

ANALYSIS OF THE ECONOMIC-FINANCIAL PERFORMANCE OF ROMANIAN COMPANIES IN THE FIELD OF CRUDE OIL AND NATURAL GAS EXTRACTION**Lecturer PhD. Marian SOCOLIUC***Stefan cel Mare University of Suceava, 720229, Romania
marians@seap.usv.ro***Student Gabriela-Paraschiva SAVU***gabriela_savu10@yahoo.com***Abstract**

This paper highlights the performance of the Romanian oil and gas industry companies. The purpose of this article is to compare the success of companies in this field. The research is a quantitative one based on key performance indicators, whose main objective is to study and calculate KPI based on the information taken from the profit and loss account of the companies for which the study was conducted. The research methodology was made based on a sample of Romanian economic entities. In order to identify the sample, we accessed the following sites: <http://www.listăfirme.ro> and www.topfirme.ro and selected the companies taking into account their main activity object (NACE 601 - extraction of crude oil, NACE 620 - extraction of natural gas). In this study we chose a sample of 50 companies, 7 of them were taken into consideration, part being listed on the Bucharest Stock Exchange, where we created a database with access to the transparency of economic information, for the calculation of the unified key performance indicators (KPIs). The analysis of the case study shows that the main economic entities that carry out production activities, being the most efficient, are OMV Petrom (oil and gas) and Romgaz (natural gas).

Key words: *NACE; extraction; industry; natural gas; performance.*

JEL Classification: *M40.*

I. INTRODUCTION

Key performance indicators are important tools, both in defining high-level objectives (international or national) and in planning smart energy communities.

Considering that the chosen topic is a current one, being debated in the last decades, in the political environment, online and in society, in general, the research has aimed to bring data and arguments on the field of the natural gas industry from the Romanian and international perimeters, in order to present the most profitable companies in these sectors.

There are 11 indicators used in this analysis, each of them expressing the situation either favourable or unfavourable of each entity.

Specifically, this study examines and compares the results and strategies made in the oil and natural gas sector, analyses the role of industrial policy in providing incentives (for innovation) in resource-based industrialization and overcoming market barriers in developing local suppliers in the extractive sectors from Romania.

II. RESEARCHING THE ECONOMIC AND FINANCIAL PERFORMANCE OF ROMANIAN COMPANIES USING THE KEY PERFORMANCE INDICATORS (KPIs)

KPI is one of the main tools used to perform comparative analyses between different "logistics chains, understands and monitors the quality of the performance in relation to strategic objectives set, such as the quality of the performance of the services provided" (Schintu & Serra, 2018).

Over the last twenty years, the intensification of trade flows and the rapid increase in demand for goods and services in the new emerging countries have led to a profound change in global transport and a dramatic increase in the level of competitiveness among transport and logistics service providers. In order to remain competitive, transport and logistics operators are required to perform operations with maximum efficiency in order to meet the demands of a growing and diversified demand (Dennis & NolanEric, 2015).

Supply chain management is one of the areas that have recently attracted a lot of attention in logistics. The quantitative tools offered are simple, based on key performance indicators (KPIs) to support the evaluation process of each individual entity (Gaogao, Lixin, Yougui, Longfeng & Zhang, 2019).

A sample of 50 companies was collected and analysed and the performance analysis will be performed only on 7 of the 50 (see Table 1), as only a part of them are listed at the BSE having access to the data needed to calculate the following performance indicators: return on capital employed, cash/operating cash margin per barrel, generation of free cash flow, indebtedness, return on assets, rotation of total assets, rotation of fixed assets, rotation of working capital, debt rotation, rotation of debt to suppliers, rotation of stocks.

Table 1. List of companies in the field of oil and gas extraction

No.	Oil	Natural Gas
1.	Omv Petrom SA	SNGN Romgaz SA
2.	Rompetrol Well Services	E.ON Energie România SRL
3.	Lukoil România	Engie România SA
4.	Mol România	Petromar Resources
5.	Oil Terminal	Distrigaz Sud Rețele SRL
6.	Conpet SA	Premier Energy SRL
7.	Petrotrans SA	Gas Plus Internațional
8.	Socar	Amroco Energy SRL
9.	Petrolexportimport SA	Petro Ventures Resources SRL
10.	Atlas Gip	Raffles Energy SRL
11.	Grup Servicii Petroliere	Chevron România Exploration and Production SRL
12.	ExxonMobil România	Repsol
13.	Petrosantander România SRL	Gas Plus Dacia SRL
14.	Hunt Oil Company of România SRL	Stratum Energy România
15.	Fora Oil and Gas SRL	Berișteanu Impex SRL
16.	Zeta Petroleum România SRL	Gaz Vest SA
17.	Brent Oil Co SRL	C-GAZ & Energy Distribuție SRL
18.	Global Energy Investment SRL	SNGN Transgaz
19.	Clara Petroleum SRL	City Gas SRL
20.	Rompetrol Rafinare	Entrex Services SRL
21.	Alpha Metal Oil and Gas SRL	Delgaz Grid SA
22.	Optim Oil SRL	Conef Gaz SRL
23.	Mazarine Energy România	Premier Energy Trading SRL
24.	Dacian Petroleum	Timgaz SA
25.	I Oil & Gas Resources SRL	Otto Gaz SRL

Source: Authors' own processing after: www.listăfirme.ro, www.topfirme.ro

1. OMV Petrom S.A.

We have achieved the level and dynamics of the performance indicators of OMV Petrom SA as follows: (see Figure 1) and financial upstream oil and gas KPIs for OMV Petrom SA (see Figure 1).

