

ENSURING THE EFFECTIVENESS OF THE PRIVATIZATION OF STATE-OWNED COMPANIES IN THE CONDITIONS OF INSTABILITY OF THE FINANCIAL MARKETS (UNDER THE EXAMPLE OF OJSC "OIL COMPANY "ROSNEFT"))

Nail Gabdullin, Kazan Federal University
Igor Kirshin, Lenar Vafin, Kazan Federal University

ABSTRACT

The current state of the world and Russian economy makes it necessary to search for the additional sources of funding by the Government of the Russian Federation in terms of undervaluation of the Russian companies.

The privatization strategy is aimed at regulation of the state budget deficit by attracting the maximum possible amount of cash flows at the present stage of development of the Russian economy. However, due to the volatility of financial and commodity markets, and imposed sanctions against the Russian companies, it raises the problem of an adequate assessment of the privatized assets. A potential stabilization of markets and the prospects of lifting of restrictions actualize the temporal aspects of privatization.

The paper includes the assessment of the value of cash flows generated by the company and the shareholders' equity. A comparison of the cash flows of the company, attributable to the shareholders' equity, and its capitalization has allowed identifying the undervaluation or overvaluation of the companies.

Cost evaluation of the OJSC "Oil Company "Rosneft" shows its undervaluation. This company is overburdened with debts, which indicates the inefficiency of its privatization in the current conditions. The undervaluation of the company by the investors is supported by a comparative analysis of the values of its financial multiples and financial multiples of foreign oil and gas companies. In the long term perspective the value of the company's cost of capital may be reduced, and the values of cash flows may be increased. This will lead to an increase in the value of the company's assets.

Key Words: *Internal Value Of The Company, Market Capitalization, Company Cash Flow, Required Rate Of Return, Cost Of Capital.*

INTRODUCTION

Carrying out a privatization of the Russian companies to replenish the state budget may show low efficacy in the present conditions. A decreased capitalization of the privatized companies will attract significantly fewer resources to the budget than in the periods of stabilization or economic growth. The issue on the privatization need is settled by assessing the asset growth potential and the time when this potential will be realized. The privatized Russian companies are significantly dependent on commodity prices, showing recently the poor market conditions and the increasing financial risks, which significantly increase the required rate of

return on the shareholders' equity. These factors lead to a decrease in the intrinsic value of the Russian companies, which is determined by the capitalization of cash flows.

MATERIALS AND METHODS

Assessment of the company value growth potential is made through the free cash flow forecast (FCFF). Forecasting distinguishes two periods - the forecast and the post-forecast period.

The cash flow forecast is based on historical data obtained from the company's reports made under the IFRS standards.

The company value assessment model can be represented as follows (A. Damodaran Investment Valuation: Tools and Techniques for Determining the Value of any Asset, 2016):

$$CV = FCFF_{2016} + \frac{FCFF_{2017}}{(1+WACC)^1} + \frac{FCFF_{2018}}{(1+WACC)^2} + \frac{FCFF_{2019}}{(1+WACC)^3} + \frac{FCFF_{2020+TV}}{(1+WACC)^4} \quad (1)$$

Where

CV - the intrinsic company value, that is, the value of cash flows shown in the initial period.

FCFF - free cash flow forecast attributable to the entire company, that is, cash flow from the operating and investing activities to the settlement for debt capital.

WACC - weighted average cost of capital.

TV - terminal (residual) value or the company value in the post-forecast period. To determine the TV definition, it is used the Gordon's formula, which is a variation of the capitalization

$$\text{formula: } TV = \frac{FCFF_{2020} * (1+g)}{(WACC-g)} \quad (2)$$

where

n - rate of cash flow growth in the post-forecast period.

The free cash flow forecast (FCFF) is found by the indirect method (https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_statements/26.07.2016)

$$FCFF = NOPAT + \Delta FA + \Delta WC \quad (3)$$

where

NOPAT - net operating profit after tax,

ΔFA – investments in fixed assets,

ΔWC – investments in working capital.

To evaluate the share value upside potential, it is necessary to estimate the cash flow value attributable to the shareholders' equity. An overrun of the present value of the company's cash flows over its market capitalization, says about the growth potential of the company's value. The opposite situation says about the company's asset overvaluation.

$$E = CV - D \quad (4)$$

where

D - value of the company's debt.

