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**Faculty of Economics and Management**

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**Bachelor Thesis**

**Financial analysis of the Procter and Gamble company**

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## **Declaration**

I declare that I have worked on my bachelor thesis titled "Financial analysis of the Procter and gamble company" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

**In Prague on** 21/03/2020

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# Finanční analýza společnosti Procter & Gamble

## Souhrn

Bližší srovnání finančních ukazatelů společností Procter & Gamble a Unilever odhalilo, že společnost P&G má vyšší hodnoty ukazatelů likvidity a zadluženosti, což znamená, že společnost má větší nezávislost na financování od třetích stran a zároveň může získat více takových finančních prostředků. Zároveň Unilever dosahuje lepších výsledků, pokud jde o čisté ziskové rozpětí, ROA, ROE a poměry kapitálového trhu, jako je DPS a poměr výplaty. Aby společnost Procter & Gamble z dlouhodobého hlediska zůstala stejně účinná jako společnost Unilever ve své obchodní soutěži, měla by se společnost zaměřit na zlepšení výše uvedených finančních aktivit.

Rovněž je třeba zmínit, že globální společnosti jako The Unilever Group a P&G čelí vnějším faktorům, které jsou méně pravděpodobně ovlivněny, ale které jsou řízeny z hlediska řízení rizik společností. Těmito vnějšími faktory jsou především omezení zahraničního obchodu (celní poplatky a kvóty) v mnoha zemích, kde obě společnosti působí, výkyvy směnného kurzu a daňové povinnosti. Všechny tyto vnější faktory ovlivňují finanční ukazatele a účetní výkazy obou společností.

**Klíčová slova:** finanční analýza, finanční ukazatele, finanční výkazy, horizontální analýza, likvidita, Procter & Gamble, Unilever, vertikální analýza, zadluženost, ziskovost.

# Financial analysis of the Procter & Gamble company

## Summary

The thesis considers the application of financial analysis in corporate practice for identifying the advantages and weaknesses of particular directions of commercial activities and for revealing how they can be improved. The case study of Procter & Gamble carried out within the framework of the thesis illustrates that the company is able to perform well in its business activities. The entity has positive dynamics across most groups of financial ratios, and its only issue is the declining accounts receivable turnover. The comparison held with Unilever shows great similarities in the two corporations' financial performance. The slight differences are that Procter & Gamble performs better in terms of liquidity and indebtedness, while Unilever has better ratios of the net profit margin, ROA, ROE, DPS, and the payout ratio. By focusing on improving these aspects of its business activities, Procter & Gamble will have better chances to effectively compete with Unilever.

**Keywords:** financial analysis, financial statements, financial ratios, horizontal analysis, vertical analysis, liquidity, profitability, indebtedness, Procter & Gamble, Unilever.

# Table of content

<b>1</b>	<b>Introduction.....</b>	<b>10</b>
<b>2</b>	<b>Objectives and Methodology.....</b>	<b>11</b>
2.1	Objectives.....	11
2.2	Methodology.....	11
<b>3</b>	<b>Theoretical part.....</b>	<b>13</b>
3.1	Financial Analysis.....	13
3.2	Functions and Purposes of Financial Analysis.....	14
3.3	Data for Financial Analysis.....	15
3.4	Users of Financial Analysis Results.....	17
3.5	Types of Financial Analysis.....	18
3.5.1	Horizontal Analysis.....	18
3.5.2	Vertical Analysis.....	19
3.5.3	Analysis of Financial Ratios.....	20
<b>4</b>	<b>Practical Part.....</b>	<b>31</b>
4.1	Introduction of Procter & Gamble.....	31
4.2	Financial Analysis of Procter & Gamble.....	32
4.2.1	Horizontal Analysis.....	32
4.2.2	Vertical Analysis.....	35
4.2.3	Analysis of Financial Ratios.....	37
4.3	Financial Analysis of Unilever.....	45
4.3.1	Horizontal Analysis.....	45
4.3.2	Vertical Analysis.....	47
4.3.3	Analysis of Financial Ratios.....	48
<b>5</b>	<b>Results and Discussion.....</b>	<b>54</b>
<b>6</b>	<b>Conclusion.....</b>	<b>59</b>
<b>7</b>	<b>References.....</b>	<b>62</b>
<b>8</b>	<b>Appendix.....</b>	<b>65</b>
	Appendix A. Selected Financial Statements of Procter & Gamble, in USD million, except for per share items.....	66
	Appendix B. Selected Financial Statements of Unilever, in USD million, except for per share items.....	67
	Appendix C. Calculations for Comparative Analysis.....	68



## List of pictures

Figure 1 Comparison of the liquidity ratios of Procter & Gamble and Unilever.....	54
Figure 2 Comparison of the profitability ratios of Procter & Gamble and Unilever.....	55
Figure 3 Comparison of the indebtedness ratios of Procter & Gamble and Unilever.....	56
Figure 4 Comparison of the activity ratios of Procter & Gamble and Unilever.....	57
Figure 5 Comparison of the capital market ratios of Procter & Gamble and Unilever.....	58

## List of tables

Table 1 Horizontal analysis of Procter & Gamble's assets, in USD million and %.....	33
Table 2 Horizontal analysis of Procter & Gamble's liabilities and shareholders' equity, in USD million and %.....	34
Table 3 Horizontal analysis of Procter & Gamble's net profit, in USD million and %.....	35
Table 4 Vertical analysis of assets.....	36
Table 5 Vertical analysis of liabilities.....	37
Table 6 Liquidity ratios of Procter & Gamble.....	38
Table 7 Profitability ratios of Procter & Gamble.....	40
Table 8 Indebtedness ratios of Procter & Gamble.....	41
Table 9 Activity ratios of Procter & Gamble.....	43
Table 10 Capital market ratios of Procter & Gamble.....	44
Table 11 Horizontal analysis of Unilever's assets, in USD million and %.....	45
Table 12 Horizontal analysis of Unilever's liabilities and shareholders' equity, in USD million and %.....	46
Table 13 Horizontal analysis of Unilever's net profit, in USD million and %.....	47
Table 14 Vertical analysis of assets in The Unilever Group.....	47
Table 15 Vertical analysis of liabilities in The Unilever Group.....	48
Table 16 Liquidity ratios of Unilever.....	49
Table 17 Profitability ratios of Unilever.....	50
Table 18 Indebtedness ratios of Unilever.....	51
Table 19 Activity ratios of Unilever.....	52
Table 20 Capital market ratios of Unilever.....	53



# **1 Introduction**

The field of business today is characterized by a high level of competition. Under the impact of globalization and modern technology, business is becoming more competitive, and companies have to perform effective activities on the market for the purpose of maintaining their commercial results. This entails the need to optimize the use of corporate resources, which includes the minimization of costs and a sparing use of assets. In these conditions, companies have to implement thorough control and to measure the financial results within the framework of planning procedures.

Financial analysis as the analysis of a company's financial statements is dedicated specifically to the solution of the aforesaid issues. By analyzing their financial statements, the managers of companies can draw the required data to get a comprehensive image on the entity's current financial condition and the factors which affect it. Thereafter, managers are able to develop effective business policies for the sake of improving the existing situation. Moreover, with financial analysis, companies can learn how effectively they have achieved their planned financial results and where further improvements should be sought. In the long run, effective financial analysis can contribute to the minimization of costs and thus maximization of corporate profits.

This thesis focuses on showing the actual applicability of financial analysis on the example of a multinational corporation. The chosen corporation is Procter & Gamble, one of the world's leaders on the market of personal care and hygiene products.

The bibliographical sources for writing the thesis will include publications in print and electronic forms dedicated to the topic of financial analysis and adjacent topics. Also, official statements of the chosen corporations will be analyzed for the purpose of gaining appropriate numerical data for financial analysis.

The practical value of the thesis consists in the revelation of the actual condition of Procter & Gamble through financial analysis and in the development of practical recommendations for the company to improve the current situation.

## 2 Objectives and Methodology

### 2.1 Objectives

The **aim** of the thesis is to reveal the main strengths and weaknesses of Procter & Gamble's business through financial analysis.

The **goals** of the thesis are the following:

- to provide a general theoretical overview of financial analysis;
- to reveal the goals of financial analysis, the main users of the data obtained through financial analysis and their practical interest in such data;
- to analyze how particular financial statements can be used for financial analysis;
- to investigate the different types of financial analysis and their specific features;
- to run a case study of Procter & Gamble and to provide calculations of the company's financial condition using the methods of financial analysis;
- to compare these findings with the financial analysis of Unilever;
- to reveal both companies' similarities and differences in terms of their financial condition; and
- to draw conclusions in line with the aim of the thesis.

The **research questions** of the thesis are the following:

- RQ1: What are the main advantages and shortcomings of Procter & Gamble's business condition according to the findings of financial analysis?
- RQ2: How does the corporation compare to Unilever and what aspects do both companies share in similar?

## **2.2 Methodology**

The following methods will be used for financial analysis and elaboration of this thesis. First of all, it is necessary to explain the theoretical bases that are necessary for understanding financial analysis. Theoretical background will be introduced after research of literature and articles.

Furthermore, the annual reports of Procter & Gamble will be analyzed. From the annual reports it is possible to learn about operating activities in the company and events that had an impact on the company's financial results.

Financial analysis is not possible without the use of financial analysis methods. The formulas for the calculation of individual financial indicators, which are analyzed in the practical part of the thesis, are presented in the theoretical part. It is a horizontal, vertical analysis, analysis of ratios and benchmarking. Two case studies were run, namely the cases of two large multinational corporations Procter & Gamble and Unilever. Both companies were researched with the use of financial analysis and its components: horizontal analysis, vertical analysis, and the analysis of financial ratios. Thereafter, the results of the financial analysis of both companies were compared. Then, the median value was calculated.

Benchmarking was performed in comparison with Unilever. As Unilever reports the financial results of the various consolidated and sub-units in its annual reports, it was decided to choose the entire Unilever Group for comparison purposes. The financial statements are published on the company's official website, in the annual reports and also on the financial market where The Unilever Group offers its shares (ex. Yahoo Finance).

The financial analysis data were taken from the Procter and Gamble financial statements: balance sheet, profit and loss statement and cash flow statement.

A period of 4 years, from 2015 to 2018, was chosen for the financial analysis, because in 2015 P&G began negotiating the sale of one of its business units - the manufacturer of cosmetic products under the name Beauty Brands. This negotiation on the purchase of the company lasted until 2017, when the sale was realized. This resulted in fluctuations in the company's financial data and other processes that could affect P&G's financial stability and individual indicators. Therefore, the financial analysis covers a

period of 4 years, ie from 2015 to 2018, in order to analyze changes in the financial statements, inter alia, related to the sale of one product part of the company.

Selected calculations of financial ratios and well as benchmarking data are shown in the appendix to the thesis.

## 3 Theoretical part

### 3.1 Financial Analysis

In order to investigate financial analysis in more detail, it is worth providing first the general definitions of financial analysis currently adopted in literature.

According to Martin, who cites Hertzlinger and Rittenhouse, financial analysis can be defined as “*the process of using the information provided by financial statements to calculate financial ratios that assess the financial condition of human service agencies.*”<sup>1</sup> The author suggests that the essence of financial analysis consists in the evaluation of an entity’s financial condition through the evaluation of its financial statements. In performing financial analysis, responsible persons deal with the analyzed company’s secondary documents, i.e. the data it has provided in its financial statements. The ultimate outcome of financial analysis is the presentation of valuable data describing the company’s financial condition, which can be used by the managers for improving corporate business policies.

McMenamin notes that “*Financial analysis can be defined as the evaluation of a firm’s past, present and anticipated future financial performance and financial condition.*”<sup>2</sup> According to the researcher, financial analysis should be treated as a first stage to understand in detail a company’s financial condition and to subsequently build effective corporate business policies across different directions.

A similar definition is also given by Rajni and Preeti, who cite Metcaff and Titard, “*Financial analysis is a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm's position and performance.*”<sup>3</sup> The authors note that the soundness and ultimate effectiveness of financial analysis are predefined directly by the quality of initial data, i.e. of the analyzed entity’s financial statements. Financial analysis is a complex phenomenon which includes a number of different tools and methods.

Thus, as can be seen from the data above, despite the variations of definitions of financial analysis available in literature, they all tend to consider financial analysis a set of

<sup>1</sup> MARTIN, L. *Financial Management for Human Service Administrators*, 2016, p. 55.

<sup>2</sup> MCMENAMIN, J. *Financial Management: An Introduction*. 2002, p. 351.

<sup>3</sup> RAJNI, S., PREETI, H. *Strategic Financial Management*. 2015, p. 174.

tools used for evaluating corporate financial performance based on financial statements. Bearing these facts in mind, it is worth outlining the main functions and purposes of financial analysis.

