

## GDF SUEZ Case Study - Evaluation of Capital Structure, Short-Term Financing and Working Capital

Paul Eisenberg<sup>✉</sup>

DOI: <http://dx.doi.org/10.15294/ibarj.v3i1.53>

University of Portsmouth, United Kingdom

---

### Info Articles

#### History Articles:

Submitted 6 September 2018

Revised 15 December 2018

Accepted 8 January 2019

#### Keywords:

Capital Structure, Matching Principle, Debt Finance, Funding Strategy, Working Capital

### Abstract

This article analyses the financial structure of GDF SUEZ for the years 2013 – 2014 by the way of a case study. The company, one of the global players of the energy market, offers rich opportunities to test finance theories reaching from the work of Modigliani and Miller (1958) and Altman (1968) to the more recent approaches of working capital analysis by Panigrahi and Chaudhury (2015), to mention but a few. The study shows a company struggling to accelerate sales and to collect receivables, while over relying on costly short-term finance and stretching accounts payable. Thus, GDF SUEZ forgoes prompt payment discounts and loses supplier goodwill. Taken together with declining revenues, the study provides for a company profile raising going concern issues. The paper may be of interest for finance students, scholars and financial reports analysts as it offers a comprehensive real-life study based on commonly accepted financial modelling.

---

<sup>✉</sup> Address Correspondence:

E-mail: [eisenberg.scholar@gmail.com](mailto:eisenberg.scholar@gmail.com)

p-ISSN 2550-0368

e-ISSN 2549-0303

## INTRODUCTION

Arguably, not least from the view point of its balance sheet, GDF SUEZ represents one of the big players of the global energy sector. Further, one would expect the company to be well structured financially and well managed operatively - no doubt, GDF SUEZ can offer best advice and highly remunerated experts. To test these assumptions, it may be worthwhile to undertake basic financial analysis using its publicly available financial statements. Finance theories based on decades of academic research are considered a suitable choice of weapon. Hence, the paper is structured as follows: the theories are introduced in the methodology section. The results derived from applying the theories are assessed in the discussion section. Finally, the conclusion provides for a summary of central findings.

## METHODS

This case study is built around the theories of finance widely accepted in the academia and the analyst's community. The starting point is provided by Modigliani and Miller (1958, 1963). The matching principle is identified as a major issue of the GDF SUEZ financial structure, as represented by the works of Agar (2005), Demodaran (2010), Gitman and Zutter (2015) and Harc (2015). It is followed by a thorough discussion of working capital issues which are introduced by Altmann (1968) and are more recently explored by Pinkowitz (2000), Myddelton (2000), Drobetz et al. (2010), Bolek (2013), Panigrahi and Chaudhury (2015), to mention just a view. The results are compared to industry benchmarks and numerous empirical studies like that of Opler et al. (1999), Dichev and Scinner (2002), Ogier et al. (2004), Ozkan and Ozkan (2004), Saddour (2006) and Ratshikuni (2009). The study offers various formulas of financial ratios and provides for a comprehensive list of references.

## DISCUSSION

### Appraisal of GDF SUEZ's capital structure

The capital structure of a firm deals with the sources of finance used by the company (Myers, 2001). Capital is to be invested in assets which are needed for the company's operations (Eccles and Serafeim, 2014). On the asset-side of the Statement of Financial Position of GDF SUEZ for the year 2014, goodwill, available-for-sale-securities, loans granted to affiliated companies, other assets (tax receivables), deferred tax assets and cash account for €45,484m, i.e. 91.8% of shareholder equity and 27.5% of total assets.

