude that when equity to total assets equals 0.6% (2012), return on equity achieves 36%, with debt capital share being 38%.

The company has higher potential for its economic growth and at the same time it is financially independent.

In this respect, it is important to consider OJSC "Surgutneftegas": equity to total assets equals 0.9, with debt capital share being 6–7%. Being financial independent, the company considerably limits its economic development rates refusing to obtain debt capital.

JSOC Bashneft had a different financial strategy. Having debt capital share 60% in 2011 with low equity to total assets 0.4, it had a risky policy to obtain capitals. However, by 2013 the financial situation had become stable.

As seen, having low dept capital, most large oil companies are financially independent. Any capital structure decision is a choice of the company itself between profitability and risk, because increasing in debt capital leads to increasing both risk and profitability. Each company makes such a decision taking into account the company overall strategy. For a comparative analysis, it necessary to consider foreign oil companies.

**Table 3.** The debt capital share in the capital structure of foreign oil companies (2011 - 2013) [3].

Company -	Capital, total всего, (mln, \$.)			Dept capital, %		
	2011	2012	2013	2011	2012	2013
Schlumberger	2 315 670	2 583 980	2 814 830	43.4	43.6	41.2
Total	14 937	19 350	20 199	82.9	85.1	83.3
Royal Dutch Shell	14 155 274	14 694 758	14 997 552	53.0	50.1	49.6
Exxon Mobil	13 887 560	14 002 628	14 548 521	49.8	50.3	53.4
Statoil	4 870 259	4 969 685	5 610 853	63.7	59.3	59.9

According to table 3, debt capital share of foreign oil companies varies from 41% to 85 %. Such high debt capital share gives additional possibilities to foreign companies for economical growth of business and ramp up.

**Table 4.** Return on equity and equity to total assets of foreign oil companies [3].

Company	DuPor	nt ROE	Eq	uity to Total Ass	sets
	2012	2013	2011	2012	2013
Schlumberger	15.8	17.1	0.6	0.6	0.6
Total	41.3	40.3	0.2	0.1	0.2
Royal Dutch Shell	15.3	9.1	0.5	0.5	0.5
Exxon Mobil	27.1	18.7	0.5	0.5	0.5
Statoil	21.6	11.2	0.4	0.4	0.4

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On average, return on equity of foreign companies is 25%. Reduction of the indicator over time shows that the net income of companies is growing much slower than equity capital. In compliance with Table 4, equity to total assets is 0.5 that is enough for the companies with the debt capital share being more than 50% to be financially independent.

#### 3. Conclusions

Considerable difference between capital structures of Russian and foreign oil companies can be explained by the fact that foreign companies were gradually founded under the influence of objective factors of the market system as well as regulatory actions of the government, while Russian companies were immediately founded on the basis of commercial acts under the condition of centrally planned economy (CPE) [4, 10].

Also, the peculiarity of Russian oil companies is in high level of state participation. It is not only the result of government's block of shares and the state participation in company management respectively, but due to the fundamental principles of Russian companies. Most assets of Russian companies were made due to the Federal Budget, whereas, the state participation in foreign oil companies is characterized as insignificant [5].

The essential difference in the capital structure is the cost of attraction of borrowed funds. The rate percent in Russia is from 18% to 24%, while abroad it does not exceed 8% [5].

The experts opinion from "Deloitte & Touche CIS<sup>4</sup>" confirm that 21% of respondents, i.e. Russian oil companies, are planning to increase the amount of financing of the core activities due to the investments of third party organizations. As for state participation, most companies (76%) believe the influence of state participation on oil industry is going to increase. Simultaneously, according to opinions of oil companies' experts, the following factors played a vital role in developing of oil industry: export tax cut, disaggregation of tax on natural resources production depending on index complexity of petroleum field geology, and reduced rate of tax on natural resources production (oil) for private oil deposits, as well as investment bonus (accelerated amortization) [6].

To sum up, not only internal organizational, financial but macroeconomic factors could have a good influence on increasing company cost as an essential condition for capital raising, making the debt capital and participating in large projects together with world leading companies.

The given analysis of mentioned-above indicators of profitability and financial independence of Russian and foreign oil companies [7, 8, 9] proves the necessity to update the certain principles and concepts of financial management theories taking into account Russian institutional and manufacturing conditions.

#### References

- Grinkevich L S, Sharf I V 2014 Analysis of Russian Federation budget revenues from the implementation of export duties "60-66-90" scheme IOP Conf. Ser.: Earth Environ. Sci. 21
- [2] Voronina E V 2004 Formirovanie ehffektivnoj struktury kapitala korporacij neftegazovogo kompleksa: dis. ... kand. ehkon. nauk (Surgut) 201 RGB OD, 61:04-8/2730
- industry [3] Annual reports of (Electronic *Materials*) URL: oil http://www.lukoil.ru/static.asp?id=85; http://www.gazprom.ru/investors/; http://www.surgutneftegas.ru/; http://www.bashneft.ru/; http://www.tatneft.ru/ http://raexpert.ru/ratings/expert400/2011/capitalization/table2/
- [4] Bulakh D A Peculiarities and prospects of Russian oil companies. (Electronic Materials) URL: http://www.vipstd.ru/gim/content/view/83/247/
- Credit book (Electronic Materials) URL: www.creditbook.ru/voproscredit/29-public/548-[5] stavki-po-kreditam-v-evrope

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doi:10.1088/1755-1315/27/1/012066

- [6] Oil and gas survey 2013, Presentation "Deloitte & Touche CIS" 2013 (*Electronic Materials*) URL: http://www.hse.ru/data/2014/01/25/1326319826/Deloitte\_oil&gas%20survey.pdf.
- [7] Tsibulnikova M R, Pozharnitskaya O V and Strelnikova A B 2015 Designing economic and legal mechanism of land management in oil and gas companies *IOP Conf. Ser.: Earth Environ. Sci.* **24** 012032
- [8] Markov V K 2011 Raising efficiency of the country's oil and gas enterprises *Vestnik Saratov State Socioeconomic University* (*Electronic Materials*) **3** URL: http://cyberleninka.ru/article/n/raising-efficiency-of-the-countrys-oil-and-gas-enterprises
- [9] Sokolov A Y and Giniatullin Y M 2015 Management accounting and costs controlling in oil producing companies: Historical perspectives **6** 430–4
- [10] Clint O and Pyle I 2014 Competing and partnering for resources and profits: Strategic shifts of oil Majors during the past quarter of a century *Energy Strategy Reviews* **3** 72–87