### **3.2 Functions and Purposes of Financial Analysis**

Based on Ardalan, it is possible to identify the following main functions of financial analysis:<sup>4</sup>

1. Assessment of a company's financial performance in terms of its income and losses and across a wide range of specific financial indicators. Financial analysis allows managers understanding how effectively the company has been dealing with its business across different directions, in particular time periods, and against its market competitors. As a result, financial analysis provides valuable insight into the overall market situation and acts as an important element of the wider market analysis framework.
2. Identification of shortcomings in corporate business. By running financial analysis, it is possible to reveal in which particular domains the company has been able to achieve the desired level of effectiveness. For instance, it is possible to see whether the company achieved substantial profit margin, whether it did not exceed allowed expenses or debts, and so on. The knowledge of such drawbacks allows managers proceeding in a reasonable manner when developing corporate business policies and responsive measures.
3. Identification of reserves. Financial analysis not only shows where a company has had flaws in its activities, but can also point out where there are reserves to be used for improving the situation. Managers resorting to financial analysis can design more effective corporate business policies for tackling threats through own reserves, thus optimizing the overall corporate performance.
4. Monitoring and control. Financial analysis is used for assessing the extent to which a company's planned business goals have been achieved. Also, it is applied on an ongoing basis for the purpose of making changes and

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<sup>4</sup> ARDALAN, A. *Economic and Financial Analysis for Engineering and Project Management*. 1999, p. 3-4.



amendments to the entity's business policies, thus adapting rapidly to changes in the environment.

5. Support of managerial decision-making. As noted above, the use of the data gathered through financial analysis in different domains and in different respects is required for designing and effectively implementing corporate business policies, which in their turn predefine the overall commercial effectiveness of corporate business activities.

The functions of financial analysis are implemented in practice across the tasks it is set to fulfill. Among other important tasks of financial analysis, Ardalan notes the following: evaluation of corporate profits and their dynamics, evaluation of risks associated with indebtedness, analysis of the structure of financial statements, and so on. The tasks of financial analysis will be considered in more detail later in this thesis across different types of financial analysis.<sup>5</sup>

### **3.3 Data for Financial Analysis**

The data for financial analysis are those financial statements from which numerical information is drawn for the purpose of assessing a company's financial performance within the given set of elements. Generally, the following main forms of financial statements are used for financial analysis: the balance sheet, the profit and loss account, and the cash flow statement.

#### **1. Balance sheet**

The balance sheet is one of the main items of corporate financial statements. Kumar note that the balance sheet is a type of financial statements which contains information on a company's assets, liabilities, and shareholders equity, in their detailed breakdown.<sup>6</sup> The balance sheet presents such data as of the beginning and the end of the analyzed period, and thus allows understanding not only the structure of corporate resources, but also the dynamics of financial performance.

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<sup>5</sup> Ibid.

<sup>6</sup> KUMAR, V., REINHARTZ, W. *Customer Relationship Management*. 2018, p. 121.

## 2. Profit and loss account

Hanif notes that the profit and loss account is “*a report that summarises the revenues and expenses of an accounting period to reflect the changes in various critical areas of firm's operations.*”<sup>7</sup> According to the author, the profit and loss account contains data such as a company’s income and expenses in the breakdown by their different types, and the company’s profits or losses as the ultimate indicators of its performance. According to Marginean, Mihaltan and Todea, the profit and loss account represents the main source of data for financial analysis.<sup>8</sup> This can be explained by the fact that the profit and loss account contains all data pertaining to corporate performance across losses and profits, i.e. the ultimate indicators of a company’s financial effectiveness.

Marginean, Mihaltan and Todea also highlight that financial analysis based on the data contained in the profit and loss account can be carried out in dynamics, which allows understanding how the analyzed company’s profitability has been changing with the course of time.<sup>9</sup>

## 3. Cash flow statement

According to Noor, Nour and Mosa, “*Cash flow is essentially the movement of money into and out of your business; it’s the cycle of cash inflows and cash outflows that determine your business’ solvency.*”<sup>10</sup> The cash flow statement is a corporate financial statement which summarizes the inflows and outflows of corporate cash across different directions. The researchers note that analyzing the dynamics of cash flow is important for companies to see which of their activities are more or less effective and thus where improvements should be sought.

Analyzing the nature of financial analysis, it is also worth defining the main users of the findings of such analysis. The main users are considered in the next chapter.

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<sup>7</sup> HANIF, M. *Modern Acc. Vol I, 2E.* 2001, p. 17.

<sup>8</sup> MARGINEAN, R., MIHALTAN, D., TODEA, N. *Structure Ratios of Profit and Loss Account – Source of Information for Performance.* 2015, p. 391.

<sup>9</sup> Ibid.

<sup>10</sup> NOOR, M., NOUR, A. I. and MOSA, S. *The Role of Cash Flow in Explaining the Change in Company Liquidity.* 2012, p. 233.

### **3.4 Users of Financial Analysis Results**

There are generally two main types of users of financial analysis data, namely internal and external users.

#### **1. Internal users**

Gibson states that the internal users of financial analysis data include corporate managers and employees. For the managers, the data of financial analysis are important for the sake of decision-making. Thus, by revealing where their company has particular flaws and reserves, managers can design effective business policies and subsequently implement them in practice. Of particular importance for corporate managers is the information on how their entity performs against market competitors. This allows making the corporate strategies and policies further more effective. At the same time, the analysis of financial statements in their dynamics across different time periods allows understanding to which extent corporate planning was successful and how the company was able to achieve the financial indicators set as planned.<sup>11</sup>

For the employees, the data of financial analysis can be important from the perspective of how the functions and job duties of the employees can be changed and in terms of how the employees should improve their performance on particular directions.

#### **2. External users**

According to Gibson, the external users of financial analysis data include investors and public authorities. For investors, it is important to get the data of financial analysis for the purpose of making judged and justified decisions on whether it is commercially reasonable to invest in this particular business. At the same time, for the public authorities, the data of financial analysis provide another insight into the actual financial performance of the company and thus into its actual compliance with the rules and requirements of financial reporting.<sup>12</sup>

Taking into consideration the general overview of financial analysis provided above, it is worth now proceeding to the main types of financial analysis.

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<sup>11</sup> GIBSON, Ch. *Financial Reporting and Analysis: Using Financial Accounting Information*. 2008, p. 193.

<sup>12</sup> Ibid.

### 3.5 Types of Financial Analysis

There are several main types of financial analysis commonly used in corporate practice. They include horizontal analysis, vertical analysis, and analysis of financial ratios. This classification is based on the different focusses of every type of financial analysis used and the tools applied within it. Below, every type of analysis is considered in more detail.

#### 3.5.1 Horizontal Analysis

Horizontal analysis is a type of financial analysis whose aim is to reveal the dynamics of a company's performance in terms of particular indicators along a particular time period. This is why horizontal analysis is also commonly referred to as trend analysis<sup>13</sup> states that financial analysis is used to compare the values of particular financial statement items as they change from one year to another. However, each company can use horizontal analysis within different lengths of timespan, depending on the specifics of its business cycle and the periods of its planning. Weygandt, Kimmel and Kieso add further that horizontal analysis is used most often in intracompany comparisons.<sup>14</sup> However, the comparative analysis of different companies' financial performance in their dynamics is possible as well. In this case, the horizontal analysis of one entity's statements is run in comparison with a second entity's financial analysis.

So, it can be stated that the main aim of horizontal (trend) analysis is to reveal how a company's particular indicator changed within the given timeframe, which is an important source of data for understanding where the enterprise performed effectively and where it failed to reach maximum effectiveness.

Within financial analysis, there are the following main indicators:<sup>15</sup>

1. Absolute change:

$$\Delta Y_{|i|=X_n-X_{n-1}} \Delta Y_{ABS} = X_n - X_{n-1}$$

The absolute change indicator is used to evaluate how a particular item of financial statements has changed within a given time period in absolute terms. The absolute change

<sup>13</sup> WELLS, J. *Corporate Fraud Handbook: Prevention and Detection*. 2007, p. 390.

<sup>14</sup> WEYGANDT, J., KIMMEL, P. D. and KIESO, D. E. *Managerial Accounting: Tools for Business Decision Making*. 2009, p. 647.

<sup>15</sup> WELLS, J. *Corporate Fraud Handbook: Prevention and Detection*. 2007, p. 390.

indicator is thus measured in currency units: US dollars, euros, or any other unit which is the currency of financial statements. In the formula above,  $\overline{\Delta Y}$  stands for the change in value,  $X_n$  represents the analyzed indicator's value in the most recent period, and  $X_{n-1}$  stands for this indicator's value in the basic (initial) period.

2. Relative change:

$$\Delta Y_{REL} = \frac{X_n - X_{n-1}}{X_{n-1}} \quad \overline{\Delta Y}_{REL} = \frac{X_n - X_{n-1}}{X_{n-1}}$$

In contrast to absolute change, the relative change indicator measures the change in a particular item's value in relative terms, i.e. in per cent. By reflecting the change dynamics in per cent, it becomes easier to see how different items have changed against each other, regardless of their actual absolute values.

3. Average value:

$$Y_{AV} = \frac{X_n + \dots + X_{n-1}}{t} \quad \overline{Y}_{AV} = \frac{X_n + \dots + X_{n-1}}{t}$$

The average value indicator is used for calculating a financial statement item's average value in a given time period. The  $t$  component in the formula above stands for the number of financial years (or other time periods) taken into account for calculating the average.

The findings of horizontal analysis provide valuable data for the managers' subsequent planning and development of business policies to improve corporate performance. They help identify where reserves exist and which resources should be used more effectively.

### 3.5.2 Vertical Analysis

According to the definition provided by Wells, vertical analysis is “*a technique for analyzing the relationships between the items on an income statement, balance sheet, or statement of cash flows by expressing components as percentages.*”<sup>16</sup> In contrast to horizontal analysis aimed at revealing dynamics, vertical analysis focuses on the static perspective, investigating the structure of particular groups of financial statement items.

<sup>16</sup> WELLS, J. *Corporate Fraud Handbook: Prevention and Detection*. 2007, p. 390.

This is why another common name for designating vertical analysis is structural analysis. At the same time, vertical analysis can be combined with horizontal analysis, in which case the analyst investigates how the structure of particular items has changed on a particular time interval.

Warren, Reeve and Duchac note that the common goals for which vertical analysis is applied include the investigation of the share which current and non-current assets have in total assets; the shares of liabilities and equity; the shares of net profit and expenses in gross profit, and so on.<sup>17</sup> In each of these cases, by applying vertical analysis, it is possible to reveal flaws in the allocation of corporate resources and to identify where particular shortcomings and risks might exist for the company's performance and overall financial condition. Thus, if a company's current assets are significantly smaller compared to its non-current assets, it might testify higher risks associated with insufficient liquidity; the domination of non-current liabilities in the structure of debts might represent an important risk factor in the long-term perspective; low gross profits against sufficient net profits can be deemed a negative tendency for the long term, and so on.

By using effectively both horizontal and vertical analysis, managers can get the required information on their company's performance across both the dynamic and the static perspectives, thus gaining more data for comprehensive and grounded decisions.

### **3.5.3 Analysis of Financial Ratios**

Financial ratios can be understood as financial indicators evaluating specific aspects of a company's financial statements by delivering arithmetic calculations with the given elements of financial statements. The main difference of this type of financial analysis against horizontal and vertical analysis is that, while the latter evaluate raw data from financial statements, the analysis of ratios is based on the combined use of financial statement items. There are a wide range of financial ratios which are commonly classified into five groups, namely liquidity, profitability, indebtedness, activity, and capital market ratios. Below, the indicators belonging to each of these groups is investigated in more detail.

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<sup>17</sup> WARREN, C., REEVE, J., DUCHAC, J. *Financial Accounting*. 2011, p. 125.

## Liquidity ratios

According to Williamson et al., liquidity ratios are ratios which illustrate a company's ability to cover its short-term debts to third-party party creditors using its own current assets.<sup>18</sup> In other words, liquidity ratios reflect how effectively a company managers its money, short-term stock and inventories for the purpose of repaying its short-term debts. Simkins and Simkins note that liquidity ratios are critically important for effective debt management.<sup>19</sup> Also, for public companies who disclose their financial statements, sufficient liquidity ratios' values provide additional opportunities of finding third-party investors and raising borrowed funds for financing the subsequent activities.

The main types of liquidity ratios are the following:<sup>2021</sup>

### 1. Current ratio:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \quad \text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The current ratio shows the extent to which a company's own current assets are available for the purpose of covering its short-term liabilities. Generally, the higher this indicator's value, the better for the company, as it means that the entity has sufficient opportunities to respond quickly to creditors' claims. The recommended value of this ratio is at least 1. However, in practice, everything depends on the company's business model, its size, the specifics of its planning, and so on. For example, large corporations can focus on benefitting from additional leverage, for which purpose they can borrow greater resources. If their overall financial condition is stable, the current ratio's lower values do not present any threats.

### 2. Acid-test ratio:

$$\text{Acid test ratio} = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}$$

$$\boxed{\text{Acid-test ratio} = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}}$$

<sup>18</sup> WILLIAMSON, D., JENKINS, W. and MORETON, K. M. *Strategic Management and Business Analysis*. 2004, p. 118.

<sup>19</sup> SIMKINS, B., SIMKINS, R. *Energy Finance and Economics: Analysis and Valuation, Risk Management, and the Future of Energy*. 2013, p. 196.

<sup>20</sup> WILLIAMSON, D., JENKINS, W. and MORETON, K. M. *Strategic Management and Business Analysis*. 2004, p. 118.

<sup>21</sup> SIMKINS, B., SIMKINS, R. *Energy Finance and Economics: Analysis and Valuation, Risk Management, and the Future of Energy*. 2013, p. 196.

The acid-test ratio is structurally similar to the current ratio. However, while the latter analyzes the sufficiency of all current assets, the acid-test ratio focuses only on the more liquid part of them, deducting the amount of inventories, which cannot be converted into cash so quickly. The evaluation of the ratio's value depends on the parameters described above.