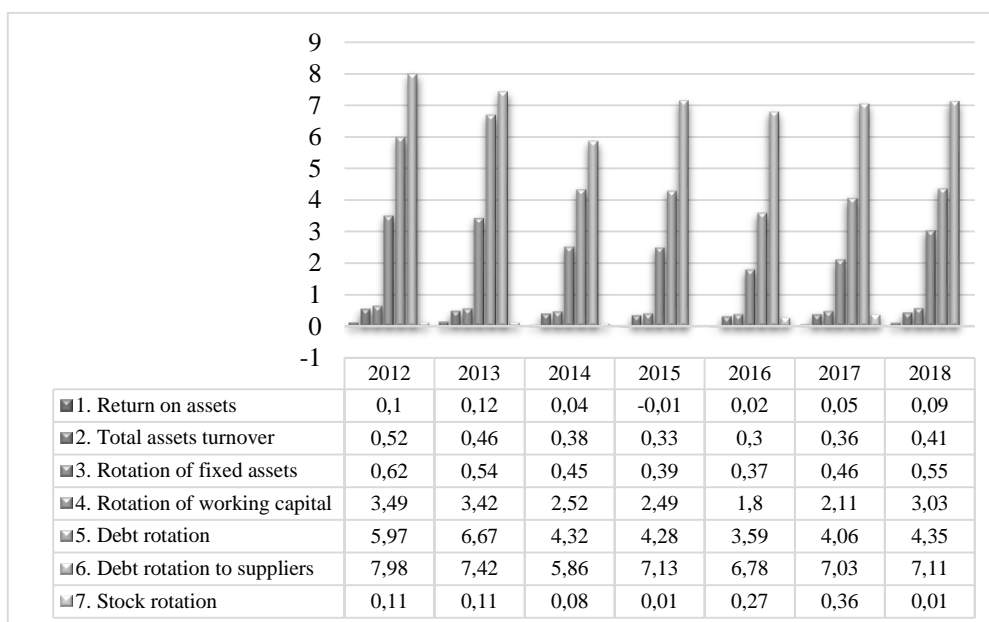


Figure 1 - Evolution of the efficiency indicators of the company OMV Petrom S.A. between 2012 and 2018

Source: Authors' own processing after: <https://www.omvpetrom.com>

In the graph above, during the 7 years period we find that both the turnover of fixed assets and the rotation of stocks are the lowest values, while the return on assets during the year 2013 registered the highest value. Regarding the turnover of the total assets we realise that in 2012 it was the highest rate, which indicates that the company had a significant profit. In the following periods the values oscillate, however, the value from the period of 2012 was not exceeded even in 2018.

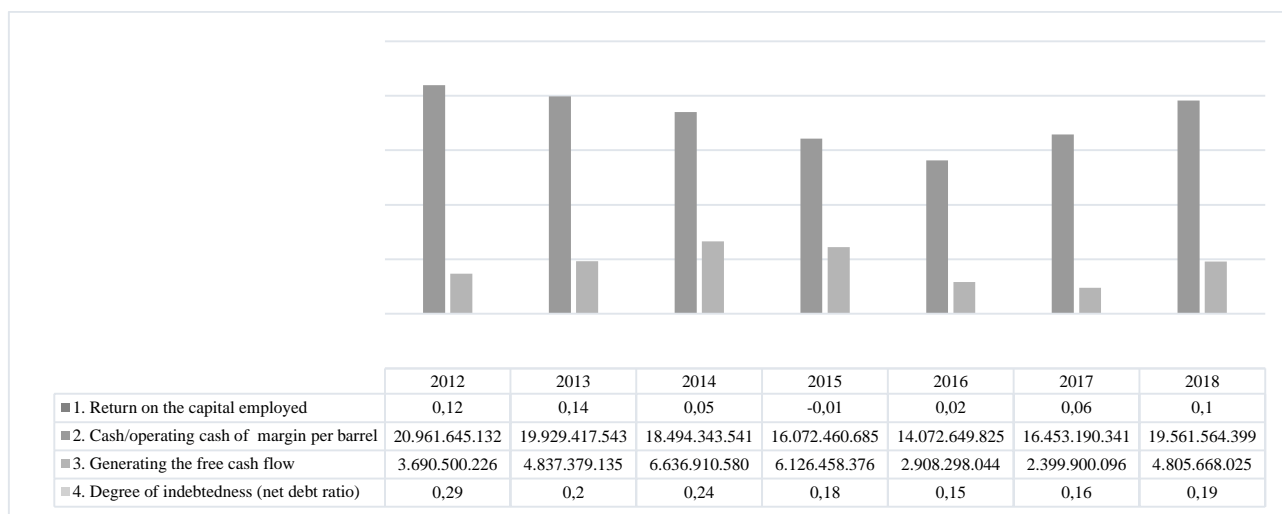


Figure 2 - KPI evolution for OMV Petrom S.A. between 2012 and 2018

Source: Author's own processing according to the data taken from the financial statements of OMV Petrom SA

According to the graph above we find that the highest flow of the operating cash margin indicator per barrel was in 2012, after which the values decreased by 1 billion and 2 billion respectively and in 2018 there was an increase by 3 billion. 2012 was the highest level of debt and the lowest amount was in 2014.

According to the indicator, the generation of free cash flow represents the cash that the company generates after cash outflows to support operations and to maintain its capital assets. The largest cash flow recorded was in 2014 with a value of 6 billion RON and the smallest value in 2017 of 2 billion RON.

2. *Rompetro well services*

We have achieved the level and dynamics of the performance indicators of Rompetrol Well Services as follows: (see Figure 3) and financial upstream oil and gas KPIs for Rompetrol Well Services (see Figure 4).