#### Formula for Goodwill

(1)

Goodwill	€ 21,222m
Available-for-sale-securities	€ 2,893m
Loans granted to affiliated companies	€ 1,237m
Current other assets (tax receivables)	€ 10,049m
Non-current other assets (tax receivables)	€ 557m
Deferred tax assets	€ 980m
Cash	€ 8,546m
Total 1	€ 45,484m

#### Formula Goodwill as % of Shareholder equity

(2)

Shareholder equity	€ 49,527m
Total 1 as % of Shareholder equity	€ 45,484m * 100 ./ € 49,527m = 91.8

#### Formula for Goodwill as % of Total Assets

(3)

Total assets	€ 165,305m
Total 1 as % of Total assets	€ 45,484m * 100 ./ € 165,305m = 27.5

Goodwill is an accounting measure resulting from prior acquisitions of other entities (ACCA,

2012a). It is not related to operations (Briloff, 1972). Available-for-sale-securities are financial assets acquired to generate gain from a later sale (Needles and Powers, 2010). These are not genuine GDF SUEZ operations. The same is true for lending money to affiliates. Tax receivables may be challenged and reduced by tax authorities (Mills, 1996). Deferred tax assets are a measure to account for book-tax-differences and are not generated by operations (Colley et al., 2012). Thus, 91.8% of GDF SUEZ equity is used to finance assets that arise from accounting conventions or non-core operations. Hence, to finance genuine operations, GDF SUEZ incurs debt at a cost of €2,462m, which is 79.2% of its net profit for the year 2014.

Formula for Interest expense as % of Net profit

(4)

Interest expense

€ 2,462m

Net profit for the year 2014

€ 3,110m

Interest expense as % of net profit

$€ 2,462m * 100 ./ € 3,110m = 79.2$

GDF SUEZ has significant cash holdings of €8,546m that could be utilised to reduce this costly debt burden. However, finance theory makes different suggestions about how to use funds to adjust the company's capital structure.

Modigliani and Miller (1958) claim that firm value does not depend on sources of corporate finance (debt or equity), but on the firm's operational success. From this point of view, GDF SUEZ should only focus on generating the rate of return required by its shareholders without trying to adjust its capital structure. This view is based on perfect markets conditions like the absence of agency costs (banking and legal fees), perfect information among all market participants and no taxes (Gifford Jr., 1998). These assumptions do not hold under real world conditions (Glickman, 1996). Therefore, Modigliani and Miller (1963) add the tax shield of debt finance to their original model. Tax deductible interests help reduce tax payments and thus increase firm value (Brealey et al., 2011). From this viewpoint, GDF SUEZ should incur even

more debt to benefit from this tax shield. But under real world conditions unlimited leverage is hardly manageable. Shareholders may request higher profits in return for accepting higher borrowing risks (Wyplosz, 1998). Finance providers may impose restrictive debt covenants, limiting the company's capability to raise additional debt (Armstrong et al., 2014). Finally, a company could have not enough valuable assets to serve as collateral for further debt (Davydenko, 2013).

GDF SUEZ's cash holdings of €8,546m account for 17.3% of the company's net assets.

Formula for Cash as % of Net assets

(5)

Cash

€ 8,546m

Shareholder equity (Net assets)

€ 49,527m

Cash as % of Net assets

$€ 8,546m * 100 ./ € 49,527m = 17.3$

This is above average cash holdings of US companies of 17% (Opler et al., 1999), of UK companies of 9.9% (Ozkan and Ozkan, 2004) and of mature French companies of 13% (Saddour, 2006). Jung and Kim (2008) argue that firms with high cash holdings retain flexibility in adjusting their capital structure to benefit from the tax shield: cash reserves can be used as collateral or demonstrate financial strength, thus increasing the lender's confidence.

However, GDF SUEZ's interest expense of €2,462m provides for an interest cover ratio (ICR) of 2.7.

Formula for Interest cover

(6)

Interest expense

€ 2,462m

Earnings before interest and tax (EBIT)

€ 6,547m

Interest cover

$€ 6,547m ./ € 2,462m = 2.7$

This is 32.5% below the ICR of 4 of the US electric utility sector (Ogier et al., 2004). Dichev and Scinner (2002) show that companies with a

median ICR of 3.9 do not violate debt covenants, but 25% of lenders with ICR of 2.8 do. Standard & Poor's (2006) assigns a BB-rating to companies with an ICR of 2.5, slightly below that of GDF SUEZ. Such companies are considered "significant speculative" and facing "major exposures to adverse conditions" (Standard & Poor's, 2016). According to Ratshikuni (2009) 54.7% of BB-rated companies face bankruptcy over 15 years.