3. Cash ratio:

$$\text{Cash ratio} = \frac{\text{Cash} \wedge \text{cash equivalents}}{\text{Current liabilities}} \quad \text{Cash ratio} = \frac{\text{Cash} \wedge \text{cash equivalents}}{\text{Current liabilities}}$$

The cash ratio assesses the sufficiency of a firm's most liquid assets, i.e. cash and cash equivalents, for covering current liabilities. Such liquid assets can be used in the shortest time to cover debts, and therefore their sufficiency is important for the overall financial stability. The minimum recommended value of this ratio is 0.3, but just as in the case of the current ratio, the actual values can be smaller in some conditions.

4. Current to total assets:

$$\text{Current to total assets} = \frac{\text{Current assets}}{\text{Total assets}} \quad \text{Current to total assets} = \frac{\text{Current assets}}{\text{Total assets}}$$

This ratio investigates the share of current assets in total assets. A low share of current assets might illustrate an additional burden on the company's liquidity. This indicator's values are generally measured and monitored in dynamics in order to track possible negative tendencies and to react quickly to any of their manifestations.

5. Net working capital:

$$\text{Net working capital} = \text{Net assets} - \text{Net liabilities}$$

$$\text{Net working capital} = \text{Net assets} - \text{Net liabilities}.$$

The net working capital ratio reveals the absolute amount of current assets which a company has after the deduction of its net liabilities. Companies should aim at raising this ratio's value for the sake of improving their capacity to repay short-term debts to third-party creditors.

### **Profitability ratios**

As explained by Williamson et al., profitability ratios are a group of financial ratios which allow evaluating a company's actual ability to draw sufficient profits from its



commercial activities.<sup>22</sup> The values of the profitability ratios are thus the ultimate characteristic of a company's effective or ineffective commercial activities, and they show to which extent a company is able to fulfill its business purpose.

The most widely used profitability ratios are the following.<sup>232425</sup>

1. Gross profit margin:

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Net sales}} \quad \text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Net sales}}$$

The gross profit margin shows the number of gross profit units which a company generates per one unit of net sales. Every company aims at maximizing the gross profit ratio's value. Due to the fact that every industry has its own profitability margins, which can also vary on different time intervals and in different geographic regions, there are no recommended values for either gross profit or any other profit margins described below. It is useful for companies to track their gross profit margins in dynamics and in comparison with competitors. The stability of the gross profit margin shows a corporation's overall stable position in the long-term perspective.

2. Operating profit margin:

$$\text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Net sales}}$$
$$\text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Net sales}}$$

The operating profit margin is similar to gross profit margin in terms of its structure. However, the units of operating profit are taken into account instead of gross profit units. Increasing operating profit margin values testify more effective operating activities.

3. Net profit margin:

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}} \quad \text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}}$$

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<sup>22</sup> WILLIAMSON, D., JENKINS, W., MORETON, K. *Strategic Management and Business Analysis*. 2004, p. 118.

<sup>23</sup> Ibid.

<sup>24</sup> MELVILLE, A. *International Financial Reporting: A Practical Guide*. London: Pearson Education. 2008, p. 349.

<sup>25</sup> TOROK, R., CORDON, P. *Operational Profitability: Systematic Approaches for Continuous Improvement*. 2002, p. 108.

The net profit is the actual amount of funds which a company has at hand after all costs. The net profit margin evaluates the number of net profit units which a company generates per unit of its sales. While every business seeks maximizing this indicator's value, it tends to be more volatile compared to gross profit, and thus can vary more based on external and internal conditions.

4. Return on equity:

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} \quad \text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}}$$

This ratio calculates the actual number of net income units earned per 1 equity unit. The purpose of this ratio is to show how effectively a company uses the shareholders' equity it has to earn profits. The higher the value of ROE, the more effective a company is in its commercial activities. There are no recommended values for ROE, and the ratio is generally evaluated in dynamics and in comparison with competitors.

5. Return on assets:

$$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}} \quad \text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

ROA is structurally similar to ROE, but this ratio assesses how effectively assets are used to generate net income. Companies should seek raising the value of their ROA in order to guarantee the most effective use of the resources available to them.

**Indebtedness ratios**

Damodaran suggests that the indebtedness (or debt) ratios are a group of financial ratios which reflect a company's financial condition from the perspective of the actual debts it has to repay to third-party creditors in the long-term period.<sup>26</sup> Thus, in contrast to liquidity ratios, which show the ability to cover short-term debts, debt ratios target the long-term perspective.

The most widely used indebtedness ratios are the following:<sup>27</sup>

1. Debt ratio:

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} \quad \text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

<sup>26</sup> DAMODARAN, A. *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. 2002, p. 51.

<sup>27</sup> Ibid, p. 51-52.

The debt ratio shows the actual ratio between a company's total liabilities and total assets. In general, it is believed that the debt ratio should not exceed 1: when total liabilities exceed total assets, the company incurs significant risks of non-repayment and thus gets its financial condition impaired. However, in some conditions, a debt ratio above 1 may be acceptable, namely speaking of large financial corporations. Therefore, this ratio should be tracked in dynamics.

2. Long-term debt to equity:

$$\text{Long term debt to equity} = \frac{\text{Long term liabilities}}{\text{Equity}}$$

$$\text{Long term debt to equity} = \frac{\text{Long term liabilities}}{\text{Equity}}.$$

This ratio shows how a company's long-term debt corresponds to its shareholders' equity. The recommended value of this ratio in literature is 0.7 or lower. However, it can be greater in some cases, similarly to the cases described previously.

3. Long-term debt to assets:

$$\text{Long term debt to assets} = \frac{\text{Long term liabilities}}{\text{Total assets}}$$

$$\text{Long term debt to assets} = \frac{\text{Long term liabilities}}{\text{Total assets}}.$$

This ratio is similar to the previous one, however it calculates long-term liabilities against assets than against equity. The ratio's value should be monitored in dynamics in order to reveal potentially harmful tendencies.

4. Capitalization ratio:

$$\text{Capitalization ratio} = \frac{\text{Long term liabilities}}{\text{Long term liabilities} + \text{Equity}}$$

$$\text{Capitalization ratio} = \frac{\text{Long term liabilities}}{\text{Long term liabilities} + \text{Equity}}.$$

The capitalization ratio reflects a company's ability to leverage its own resources for the sake of repaying long-term debts to creditors. The capitalization ratio should be kept moderate in order to prevent excessive tensions on the company's financial stability.

5. Debt service coverage:

$$\text{Debt service coverage} = \frac{\text{Net operating income}}{\text{Total debt service}}$$

$$\text{Debt service coverage} = \frac{\text{Net operating income}}{\text{Total debt service}}$$

The debt service coverage ratio shows the actual portion of a company's income which it uses for servicing its debt. An enterprise should seek lowering the debt service coverage ratio. However, it might be higher in larger corporations due to the use of financial leverage.

### **Activity ratios**

As explained by Sarngadharan, “*Activity ratios are calculated to evaluate how efficiently and effectively the firm utilizes its assets. Activity ratios describe the relationship between a firm's level of operations in terms of sales and the assets utilized to sustain operating activities.*”<sup>28</sup> Activity ratios make an important part of financial analysis, as they help companies understand the effectiveness of their ongoing operational performance. At the same time, they are additional indicators of corporate liquidity. The dynamics of activity ratios is taken into account by corporate managers when developing appropriate policies in response to changes in business effectiveness.

The main activity ratios are the following:<sup>29,30</sup>

1. Inventory turnover:

$$\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Inventories}} \quad \text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Inventories}}$$

The inventory turnover ratio shows the amount of times which a company's inventories are sold and replaced in the course of its commercial activities. The greater the inventory turnover ratio, the better for the business, as it means that the company is acting quickly with its inventories and is able to sell products rapidly. There are no recommended values for inventory turnover, as well as for other activity ratios, as their optimum values differ across industries, geographic markets, and so on.

2. Average age of inventory:

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<sup>28</sup> SARNGADHARAN, M., KUMAR, R. S. *Financial Analysis for Management Decisions*. 2011, p. 115.

<sup>29</sup> Ibid, p. 115-116.

<sup>30</sup> ROBINSON, T., HENRY, E., PIRIE, L., BROIHahn, L., MICHAEL, A. *International Financial Statement Analysis*. 2015, p. 314.

$$\text{Average age of inventory} = \frac{365}{\text{Inventory turnover}}$$

$$\text{Average age of inventory} = \frac{365}{\text{Inventory turnover}}$$

The average age of inventory is inversely proportional to inventory turnover. It shows the number of days within which an item of inventory requires to be sold and replaced. Thus, in contrast to the previous indicator, each company should seek minimizing the number of days in the age of inventory for improving its commercial results.

3. Accounts receivable turnover:

$$\text{Accounts receivable turnover} = \frac{\text{Net credit sales}}{\text{Trade receivables}}$$

$$\text{Accounts receivable turnover} = \frac{\text{Net credit sales}}{\text{Trade receivables}}$$

The accounts receivable turnover shows how effectively a company can recover its funds borrowed to other entities in the form of trade receivables. The greater this indicator's values, the more effectively a company can recollect debts from third parties.

4. Average collection period:

$$\text{Average collection period} = \frac{365}{\text{Accounts receivable turnover}}$$

$$\text{Average collection period} = \frac{365}{\text{Accounts receivable turnover}}$$

The average collection period ratio is inverse to accounts receivable turnover and show the amount of days which a company requires for recollecting one item of its accounts receivable. Thus, the smaller this indicator's value, the more quickly a company can return its funds, which means that it has more funds at hand for the possibilities of financial maneuver.

5. Operating cycle:

$$\text{Operating cycle} = \text{Average age of inventory} + \text{Average collection period}.$$

$$\text{Operating cycle} = \text{Average age of inventory} + \text{Average collection period}.$$

The operating cycle ratio is the arithmetic sum of the average age of inventory and average collection period. This ratio's value should be minimized for any company in order to become more efficient in its market activities.

6. Accounts payable turnover:

$$\text{Accounts payable turnover} = \frac{\text{Total supplier purchases}}{\text{Average accounts payable}}$$

$$\text{Accounts payable turnover} = \frac{\text{Total supplier purchases}}{\text{Average accounts payable}}$$

The accounts payable turnover ratio shows how intensively a company operates in terms of redeeming its accounts payable to suppliers. In contrast to the accounts receivable turnover, where a company is interested in returning its funds more quickly, here the goal is to postpone the repayment of debts, as this would provide the entity with greater financial maneuver. Therefore, the smaller this ratio's value, the better for the company.

7. Number of days of payables:

$$\text{Number of days of payables} = \frac{365}{\text{Accounts payable turnover}}$$

$$\text{Number of days of payables} = \frac{365}{\text{Accounts payable turnover}}$$

The number of days of payables ratio shows the actual amounts of days which it takes for a company to redeem its accounts payable. In contrast to the accounts payable turnover, this ratio's value should be maximized in order to have greater funds at hand.

8. Cash conversion cycle:

$$\text{Cash conversion cycle} = \text{Operating cycle} - \text{Number of days of payables}$$

$$\text{Cash conversion cycle} = \text{Operating cycle} - \text{Number of days of payables}$$

The cash conversion cycle shows the amount of time which a company requires to translate its resources into cash. The smaller this ratio's value, the more effectively and quickly an entity can get cash and finance for subsequent activities.

## Capital market ratios

Avon explains that capital market ratios are those ratios which reflect a company's potential attractiveness for investors.<sup>31</sup> They show the actual amounts of benefits which a company can provide to its investors. These ratios are particularly important for understanding a company's actual financial condition from the investors' perspective.

The main capital market ratios are the following:<sup>32</sup>

1. Earnings per share (EPS):

$$\text{Earnings per share (EPS)} = \frac{\text{Net earnings}}{\text{Number of shares}}$$

$$\text{Earnings per share (EPS)} = \frac{\text{Net earnings}}{\text{Number of shares}}$$

The EPS ratio illustrates the actual amount of earnings which a company has been able to generate per 1 share of its shareholders' equity. The greater EPS, the more attractive a company is to investors, as it shows the entity's actual financial effectiveness. This ratio has no recommended values and can vary across industries, time periods, and so on.

2. Dividends per share (DPS):

$$\text{Dividends per share (DPS)} = \frac{\text{Dividends paid}}{\text{Number of shares}}$$

$$\text{Dividends per share (DPS)} = \frac{\text{Dividends paid}}{\text{Number of shares}}$$

The DPS ratio shows the actual amount of dividends which a company pays to its shareholders per 1 share. The more a company pays per share, the more attractive it is to investors, as investors are interested in gaining income from the company.

3. Payout ratio:

$$\text{Payout ratio} = \frac{\text{Dividends}}{\text{Earnings}} \quad \text{Payout ratio} = \frac{\text{Dividends}}{\text{Earnings}}$$

The payout ratio reflects the actual portion of earnings which a company is ready to provide to its shareholders as earnings. The greater the payout ratio, the greater share of

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<sup>31</sup> AVON, J. *The Handbook of Financial Modeling: A Practical Approach to Creating and Implementing Valuation Projection Models*. 2013, p. 238.

<sup>32</sup> Ibid, p. 238-239.

profits a company allocates to shareholder dividends, and thus the more attractive it is for investors,

4. Dividend yield:

$$\text{Dividend yield} = \frac{\text{Dividends paid}}{\text{Share price}} \quad \text{Dividend yield} = \frac{\text{Dividends paid}}{\text{Share price}}.$$

The dividend yield ratio shows how the amount of dividends paid per share correlates with share price. The greater this indicator's value, the more attractive the company is for its investors.