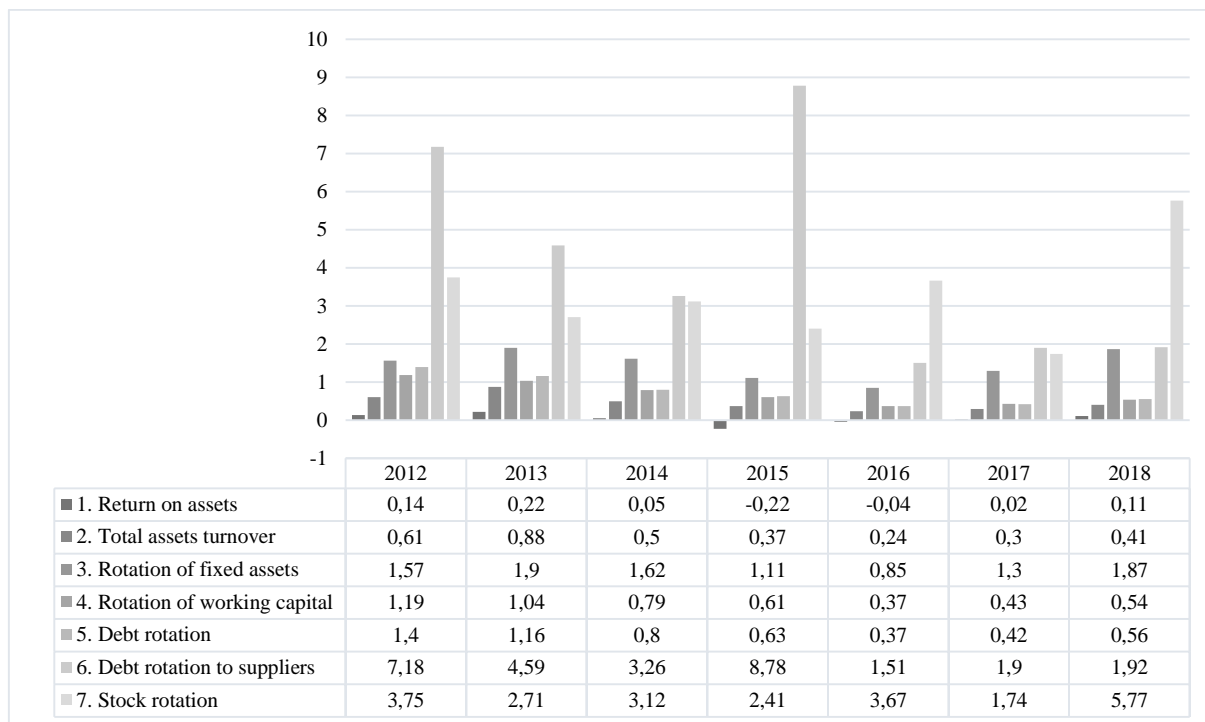


Figure 3 - Evolution of performance indicators for Rompetrol Well Services between 2012 and 2018

Source: Authors' own processing after:

https://www.bvb.ro/infocont/infocont19/RRC_20190425110934_Raport-Anual-2018.pdf

In the Figure 3 we can easily analyse both the rotations of total assets, fixed assets, working capital, receivables, stocks but especially the debts to suppliers, having oscillatory values. During the 7 years analysed, we find that in the indicator on the return on assets, negative values were both registered in 2015 with a percentage of 22% and in 2016 with a percentage of 4%. Indicator values are fluctuating from year to year either increasing or decreasing. The company Rompetrol Well Services pays its debts annually 2 respectively 7 times a year.

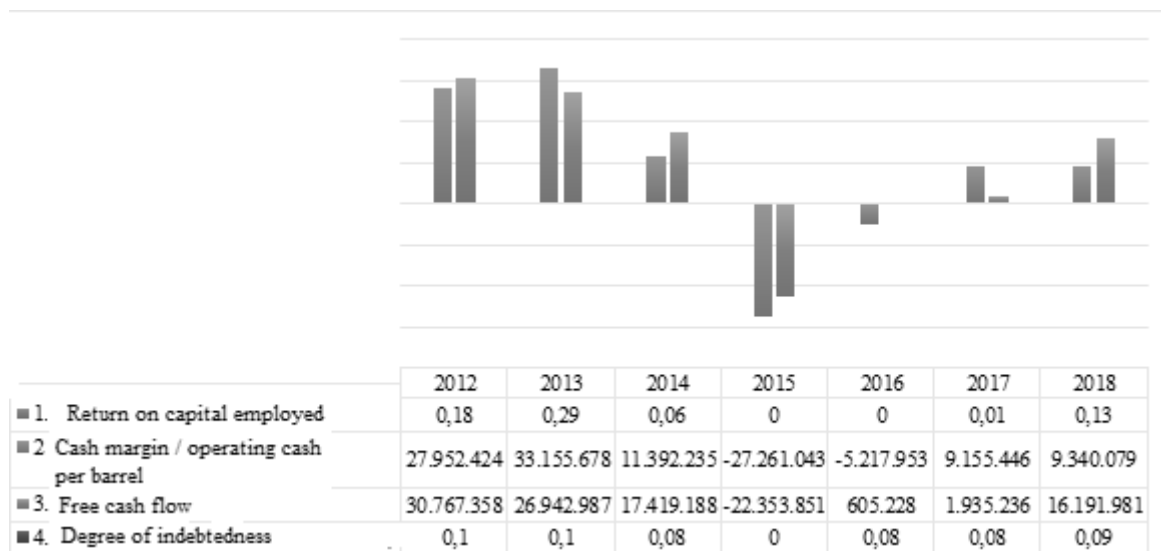


Figure 4 - KPI evolution for Rompetrol Well Services between 2012 and 2018

Source: Authors' own processing based on data taken from the financial statements of Rompetrol Well Services

According to this graph, the company Rompetrol Well Services recorded both positive and negative values as it can be seen. The minus values were recorded in 2015 following the calculation of the operating cash margin indicators per barrel, the negative value being (-27 million RON) and the generation of the free cash flow

with a negative value of (-22 million RON). The net debt rate is recorded with the same value 2 years in a row with a percentage of 10%, then in the coming years it decreases.

3. Exxonmobile Romania

We achieved the level and dynamics of performance indicators of ExxonMobile Romania as follows: (see Figure 5) and financial upstream oil and gas KPIs for ExxonMobile Romania (see Figure 6).