Thus, although GDF SUEZ relies on debt finance and cash holdings in line with finance theory, in practice an ICR below 3 may constitute a major risk for investors and lenders (Page, 2008).

Critical evaluation of theoretical advantages and disadvantages of the company's capital structure with regards to the debt and equity structure of the business

GDF SUEZ can generate advantages from its capital structure beyond the tax shield. 20.9% of its total liabilities result from bond issues (GDF SUEZ, 2014).

Formula for Bond issues as % of Total liabilities  
(7)

Non-current bond issues  
€ 21,155m

Current bond issues  
€ 1,705m

Total 1  
€ 22,860m

Total liabilities  
€ 109,346m

Total 1 as % of total liabilities  
 $€ 22,860m * 100 ./ . € 109,346m = 20.9$

The rate of return required by bondholders is below that of shareholders, because shareholders require a risk premium. Shareholders bear a higher risk as their claims against the company are satisfied after lenders are paid (Brealey et al., 2011). This makes debt cheaper than equity (McDaniel, 1988). Otherwise GDF SUEZ would not borrow funds to invest in projects, but issue new shares (Peleg, 2014). A further advantage is that bondholders are not assigned shareholder voting rights (Rowe, 2013). Thus, equity holders do not lose control as would be the

case if additional shares were issued (Gillet and De La Bruslerie, 2010). However, Baird and Henderson (2008) argue that the obligation to repay the principle and to pay interests can result in cashflow to bondholders of a magnitude which deprives shareholders of any meaningful factual control. Indeed, at GDF SUEZ interest expense accounts for 79.2% of net profit, leaving just 20.8% to equity holders. 10.4% of total liabilities result from bank borrowings and commercial papers backed by bank credit lines (GDF SUEZ, 2014).

Formula for Bank borrowings and Commercial paper as % of Total liabilities  
(8)

Non-current bank borrowings  
€ 4,977m

Current bank borrowings  
€ 1,116m

Commercial paper (current only)  
€ 5,219

Total 1  
€ 11,312

Total liabilities  
€ 109,346m

Total 1 as % of total liabilities  
 $€ 11,312 * 100 ./ . 109,346m = 10.4$

Borrowing from banks can be advantageous as lending terms may be renegotiated and adjusted. If bonds are issued, change of terms may call for complicated debt restructuring (Thakor and Wilson, 1995). Also, banks maintain an information advantage through close relationship with the company. This reduces information asymmetry and as a consequence the bank's required rate of return (Leitner, 2006).

The disadvantages of operating a portfolio of debt arise from high administrative burden. The borrowings should be properly accounted for, increasing the costs of the accounting department (ACCA, 2012a). The statutory auditors of GDF SUEZ's financial statements must check the borrowings, resulting in higher audit fees (ACCA, 2012b). Borrowings made in different currencies call for hedging against currency fluctuations. Thus,

costs of hedging occur (ACCA, 2012c). As a further disadvantage, various debt obligations may be perceived as risky by lenders, increasing the company's costs of borrowing (Whitehead, 2009).

#### **Assessment of GDF SUEZ from a short-term financing perspective and commentary on the application of the matching principle**

According to the maturity matching principle, long-term assets should be financed by long-term liabilities and short-term assets by short-term debt, respectively (Harc, 2015). Repayment of principle and payment of interest expenses should be aligned with cash flows generated by the very assets. Stable and lasting cash flows call for long-term finance, whereas fluctuating cash flows should be matched to finance available and repayable on demand (Agar, 2005). There should be enough assets available for immediate sale to meet debt repayment deadlines (Demodaran, 2010).

According to conservative funding strategy short-term assets may be partly financed with long-term debt to save on refinancing costs, because short-term debt requires refinancing after becoming due (AFP, 2013).

Under aggressive funding strategy long-term assets are partly financed with short-term debt. This policy can work as long as short-term finance remains available (Law and Smullen, 2008). Long-term finance charges are avoided, so that profitability increases, but running out of finance constitutes a major risk (Watson and Head, 2013). However, in times of rising interest rates repeated refinancing may lead to falling profits (Fosberg, 2012).