5. P/E:

$$P/E = \frac{\text{Market price}}{\text{EPS}} \quad P/E = \frac{\text{Market price}}{\text{EPS}}.$$

The P/E ratio reveals how a company's market price of shares correlates with its EPS. This ratio is used by investors and analysts for historical comparisons, in order to reveal how a company's relative market price has been changing over a time period.

6. P/BV:

$$P/BV = \frac{\text{Market price}}{\text{Book value}} \quad P/BV = \frac{\text{Market price}}{\text{Book value}}.$$

The P/BV ratio is structurally similar to P/E, however it compares the company's market price of shares against their book value and not against EPS. The higher this ratio's value, the better for the company's market attractiveness.

### **DuPont analysis**

Simkins and Simkins note that DuPont analysis is another important tool which can be used in financial analysis.<sup>33</sup> The main goal of DuPont analysis is to reveal which particular factors affect a company's return on equity (ROE) and in which way they do so. Under the assumptions of DuPont analysis, it is believed that ROE includes three components: the profit margin ratio, the total asset turnover ratio, and the financial leverage ratio. The formula for DuPont analysis is the following:

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<sup>33</sup> SIMKINS, B., SIMKINS, R. *Energy Finance and Economics: Analysis and Valuation, Risk Management, and the Future of Energy*. 2013, p. 206.



$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

By calculating the values of ROE in the breakdown into its constituent elements, it is possible to see which of the elements affect ROE negatively (namely those with values below 1) and which ones contribute to its growth. As a result, managers are able to identify which particular elements should be improved in order to raise the overall value of ROE.

Based on the findings presented in the theoretical part of the thesis, it is possible to state that financial analysis is a complex set of tools which can be used effectively by corporate managers for the purpose of learning about the current effectiveness of their company's financial performance and for adopting measures to improve the situation. Taking into account these findings, it is now possible to proceed to the practical part of the research.

## 4 Practical Part

### 4.1 Introduction of Procter & Gamble

The company chosen for the practical part of the research is Procter & Gamble Company, commonly referred to simply as Procter & Gamble or as P&G. The company is an American multinational corporation specialized in the production and sales of consumer goods. The corporation is one of the world's leaders in its target market and it focuses on manufacturing cleaning agents, personal care and beauty products, personal healthcare products, and a range of other related goods. The entity's headquarters is located in Cincinnati, Ohio, the United States. The company employs a total of almost 100,000 employees.<sup>34</sup>

The product line of Procter & Gamble includes a wide range of worldwide-renowned brands such as Fairy (washing-up liquid), Head & Shoulders (shampoo), Pampers (diapers), Pantene (haircare products), Ariel (laundry detergent), Tide (laundry detergent), Tampax (tampons), Oral-B (toothbrushes), Vicks (cough and cold products), Old Spice (personal care products), and so on. This powerful product portfolio allows P&G reaching a wide customer audience worldwide and remaining one of the global leaders in its industry despite fierce competition.<sup>35</sup>

In total, Procter & Gamble operates 130 manufacturing facilities in 35 countries around the globe. In total, the company's business is presented in as much as 70 states. P&G puts a focus on innovations and the maximization of consumer benefits in the development of the company's products. The corporation owns a number of research and development centers in different countries. Its global reach allows achieving significant economies of scale. The company also engages in corporate social responsibility activities and invests in the improvement of access to water, healthcare and education in developing countries.<sup>36</sup>

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<sup>34</sup> PROCTER & GAMBLE COMPANY. Procter & Gamble Company. [online] 2019. Available at: <https://us.pg.com/> [Accessed 5 Dec. 2019].

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

## 4.2 Financial Analysis of Procter & Gamble

### 4.2.1 Horizontal Analysis

The horizontal analysis of Procter & Gamble should allow understanding the recent dynamics of the company's business in terms of the main chosen parameters of its financial statements. These selected elements include assets, liabilities and shareholders' equity, and net profit.

As can be seen from the Table below, in recent years, the total volume of Procter & Gamble's assets has been declining continuously. The year-on-year decrease in total assets varied between 1.74 % and 5.29 %. This was caused mainly by the large negative figures in current assets dynamics: -21.57 % in 2017 compared to 2016 and -11.98 % in 2018 compared to 2017. On the contrary, after the decrease in 2016, the dynamics of non-current assets has remained rather stable. The negative dynamics with the company's assets might suggest that Procter & Gamble is losing in terms of its liquidity, as it has less assets which can be converted into funds for covering short-term liabilities to third-party creditors. On the consolidated balance sheet represented in the annual report of the company, the decrease of current assets is caused primarily by decrease in cash and cash equivalents. The decrease is 1,5 million USD in 2017 in comparison with 2016 and more than 3 million USD decrease in 2018 in comparison with 2017. No other big changes which could affect the average amount of total assets have happened in the company.

What caused the changes in cash and cash equivalents and affected its decrease? The answer can be found in the annual report of the company, where is stated that "*In fiscal 2017, the Company invested an additional \$874 million of cash, received from the issuance of debt, in restricted cash. At the closing of the Beauty Brands transaction, \$1.9 billion of restricted cash was released and returned to cash and cash equivalents and \$475 million of cash was transferred to the discontinued Beauty Brands business.*"<sup>37</sup> By the term "restricted cash" is meant cash which is to be invested in some project and therefore cannot be used for operational purposes of the company. This project was about the sell of most of

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<sup>37</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2017*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/5ead807c-6109-1acd-dddb-2fa702f11dc0.PDF?O=PDF&T=&Y=&D=&FID=5ead807c-6109-1acd-dddb-2fa702f11dc0&iid=4004124> [Accessed 5 Dec. 2019].

the beauty brands produced by P&G to their competitor company named Coty. This acquisition of Beauty Brands department started in 2015 and was closed in 2017. P&G sold off most of its fragrances, cosmetics, and hair-color businesses, including big-name brands like CoverGirl and Clairol. *Coty also took over eight P&G factories and around 10,000 workers, as well as about \$2 billion in debt.*<sup>38</sup> This can also describe the change in current assets in 2017, caused by sell of long-term assets.

Table 1 Horizontal analysis of Procter & Gamble's assets, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in total assets</b>	-2 359,0	-1,82%	-6 730,0	-5,29%	-2 096,0	-1,74%
<b>Change in non-current assets</b>	-6 495	-6,50%	558	0,60%	1 078	1,15%
<b>Change in current assets</b>	4 136	13,95%	-7 288	-21,57%	-3 174	-11,98%

Source: Own research

As the table below reveals, there has been no homogeneous dynamics with Procter & Gamble's liabilities in recent years. Thus, the corporation's non-current liabilities have been fluctuating at yearly rates between -10.33 % and 8.05%. Similarly, the company's current liabilities have varied between -6.53 % and 5.8 %. As for the entity's shareholders' equity, it has been steadily dropping: the year-on-year decrease rated amounted to between -3.76 % and -9.05 %. These tendencies can be deemed negative for P&G, as the company's shareholders' equity is shrinking against its liabilities, which means that Procter & Gamble is becoming more dependent on third-party funding.

Again, the annual report of fiscal 2017 states, that P&G liabilities in 2017 were caused by the sell of „Beauty Brands“. The contract was obliging P&G keep restricted cash and carry liabilities towards shareholders and a new owner of „Beauty Brands“ – Coty. These liabilities were hold until fiscal 2018, because a lot of aquisition processes took place in those two years after sell of shares of Beauty Brands.

<sup>38</sup> PROCTER AND GAMBLE SPINS OFF \$11.4 BILLION IN BEAUTY BRANDS. *The Motley Fool* [online]. 2018. Available at: <https://www.fool.com/investing/2016/10/03/procter-and-gamble-spins-of-114-billion-in-beauty.aspx> [Accessed 5 Dec. 2019].

There was a change in shareholders' equity caused by conversion of 100 million shares of shareholders. P&G offered to its shareholders two options – to convert their shares to a new company of P&G named Galeria or to stay with Beauty Brands (meant with Coty). To make shareholders stay with P&G and to convert their shares to Galeria, P&G offered a 7% discount at share price in comparison with the price that Coty offered at the same day. That was an additional motivation for shareholders to convert shares to Galeria. Shareholders combined offered more than 691 million P&G share, which bit all expectations of P&G. After that tender, P&G accepted the tender offer of about 105 million shares for a total value (including the debt portion) of \$11.4 billion. That is why the decrease in shareholders' equity is not as big as it could be after the sale of Beauty Brands, and there is just a 3,76 % decrease in fiscal 2017 and 5,24 % decrease in 2018.

Table 2 Horizontal analysis of Procter & Gamble's liabilities and shareholders' equity, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in non-current liabilities</b>	1 728,0	4,71%	-3 965,0	-10,33%	2 772,0	8,05%
<b>Change in current liabilities</b>	1 728	5,80%	-560	-1,82%	-1 973	-6,53%
<b>Change in shareholders' equity</b>	-5 709	-9,05%	-2 157	-3,76%	-2 891	-5,24%

Source: Own research

As the table below suggests, there have been no steady net profit dynamics in P&G's business in recent years: the fluctuations have varied between -3 638 % and 45.85%. These fluctuations can be deemed high and required effective management on the corporation's part. As stated in the annual report, the main problem which caused these fluctuations, was in business projects that were bringing no profit to the company but cause new liabilities and debts. Those were discontinued operations, that were no longer operated in the company and thus were off the expectations for shareholders and those people who were planning to invest in shares of P&G. Net earnings from continuing operations showed no great change and were equal to 10,027 mil. USD in 2016 and 10,194 mil. USD in 2017.

But net earnings from discontinuing operations have decreased from 5,127 mil. USD in 2017 to 0 in 2018. These discontinuing operations were connected with Beauty Brands. Annual report of fiscal 2018 states that “*Net earnings attributable to Procter & Gamble were \$9.8 billion, a decrease of \$5.6 billion or 36 % versus the prior year primarily due to the aforementioned reduction in net earnings from discontinued operations*”.<sup>39</sup>

When analyzing the decrease in net profit of the company it can be stated that this decrease does not show on the bad marginality or profitability of the company. It shows operational processes happening in the company and shows operational changes in financial statements.

Table 3 Horizontal analysis of Procter & Gamble’s net profit, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in net profit</b>	2 221,0	26,80 %	4 818,0	45,85%	-5 576,0	-36,38%

Source: Own research

#### 4.2.2 Vertical Analysis

The next step is analyzing the ration of current assets on the total assets. As table 4 below illustrates, today, the share of Procter & Gamble’s current assets in the overall structure of assets is 20 %, while non-current assets account for 80 % (in 2018). This structure can be explained by the specifics of P&G’s business. Primarily, non-current assets include manufactories and long-term stocks, which are the main part of long-term assets in P&G. Current assets are represented by goods and inventories, cash and cash equivalents and trade receivables. The positive fact is that trade receivables of the company are only 3-4 % from the total assets, which means that the company has adequate management of receivables and they are not higher than cash and cash equivalents.

<sup>39</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2018*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/fe690dfa-0857-4fb3-2338-93a4589a4354.PDF?O=PDF&T=&Y=&D=&FID=fe690dfa-0857-4fb3-2338-93a4589a4354&iid=4004124> [Accessed 5 Dec. 2019].

When analyzing the progression of the data in time, it can be stated that there are no great fluctuations in the period of time 2015-2018. That means that P&G's tactics in managing assets did not change in the last 4 years, which also means that this tactic is efficient for the company.

Table 4 Vertical analysis of assets

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Current assets	23%	27%	22%	20%
Inventories	4%	4%	4%	4%
Cash and cash equivalents	9%	10%	13%	10%
Trade receivables	3%	3%	4%	4%
Non-current assets	77%	73%	78%	80%

Source: Own research

The table 5 below shows that non-current liabilities prevail in the structure of P&G's total liabilities: 57 % against the 43 % share of current liabilities. According annual reports of P&G, current liabilities are due to restructuring accruals (513 million USD), accounts payable and long-term portion of the payable related to the U.S. Tax Act repatriation charge.

As seen from the Table 5, portion of non-current liabilities increased in fiscal 2018 versus 2017. This was caused by the extended payment terms with suppliers. P&G extended payables to the next fiscal year.

As annual report of fiscal 2018 states, liabilities management policy in P&G was also caused by accrued liabilities related to the divestiture of the Beauty Brands business.<sup>40</sup>

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<sup>40</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2018*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/fe690dfa-0857-4fb3-2338-93a4589a4354.PDF?O=PDF&T=&Y=&D=&FID=fe690dfa-0857-4fb3-2338-93a4589a4354&iid=4004124> [Accessed 5 Dec. 2019].

Table 5 Vertical analysis of liabilities

	2015	2016	2017	2018
Current liabilities	44,8%	44,5%	46,7%	43,2%
Accounts payable	13,7%	13,5%	14,9%	15,8%
Non-current liabilities	55,2%	55,5%	53,3%	56,8%

Source: Own research

### 4.2.3 Analysis of Financial Ratios

It is worth proceeding to the analysis of the company's financial ratios with liquidity indicators. Based on the information presented in the table below, it can be stated that the current ratio of Procter & Gamble has been decreasing in recent years. Thus, in 2018, this ratio's value amounted to 0.83 and was 0.17 percentage points smaller compared to 2015. This was caused by the processes connected to the sale of Beauty Brands, restricted cash and liabilities that appeared in connection with the sale of Beauty Brands. The decline in liquidity ratios was not caused by problems with liquidity, but with liabilities of the P&G towards Coty company.