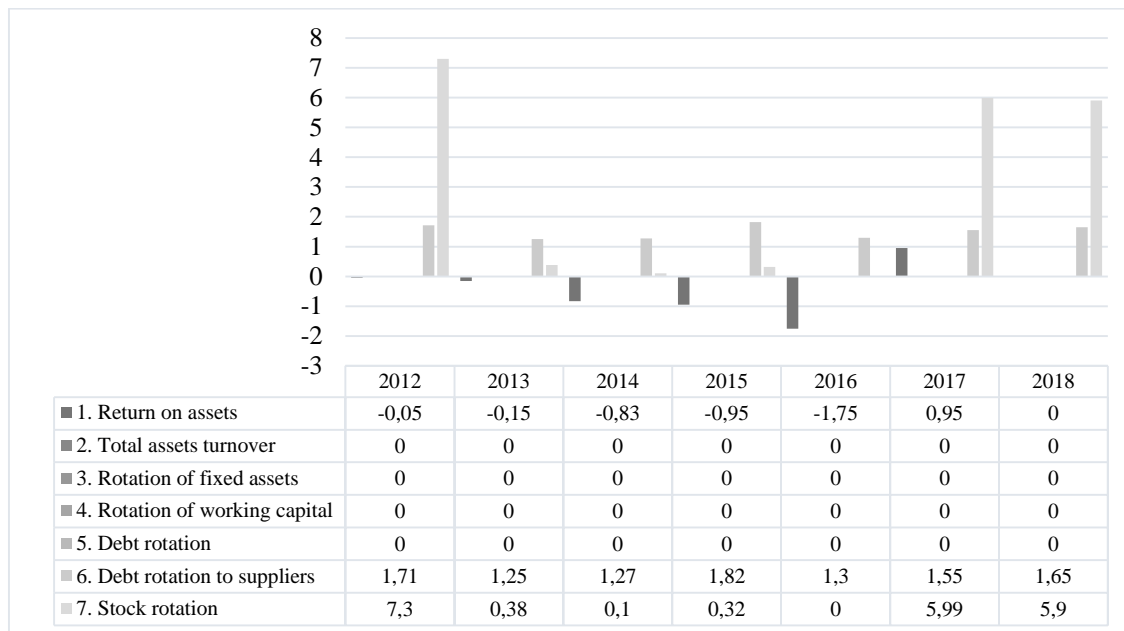


Figure 5 - Evolution of performance indicators for ExxonMobile Romania between 2012 and 2018

Source: Authors' own processing after: <https://corporate.exxonmobil.com/en/Locations/Romania>

You can easily notice the situation of ExxonMobile Romania through this graph. According to the turnover that in all these years was 0, it was not possible to calculate certain indicators. The profitability of the assets was negative for 5 consecutive years, and in 2017 it registered a positive value with a percentage of 95%, then in 2018 the profitability decreases to 0. This company pays its debts to suppliers no more than 2 times a year.

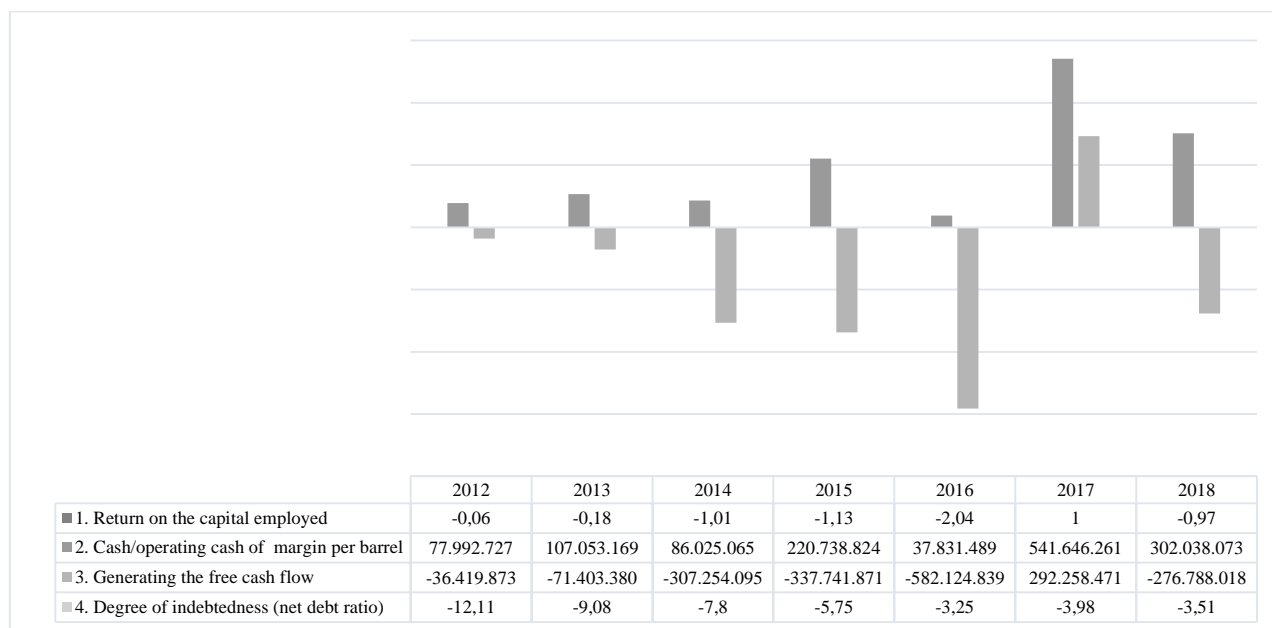


Figure 6 - KPI evolution for ExxonMobile Romania between 2012 and 2018

Source: Authors' own processing according to the data taken from the financial statements of ExxonMobile Romania

Within this company the return of the employed capital had an evolution but of the negative values, only 2017 had a positive value, the percentage being of 95%. Until the highest value of the indicator of operating cash per barrel was recorded, the values were quite fluctuating and the highest value in 2017 was 541 billion RON. The generation of free cash flow recorded negative values 5 years in a row, and again in 2017 the positive amount of 292 billion RON was reported. The degree of indebtedness is for a period of 7 years, it is negative, which denotes that the entity uses loans.