At GDF SUEZ short-term debt amounts to €34,991m (derivative instruments: €5,895m, borrowings: €10.297m, trade payables: €18.799m; provisions which form part of total current liabilities are not included, because they do not constitute cash borrowings (Ryan, 2004). Other current liabilities include tax-liabilities and employee-related liabilities which are also not borrowed (GDF SUEZ, 2014).

These €34,991m are used to finance current assets of €45,256m (loans and non-trade receivables: €925m, derivative instruments: €7,886m, trade receivables: €21,558m, inventories: €4,891m, current financial assets: €1,450m, cash: €8,546m; other current assets are not included, because they consist of tax receivables that may be contested by tax authorities (Mills, 1996).

Obviously, the surplus of current assets in the amount of €45,256m-€34,991m=€10,265m is financed by long-term debt. Thus, GDF SUEZ applies the conservative funding strategy.

In absence of financing needs surplus funds may be invested to generate interest income (Gitman and Zutter, 2015). But GDF SUEZ earns interest income of only €586m against interest expenses of €2,462m and thus struggles to offset interest expenses. Furthermore, under the conservative funding strategy, interest expenses occur constantly, even in absence of urgent financing needs like seasonal fluctuations (McLaney, 2014). Seasonal fluctuations in the energy industry in which GDF SUEZ operates may not be predicted in a linear manner (Svehla, 2011). But general variations in demand are known and may be anticipated in advance (Abdelkader et al., 2015). Therefore, financing conservatism may be misleading for GDF SUEZ. Instead, the company should switch to the maturity matching principle. In doing so, it could reduce long-term debt and save profits which are eroded by interest expenses.

#### **Critical evaluation of the potential advantages and disadvantages of the GDF SUEZ's strategy around the working capital**

Working capital is calculated as current assets - current liabilities. The idea behind working capital management is to maintain enough current assets (cash, receivables and inventory) to meet the company's current liabilities (short-term finance and trade payables) (ACCA, 2011). Table 1 shows that GDF SUEZ may run out of liquidity to pay for liabilities that become due in the short-term, increasing bankruptcy risk (Qazi et. al, 2011).

**Table 1.** Working Capital at GDF SUEZ for the years 2013-2014

Working capital component	Financial Year 2014 €m	Financial Year 2013 €m
Loans and receivables	925	1,470
Trade and other receivables	21,558	21,057
Inventories	4,891	4,973
Cash and cash equivalents	8,546	8,706
Total current assets	35,920	36,206
Short-term borrowings	10,297	10,316
Trade and other payables	18,799	16,398
Other current liabilities*	14,370	13,521
Total current liabilities	43,466	40,235
Total working capital	- 7,546	-4,029

\*Other current liabilities include tax-liabilities and employee-related liabilities which become due during the next 12 months according to GDF SUEZ (2014). Other current assets (2014: €10,049m / 2013: €8,157m) are not offset, because they consist of tax receivables that may be contested by tax authorities (Mills, 1996).

The company's working capital is negative. Panigrahi and Chaudhury (2015) claim that negative working capital may be tolerable for a company to finance growth. But this is not the case at GDF SUEZ, which is not growing. Its revenue has declined since 2012 by 23% (GDF SUEZ, 2012, 2014).

Bolek (2013) argues that negative working capital may result from a short cash conversion cycle (CCC) if the company extends its trade payables, but aggressively tries to cash trade receivables and to generate cash sales. However,

contrary to Bolek (2013) the 2013/2014 receivables of GDF SUEZ amount to €21,057m and €21,558m, respectively, being higher than payables of €18,799m and €16,398m. Table 2 shows the cash conversion cycle of GDF SUEZ.

**Table 2.** Cash Conversion Cycle\* of GDF SUEZ for the years 2013-2014

Cash Conversion Cycle component	Financial Year 2014 days (rounded)	Financial Year 2013 days (rounded)	Change in %
Inventory turnover Period (ITP) (year end inventory ./ cost of sales * 365 days)	40	36	+11%
Accounts receivable collection period (ARCP) (year end trade receivables ./ revenue * 365 days)	105	87	+21%
Accounts payable payment period (APPP) (year end trade payables ./ cost of sales * 365 days)	155	119	+30%
Cash Conversion Cycle	-10	4	-350%

\*Cash conversion cycle is calculated according to ACCA (2012d).