The overall absolute values of the current ratio can still be deemed sufficient to meet effectively the current liabilities of P&G using the corporation's own current assets. Procter & Gamble has great opportunities of financial leverage, and therefore such values of the current ratio are sufficient for maintaining the company's high liquidity. However, the company should monitor the situation further in order to avoid possible negative tendencies.

Similar conclusions can be drawn as regards the entity's acid-test ratio. Although it dropped to 0.66 in 2018 compared to 0.94 in 2016, this ratio is high. Furthermore, it can be stated that P&G can even decrease it further by taking additional short-term loans without compromising its liquidity. This testifies that Procter & Gamble has substantial amounts of the more liquid of its current assets for repaying short-term loans.

The company's cash ratio is high as well, and the recent dynamics have been fluctuating only moderately. This proves that the entity has sufficient cash funds (the most liquid assets) for covering the liabilities to third-party creditors, and therefore avoids any major risks in this respect.



Finally, as regards the current to total assets ratio, it has been decreasing lately. The decrease was caused by processes that took place in the company, which were regulated by financial management of the P&G (as they mention in their annual reports). It can be stated that this decrease has no negative affect on the overall financial situation of the company, because sale of Beauty Brands was thoroughly planned by the strategic and financial managers of the company, as well as all the changes of financial situation and liquidity ratios were predicted and managed in terms of risks.

So, in overall terms, the recent dynamics of the liquidity ratios of Procter & Gamble can be deemed sufficient for the company to meet effectively its current liabilities to third-party creditors.

Table 6 Liquidity ratios of Procter & Gamble

<b>Liquidity ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Current ratio	1,00	1,10	0,88	0,83
Acid-test ratio	0,83	0,94	0,72	0,66
Cash ratio	0,39	0,43	0,50	0,42
Current to total assets ratio	22,9%	26,6%	22,0%	19,7%

Source: Own research

Analyzing the profitability ratios of Procter & Gamble, it should be noted first of all that the company's gross profit margin has remained stable in recent years despite slight fluctuations (between 47.6 % and 50.0 % in 2015-2018). Similar tendencies have been observed in P&G's operating profit. After 2015, the corporation had increased it, and since then the operating profit has varied between 20.5 % and 21.5 %.

Fluctuations of the gross profit of P&G have been influenced primarily by fluctuations in exchange rates for foreign currencies, which reduced the dollar value of P&G's revenue. Annual report of fiscal 2018 includes statement that due to the differences in the exchange rates, profits and cash flows received from non-U.S. markets increase P&G's supply costs. The second factor that influences gross profit of the company, is discriminatory or conflicting fiscal or trade policies in different countries, changes of

custom tariffs, change of custom agreements between countries. P&G is operating in 70 countries of the World and there are a lot of external factors which can influence the marginality of its activities.

Next, as for the corporation's net profit margin, it has been fluctuating more significantly: between 11.7 % and 23.6 %. Even though this indicator's value dropped by 9 p.p. in 2018 compared to 2017. Again, we can see the influence of discontinuing processes (Beauty Brands sale). P&G had liabilities and debts connected with this sale. As P&G state in its annual report 2017, "Beauty Brands". This project brought to the company the lowest profit margin compared to other company's projects. The sale of it to another company specializing in the manufacture of cosmetic products was justified by the lower marginality and the need to invest these resources in the development of other production lines. That is the reason why net profit margin increased by 7.5 % – the company invested into continuing business projects with higher marginality.

In contrast to gross profit margins, the net profit margin is more vulnerable to fluctuations due to any sensitive change in either the external or the internal environment. External factors as tax obligation of the company, customs fees and trade policy of the other countries (including trade restrictions) affect net profit of the company.

As for the return on equity, the conclusions can be deemed similar to the previous profitability ratios. Thus, ROE has fluctuated between 13.1 % and 27.8 %, in line with the net profit margin. Profitability of equity increased in line with the increase of profit margin and by the decrease of shareholders equity of the company (in all examined years 2015-2018).

With the value of ROA, the dynamics have been similar to the dynamics testified by ROE. The total assets of the company decreased due to the sale of manufactories and inventories, moreover the company has sold the less profitable assets (of Beauty Brands). The company kept less assets, but more profitable, which caused increase of profit margin of the company and increase in ROA.

Table 7 Profitability ratios of Procter & Gamble

<b>Profitability ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Gross profit margin	47,6%	49,6%	50,0%	48,7%
Operating profit margin	15,6%	20,6%	21,5%	20,5%
Net profit margin	11,7%	16,1%	23,6%	14,6%
Return on equity (ROE)	13,1%	18,3%	27,8%	18,6%
Return on assets (ROA)	6,4%	8,3%	12,7%	8,2%

Source: Own research

Analyzing the indebtedness ratios of Procter & Gamble, it can be stated that the company's debt ratio has been rising at a moderate pace: in 2018, it amounted to 55.3 % compared to 51.3 % in 2015. Even though this trend means that liabilities are growing against assets, however, the main liabilities of the company are current liabilities (liabilities to Coty company caused by sale of Beauty Brands), and long – term liabilities as time extended tax obligations of the company.

Long-terms debt includes liabilities related to financial instruments, which company offers on the capital market. Those are shares and financial derivatives. P&G raise additional investment capital for financing of its operational activities. These liabilities are long – term debts but are inevitable for such a big company to continue its business processes and generate profit – this financial effect is called financial leverage. Given its large size and the positive business image P&G has, it can be noted again that the company can benefit from greater financial leverage without compromising its financial stability. Moreover, annual report for fiscal 2018 states, that “*restructuring accruals of \$513 million as of June 30, 2018 are classified as current liabilities. Approximately 65 % of the restructuring charges incurred in fiscal 2018 either have been or will be settled with cash*”.<sup>41</sup>

<sup>41</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2018*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/fe690dfa-0857-4fb3-2338-93a4589a4354.PDF?O=PDF&T=&Y=&D=&FID=fe690dfa-0857-4fb3-2338-93a4589a4354&iid=4004124> [Accessed 5 Dec. 2019].

As the capitalization ratio reveals the extent to which a company operates based on its own equity, it can be stated that recent dynamics have been steady for Procter & Gamble. The capitalization ratio has fluctuated between 36.8 % and 41.6 %, and there have been no considerable threats of any major deterioration.

Debt ratio in P&G is logical in the context of the methods and sources of its financing. As company is public and offers its financial instruments on the capital market, it has debts towards its investors. The policy of the company is to keep indebtedness ration at its average level for the industry, which is 50 %.<sup>42</sup> Debt ration of 60 % brings more risks to the investors and can lead to decrease of investors' interest in company's shares.

Table 8 Indebtedness ratios of Procter & Gamble

<b>Indebtedness ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Debt ratio	51,3%	54,4%	53,7%	55,3%
Long-term debt to equity	58,1%	66,9%	62,4%	71,1%
Long-term debt to assets	28,3%	30,2%	28,6%	31,4%
Capitalization ratio	36,8%	40,1%	38,4%	41,6%

Source: Own research

Proceeding to the entity's activity ratios, it can be stated that the company's inventory turnover has been rather steady in recent years. Thus, the corporation's inventory turnover had dropped from 7.44 in 2015 to 6.98 in 2016, but the again grew to 7.27 in 2018. This means that there have been no major changes in terms of how quickly P&G is selling and replacing its inventories in the course of the production processes. Consequently, the company's average age of inventory had initially rose to 52.31 days, but then decreased to 50.23 days, which means that the entity was able to accelerate its business process, and which is positive for its financial performance. Also, it can be stated by analyzing activity ratios in terms of the sale of Beauty Brands in 2017, P&G.

<sup>42</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2017*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/5ead807c-6109-1acd-dbb-2fa702f11dc0.PDF?O=PDF&T=&Y=&D=&FID=5ead807c-6109-1acd-dbb-2fa702f11dc0&iid=4004124> [Accessed 5 Dec. 2019].

The company's accounts receivable turnover decreased considerably in 2017-2018 compared to the two previous years: 7.10-7.35 against 14.95-46.48 respectively. As a result of it, the company's average collection period grew from 22.14-24.42 days to 49.67-51.38 days. This trend allows concluding clearly that Procter & Gamble now requires almost twice more time to recover debts from its debtors. This limits the company's opportunities of financial maneuver and thus can be deemed a negative tendency. By improving this ratio, P&G would improve its financial management.

Under the impact of the growing average collection period, the company's operating cycle grew as well from 71.19 days in 2015 to 99.9 days in 2018, which means slower performance of the company's operations. This can be explained by changing production processes in the company, changing the production cycle. For example, the company reports in its annual reports that over time it is more oriented towards eco-products and more environmentally friendly processing. Over the last four years, production processes have changed in the context of introducing new environmental policies in society, using new technologies. All of this has resulted in a change in activity indicators.

As for Procter & Gamble's accounts payable turnover, it decreased from 7.74 in 2015 in 2015 to 3.43-3.54 in the next three years. At the same time, the company's number of days of payables increased from 47.19 in 2015 to 105.53 in 2018. This can be explained by restricted capital which was held in the company for the purpose of sale of Beauty Brands and long-term liabilities that were accounts payable cause by transferring of manufactories to a new owner.

Finally, it should be noted that the cash conversion cycle of P&G had dropped to negative values in 2016 and has remained so since then. This means that the company's number of days of payables exceeds its operation cycle. The reasons are the same as described in the previous paragraph.

So, in overall terms, it can be stated that the company deals well with its activity ratios. Procter & Gamble could benefit from increasing its accounts receivable turnover and thus lowering its average collection period. Otherwise, the enterprise performs effectively in terms of market activity.

Table 9 Activity ratios of Procter & Gamble

<b>Activity ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Inventory turnover	7,44	6,98	7,06	7,27
Average age of inventory	49,04	52,31	51,71	50,23
Accounts receivable turnover	16,48	14,95	7,10	7,35
Average collection period	22,14	24,42	51,38	49,67
Operating cycle	71,19	76,72	103,09	99,90
Accounts payable turnover	7,74	3,54	3,43	3,46
Number of days of payables	47,19	103,04	106,30	105,53
Cash conversion cycle	24,00	-26,32	-3,21	-5,63

Source: Own research

As can be seen from the table provided below, the EPS ratio of Procter & Gamble has been fluctuating between USD 2.87 and 5.59 in recent years. No obvious dynamics can be identified in these terms. The fact that general stability is maintained can be deemed positive for both current and prospective investors.

The DPS ratio has been growing steadily lately. Thus, while the dividends per share amounted to USD 0.66 in 2015, this indicator grew to USD 0.72 in 2018 by 2018. This testifies that the company is steadily increasing the amounts it is ready to pay to its investors per share they hold. This is favorable for inciting investors' interest in the business. Again it shows that P&G increased its profitability and thus dividends ration after selling the Beauty Brands.

As for the payout ratio, it has been fluctuating between 12.3 % and 23.1 % in recent years. On the one hand, investors are inclined to have some stability in terms of their earnings. On the other hand, it still can be stated that P&G has been able to keep the percentage of earnings paid as dividends within predictable limit.

The P/E ratio has remained rather steady in recent years. On the contrary, P/BV has been growing continuously. This can be deemed positive for Procter & Gamble's business in terms of how the company can attract its investors.

Table 10 Capital market ratios of Procter & Gamble

<b>Capital market ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Earnings per share (EPS), in USD	2,87	3,69	5,59	3,67
Dividends per share (DPS), in USD	0,66	0,67	0,69	0,72
Payout ratio	23,1%	18,1%	12,3%	19,5%
P/E	27,64	22,76	16,43	24,85
P/BV	3,50	4,04	4,34	4,48

Source: Own research

Within the framework of the DuPont analysis, the following breakdown can be presented for Procter & Gamble's ROE:

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}} = 0.146 \times 0.565 \times 2.262$$

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}.$$

From this breakdown, it can be stated that the main contributor to the company's positive ROE is the third element, i.e. the financial leverage ratio. Improving the total asset turnover ratio and the net profit margin could help raise the quality of ROE further.

Therefore, it can be concluded that Procter & Gamble performs well across almost all financial ratios analyzed. However, in order to understand the company's true market position, it is worth comparing Procter & Gamble with its competitor. In the next chapter, the financial analysis of Unilever is presented.

## 4.3 Financial Analysis of Unilever

### 4.3.1 Horizontal Analysis

As can be seen from the table below, in 2018, Unilever's total assets decreased under the impact of the reduction in the value of current assets, while the company's non-current assets slightly grew. The main reason as seen from the financial reports of the company, is the increase in goodwill of the company (long-term intangible assets). Increase in Goodwill of the company can be described by the increased social responsibility of the company and large investments in ecological manufacturing, recycling and new technologies. The company participated in social projects and helped international funds with donation for social projects.

The main positive change in current assets in 2017 is explained by the increase in cash and cash equivalents and trade receivables. Inventories increase in fiscal 2018 versus 2017. Unilever states, that this change was caused by exchange rates, which influenced the evaluation of inventories, cash and receivables payable.