4. *Petrolelexportimport S.A.*

We have achieved the level and dynamics of the performance indicators of PetrolExportImport S.A. as follows: (see Figure 7) and financial upstream oil and gas KPIs for PetrolExportImport SA (see Figure 8).

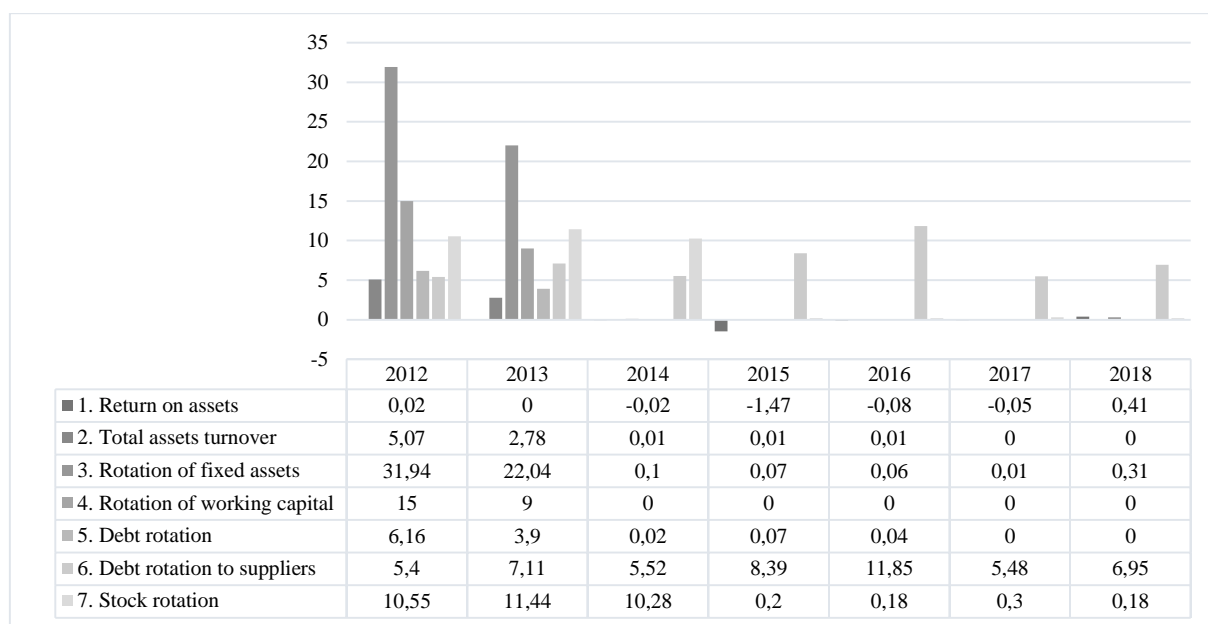


Figure 7 - Evolution of performance indicators for PetrolExportImport between 2012 and 2018

Source: Authors' own processing after: <https://www.tradeville.eu/actiuni/actiuni-PEI/date-financiare>

Within this company, both negative and positive values were recorded following the calculation of the indicator of return on assets. In 2013 the rate was 0, the lowest negative value was in 2014 with a percentage of 2% and the highest was in 2018 with a percentage of 41%. According to the indicator of total asset turnover we realize that in 2012 most assets were transformed into sales following decreases until now. The company PetrolExportImport pays its debts 5 respectively 12 times a year.

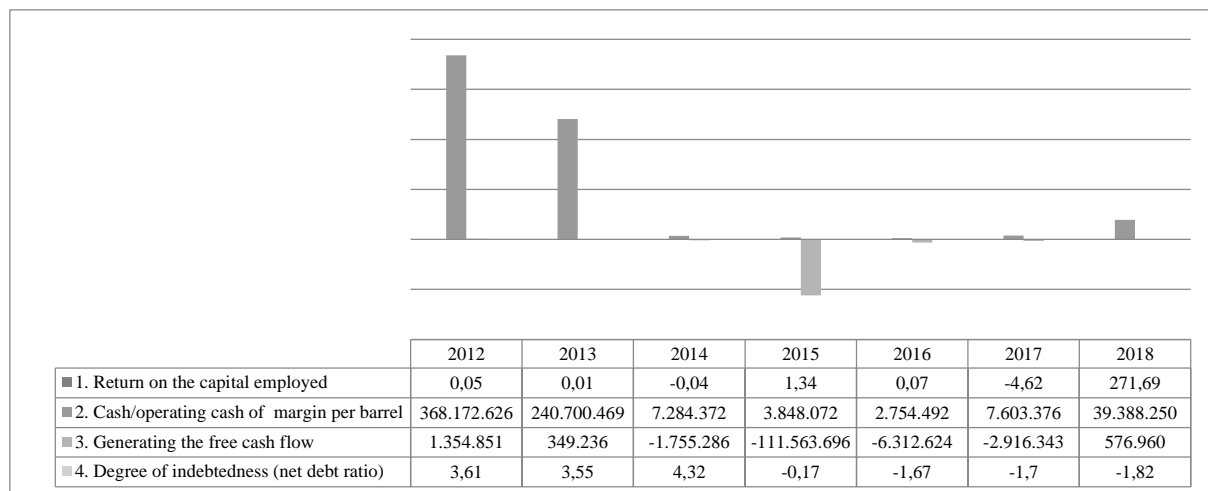


Figure 8 - KPI evolution for PetrolExportImport between 2012 and 2018

Source: Authors' own processing according to the data taken from the financial statements of PetrolExportImport S.A.

According to this chart, the company PetrolExportImport, had negative values not only as a result of the calculation of the profitability of the employed capital, but also as a result of the calculation of the indicator called the generation of free cash flow. At this indicator, the negative values started in 2014 and continued until 2017, after which the positive value of 576 thousand RON was registered in 2018. The highest value of the debt ratio was recorded in 2014, following which from 2015 to 2018 minus values will be recorded.