ITP growth means that fewer sales are generated (Garcia et al., 2011). This is consistent

with the fall in revenue. ARCP has increased by 21%, showing that GDF SUEZ has become less efficient in managing its debtors. The low CCC is caused by expanding the APPP. In 2014 GDF SUEZ has prolonged the payment period by 30% to almost half a year. Relying on trade payables as a source of finance may preserve cash flow and prevent bank borrowings or overdrafts (Peterson and Rajan, 1997). But fast payment is often honoured by suppliers with early payment discounts. The rate of discounts is usually higher than that of bank borrowings (Cuñat and Garcia-Appendini, 2012). Thus, the forgone discounts constitute a cost of trade credit to GDF SUEZ which should be avoided.

Table 3 shows that even if working capital includes other current assets (tax receivables), it is still in decline, albeit not negative.

**Table 3.** Working Capital at GDF SUEZ for the years 2013-2014 with tax-receivables

Working capital component	Financial Year 2014 €m	Financial Year 2013 €m
Total working capital without tax receivables	- 7,546	-4,029
Other current assets (tax receivables)	10,049	8,157
Total working capital with tax receivables	2,503	4,128

Altman (1968) argues that declining working capital as a percentage of total assets may be a warning sign for discontinuance. At GDF SUEZ this ratio falls by 80% from 2.7 in 2013 to 1.5 in 2014.

Formula for Working capital as % of Total asset (9)

Working capital 2013 as per Table 3

€ 4,128m

Total assets 2013

€ 155,932m

Working capital as % of Total assets

$€ 4,128m * 100 ./ . € 155,932m = 2.7$

Working capital 2014 as per Table 3

€ 2,503m

Total assets 2014

€ 165,305m

Working capital as % of Total assets

$€ 2,503m * 100 ./ . € 165,305m = 1.5$

Working capital calculated as a percentage of revenue amounts to 4.7% in 2013 and 3.4% in 2014, respectively.

Formula for Working capital as % of Revenue

(10)

Working capital 2013 as per Table 3

€ 4,128m

Revenue 2013

€ 87,898

Working capital as % of Revenue

$€ 4,128m * 100 ./ . € 87,898 = 4.7$

Working capital 2014 as per Table 3

€ 2,503m

Revenue 2014

€ 74,686

Working capital as % of Revenue

$€ 2,503m * 100 ./ . € 74,686 = 3.4$

It is significantly below the average of 15.5% of large European businesses (Atrill and McLaney, 2010). Maintaining low working capital may have various advantages. Jensen (1986) argues that high working capital may mislead managers to follow a low-risk strategy to the detriment of returns and shareholders. Also, the disciplining monitoring by debt finance providers is weakened if investments are backed by high working capital generated internally (Pinkowitz, 2000). Thus, low working capital may prevent inefficient usage of funds (Drobotz et al., 2010). Furthermore, positive working capital has to be financed by long-term debt (Myddelton, 2000). But long-term finance is best suited for long-term projects, not to meet current needs (Gillespie, 2001). Also, low working capital may impose pressure on management to improve operational efficiency because management cannot rely on high working capital reserves (Wasiuzzaman and Arumugam, 2013).

However, at GDF SUEZ operational efficiency deteriorates given its falling ITP and ARCP.

## CONCLUSION

GDF SUEZ maintains low working capital deploying trade payables as a source of finance. In doing so, it jeopardizes supplier goodwill and forgoes significant early payment discounts to the detriment of net profits. Its working capital to total assets deteriorates, raising going concern issues. To master these challenges, GDF SUEZ should change its working capital strategy. It should accelerate sales and cash receivables more aggressively. With cash generated, it should pay trade creditors faster to benefit from discounts. This could help to reduce costly borrowings and improve net profits.