RESULTS

Analysis and Forecasting of Cash Flows of the OJSC "Oil Company "Rosneft"

The company's ability to generate a cash flow is determined by the potential of the market for the products. The OJSC "Oil Company "Rosneft" is the world's largest publicly traded company on the volume of oil production. The company's business is focused on activities related to the sale of oil and petroleum products.

The oil market dynamics showed a downward trend that was reflected in the value of the free cash flow forecast (see Table 1).

Table 1
THE DYNAMICS OF REVENUES, COSTS AND INCOMES, OPERATING PROFIT AND NOPAT OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2010-2015 (MLN. USD) (SIMKINS, 2013)

	2010	2011	2012	2013	2014	2015
Revenues	63,056	92,512	99,389	145,272	142,148	83,295
Costs and incomes	50,543	77,229	86,133	130,035	128,299	72,963
Operating profit	12,512	15,283	13,256	17,436	15,495	11,629
NOPAT	10,010	12,226	10,605	13,949	12,396	9,304

As it is seen from Table 1, there has been a positive trend in revenues from 2010 to 2014, increasing the cash flow. In 2015, there has been a strong negative correction, which has decreased it by 41%. At the same time it has been observed the dynamics of costs and expenses growth from 2010 to 2014. Thus, the growth rate has amounted to 2.54 times, with the cost correction for 42% in 2015. A slowdown of these indicators is due to a decrease in oil prices on the international markets and a decrease in the exchange-value of rouble, which have devalued the price of refined petroleum products on the domestic market of the Russian Federation. A significant decrease in the operating performance of the company has occurred in dollar terms, and in rouble terms the decrease is insignificant.

It should be noted the company's ability to reduce costs with a decrease in revenues. Therefore, the OJSC "Oil Company "Rosneft" can withstand a comparable level of operating profit and NOPAT due to the flexible taxation system of the oil extraction industry. The main component in the composition of costs and expenses, which has showed a strong decrease in 2015 compared to 2014, is the export duty, which has decreased from 29,915 mln. USD to 12,692 mln. USD, that is, by 58%.

The further dynamics of operating performance of the company is determined by the state of commodity markets. There are extreme points of view regarding the role of oil and oil products in the world economy. It is argued that humanity can dramatically reduce the consumption of these resources (perhaps completely abandon), which can destroy the oil extraction industry. The extraction limitations lie on the demand side due to the possibility of replacing fossil resources by the alternative sources of energy, caused by the policy of reducing emissions (Ibragimov, 2016).

However, the impact of these factors will be negligible in the short term. The rates of average annual growth of revenues and costs have amounted to 1.07 and 1.08% in dollar terms, respectively, from 2008 to 2015. This is the cycle period after the previous crisis, including a decrease in 2015. In the first half of 2016 it is observed an increase in oil prices.

Table 2
THE DYNAMICS OF REVENUES, COSTS AND INCOMES, OPERATING PROFIT AND NOPAT OF
THE OJSC "OIL COMPANY "ROSNEFT" FOR 2016-2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
Revenues	89,126	95,364	102,040	109,183	116,826
Costs and incomes	78,071	83,536	89,383	95,640	102,335
Operating profit	11,055	11,829	12,657	13,543	14,491
NOPAT	8,844	9,463	10,126	10,834	11,593

Therefore, in the forecast period the pace is adopted at 1.07 as the growth rate, and in the post-forecast - 1.03. At that the revenue growth is possible both due to a rise in prices and to the production volume

(https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_statements/ 26.07.2016). The forecast data are presented in Table 2.

At this growth rate the company will bypass the level of 2012 to 2020 in terms of income and expenses, but will be far from the record levels of 2013 and 2014.

To evaluate the cash flow of the company, it is necessary to amend the NOPAT, which are presented in Table 3 based on the formula 3.

Table 3
FORECAST OF THE CASH FLOW DYNAMICS OF THE OJSC "OIL COMPANY "ROSNEFT" IN 2016-
2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
NOPAT	8,844	9,463	10,126	10,834	11,593
Amortization	7,539	7,690	7,844	8,001	8,161
Capital costs	1,985	2,025	2,065	2,107	2,149
Investments in the WC	6,940	5,552	4,442	3,553	2,843
FCFF	7,458	9,576	11,462	13,175	14,762

At the free cash flow forecast (FCF), Table 3 supposes a decrease in the investments in the WC. This is explained by the WC calculation method according to the formula:

$$WC = (CA - CASH) - (SL - SD)(5)$$

where

CA – current assets,

SL – short-term liabilities,

SD – short-term debt.

