TALLINN UNIVERSITY OF TECHNOLOGY
School of Business and Governance
Department of Business Administration

Helina Meier

A GLANCE INTO THE WORLD OF LUXURY: FINANCIAL RATIO ANALYSIS OF LVMH 2008-2018

Bachelor's thesis

International Business Administration, Finance and Accounting

Supervisor: Vaiva Kiaupaite-Grušniene, PhD

Tallinn 2020

I hereby declare that I have compiled the thesis independently
and all works, important standpoints and data by other authors
have been properly referenced and the same paper
has not been previously presented for grading.
The document length is 8946 words from the introduction to the end of conclusion.

Helina Meier ……………………………
(signature, date)

Student code: 179940TVTB

Student e-mail address: helina.meier@gmail.com

Supervisor: Vaiva Kiaupaite-Grušniene, PhD:
The paper conforms to requirements in force

……………………………………………
(signature, date)

Chairman of the Defence Committee:
Permitted to the defence
…………………………………
(name, signature, date)

TABLE OF CONTENTS

ABSTRACT

The luxury goods industry has more than tripled in value since 1998 and the biggest contributor to the sector’s sales is the French conglomerate LVMH, which has experienced an average sales growth rate of 11% in the last ten years. The corporation was founded just 33 years ago but has managed to build a portfolio of 75 different brands from six different sectors.

The aim of this paper is to evaluate the financial performance of the chosen luxury group by applying financial ratio analysis. The paper provides an insight on a total of eight different liquidity, profitability, solvency and efficiency ratios. These ratios were chosen, because they reflect both the financial performance and condition of the enterprise, based on the information the author has access to.

Another aim is to find out whether financial ratios are enough to analyse a company of this size. The ratios are calculated from the company’s financial statements based on years 2008-2018 and a horizontal ratio analysis is provided for this timeframe, followed by an industry comparison of profitability ratios and cross-sectional analysis. There is also a brief overview of the company’s revenues by business segment and geographical region.

The author’s personal aim is to gain additional knowledge and experience in analysing financial statements with financial ratios.

Keywords: Financial ratio, Financial ratio analysis, Horizontal analysis, Louis Vuitton Moët Hennessy, luxury goods

INTRODUCTION

This thesis paper is a financial ratio analysis of the french luxury goods group Louis Vuitton Moët Hennessy Société Européenne (LVMH). The topic was chosen by the author from personal interests in financial analysis and the luxury goods industry. LVMH is the most diversified and largest luxury conglormerate, which made it an interesting research subject.

The paper is composed of theoretical and empirical chapters.
The theoretical part of this paper mostly consists of information about financial ratios and their application in financial analysis. The usage, meaning, importance, advantages and disadvantages of each ratio will be covered in this chapter and then utilised in the following, empirical chapter. The empirical chapter presents the ratio results of the chosen firm with various charts. Based on the data, a performance analysis of the company is made and additional relevant information is provided to further explain the meaning of the results.

The research questions of this paper are combined of theoretical and empirical, company analysis related, questions. The questions that the author seeks to answer, are following:

1. Why are financial ratios used? Which of the chosen ratios provides the most useful information about the company? Why?
2. Are financial ratios enough to analyse a company of this size? Why or why not? How have the company's ratios changed throughout the years? What might be the reasons?
3. How do the different business fields contribute to the company's revenues?
4. Where geographically LVMH earns most of its revenue and how has it proportionally changed during the years? What has affected it?
5. How does LVMH financially perform compared to its' competitors?

The first part of the paper will give an overview about LVMH and the luxury goods industry it operates in. It provides general information about LVMH and its' history followed by the insights

about the industry and its' increasing value. Finally, it gives a rough overview of two LVMH's biggest multi-brand competitors – Kering and Richemont.
In the following chapter, the author will also provide theoretical and methodological information about financial ratios, their formulas, usage and analysis techniques. It aims to give a clear overview of each ratio and its' meaning while also explaining their importance. The 8 financial ratios used in this paper are liquidity, profitability, solvency and efficiency ratios. The other half of the paper will include a 11-year horizontal analysis of the firm for the years 2008-2018, industry comparison of profitabilty ratios and growth rates, followed by a cross-sectional analysis of LVMH and its' two main competitors. After this, final conclusions and research questions' answers are provided by the author. The list of references and appendices are included at the end of the paper.