## REFERENCES

- Abdelkader, S. S., Grolinger, K. & Capretz M. A. M. (2015). Predicting energy demand peak using M5 model trees. *Electrical and Computer Engineering Publications*. Paper 72. Retrieved from: <http://ir.lib.uwo.ca/electricalpub/72>
- Agar, C. (2005). *Capital Investment & Financing: a practical guide to financial evaluation*. Oxford: Butterworth-Heinemann.
- Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and Prediction of Corporate Bankruptcy. *The Journal of Finance*, 23 (4), pp. 589-609.
- Armstrong, C. S., Gallimberti, C. M. & Tsui, D. (2014). *Debt covenants and risk-taking*. Working Paper. University of Pennsylvania. Retrieved from: [http://leeds-faculty.colorado.edu/zeyun/workshop15-16\\_files/Debt%20Risk-Taking%202016\\_02\\_25.pdf](http://leeds-faculty.colorado.edu/zeyun/workshop15-16_files/Debt%20Risk-Taking%202016_02_25.pdf)
- Association for Financial Professionals (AFP) (2013). *AFP Guide to Global Short-Term Borrowing. Global Liquidity Guide Series*. Retrieved from: <http://www.afponline.org/publications-data-tools/reports/guides/global-liquidity-guides>
- Association of Chartered Certified Accountants (ACCA) (2011). *Performance management* (5th ed.). London: BPP Learning Media Ltd.
- Association of Chartered Certified Accountants (ACCA) (2012a). *Financial reporting* (*International and UK stream*) (6th ed.). London: BPP Learning Media Ltd.
- Association of Chartered Certified Accountants (ACCA) (2012b). *Audit and assurance* (*United Kingdom*) (6th ed.). London: BPP Learning Media Ltd.
- Association of Chartered Certified Accountants (ACCA) (2012c). *Financial management* (6th ed.). London: BPP Learning Media Ltd.
- Association of Chartered Certified Accountants (ACCA) (2012d). *Business analysis* (6th ed.). London: BPP Learning Media Ltd.
- Atrill, P., & McLaney, E. (2010). *Accounting & Finance for Non-Specialists* (7th ed.). Harlow: Financial Times Prentice Hall.
- Baird, D. G., & Henderson, M. T. (2008). Other People's Money. *Stanford Law Review*, 60 (5), pp. 1309-1344.
- Bolek, M. (2013). Dynamic and Static Liquidity Measures in Working Capital Strategies. *European Scientific Journal*, 9 (4), pp. 1-24.
- Brealey, R. A., Myers, S. C. & Allen, F. (2011). *Principles of Corporate Finance*. New York: McGraw-Hill / Irwin.
- Briloff, A. (1972). *Unaccountable Accounting: Games Accountants Play*. New York: HarperCollins Publishers LLC.
- Colley, R., Rue, J., Valencia, A. & Volkan, A. (2012). Accounting For Deferred Taxes: Time For A Change. *Journal of Business & Economics Research*, 10 (3), pp. 149-156.
- Cuña, V. & Garcia-Appendini, E. (2012). Trade credit and its role in entrepreneurial finance. In: D. Cumming (Ed.), *Oxford Handbook of Entrepreneurial Finance* (pp. 526-557). Oxford: University Press.
- Davydenko, S. A. (2013). *Insolvency, Illiquidity, and the Risk of Default*. Working Paper. University of Toronto. Retrieved from: <http://www.tinbergen.nl/wp-content/uploads/2013/04/Liquidity.pdf>
- Demodaran, A. (2011). *Applied Corporate Finance* (3rd ed.). New Jersey: John Wiley & Sons, Inc.
- Dichev, I. D. & Skinner, D. J. (2002) Large-Sample Evidence on the Debt Covenant Hypothesis. *Journal of Accounting Research*, 40 (4), pp. 1091-1123.
- Drobetz, W., Gruninger, M. C., & Hirschvogel, S. (2010). Information asymmetry and the value of cash. *Journal of Banking and Finance*, 34 (4), pp. 2168-2184.
- Eccles, R. G., & Serafeim, G. (2014). *Corporate and Integrated Reporting: A Functional*