At the same time the company OJSC "Oil Company "Rosneft" has the non-debt items as the long-term liabilities that should reduce the WC from the point of view of the classical financial management. These liabilities enable not to use the shareholders' equity and debt capital to finance the company's current assets (Levy, 2010).

For example, the item "Prepayment on the long-term contracts of oil and oil products supply" has amounted to 2012 - 0 USD, in 2013 - 14,360 mln. USD, in 2014 - 15,766 mln.USD, in 2015 - 24,492 mln. USD in the long-term liabilities of the company OJSC "Oil Company

"Rosneft". And this item of the long-term liabilities has become comparable with the total long-term debt of the company in 2015.

Based on these characteristics of the company, this item of the liabilities has been used in the WC evaluation. At that it should be noted the presence of debt signs in this item, which suggests the presence of the company's quasi-debt. The presence of high values of this item and the recognition of its non-debt nature lead to negative values of the WC, and a working capital of the company has been actually decreased by 10 times in 2013.

It is expected the WC increase by 67% in the proposed estimation and forecasting model due to the company's long-term debt growth by 76%, shareholders' equity growth by 23% and fixed assets growth by 10% in 2020. The growth of investments in the fixed assets is negligible, since the assessment model is guided by the conservative estimates of oil and oil products price growth.

A replacement of quasi-debt with the real debt leads to the FCFE growth, but this increase is compensated by the growth of the required return on shareholders' equity by the financial leverage adjustment. It occurs due to the fact that the debt increase leads to the increased risk of investment in the shareholders' equity of the company.

Valuation of the Company's Cost of Capital

The capital provided by the owners and financial institutions as the debt has a cost. The cost of capital is determined by the interest rate per capital unit for a certain period of use. Therefore, the company's cash flows that define the desired level of profitability are discounted at the rate of cost of capital. A comparison of the discounted flows generated by the assets with the costs for asset acquisition enables to speak about the economic efficiency of investments.

Classical formula for determining the cost of capital

$$WAC = e \cdot W_e + a \cdot (1 - T) \cdot W_d \quad (6)$$

where:

T - income tax rate;

(1-T) – tax shield;

W_e - share of the shareholders' equity in the company's capital;

W_d - share of debt capital in the company's capital;

C_e - shareholders' equity cost;

C_d - debt capital cost.

According to reports the weighted average cost of capital of the OJSC "Oil Company "Rosneft" amounted to 13.1% in 2015 (11.0% in 2014) prior to the payment of income tax [6].

For the independent calculation of weighted average cost of capital, it is necessary to evaluate the shareholders' equity. The OJSC "Oil Company "Rosneft" is included in the list of blue chips. Therefore, in order to evaluate the shareholders' equity we can use the Capital Asset Pricing Model (CAPM) (<https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield 29.07.2016>), which shows good results in the publicly traded companies.

$$C_e = r_f + \beta(r_m - r_f) + \text{specific risks} \quad (7)$$

R_f - risk-free rate,

β (beta) - measure of the company's (industry's) shares volatility in comparison with the market as a whole (systemic risk),

R_m - average market return (market yield) on portfolio.

It has been adopted the US Treasury rate of government bonds as a risk-free rate for the calculations (<http://people.stern.nyu.edu/adamodar/> 29.07.2016). We took the data calculated by A. Damodaran as a premium for the risk of investment in the shareholders' equity in the formula (7) $r_m - r_f$ and β (<http://moex.com/a3691> 30.07.2016).

As it is seen from Table 4, the required rate of return on the investment in the shareholders' equity of the OJSC "Oil Company "Rosneft" is from 31.67% to 34.35%. A high value is determined by the high value of premium for the risk of investment in the shareholders' equity of the Russian companies and the high level of financial leverage. At the same time we have not amended the foreign exchange risk, as the cash flow calculation is in USD.