5. Oil terminal S.A.

We have achieved the level and dynamics of the performance indicators of Oil Terminal SA as follows: (see Figure 9) and financial KPIs upstream of oil and gas for Oil Terminal S.A. (see Figure 10).

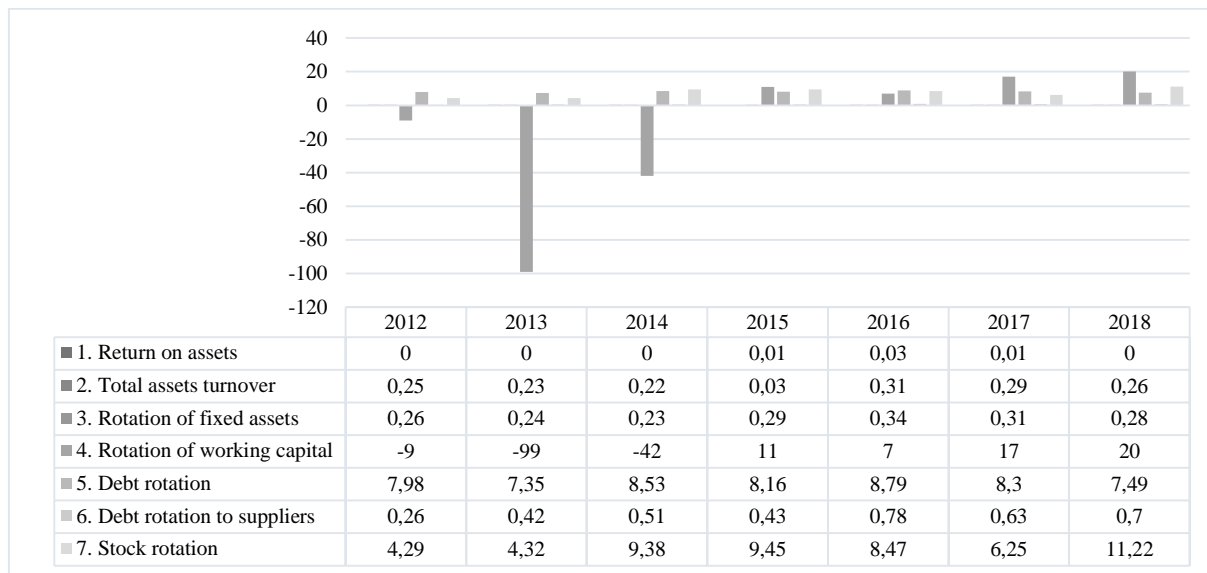


Figure 9 - Evolution of the efficiency indicators for the Oil Terminal company between 2012-2018

Source: Authors' own processing after:

<http://www.bvb.ro/FinancialInstruments/Details/FinancialInstrumentsDetails.aspx?s=OIL>

According to the analysis of the indicators of the Oil Terminal company, during the analysed periods there were only 3 negative values of the working capital rotation, which had no relevance. The rotation of the debts shows fairly close values which indicates that the company is constantly using its sales, the customers make the payment on the spot and the debts are paid by the company no more than once a year.

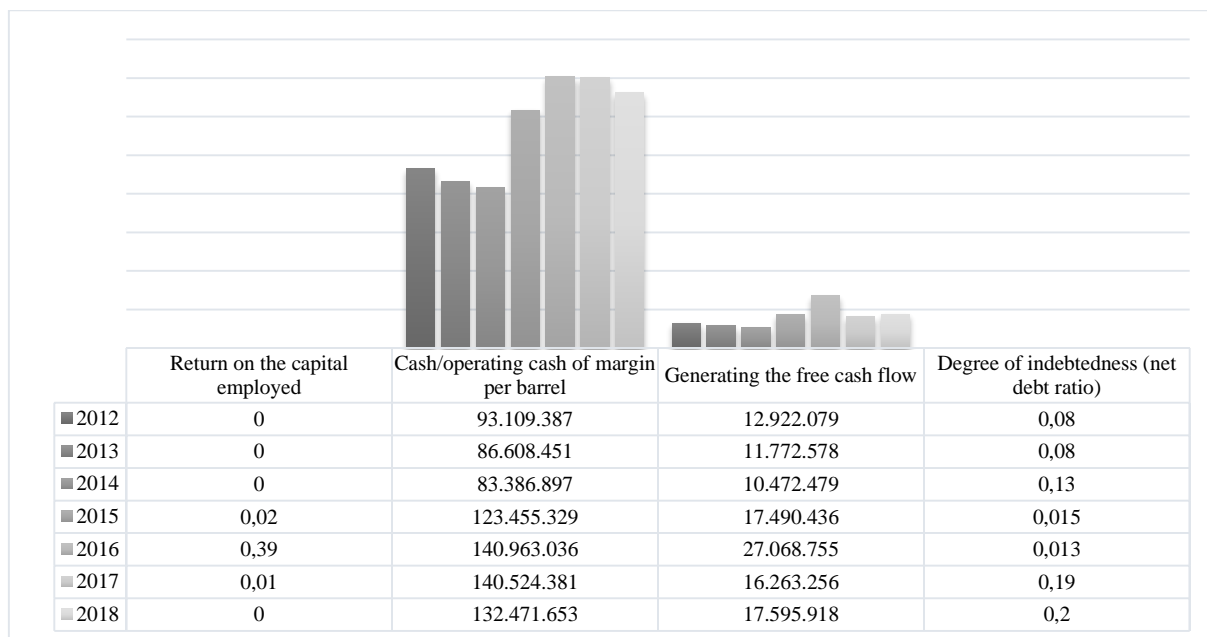


Figure 10 - Evolution of the KPI for the Oil Terminal company between 2012 and 2018

Source: Author's own processing according to the data taken from the financial statements of Oil Terminal S.A.