The author would like to thank her supervisor Vaiva Kiaupaite-Grušniene for professional guidance and constructive feedback and her close friends and family, who helped to stay motivated and supported the finalisation of the paper.

1. LUXURY GOODS

1.1. Overview of Louis Vuitton Moët Hennessy

The LVMH Group was founded in 1987 in a merger between Louis Vuitton and Moët Hennessy. The luxury group currently operates 75 brands in six different sectors - wines and spirits, fashion and leather goods, perfumes and cosmetics, watches and jewellery, selective retailing and a few other activities (journalism, hospitality, yachts). The firm has both heritage and emerging brands in their portfolio, newest of them being FENTY, which was founded in 2019 in collaboration with Robyn Rihanna Fenty (LVMH, 2020). The group earned a revenue of €46,826,000,000 in 2018 (LVMH, 2018).

As LVMH depends on a large variety of natural resources to manufacture their products, they have set long-term sustainability goals since the founding of the group. Being a market leader means the company has an opportunity to lead the change in social and environmental responsibilities and encourage competitors to follow these principles. In 2001, the group was first in the luxury goods sector to publish an environmental report and have continued to do so annually since then (LVMH, 2020).

Their headquarters are located in Paris, France and they operate over 4,900 stores across the world. LVMH currently employs around 156,000 people internationally and the group's chief executive officer since 1989 has been Bernard Arnault. He is also the President of the Board of Directors of his family holding company Groupe Arnault, which contributes 47.2% of LVMH's capital structure. (LVMH, 2020). He is the wealthiest person in Europe and third-richest in the world, after Jeff Bezos and Bill Gates (Warren & Rogers, 2020).

The Group prepares their financial documents in accordance with the international accounting standards and intepretations (IAS/IFRS) since 2005 and is listed on the Euronext Paris stock exchange (LVMH, 2018).

1.2. Overview of the industry

Luxury goods are considered to be at the highest end of the market by their price and quality. There is a wide range of luxury products – accessories, apparel, shoes, furniture, appliances, consumer electronics, vehicles, food and drinks, toys, cosmetics, and so many more categories (Silverstein & Fiske, 2003). Luxury goods are not deemed as essentials and the main consumer group is wealthy people, who purchase luxury goods to show off their wealth, which is known as conspicuous consumption. Luxury items are therefore mainly used to show an individual’s social status in the society (Kenton, 2018).

The global luxury market is seen as procyclical, as it depends on the condition of the economy. If the economy is in a crisis, downfall, growth or stable state, the luxury market will act similarly, as they are positively correlated. This is due to consumer behaviour, which changes during different states of the economy (O'Connell, 2020). Luxury goods also have a high income elasticity of demand, which means that the demand for these products is more responsive and depends on an individual’s income level (Agarwal, 2019).

The luxury goods industry is sensitive to any events that have an effect the global economy. Based on Figure 1.1, it can be seen that the 2002 standstill and slight drop in value in 2003 can be related to the SARS (Severe Acute Respiratory Syndrome) outbreak, which caused a total global economic loss of roughly 40 billion dollars (Lee & McKibbin, 2004). It can also be seen how the financial crisis, which began in 2008, significantly affected sales in 2009 but the industry recovered already in the following year. The 1 billion drop in 2016 can be related to the chinese stock market crash, or even political events such as the Brexit vote or Donald Trump winning the presidential elections, causing uncertainty among consumers due to changing policies (Dutt, 2016).

In general, the luxury goods market has shown rather steady growth, reaching the peak in 2019 with a total value of 281 billion euros, having tripled in value in 21 years.