Table 11 Horizontal analysis of Unilever's assets, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in total assets</b>	4 131,0	7,75%	3 856,0	6,83%	-829,0	-1,38%
<b>Change in non-current assets</b>	2 933	7,40%	757	1,78%	673	1,55%
<b>Change in current assets</b>	1 198	9,44%	3 099	22,32%	-1 502	-8,84%

Source: Own research

Next, as the table below reveals, the corporation's non-current liabilities have been growing continuously in recent years. At the same time, the entity's current liabilities and shareholders' equity dropped in 2018 compared to the previous year. As stated in the annual reports, non-current liabilities are primarily lease liabilities towards financial institutions, bank credits for manufacturing purposes. Non-current liabilities are increasing when a company invests into new manufacturing processes or develops a new strategic



development project. Own equity and investors' money are usually invested into ongoing business processes, which guarantee higher profitability for investors and key shareholders.

The change in shareholders' equity is described in the annual report of fiscal 2018: *“The difference arises from recognising investments in subsidiaries in the Unilever N.V. accounts at cost less any amounts written off to reflect impairment, not eliminating intra-group balances and transactions and not performing other consolidation procedures which are performed for the Unilever Group financial statements”*.<sup>43</sup>

Table 12 Horizontal analysis of Unilever's liabilities and shareholders' equity, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in non-current liabilities</b>	2 695,0	16,64%	3 829,0	16,85%	4 671,0	17,05%
<b>Change in current liabilities</b>	3 829	18,63%	3 829	20,27%	-3 405	-14,99%
<b>Change in shareholders' equity</b>	916	5,93%	-2 726	-16,67%	-2 057	-15,09%

Source: Own research

As the table below illustrates, the net profit of Unilever has been rising since 2016, reaching great growth in 2018. This is positive, as it illustrates the ultimate effectiveness of the corporation's financial performance.

As seen from its financial reports, the main growth is explained by the growth of income from shares in group undertakings (increase by 13 mil. EUR in 2018). In the annual report the growing revenues are explained as a result of Unilevers' sustainable development and creating new products which correspond with market and customers' demand. The company enters new markets. For example, the annual growth of net profit in 2018 was explained as *“net profit from joint ventures and associates, with the increase*

<sup>43</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2018*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/fe690dfa-0857-4fb3-2338-93a4589a4354.PDF?O=PDF&T=&Y=&D=&FID=fe690dfa-0857-4fb3-2338-93a4589a4354&iid=4004124> [Accessed 5 Dec. 2019].

coming mainly from a gain on disposal of the spreads business of the Portuguese joint venture”.<sup>44</sup>

Table 13 Horizontal analysis of Unilever’s net profit, in USD million and %

	2016/2015		2017/2016		2018/2017	
	Absolute value	%	Absolute value	%	Absolute value	%
<b>Change in net profit</b>	275,0	5,60%	869,0	16,76%	3 336,0	55,11%

Source: Own research

### 4.3.2 Vertical Analysis

As can be seen from the table 14 below, the share of current assets in Unilever’s assets in fiscal 2018 is 26 %, while the share of non-current assets is 74 %. The ration of current and non-current assets in The Unilever Group is fluctuating but show no significant changes. As stated in the text above, those changes have been influenced by change in exchange rates and evaluation of current assets. Also, the slight changes in non-current assets is affected by the changes in goodwill.

Table 14 Vertical analysis of assets in The Unilever Group

	2015	2016	2017	2018
Current assets	24,3%	24,6%	28,2%	26,0%
Inventories	8,3%	7,6%	6,6%	7,2%
Cash and cash equivalents	5,0%	3,8%	3,9%	6,6%
Trade receivables	5,6%	5,9%	5,7%	7,3%
Non-current assets	75,7%	75,4%	71,8%	74,0%

Source: Own research

As the table 15 below reveals, current and non-current liabilities in 2018 account for 42 % and 58 % in the structure of Unilever’s total liabilities respectively. The ration on non-current liabilities in the 2018 increased because of lease contracts on long-term

<sup>44</sup> PROCTER & GAMBLE INVESTOR RELATIONS . *Annual Report 2018*. [online]. Available at: <https://www.pginvestor.com/Cache/IRCache/fe690dfa-0857-4fb3-2338-93a4589a4354.PDF?O=PDF&T=&Y=&D=&FID=fe690dfa-0857-4fb3-2338-93a4589a4354&iid=4004124> [Accessed 5 Dec. 2019].

inventories and manufactures as The Unilever Group has accessed new markets (for example, Portugal). Except the change of non-current liabilities in 2018, there were no great changes in the structure of liabilities in the years 2015-2018.

Table 15 Vertical analysis of liabilities in The Unilever Group

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Current liabilities	55,3 %	52,1 %	50,5 %	41,9 %
Accounts payable	22,9 %	21,8 %	17,9 %	19,3 %
Non-current liabilities	44,7 %	47,9 %	49,5 %	58,1 %

Source: Own research

### 4.3.3 Analysis of Financial Ratios

As suggested by the table below, Unilever's current ratio, acid-test ratio, and cash ratio have been growing in recent years and have been at sufficiently high level. The corporation is not experiencing any problems with turning its liquid assets into cash for covering short-term liabilities to third-party creditors. Moreover, it can be stated that Unilever even has room for this ratio to decrease given the company's high opportunities of financial leverage and its positive business reputation.

As for the entity's current to total assets ratio, it has remained steady in recent years, varying between 24.3 % and 28.2 %. Therefore, in overall terms, the company's liquidity ratios are appropriate and correspond with the scale of manufacturing and investment processes of the company.

Table 16 Liquidity ratios of Unilever

<b>Liquidity ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Current ratio	0,63	0,68	0,73	0,78
Acid-test ratio	0,42	0,47	0,56	0,57
Cash ratio	0,13	0,11	0,10	0,20
Current to total assets ratio	24,3%	24,6%	28,2%	26,0%

Source: Own research

As the table below testifies, Unilever has had positive profitability characteristics in recent years. Thus, the company's gross profit margin has varied between 42.2 % and 43.6 %, which illustrates its long-term stability in terms of generating profits. At the same time, the corporation's operating profit margin and net profit margin have been growing from 13.9 % in 2015 to 24.5 % in 2018 and from 9.2 % in 2015 to 18.4 % in 2018 respectively. This proves that the company is also able to gain effectively in the short-term period and is growing its own funds available for financing its business growth.

The positive dynamics evidenced by both ROE and ROA prove that Unilever has been able to improve the use of both its equity and assets for generating profits and thus has become more commercially effective. ROE has significantly increased in the last analyzed year because of the growth in revenues and net profit, which affected both indicators: ROE and ROA.

Table 17 Profitability ratios of Unilever

<b>Profitability ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Gross profit margin	42,2%	42,7%	43,1%	43,6%
Operating profit margin	13,9%	14,6%	16,3%	24,5%
Net profit margin	9,2%	9,8%	11,3%	18,4%
Return on equity (ROE)	31,8%	31,7%	44,4%	81,1%
Return on assets (ROA)	9,4%	9,2%	10,0%	15,8%

Source: Own research

As can be seen from the table below, the debt ratio of Unilever has been growing lately but still remained in appropriate limits given the company's size and the ability to use financial leverage. At the same time, long-term debt to equity increased from 104.9 % to 236.7 % in the last 4 years. This happened because of the new manufacturing lines of the company, which needed borrowed money from financial institutions. This investment into manufacturing process potentially brings new opportunities for the company and promises new revenues from the new projects. That is why this investment is justified by the company in its annual reports. But in order to avoid major negative consequences, the company should monitor this trend closely. The two other indebtedness ratios, namely

long-term debt to assets and capitalization ratio, have been growing as well, however their growth can be deemed rather moderate. Nevertheless, Unilever can be recommended to monitor the situation in order to avoid excessive dependence on long-term third-party funding.

Table 18 Indebtedness ratios of Unilever

<b>Indebtedness ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Debt ratio	69,2 %	69,9 %	76,1%	79,3%
Long-term debt to equity	104,9 %	115,5 %	166,7%	236,7%
Long-term debt to assets	31,0 %	33,5 %	37,7%	46,1%
Capitalization ratio	51,2 %	53, 6%	62,5%	70,3%

Source: Own research

In terms of Unilever's inventory turnover, it can be stated that it has been fluctuating within rather narrow limits. However, the fact that the average age of inventory reached its four-year maximum of 54.57 in 2018 might suggest that the company should work on improving the quickness of resales and replacement of its inventory.

The situation with Unilever's accounts receivable turnover has been market by negative dynamics. Thus, the company's accounts receivable turnover dropped from 18.27 in 2015 to 6.61 in 2018; at the same time, its average collection period increased from 19.98 days to 55.19 days. This proves a considerable loss of effectiveness in recovering debts from debtors. The company should work on this indicator to keep high its opportunity of financial maneuver.

Under the effect of the two tendencies described above, Unilever's operating cycle has grown as well.

The company's accounts payable turnover has remained at very low levels, and even reached its local minimum in 2018. As a result, the number of days of payable grew from 72.02 days in 2015 to 108.7 days in 2018, which illustrates that the company now has more time before repaying debts to suppliers and thus has more funds at hand.

Due to the impact of these two differently vectored tendencies, Unilever's cash conversion cycle has remained at steadily low levels in recent years, which is positive for the corporation.

Table 19 Activity ratios of Unilever

<b>Activity ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Inventory turnover	7,11	7,07	7,71	6,69
Average age of inventory	51,36	51,65	47,34	54,57
Accounts receivable turnover	18,27	15,96	8,88	6,61
Average collection period	19,98	22,87	41,09	55,19
Operating cycle	71,34	74,53	88,43	109,76
Accounts payable turnover	5,07	3,57	3,60	3,36
Number of days of payables	72,02	102,14	101,47	108,70
Cash conversion cycle	-0,68	-27,62	-13,03	1,05

Source: Own research

As for Unilever's capital market ratios, it can be stated that both the company's EPS and DPS have been growing lately and achieved their peak values of 3.48 and 1.51 in 2018 respectively. These tendencies are positive for Unilever's business, as they mean that the company is earning more and it able to offer more to its investors in terms of absolute amounts through dividends.

The company's payout ratio dropped from 67.9 % in 2015 to 43.3 % in 2018. However, it still remained at a sufficiently high level, and thus it cannot be stated that major negative tendencies exist for investors. Also, while P/E and P/BV have been fluctuating, their values can be deemed overall appropriate for Unilever's business.

Table 20 Capital market ratios of Unilever

<b>Capital market ratios</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Earnings per share (EPS), in USD	1,72	1,82	2,15	3,48
Dividends per share (DPS), in USD	1,17	1,26	1,39	1,51
Payout ratio	67,9%	69,6%	64,7%	43,3%
P/E	24,74	22,43	26,18	15,97
P/BV	3,25	3,03	4,44	11,54

Source: Own research

Under the DuPont analysis, Unilever's ROE can be broken down as follows:

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}} = 0.184 \times 0.857 \times 5.138$$

$$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Equity}} = \frac{\text{Net income}}{\text{Sales}} \circ \frac{\text{Sales}}{\text{Assets}} \circ \frac{\text{Assets}}{\text{Equity}}$$

From this breakdown, it can be stated that the financial leverage ratio contributes most to Unilever's positive ROE. Other elements can be balanced and effectively contributing to the steadily improving ROE as well.

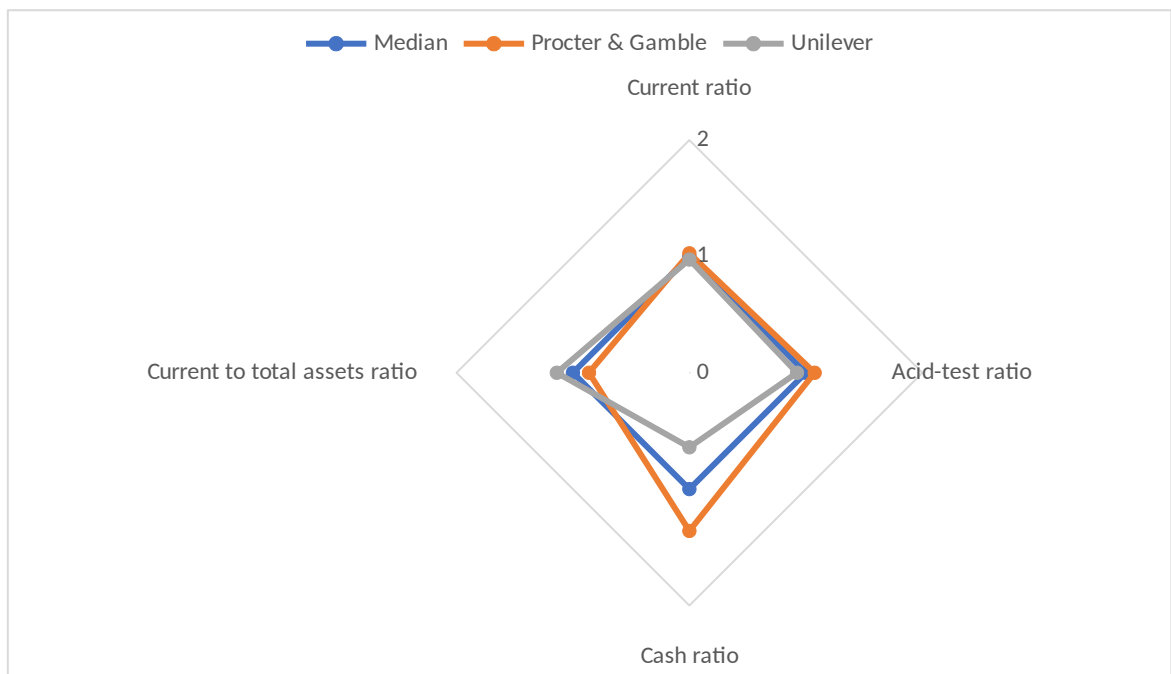
Therefore, in overall terms, the financial ratio analysis of Unilever proves the company's financial effectiveness across a range of different directions. The only negative tendencies were revealed only in activity ratios, and namely in the accounts receivable turnover.

