

Final Project  
Digital Tools for Finance

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## Introduction

This report is aimed on the estimation of the cost of capital of the main players of the oil industry.

The first part of the report gives a brief overview of main market characteristics of oil stocks.

The second part of the report is dedicated to the estimation of the cost of capital.

## Overview of Market Data

### Cost of Capital

#### Methodology

According to Damodaran (2001) and Plenborg and Pimentel (2016)

#### Risk-free rate

#### Beta estimation

Companies' beta coefficients were calculated, using the methodology, described by Damodaran (2001).

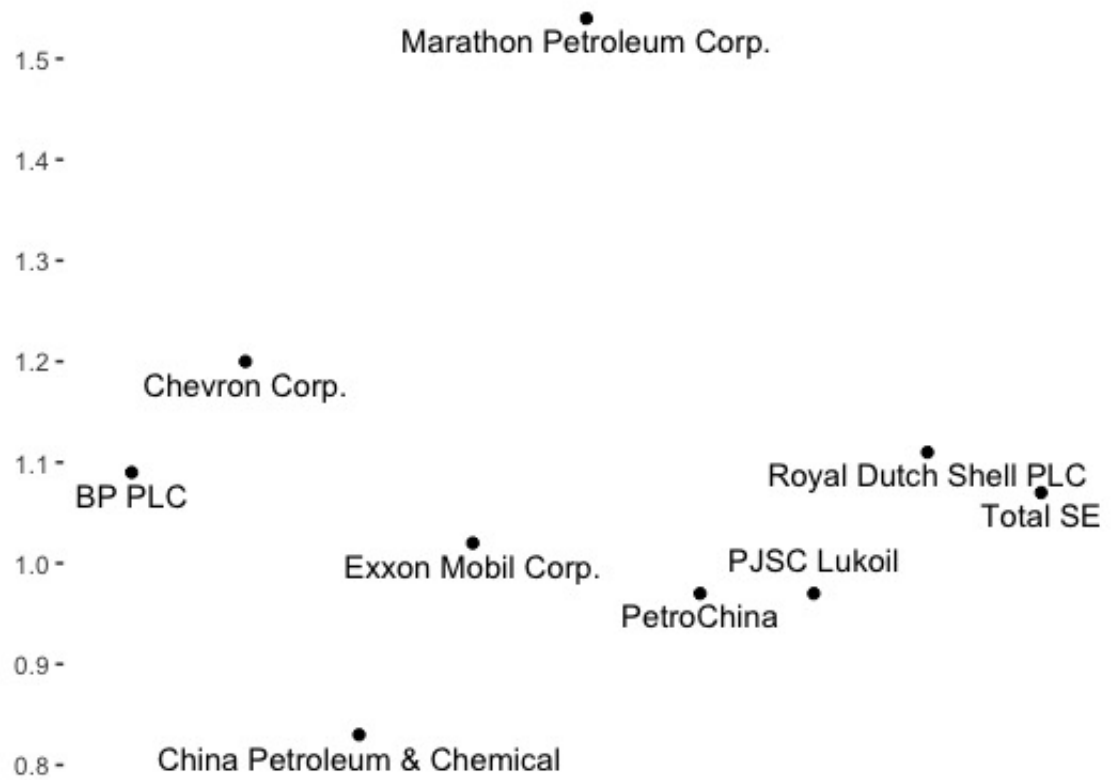
The 5 year time period was used for the estimation. The market index was represented by S&P 500.

The results are presented in Table 1.

Table 1: Beta coefficients

|   |                            |      |
|---|----------------------------|------|
| 1 | China Petroleum & Chemical | 0.83 |
| 2 | PetroChina                 | 0.97 |
| 3 | Royal Dutch Shell PLC      | 1.11 |
| 4 | BP PLC                     | 1.09 |
| 5 | Exxon Mobil Corp.          | 1.02 |
| 6 | Total SE                   | 1.07 |
| 7 | Chevron Corp.              | 1.20 |
| 8 | Marathon Petroleum Corp.   | 1.54 |
| 9 | PJSC Lukoil                | 0.97 |

Figure 1: Beta Coefficients



Cost of Equity

Cost of Debt

Leverage Structure

Findings and Conclusion

## References

- Damodaran, Aswath (2001). *The dark side of valuation: valuing old tech, new tech, and new economy companies*. FT Press.
- Plenborg, Thomas and Rene Coppe Pimentel (2016). “Best Practices in Applying Multiples for Valuation Purposes”. In: *The Journal of Private Equity* 19(3), pp. 55–64. ISSN: 10965572, 21688508.