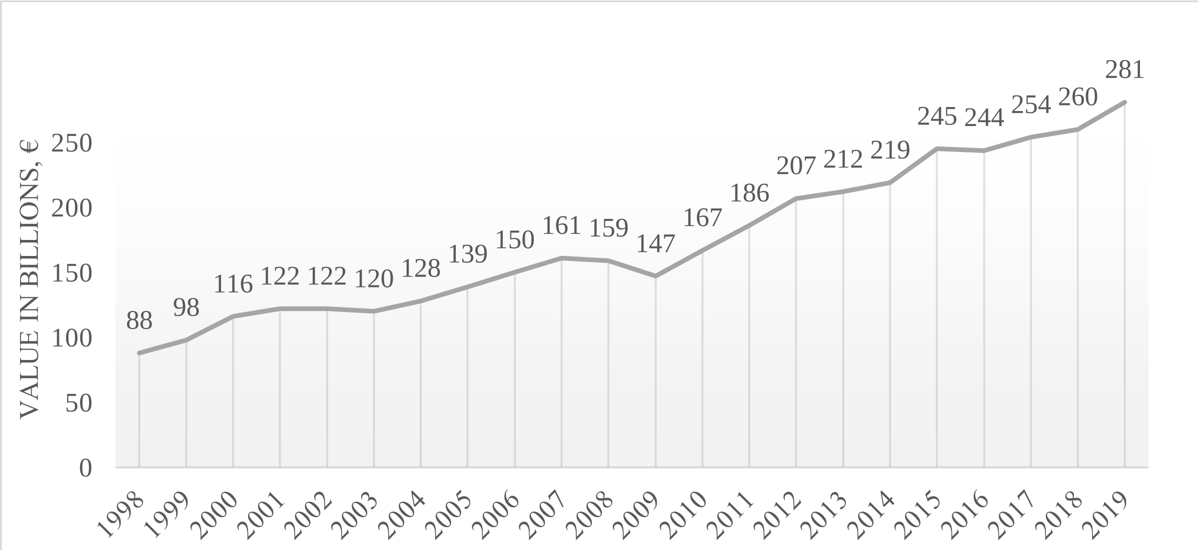


Figure 1.1. Value of Global Personal Luxury Goods Industry
Source: (O'Connell, 2020)

The luxury sector, based on the data above, has had an average growth rate of 5.9% throughout the years and has only experienced negative growth four times, during years 2003, 2008, 2009 and 2016, as seen in Figure 1.2. The biggest drop was -7.5% in 2009 due to the extremely unfavourable economic situation, caused by a combination of global macroeconomic factors. The industry reached its' peak growth rate in 2000, with a value of 18.4%. Overall, since the market is affected by the general state of the economy and has a rather low growth rate, it can be concluded that the luxury goods market is a mature market.

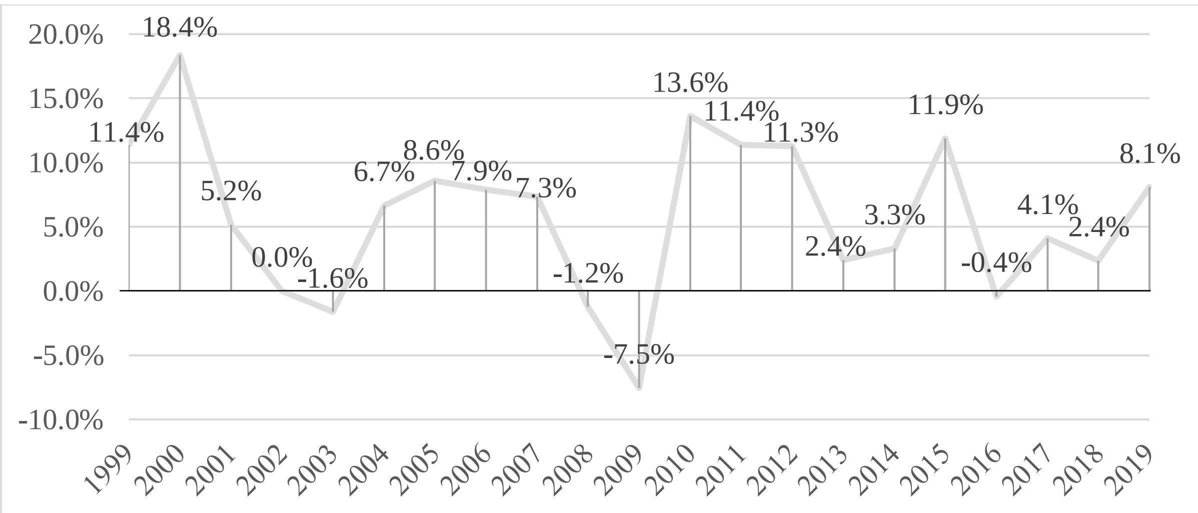


Figure 1.2. Industry growth rate 1999-2019
Source: Based on author’s calculations from Figure 1.1

LVMH is the leading company in the luxury goods industry by sales, followed by The Estée Lauder Companies and Compagnie Financière Richemont. The leading top 10 firms in the industry, by sales, account for 52.8% of total revenues in the top 100 (Arienti, Global Powers of Luxury Goods 2019, 2019).