Taking into consideration these facts, it is worth now proceeding to a comparison of Procter & Gamble and Unilever and to the discussion of the results obtained.

## 5 Results and Discussion

For comparing the results of Procter & Gamble and Unilever revealed through financial analysis, the two corporations' financial ratios have been collected together. Then, the median value was calculated. The median was thereafter assigned the value of 1, and the achievements of companies were compared against this basic median value of 1 for subsequently compiling visually clear spider graphs. Raw data are presented in Appendix C to the thesis.

Figure 1 Comparison of the liquidity ratios of Procter & Gamble and Unilever



Source: Own research

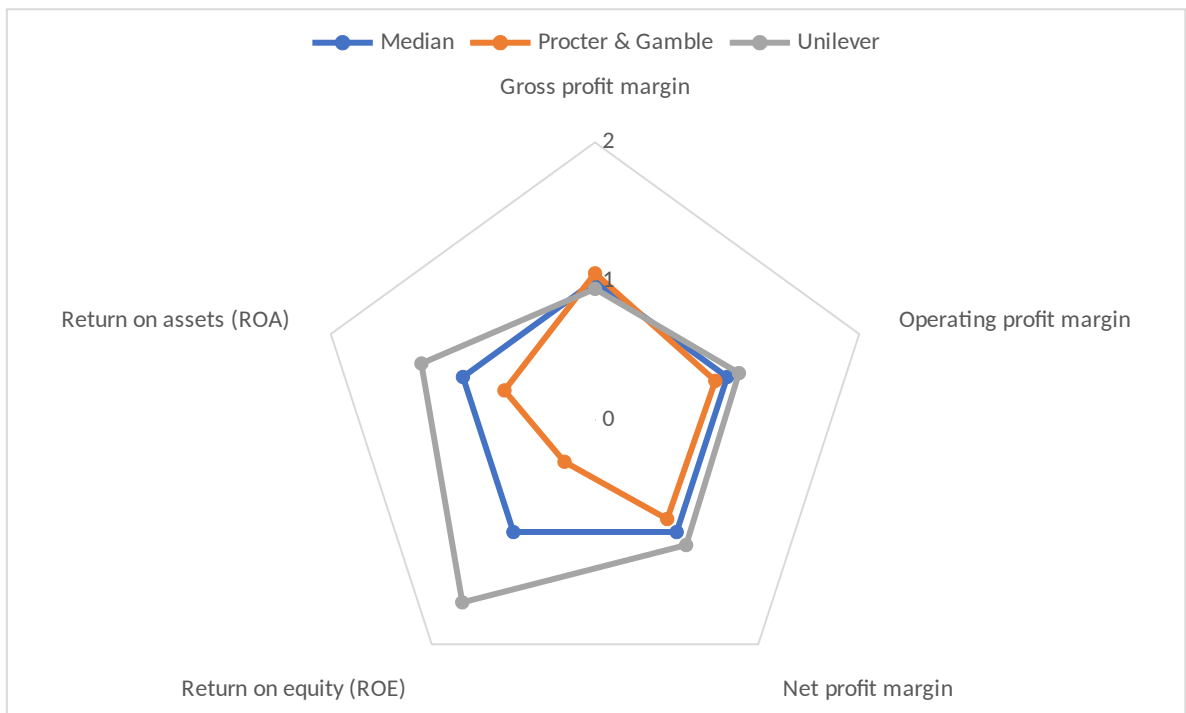
As can be seen from the figure 1, Procter & Gamble has stronger values of the current ratio, acid-test ratio, and cash ratio compared to Unilever. This proves the corporation's slightly stronger ability to repay short-term debts to third-party creditors, which is particularly noticeable when looking at the cash ratio. On the contrary, Unilever has greater current assets in the structure of total assets.



While the two companies perform well in terms of liquidity, Procter & Gamble can be recommended to monitor its situation with current assets and to ensure their sufficient value in the structure of total assets.

As the figure 2 shows, Procter & Gamble loses to Unilever across most profitability ratios, except for the gross profit margin. The difference in favor of Unilever is particularly high in terms of ROE and ROA. While the fact that Procter & Gamble performs better in terms of the gross profit margin, which is good for the long-term perspective, the company should focus on raising the quality of the use of equity and assets to generate profits.

Figure 2 Comparison of the profitability ratios of Procter & Gamble and Unilever

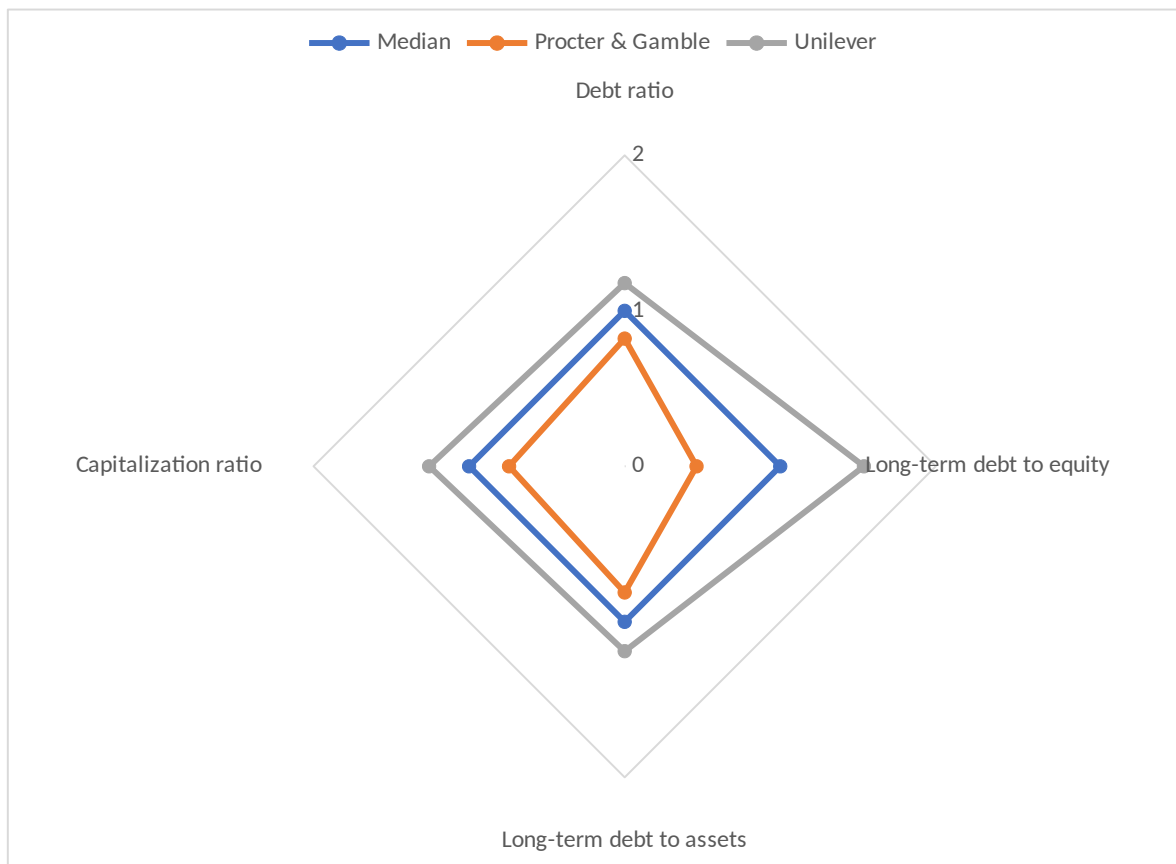


Source: Own research

As the figure 3 shows, Procter & Gamble performs better compared to Unilever across all indebtedness ratios. This allows stating that Procter & Gamble's position is more stable in terms of the ability to repay debts to third-party creditors in the long-term perspective. Also, this allows supposing that Procter & Gamble has greater opportunities of financial leverage, as the company has enough stability to borrow additional resources from third-party creditors. Again, this situation can be also explained by the processes that

took place in the period 2015-2018. The Unilever company has borrowed money from financial institutions in order to broaden its activities in other countries and build manufactures, enter new markets. P&G has sold part of its business, which was less profitable, and thus increased its profitability of equity capital and assets but earned liabilities towards Coty company. The structure of liabilities of both companies is different due to these described processes that took place in this period.

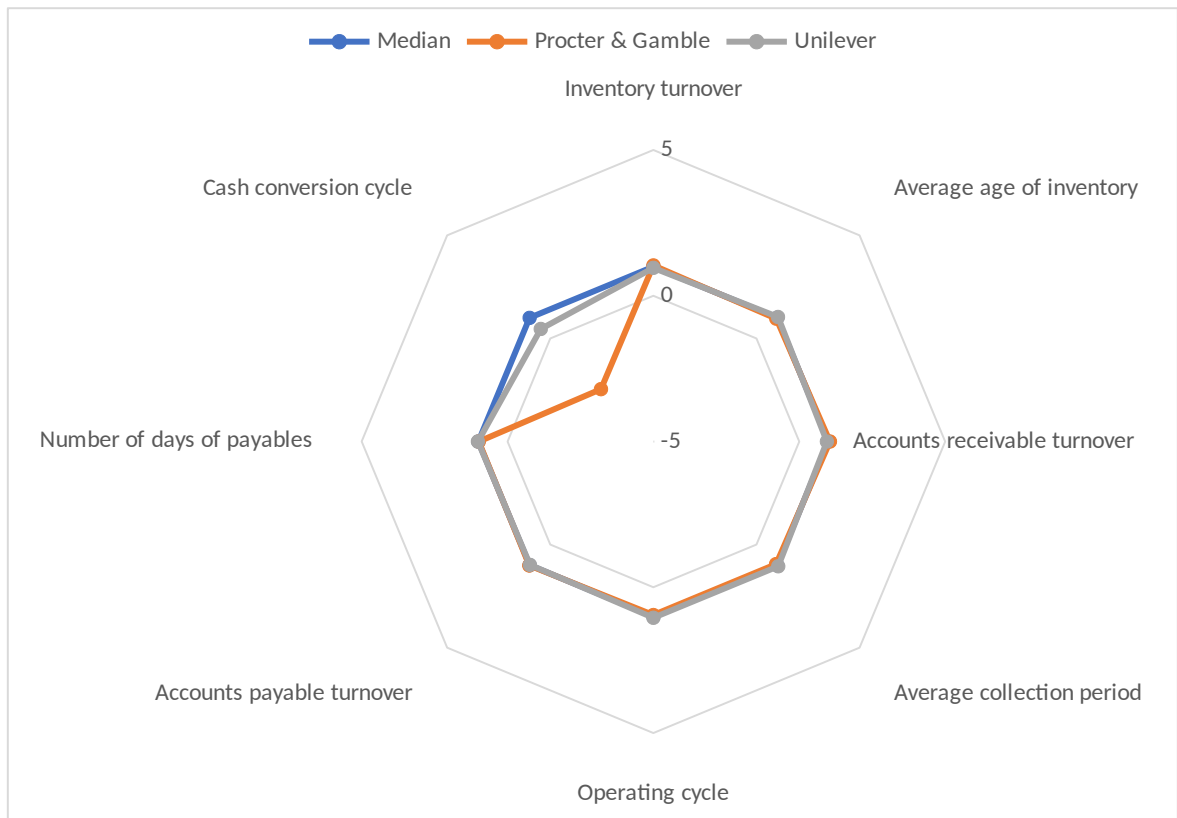
Figure 3 Comparison of the indebtedness ratios of Procter & Gamble and Unilever



Source: Own research

As the figure 4 shows, the difference in terms of the activity ratios achieved by Procter & Gamble and Unilever is small across most ratios. The only difference exists in terms of the cash conversion cycle, where Procter & Gamble outperforms Unilever, as it has a negative cash conversion cycle value.