- Perspective*. Working Paper. Harvard Business School. Retrieved from: [http://www.hbs.edu/faculty/Publication%20Files/14-094\\_30b9b0a2-4acb-47ec-bddc-8c1d810e3cde.pdf](http://www.hbs.edu/faculty/Publication%20Files/14-094_30b9b0a2-4acb-47ec-bddc-8c1d810e3cde.pdf)
- Fosberg, R. H. (2012). Determinants of short-term debt financing. *Research in Business and Economics Journal*, 6, pp. 1-11.
- Garcia, J. F. L., Martins, F. V., & Brandão, E. (2011). *The impact of working capital management upon companies' profitability: evidence from European companies*. Working paper. Porto University. Retrieved from: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2165210](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2165210)
- GDF SUEZ (2012). *Consolidated Financial Statements*. Retrieved from: [http://www.engie.com/wpcontent/uploads/2013/03/V\\_A\\_Comptes\\_consolid%C3%A9s\\_et\\_rapport\\_d\\_activit%C3%A9\\_V2\\_20121.pdf](http://www.engie.com/wpcontent/uploads/2013/03/V_A_Comptes_consolid%C3%A9s_et_rapport_d_activit%C3%A9_V2_20121.pdf)
- GDF SUEZ (2013). *Consolidated Financial Statements*. Retrieved from: <http://www.engie.com/wp-content/uploads/2014/02/2013-consolidated-financial-statements-and-activities-report.pdf>
- GDF SUEZ (2014). *Management Report and Consolidated Financial Statements*. Retrieved from: <https://www.engie.com/wp-content/uploads/2015/03/gdf-suez-management-report-and-annual-consolidated-financial-statements-2014.pdf>
- Gifford Jr., D. (1998, July 01). After the Revolution Forty years ago, the Modigliani-Miller propositions started a new era in corporate finance. How does M&M hold up today? *CFO Magazine*. Retrieved from: [http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/articles/MM40yearslater.htm](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/articles/MM40yearslater.htm)
- Gillespie, A. (2001). *Advanced Business Studies Through Diagrams* (2nd ed.). Oxford: Oxford University Press.
- Gillet, R., & De La Bruslerie, H. (2010). The consequences of issuing convertible bonds: Dilution and/or financial restructuring? *European Financial Management*, 16 (4), pp. 552-584.
- Gitman, L. J. & Zutter, C. J. (2015). *Principles of Managerial Finance* (14th ed.). New York: Pearson Education Ltd.
- Glickman, M. (1996). *Modigliani and Miller on Capital Structure: A Post Keynesian Critique*. Working Paper. University of East London. Retrieved from: <ftp://ftp.repec.org/RePEc/wuk/elecwp/elecwp9608.pdf>
- Harc, M. (2015). The Relationship between tangible Assets and Capital Structure of Small and Medium-Sized Companies in Croatia. *Econviews*, 28 (1), pp. 213-224.
- Jensen, M. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Review*, 76 (2), pp. 323-329.
- Jung, K., & Kim, B. (2008). Corporate Cash Holdings and Tax-induced Debt Financing. *Asia-Pacific Journal of Financial Studies*, 37 (6), pp. 983-1023.
- Law, J., & Smullen, J. (2008). *A Dictionary of Finance and Banking*. Oxford: Oxford University Press.
- Leitner, Y. (2006). Using Collateral to Secure Loans. *Business Review*, Q2, pp. 9-16.
- McDaniel, M. (1988). Bondholders and stockholders. *Journal of Corporation Law*, 13, pp. 206-315.
- McLaney, E. (2009). *Business Finance. Theory and Practice* (8th ed.). Harlow: Pearson Education Ltd.
- Mills, L. (1996). Corporate Tax Compliance and Financial Reporting. *National tax Journal*, 49 (3), pp. 421-435.
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48 (3), pp. 261-297.
- Modigliani, F., & Miller, M. H. (1963). Corporate Income Taxes and the Cost of Capital: A Correction. *The American Economic Review*, 53 (3), pp. 433-443.
- Myddelton, D. R. (2000). *Managing Business Finance*. Harlow: Pearson Education Ltd.
- Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*, 15 (2), pp. 81-102.
- Needles, B. E., & Powers, M. (2010). *Financial Accounting (with IFRS)* (11th ed.). Boston: Cengage Learning.
- Ogier, T., Rugman, J., & Spicer, L. (2004). *The real cost of capital. A business field guide to better financial decisions*. New Jersey: Prentice Hall.
- Opler, T., Pinkowitz, L., Stulz, R. M., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52 (1), pp. 3-46.
- Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking and Finance*, 28, pp. 2103-2134.
- Page, A. (2008). Fundamental Focus: Debt Is Not a Four-Letter Word. *Forbes*. Retrieved