Table 4
CALCULATION OF THE SHAREHOLDERS' EQUITY COST OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2016-2020

	2016	2017	2018	2019	2020
Rf (risk-free)	1%	1%	1%	1%	1%
Market premium for the risk of investment in E	10%	10%	10%	10%	10%
Beta excluding debt load	1.63	1.63	1.63	1.63	1.63
D/E indicator	0.9387	1.034048	1.094806	1.129334	1.144017
Income tax effective rate	0.2	0.2	0.2	0.2	0.2
β coefficient - lever adjustment	2.854065	2.978399	3.057627	3.102652	3.121798
Small company	-0.37%	-0.37%	-0.37%	-0.37%	-0.37%
Non-systemic liquidity risk	1.50%	1.50%	1.50%	1.50%	1.50%
Non-systemic growth risk	0.01	0.01	0.01	0.01	0.01
Risk amount	2.13%	2.13%	2.13%	2.13%	2.13%
Ke - capital rate in the context of leverage	31.67%	32.91%	33.71%	34.16%	34.35%

The definition of the weighted average of cost of capital has no particular problems. Thus, the value of cost of borrowed resources is provided in the company's reports. But the increase in financial leverage may increase both the value of shareholders' equity and debt capital. For the calculations, it was assumed a stable value of the shareholders' equity of the OJSC "Oil Company "Rosneft".

The calculations show that the weighted average cost of capital of the OJSC "Oil Company "Rosneft" compose a value close to 20%. This value is different from the same indicator of 2015 under the company's reporting data upward. It should be noted the growth of DER level of the companies, which can be characterized as an aggressive policy of financing their activities.

Table 5
CALCULATION OF THE WEIGHTED AVERAGE COST OF CAPITAL OF THE OJSC "OIL
COMPANY "ROSNEFT" FOR 2016-2020

	2016	2017	2018	2019	2020
Debt share in capital (Wd)	0.48419	0.50837	0.522629	0.53037	0.533586
Share of shareholders' equity (We)	0.51581	0.49163	0.477371	0.46963	0.466414
Debt cost (Cd)	8.83%	8.83%	8.83%	8.83%	8.83%
Shareholders' equity cost (Ce)	31.67%	32.91%	33.71%	34.16%	34.35%
WACC	0.197563	0.197726	0.197823	0.197875	0.197896

The experts offer to reduce the leverage level at the sale of companies or public offering as a measure to increase the company capitalization. High debt level carries a high level of risk for the investor, which is reflected in the increase in required yield and reduces the estimate of the current value of assets.

The Intrinsic Value of the Company, Shareholders' Equity and Market Capitalization

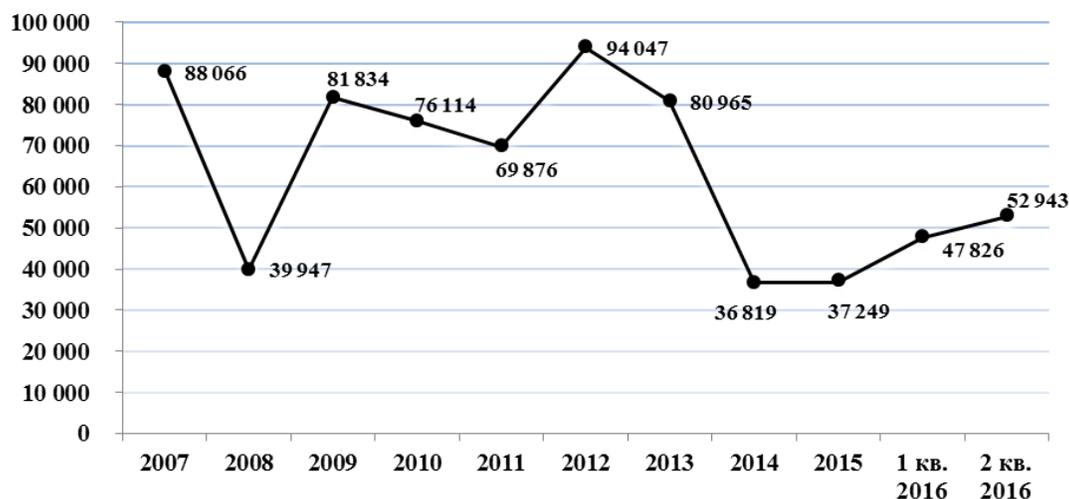
We find the intrinsic value of the company by discounting the cash flow forecast and add the terminal value of the company to the cash flow of the last year.

Table 6
DYNAMICS OF UNDISCOUNTED AND DISCOUNTED CASH FLOW OF THE COMPANY WITH A
TERMINAL VALUE OF 2016-2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
FCFF	7,458	9,576	11,462	13,175	14,762
TV					90,562
DF	1	0.834915	0.69702	0.581887	0.485757
Discounted FCFF	7,458	7,995	7,990	7,666	51,162

Based on the data presented in Table 6 the company value amounted to 86,104 mln. USD, short-term and long-term debt of the company amounted to 32,066 mln. USD, respectively the cost of cash flows attributable to the shareholders' equity would be 54,038 mln. USD.