The return of the employed capital had the highest value in 2016, decreasing in 2017 and in 2018 it was 0. The highest value of the indicator operating cash margin per barrel was in 2016 with 140 million RON and the lowest value in 2014 with 83 million RON. The cash of the company generated after the capital outflows has positive values, the highest in 2016 with 27 million RON and the smallest value in 2014 with 10 million RON. We notice that this company notes amounts below 0.50, which shows the increased prudence regarding the exposure to the related risks.

6. *Conpet S.A.*

We achieved the level and dynamics of the performance indicators of the company Conpet S.A. as follows: (see Figure 11) and financial KPIs upstream of oil and gas for Conpet S.A. (see Figure 12).

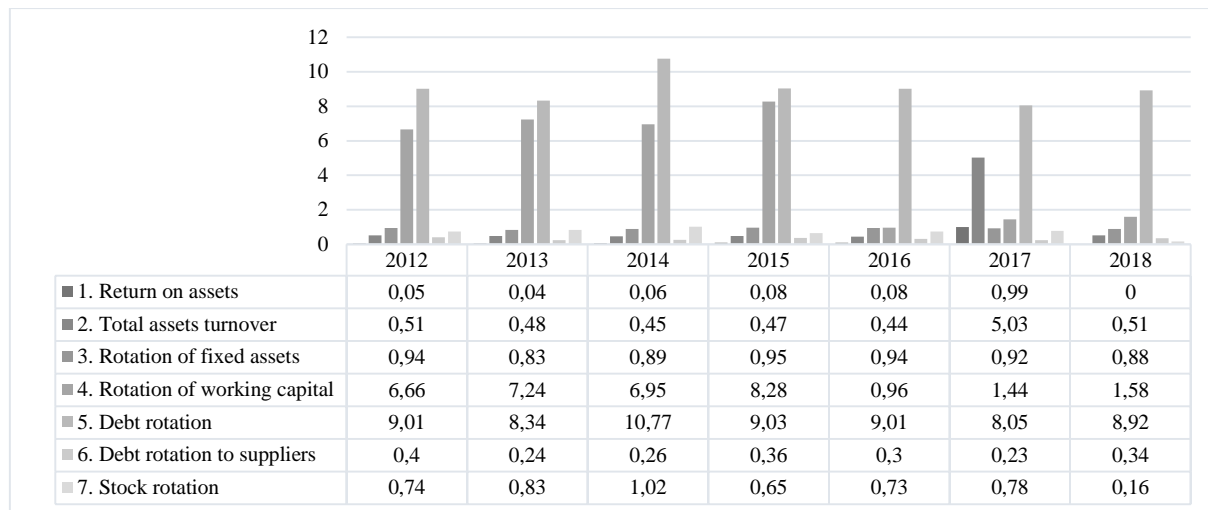


Figure 11 - Evolution of the efficiency indicators for the company Conpet S.A. in the period 2012-2018

Source: Authors' own processing after: <https://www.conpet.ro/relatia-cu-investitorii/raportari/rapoarte-curent/>

Within this company no values have been recorded negatively after the calculations. The return on assets has fluctuating values, in 2017 it had the highest value and in 2018 it was 0. The rates of the fixed assets are not very high but it can be said that the company uses the fixed assets, obtaining an insignificant amount after the sales. The values fluctuate either with a percentage or with 7. This company does not pay its debts, which denotes that it fails to maintain a good rate of payments.

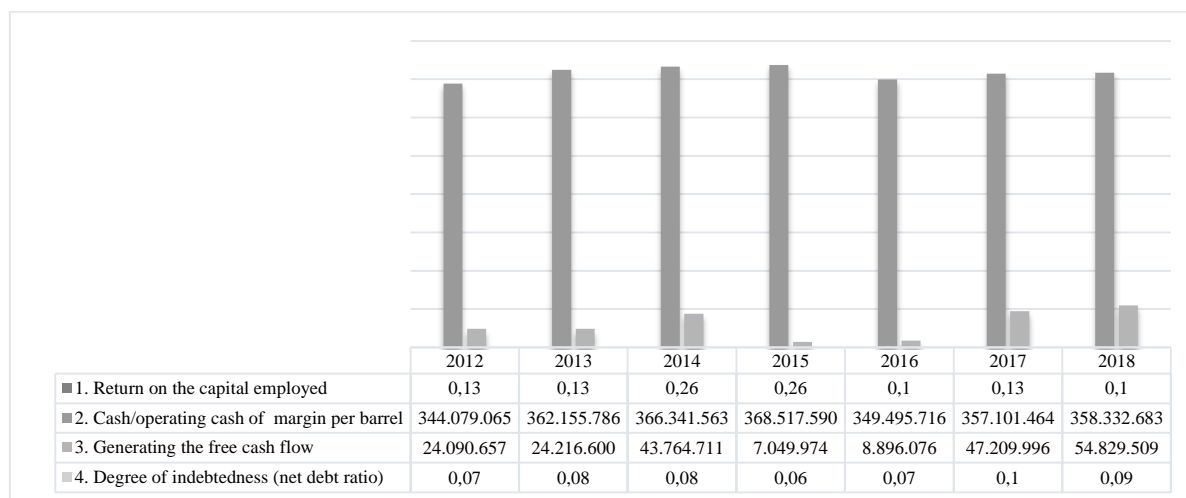


Figure 12 - Evolution of the KPI for the company Conpet S.A. between 2012 and 2018

Source: Authors' own processing according to the data taken from the financial statements of Conpet S.A.

According to this graph we can say that the return of the employed capital had the highest value in the periods 2014-2015 with a percentage of 26% and the lowest value was recorded in 2016 and 2018 with a percentage of 1%. The operating cash per barrel had a significant evolution until 2015 and then registered lower values than in previous years. The highest value of the indicator generating the free cash flow in 2018 is observed with 54 million RON and the lowest value was in 2015 with 7 million RON. In 2 consecutive years, identical values of the debt ratio were registered with a percentage of 8% but the highest value was passed in 2017 with a percentage of 10%.