- from: <http://www.forbes.com/feeds/options/2008/07/21/options19870.html>
- Panigrahi, A. K., & Chaudhury, S. K. (2015). Negative Working Capital – Sign of Managerial Efficiency or Possible Bankruptcy (A Case Study of Hindustan Uniliver Limited). *Journal of Management Research and Analysis*, 2 (1), pp. 35-42.
- Peleg, D. (2014). *Fundamental Models in Financial Theory*. Cambridge: The MIT Press.
- Peterson, R. A., & Raja, R. G. (1997). Trade Credit: Theories and Evidence. *The Review of Financial Studies*, 10 (3), pp. 661-691.
- Pinkowitz, L. (2000). *The market for corporate control and corporate cash holdings*. Working Paper. Georgetown University. Retrieved from: <http://faculty.msb.edu/lfp/cash052400.pdf>
- Qazi, A., Shah, S. M. A., Abbas, Z., & Nadeem, T. (2011). Impact of working capital on firms' profitability. *African Journal of Business Management*, 5 (27), pp. 11005-11010.
- Ratshikuni, M. S. (2009). *Optimal capital structure for JSE listed companies*. Master Thesis. University of Pretoria. Retrieved from: [www.dspace.up.ac.za/bitstream/handle/2263/24438/dissertation.pdf?sequence=1](http://www.dspace.up.ac.za/bitstream/handle/2263/24438/dissertation.pdf?sequence=1)
- Rowe, M. (2013). *Bondholders vs. Shareholders*. Working Paper. University of Liverpool. Retrieved from: [http://www.academia.edu/6032232/Bondholders\\_vs\\_Shareholders](http://www.academia.edu/6032232/Bondholders_vs_Shareholders)
- Ryan, B. (2004). *Finance and Accounting for Business*. London: Thomson Learning.
- Saddour, K. (2006). *Why do French firms hold cash?* Working Paper. Université Paris Dauphine. Retrieved from: <https://basepub.dauphine.fr/bitstream/handle/123456789/1207/068.pdf?sequence=1>
- Standard & Poor's (2006). *Corporate ratings criteria*. New York: Standard & Poor's.
- Standard & Poor's (2016). *S&P Global Ratings Definitions*. Retrieved from: [https://www.standardandpoors.com/en\\_AU/web/guest/article/-/view/sourceId/504352](https://www.standardandpoors.com/en_AU/web/guest/article/-/view/sourceId/504352)
- Svehla, K. M. (2011). *A Specification for Measuring Domestic Energy Demand Profiles*. Master Thesis. University of Strathclyde. Retrieved from: [www.esru.strath.ac.uk/Documents/MSc\\_2011/Svehla.pdf](http://www.esru.strath.ac.uk/Documents/MSc_2011/Svehla.pdf) (Accessed on: 02.11.2016).
- Thakor, A. V., & Wilson P. F. (1995). Capital requirements, loan renegotiation and the borrower's choice of financing source. *Journal of Banking & Finance*, 19 (3-4), pp. 693-711.
- Wasiuzzaman, S., & Arumugam, V. C. (2013). Determinants of Working Capital Investment: A Study of Malaysian Public Listed Firms. *Australasian Accounting, Business and Finance Journal*, 7 (2), pp. 63-83.
- Watson, D., & Head, A. (2013). *Corporate Finance: Principles and Practice*. New York: Pearson Education Ltd.
- Wyplosz, C. (1998). Globalised Financial Markets and Financial Crises. In: J. J. Teunissen (Ed.), *Regulatory and Supervisory Challenges in a New Era of Global Finance* (pp. 70-79). The Hague: FONDAD.
- Whitehead, C. K. (2009). The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance. *The Journal of Corporation Law*, 34 (3), pp. 641-677.