Financial planning as a policy tool in the petroleum industry (the case study: ojsc "SURGUTNEFTEGAS")

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Abstract. The article deals with the financial planning of oil and gas company activities including capital structure optimization. One of the main tasks of up-to-date financial management is to optimize the capital structure of an organization and minimize the weighted average cost of capital. The applied method in capital structure optimization affects the research quality results, as well as management decisions. The study was conducted on the basis of OJSC "Surgutneftegas" financial statements.

Keywords: financial planning, capital structure, weighted average cost of capital, optimization.

1. Introduction

Under modern conditions the financial planning, financial policy process analysis and futures analysis, is an integral part of the financial policy of any company.

Within the framework of any enterprise activities financial planning is reduced to the establishment of rigid proportions in monetary resources expenditure, control over the implementation of adopted budgets, as well as strategic and tactical plan integration.

In today's severe conditions oil and gas business is challenged with the need of reducing expenditure and efficient use of debt and equity capital. In recent years, due to economic decline conditions it has become more difficult for oil and gas enterprises to raise borrowed funds. Reduction of oil value, rouble currency weakening and the US dollar strengthening triggered a significant increase in interest rate on credit. Oil and gas sector companies are faced with the rigid need to optimize its capital structure. Therefore, financial planning, one of the most effective tools of financial policy, is very significant for oil and gas companies.

2. Materials and Methods

The target tool of the company’s financial planning is primarily providing necessary financial funding, of production, investment and financing activities, as well as identifying the rational resources use. Financial planning has a range of methods.

The most widely accepted method of financial planning is budgeting. Budgeting is a process of its development and execution on the basis of separate division budgets. This method application is due to several advantages. In contrast, budgeting involves the resources allocation according to responsibility accounting, as well as a special budget execution monitoring system and interconnection of financial plans with operational and

investment budgets [1]. This information system integrates planning results, accounting, value control and analysis of the company activities.

Budgeting of a company is based on final financial budgets: income and expenditure budget; budget's balance sheet.

These budgets embrace findings that are executive decision-making based on the financial resources use of the enterprise. Therefore, financial management is carried out in the format of these basic accounts, which form a specific frame for evaluating the financial results of the enterprise activities.

3. Results and Discussion

According to accounting statements of the third quarter, the company possesses cash flow in the volume of 33 billion rubles. The volume of investments is 1.74 trillion rub. [2].

OJCS Surgutneftegaz policy tool in financial planning involves the balance sheet and income and expenditure budget to develop the budget itself.

When developing these budgets, the company is guided by identical balance sheet item findings for the prior period, as well as analyses of the external indicators: interest rate level on deposits for free cash placement (short-term and long-term investments), the market's value of fixed assets planned for purchasing, exchange rate fluctuation, petroleum products value in the world market.

Based on the proposed budget, all indicators increase from 7 to 64% . This indicates the existing resource base of the company resulting in the ability to carry out activities without raising debt funds. The company has a high purchasing power and regularly pays dividends to its shareholders.

The budget balance sheet shows that the conservative financial policy via financial planning methods has allowed the company not to raise long-term debt funds in order to finance its activities, even during the crisis period of 2014-2015.

Table 1 Consolidated income and expenditure budget of OJCS Surgutneftegas

Budget item	30.09.2015 г.			
	Planned	Actual	Changes	
			mil. rub.	%
Sales receipts	678 117	754 181	76 064	11
Cost value	474 395	508 687	34 292	7
Profit contribution	203 721	245 498	41 772	20
Business expenses	48 956	59 965	11 009	22
Before-tax profit	154 764	185 527	30 763	19
Financial costs	42 592	72 915	30 323	71
Income tax	68 022	99 746	31 724	46
Other interest income	1 122 960	1 845 494	722	64
Net income	357 407	498 437	141	39

The budget also shows the fixed assets growth up to 4% due to the company's own funds. Rate of cash on hand and current accounts is increased up to 6%.

Intangible assets increased up to 6% due to the development and further implementation of new technologies in oil and gas exploration and production in different climatic zones.

Due to the fact that recent development technologies in oil and gas recovery has been invested by available stocks, and not by raised external resources, the company's capital stock has declined to 9 815 mil. rubles.

Long-term financial investments of OJSC Surgutneftegas have increased by 35% compared to 2014. It should be noted that OJSC Surgutneftegas has completely fulfilled all financial obligations to credit institutions by 30.09.2015 and, at present, the company has no debt to the banks.

The company's credit debts significantly decreased which indicates high solvency of this 'oil major'.

Retained earnings of the company in 2015 demonstrated a 2% increase in comparison to the previous year. Taking into consideration the above-mentioned facts, the application of the budgeting method in the conservative financial policy framework allowed OJSC Surgutneftegas financial stability and leading position in the oil and gas industry market for many years.

Let's consider the calculating methodology for the key indicator of capital optimization - average cost of capital, defined by the formula:

$$CBC_K(WACC) = \sum_{i=1}^{n} k_i \cdot d_i \quad (1)$$

where, WACC - weighted average cost of capital,%;

d_i - share of *i*-th source in the total amount of funds;

k¿ - the cost of ¿-th financial source, % [1].