Figure 1
DYNAMICS OF THE MARKET CAPITALIZATION OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2007-2016 (MLN. USD) [10]



The company OJSC "Oil Company Rosneft" has no preference shares, so the entire cash flow is reinvested or distributed among the holders of ordinary shares after payment.

As it is seen from Figure 1, the intrinsic value of shareholders' equity of the OJSC "Oil Company Rosneft" is comparable to its market capitalization. However, the upward trend of the first half, which is provided by a sharp increase in oil prices, could be short-lived. Accordingly, the market capitalization of the company can come close to the levels of 2014 and 2015.

Another confirmation of the fact that the value of the company OJSC "Oil Company Rosneft" has a potential for further growth is the fact that the multipliers, which are calculated as the ratio of the market capitalization of the company and some of its financial performance (income before interest, taxes and amortization, net income and revenues from sales), are significantly lower than the same multiples calculated for the leading oil and gas companies in the whole world (see Table 6).

Table 6
MULTIPLIERS OF OIL AND GAS INDUSTRY AND THE COMPANY OJSC "OIL COMPANY "ROSNEFT"

Indicator	Multiplier for the oil and gas industry	Multiplier for the company OJSC "Oil Company Rosneft"
EV/EBITDA	6.40	1.79
Mkt. Cap./ Net Income	8.93	6.11
EV/Sales	0.90	0.43

The low value of the multiplier is due to the specific risks of the company and/or risks of the country where the company operates. For example, the risk of a decrease in oil prices affects equally the entire oil and gas industry. Removing these specific risks will lead to an increase in

the company value, which will ensure a compliance of the multipliers with the worldwide industry standards.

CONCLUSION

The raw character of development of the Russian economy leads to the significant cyclical problems. In a period of high conjuncture of the commodity markets, the macroeconomic risks of state budget deficit are hardly noticeable. However, when the price conjuncture has a downward trend, there are problems of reducing the state spending and covering the state budget deficit.

The decision on the sale of assets of the companies with state participation is self-contradictory, since the value of company assets is directly or indirectly linked to the value of natural resources. From the standpoint of achieving a high efficiency in making decisions on the privatization, it is necessary to carry out the sale of assets of the companies at the time of high prices for resources, but in this period, as a rule, the cash flow of these companies and their net profits are sufficient (Kirshin, 2016).

From the standpoint of obtaining the high cash flows, it is necessary to wait, for example, an achievement of the level of 70,000 mln. USD of 2011. According to forecasts this indicator may be achieved in 2017 - 2018, subject to the forecast increase in oil and oil products prices, lifting of sanctions from the Russian economy and reducing the leverage of companies with state participation.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

- A. Damodaran (2016). Investment Valuation: Tools and Techniques for Determining the Value of any Asset, B. Simkins, R. Simkins Energy Finance and Economics: Analysis and Valuation, Risk Management, and the Future of Energy March 2013, 624 pages.
- Consolidated financial statements of the OJSC "Oil Company "Rosneft", https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_statements/ 26.07.2016
- Consolidated financial statements of the OJSC "Oil Company "Rosneft" dated December 31, 2015 P. 58 https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_statements/ 26.07.2016
- Damodaran online. Data <http://people.stern.nyu.edu/adamodar/> 29.07.2016
- Kirshin I.A. (2016). Capital Structure Optimization Method Taking into Account the Company's Financial Difficulties. *Financial Management*, (2), 69 - 76.
- Levy H. (2015). The CAPM is Alive and Well: A Review and Synthesis. *European Financial Management*, 16(1), 43-71.
- Market capitalization of the securities on the basis of trading in CJSC "MOEX Stock Exchange" at the end of the II quarter of 2016 <http://moex.com/a3691> 30.07.2016
- Market capitalization of the securities on the basis of trading in CJSC "MOEX Stock Exchange" at the end of the II quarter of 2016 <http://moex.com/a3691> 30.07.2016
- R. Ibragimov 6 (2016). To the Question of Calculating the Terminal Component of Discounted Cash Flow Model. *Financial Analytics: Science and Experience*, 27-41.
- U.S. DEPARTMENT OF TREASURY. Daily Treasury Yield Curve Rates <https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield> 29.07.2016.