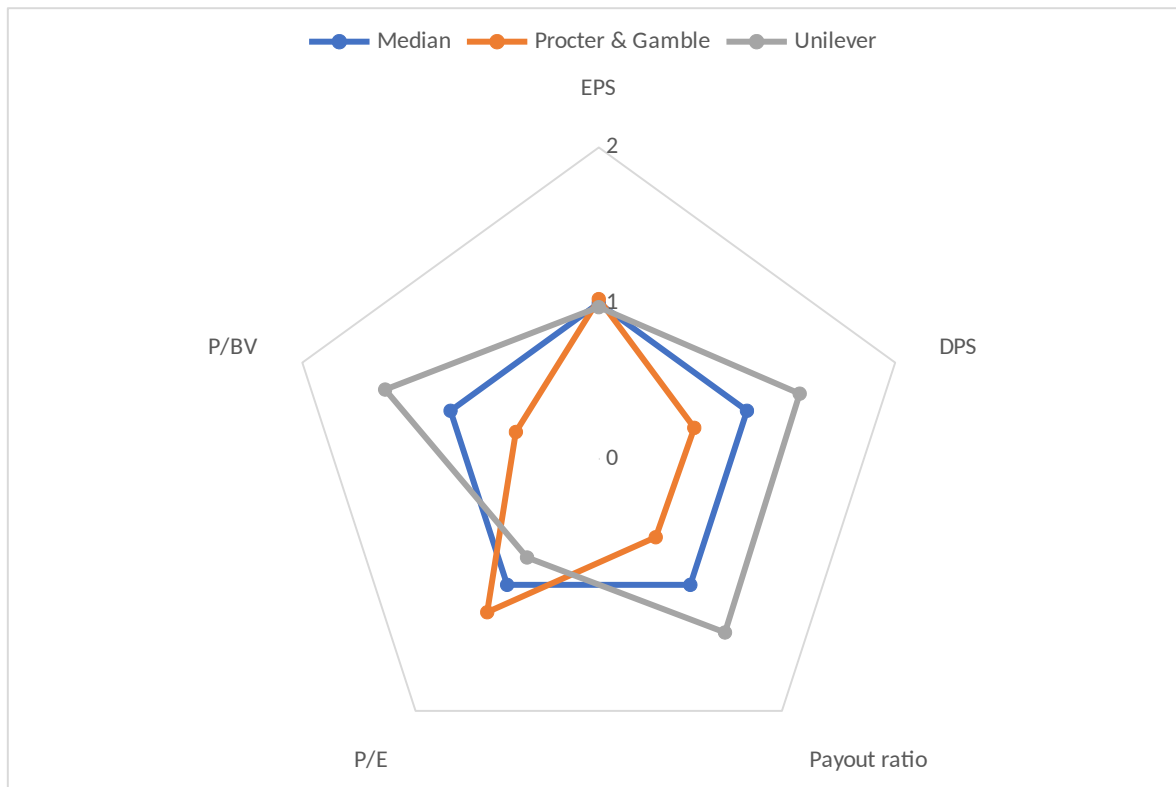
Figure 4 Comparison of the activity ratios of Procter & Gamble and Unilever



Source: Own research

From figure 5, the main conclusion can be drawn that, while there are differences between Procter & Gamble and Unilever exist in terms of EPS, P/E and P/BV, the main differences still exist in terms of DPS and the payout ratio: Unilever has higher values of these ratios, which means that the company is more attractive to potential investors. But this is only declaration, which is valid for 2017-2018, because after the sale of Beauty Brands profitability of the P&G increased because of the higher profitability of continuing projects. This profitability will lead in the nearest years to the higher payout ratio in order to attract more investors capital.

Figure 5 Comparison of the capital market ratios of Procter & Gamble and Unilever



Source: Own research

Thus, the findings of this analysis allow coming to a conclusion that, in general, the patterns of the financial performance of both Procter & Gamble and Unilever are quite similar. Both companies perform well on the market and show effective parameters identified through financial analysis. At the same time, the face-to-face comparison of the two corporations shows that the Procter & Gamble has better values of liquidity and indebtedness ratios, which means that the corporation can manage effectively its interaction with third-party creditors in both the short-term and the long-term perspectives. However, Procter & Gamble performs weaker compared to Unilever in terms of the company's net profit, ROA and ROE, and capital market ratios such as DPS and the payout ratio.

These findings allow recommending the points on which the business policies of Procter & Gamble should subsequently focus. However, they do not mean the existence of major or critical problems.

## 6 Conclusion

The findings of this research allow stating unequivocally that financial analysis is indispensable for managers to understand well the nature of their companies' activities and financial performance from different respects. By effectively applying the tools of financial analysis, companies can reveal both the strong and the weak aspects of their business performance, thus understanding where they should seek improvements and how they can use their reserves to drive greater financial performance. Financial analysis is inherently complex and makes it possible to focus on particular directions of corporate business and their individual performance. At the same time, it should be stated that financial analysis of financial reports should go hand in hand with analysis of annual reports and note to the annual reports of the companies to understand the fluctuations of financial indicators and ratios. Without notes and annual reports explaining business strategic decisions of top management there can be misunderstanding of the financial results of the companies, which can lead investors or third parties to misunderstanding of the overall results.

The research questions of the thesis were the following:

- RQ1: What are the main advantages and shortcomings of Procter & Gamble's business condition according to the findings of financial analysis?
- RQ2: How does the corporation compare to Unilever and what aspects do both companies share in similar?

Answering RQ1, it can be stated that the financial analysis revealed Procter & Gamble's overall strong and balanced business performance, with most ratios being sufficient for guaranteeing a high level of financial stability and the opportunities of subsequent business growth. Namely, Procter & Gamble has maintained steady results in terms of its liquidity and indebtedness ratios, which means that the corporation can repay its debts to third-party creditors effectively in both the short-term and the long-term perspectives. The company's profitability has remained positive in recent years, and the steadiness of the gross profit margin suggests that Procter & Gamble has stable financial results in the long-term perspective. In terms of activity ratios, the company maintains a negative cash conversions cycle thanks to its long periods of repayment to suppliers, and

this is positive in terms of the opportunities of financial maneuver. Also, the entity has maintained steadiness in terms of its capital market ratios. While analyzing annual reports and notes it was evident that particular fluctuations of the ratios and financial indicators were caused by the ongoing business processes and financial decisions of P&G resulting into the sale of one of the department (Beauty Brands) to Coty, which led to the increase of liabilities of the company towards investors and restricted capital in the company that could not be invested into ongoing processes.

The only drawback identified through financial analysis is the company's declining accounts receivable turnover, which means that the company needs more time to return its funds from debtors. In order to have greater funds at hand, Procter & Gamble should improve its cooperation with debtors and to incite them to repay earlier. But also financial indicators show that one year after the sale of Beauty Brands the company increased its profit and started to generate more profit from business activities.

Answering RQ2, it can be stated that both Procter & Gamble and Unilever are able to perform well on their target markets, and therefore the results of the financial analysis are largely similar for the two companies. Similarly to P&G, Unilever performs well across all financial ratios, with the only negative aspect being the negative dynamics of the accounts receivable turnover. In this regards, it can be explained that The Unilever group also challenged business opportunities as entering new markets and scaling its manufacturing to other European countries.

The closer comparison of the financial ratios of Procter & Gamble and Unilever revealed that P&G has higher values of liquidity ratios and indebtedness ratios, which means that the company has greater independence from third-party funding and at the same time can raise more such funding. At the same time, Unilever performs better in terms of the net profit margin, ROA, ROE, and capital market ratios such as DPS and the payout ratio. For Procter & Gamble to remain equally effective with Unilever in their business competition in the long-term perspective, the corporation should focus on improving the aspects of its financial activities outlined above.

Also, it is necessary to mention that global companies as The Unilever Group and P&G face external factors which are less probably to affect, but which are managed in terms of risk management of the companies. Those external factors are primarily foreign

trade restrictions (customs fees and quotas) in many countries where both companies operate, the fluctuations of the exchange rate and tax obligations. All of these external factors influence financial indicators and financial statements of both companies.

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## **8 Appendix**

Appendix A. Selected Financial Statements of Procter & Gamble, in USD million, except for per share items.....	66
Appendix B. Selected Financial Statements of Unilever, in USD million, except for per share items.....	67
Appendix C. Calculations for Comparative Analysis.....	68

**Appendix A. Selected Financial Statements of Procter & Gamble, in USD  
million, except for per share items**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Net sales	70 749	65 299	65 058	66 832
Net credit sales	70 893	65 371	65 279	66 924
Cost of sales	37 056	32 909	32 638	34 432
Total supplier purchases	35 276	32 646	32 546	34 546
Gross profit	33 693	32 390	32 523	32 564
Operating profit	11 049	13 441	13 955	13 711
Net profit	8 287	10 508	15 326	9 750
Number of shares, in million units	2 884	2 844	2 740	2 657
Dividends paid	1 912	1 904	1 890	1 906
Book value (per share), in USD	22,72	20,82	21,19	20,36
Market price (per share), in USD	79,41	84,08	91,88	91,18
Current assets	29 646	33 782	26 494	23 320
Inventories	4 979	4 716	4 624	4 738
Cash and cash equivalents	11 603	13 348	15 137	11 850
Trade receivables	4 301	4 373	4 594	4 686
Non-current assets	99 849	93 354	93 912	94 990
Total assets	129 495	127 136	120 406	118 310
Shareholders' equity	63 050	57 341	55 184	52 293
Current liabilities	29 790	30 770	30 210	28 237
Accounts payable	9 107	9 325	9 632	10 344
Non-current liabilities	36 655	38 383	34 418	37 190
Total liabilities	66 445	69 153	64 628	65 427
Total equity and liabilities	129 495	127 136	120 406	118 310

Source: Yahoo! Finance 2019; Procter & Gamble Investor 2019; Macrotrends 2019; Statista 2019; Guru Focus 2019; compiled by the author.

**Appendix B. Selected Financial Statements of Unilever, in USD million,  
except for per share items**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Net sales	53 272	52 713	53 715	50 982
Net credit sales	53 285	53 125	53 825	51 893
Cost of sales	30 808	30 229	30 547	28 769
Total supplier purchases	30 868	30 172	30 231	29 108
Gross profit	22 464	22 484	23 168	22 213
Operating profit	7 394	7 707	8 761	12 510
Net profit	4 909	5 184	6 053	9 389
Number of shares, in million units	2 854	2 854	2 814	2 695
Dividends paid	3 331	3 609	3 916	4 066
Book value (per share), in USD	13,10	13,44	12,68	4,82
Market price (per share), in USD	42,56	40,75	56,32	55,64
Current assets	12 686	13 884	16 983	15 481
Inventories	4 335	4 278	3 962	4 301
Cash and cash equivalents	2 639	2 169	2 361	3 910
Trade receivables	2 917	3 329	3 439	4 350
Non-current assets	39 612	42 545	43 302	43 975
Total assets	52 298	56 429	60 285	59 456
Shareholders' equity	15 439	16 355	13 629	11 572
Current liabilities	20 019	20 556	23 177	19 772
Accounts payable	8 296	8 591	8 217	9 121
Non-current liabilities	16 197	18 892	22 721	27 392
Total liabilities	36 216	39 448	45 898	47 164
Total equity and liabilities	52 298	56 429	60 285	59 456

Source: Yahoo! Finance 2019; Macrotrends 2019; Statista 2019; Guru Focus 2019; compiled by the author.

## Appendix C. Calculations for Comparative Analysis

Table 1. Absolute values

	Procter & Gamble	Unilever	Median
<b>Liquidity ratios</b>			
Current ratio	0,83	0,78	0,80
Acid-test ratio	0,66	0,57	0,61
Cash ratio	0,42	0,20	0,31
Current to total assets ratio	0,20	0,26	0,23
<b>Profitability ratios</b>			
Gross profit margin	0,49	0,44	0,46
Operating profit margin	0,21	0,25	0,23
Net profit margin	0,15	0,18	0,17
Return on equity (ROE)	0,19	0,81	0,50
Return on assets (ROA)	0,08	0,16	0,12
<b>Indebtedness ratios</b>			
Debt ratio	0,55	0,79	0,67
Long-term debt to equity	0,71	2,37	1,54
Long-term debt to assets	0,31	0,46	0,39
Capitalization ratio	0,42	0,70	0,56
<b>Activity ratios</b>			
Inventory turnover	7,27	6,69	6,98
Average age of inventory	50,23	54,57	52,40
Accounts receivable turnover	7,35	6,61	6,98
Average collection period	49,67	55,19	52,43
Operating cycle	99,90	109,76	104,83
Accounts payable turnover	3,46	3,36	3,41
Number of days of payables	105,53	108,70	107,12
Cash conversion cycle	-5,63	1,05	-2,29
<b>Capital market ratios</b>			
Earnings per share (EPS), in USD	3,67	3,48	3,58
Dividends per share (DPS), in USD	0,72	1,51	1,11
Payout ratio	0,20	0,43	0,31
P/E	24,85	15,97	20,41
P/BV	4,48	11,54	8,01

Source: Own research.

Table 2. Relative values

<b>Liquidity ratios</b>	Median	Procter & Gamble	Unilever
Current ratio	1	1,03	0,97
Acid-test ratio	1	1,08	0,92
Cash ratio	1	1,36	0,64
Current to total assets ratio	1	0,86	1,14

<b>Profitability ratios</b>	Median	Procter & Gamble	Unilever
Gross profit margin	1	1,06	0,94
Operating profit margin	1	0,91	1,09
Net profit margin	1	0,88	1,12
Return on equity (ROE)	1	0,37	1,63
Return on assets (ROA)	1	0,69	1,31
<b>Indebtedness ratios</b>	Median	Procter & Gamble	Unilever
Debt ratio	1	0,82	1,18
Long-term debt to equity	1	0,46	1,54
Long-term debt to assets	1	0,81	1,19
Capitalization ratio	1	0,74	1,26
<b>Activity ratios</b>	Median	Procter & Gamble	Unilever
Inventory turnover	1	1,04	0,96
Average age of inventory	1	0,96	1,04
Accounts receivable turnover	1	1,05	0,95
Average collection period	1	0,95	1,05
Operating cycle	1	0,95	1,05
Accounts payable turnover	1	1,01	0,99
Number of days of payables	1	0,99	1,01
Cash conversion cycle	1	2,46	-0,46
<b>Capital market ratios</b>	Median	Procter & Gamble	Unilever
EPS	1	1,03	0,97
DPS	1	0,64	1,36
Payout ratio	1	0,62	1,38
P/E	1	1,22	0,78
P/BV	1	0,56	1,44

Source: Own research.