In business practice three models of optimal capital structure determination are used:

- calculation of minimum weighted average cost of capital;
- calculation of maximum financial return (by maximum return on equity);
- calculation of maximum market value of equity: application of the CAPM method (Capital Asset Pricing Model), as well as the P/E multiplier.

According to the calculation method of minimum weighted average cost of capital, determining the optimal capital structure, it should be based on its total value of the individual sources. The optimal ratio is the minimum overall achieved cost of capital. Thus, the value of the weighted average cost of capital determines the optimal capital structure (Table 2).

The price of stockholder equity of OJSC Surgutneftegas includes income tax and shareholders dividends. The return of OJSC Surgutneftegas shareholders was 18.5% in 2015 [3].

Table 2 Optimal capital structure determination of OJSC Surgutneftegas by calculating the minimum weighted average cost of capital

Indicators	Options of capital structure				
	1 (basic)	2	3	4	5
Equity per share	100	90	80	70	60
Equity to debt ratio (leverage)	0	10	20	30	40
Price of debt capital, %	0	18	18.2	18.5	19
Price of equity, %	38.5	38.8	39	39.5	40.5
WACC (Weighted Average Capital Cost) , %	38.5	36.7	34.8	33.2	31.9

According to this model, the optimal capital structure is a ratio of debt to equity of 60 to 40; since such a ratio weighted average cost of capital is minimal. The model is easy to calculate, but it has a significant drawback - it directly depends on credit interest rates, which may change in current conditions.

In order to form an optimal funding structure, multiple financial calculations are carried out via the second model, varying the leverage ratio proportion (Table 3).

Table 3 Optimal capital structure determination of OJSC Surgutneftegas in accordance with the maximum return on equity criteria

Indicators	Options of capital structure				
	1 (basic)	2	3	4	5
1.Total capital bln. rub., including:	3 392.8	3 392.8	3 392.8	3 392.8	3 392.8
2. Stockholder equity: - percentage; - bln. rub.	100% 3 392.8	90% 3 053.5	80% 2 714.2	70% 2 374.9	60% 2 035.7
3. Debt capital: - percentage; - bln. rub.	0	10% 339.3	20% 678.6	30% 1 017.8	40% 1 357.1
4. Equity to debt ratio (leverage)	0	0.11	0.25	0.43	0.67
5. Loan charge, %	0	18	18.25	18.5	18.75
6. Profit contribution, bln. rub.	245.5	245.5	245.5	245.5	245.5
7. Gross profit margin, %	7.24	7.24	7.24	7.24	7.24
8. Short-term loan charge, bln. rub.	0	6.1	12.4	18.8	25.4
9. Gross profit after reduction of short-term loan charge	245.5	239.4	233.1	226.7	220.1
10. Income tax	20	20	20	20	20
11. Net profit	225.5	219.4	213.1	206.7	200.1
12. Return on equity%	6.65	7.19	7.85	8.7	9.83

According to this model the maximum return on equity is the equity base of 60% and debt capital of 40%. The disadvantage of this model is its one-sidedness. Applying only one criteria – return on equity, objectively, it is difficult to determine the optimal capital structure of the oil and gas company.

The valuation model of capitalized assets (CAPM method) is based on the coefficient β for determining the return of the company's equity stock:

$$Rs = RFR + \beta * (AMR - RFR), \quad (2)$$

where, *Rs* - return of the company's ordinary share,%

RFR - risk-free return securities%

AMR - average return of the securities market % (average market return)

β - covariance coefficient between market securities return on and company securities return

The model of capital structure optimization via P/E multiplier is based on the cash flow generated at a certain ratio of debt to equity. It is based on the company's figures of multiple calculations. Further, the stock price is determined in accordance with required dividend on market shares calculated by the P/E ratio [4].

Assuming that the risk-free portfolio return (RFR) of OJSC SNG is 6%, the average return of the market securities (AMR) is 20%, the market price per share of OJSC Surgutneftegas is 44.05 rubles (Table 4).

Table 4 Optimal capital structure determination of OJSC Surgutneftegas applying CAPM method + P/E multiplier

Leverage ratio %	Cost of debt %	Earning per share, rub	P/E multiplier		CAPM			WACC
			Price-earnings multiple per share	Estimated price, rub	Determined coefficient β	Required rate of return on shares, % $Rs = RFR + \beta * (AMR - RFR$	Estimated price, rub	
1	2	3	4	5	6	7	8	9
0	0	29.3	1.5	43.95	1.4	25.6	114.45	38.5
10	18	29.5	1.49	43.95	1.4	25.6	115.23	36.7
20	18.25	29.8	1.47	43.8	1.45	26.3	113.3	34.8
30	19	31	1.4	43.4	1.5	27	114.81	33.2
40	20	31.2	1.41	44	1.5	27	115.6	31.9

The table shows that the maximum value of the company's stock due to the presented models is debt to equity ratio, i.e. 60 to 40%. The advantage of these models is fairly accurate determination of profitability of the company's price/earnings ratio. However, this calculation is time-consuming and requires significant reliable statistical data.

Conclusion

Thus, based on the given research it is much more profitable for the company to raise debt funds up to 40% of the structure than to finance its activities based only on its own resources. To determine the objective optimal capital structure, it is equitable to use all presented models. This makes it possible for the company to maximize the market value of its shares and profitability in the current economic conditions.

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