7. SNGN RomGaz S.A.

We achieved the level and dynamics of the performance indicators of SNGN RomGaz S.A. as follows: and financial upstream oil and gas KPIs for SNGN RomGaz S.A. (see Figure 13).

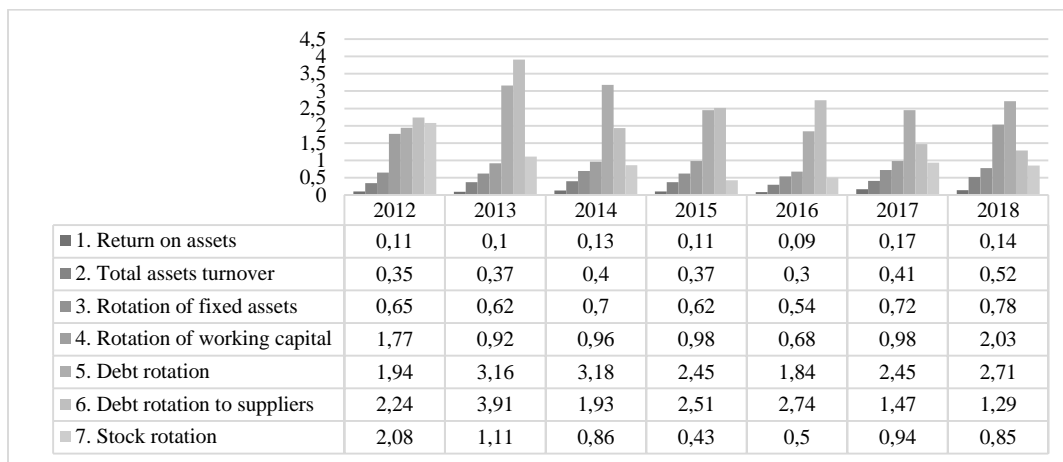


Figure 13 - Evolution of the efficiency indicators for the SNGN RomGaz company during 2012-2018

Source: Authors' own processing after: <https://www.romgaz.ro/ro/rapoarte-anuale>

Analysing the table above we can see that in 2017 the return on assets is the highest compared to other years. The results of this indicator are fluctuating, as it can be seen. In the case of the working capital rotation, in 2012 a significant value was registered, following a declining period and in 2018 it increased again. SNGN RomGaz company pays its debts twice approximately 4 times a year. Stocks are sold /replaced approximately twice a year.

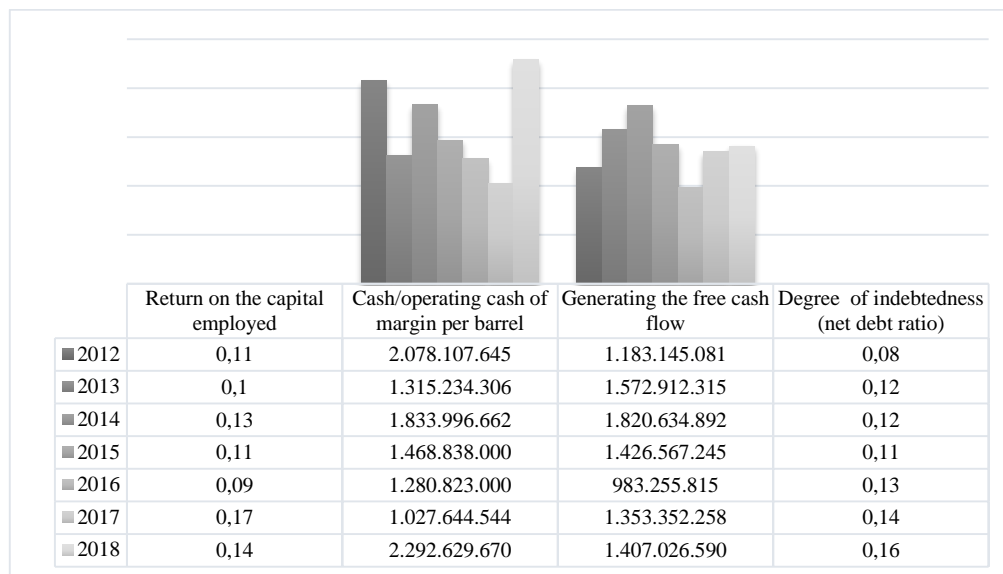


Figure 14 - Evolution of KPI for the company SNGN RomGaz between 2012 and 2018

Source: Authors' own processing according to the data taken from the financial statements of SNGN RomGaz SA

By calculating the profitability of the committed capital, the efficiency of the company is measured using the capital that is used to generate profits, not only for the current year but also for the following period. Within the company SNGN RomGaz the highest rate was recorded in 2012 as it can be seen in the table above. In the following periods, oscillatory values were recorded until 2018. The indicator of cash/operating margin per barrel measures the operational efficiency of the company. The period with the highest flow was in 2018 with 2 billion and the lowest value was in 2017 with 1 billion. The debt ratio in 2018 was the highest with a weight of 16% and the lowest value was registered in 2012.

III. CONCLUSION

Following the study, namely the calculation of the key performance indicators on the 7 companies, it appears that the most profitable companies in Romania are OMV Petrom SA (oil sector) and SNGN RomGaz (natural gas sector).

If Rompetrol recorded both loss and profit in the last 7 years and Conpet obtained a historical profit, OMV Petrom reported losses for the first time after privatisation, (privatization that took place in 2004), while Romgaz has managed to maintain its performance in an unfavourable environment.

The only Romanian oil producer, OMV Petrom, registered the loss after the company was taken over by the Austrian group OMV due to the collapse of oil prices. The negative value was 630 million RON, compared to the profit registered in 2014, 1.8 billion RON. The financial results were affected by the sharp fall in prices.

The analysis confirms the proposed validity, its approach and its usefulness as a useful decision support tool to measure the performance of a specific process of the supply chain and the chain as a whole to shed light on the critical elements that most affect the performance in general. From the information provided by the indicators, the supply chain manager can decide what actions need to be taken to improve the performance of a specific area and the chain as a whole.

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