Clothing and footwear companies have the highest concentration in the sector but the perfume and cosmetics companies are experiencing the fastest growth, 7.6%, due to consumers' increased desire for luxury beauty products. This growth is also influenced by social media marketing and making products available online and more accessible (Arienti, Global Powers of Luxury Goods 2019, 2019).

In the industry's top 100 performers by revenues, the most number of companies are from Italy (24), United States (14) and United Kingdom (10) but France achieved the highest sales growth rate in the sector (18.7%). The industry is easily affected by international relations and politics - strict trade policies and tariffs can lower consumer purchasing power and impose higher production costs for firms (Arienti, Global Powers of Luxury Goods 2019, 2019).

In 2018, online luxury shopping accounted for 10% of all luxury sales, coming to a total of €27 billion (D'Arpizio, Levato, Prete, Fabbro, & Montgolfier, 2019). In addition, the luxury second-hand market is worth €22 billion, and is expected to grow 9% faster than the total market size. The main drivers for this growth are sustainability, broader accessibility and cheaper prices. Chinese customers purchases' make up approximately 33% of the whole market and they are expected to rise up to 40% in the following five years (Boston Consulting Goods, 2019).

Nearly half of luxury consumers are from generation Y and Z, therefore brands are adjusting their products, communications and distirbution channels to fit their needs (D'Arpizio, Levato, Prete, Fabbro, & Montgolfier, 2019).

1.3. Overview of competitors

Although LVMH is considered to be the leader of the luxury goods market, the company's biggest competitors remain to be Compagnie Financière Richemont SA and Kering SA, as they manage and own several large and well-known brands in the luxury market as well. Other individual brands, such as Chanel or Hermès, also offer respectable competition to LVMH with their incredibly high profit margins.

Both Kering and Richemont prepare their financial documents in accordance with IFRS standards.

Kering was founded in 1963, in Rennes, France, by François Pinault and was originally named Établissements Pinault and it used to be a timber trading company. After acquiring Le Printemps and an equity stake in La Redoute, it was named Pinault Printemps Redoute in 1994 and shortened to PPR in 2005. Finally in 2013, PPR was changed to Kering and adopted a new visual identity (Kering, 2020). The change of identity also resulted in Kering selling off their two retail and several sportswear brands, including their ownership in Puma, to become a pure luxury company. Kering operates in three sectors, owning a total of 14 brands in fashion and leather goods, watches and jewellry and eyewear. Their most well-known brands include names such as Gucci, Saint Laurent and Balenciaga (Kering, 2020). For the firm's eyewear sector, Kering created Kering Eyewear in 2014, which is a part of the group but has a partnership agreement with Richemont since 2017. As a result of the agreement, Richemont also became a shareholder in Kering Eyewear (Kering, 2020).

Similarly to LVMH, their headquarters are located in Paris, France. 41% of Kering is owned by Artémis, which is the holding company controlled by the Pinault family. Kering's CEO since 2005 has been François-Henri Pinault and the group employs 38,000 people across the globe. The firm earned a revenue of €13,665,200,000 in 2018 (Kering, 2020).

Richemont was founded a year after LVMH, in 1988, by Johann Rupert with international assets of Rembrandt Group Limited of South Africa. It was founded in Geneva, Switzerland but is currently headquartered in Bellevue, Switzerland, being the only firm out of the three which was not founded in France nor currently located there (Richemont, 2020).

Richemont owns 20 luxury brands in four different sectors, such as jewellry, watches, online distributors and others (which includes mostly fashion and leather goods). The watches segment is their largest, but the firm's most iconic and well-known brand is Cartier, a french jewellry producer (Richemont, 2020). Previously, Richemont had investments in the tobacco sector, mainly in British American Tobacco. In 2008, the group announced a restructuring, where all non-luxury interests were separated from the group, similarly to Kering (Richemont, 2020).

The current CEO is Jérôme Lambert and the firm has around 28,000 employees worldwide. Richemont's revenue in 2018 amounted to a total of €10,979,000,000 (Richemont, 2020).

2. FINANCIAL RATIOS

A ratio is an expression of a mathematical relationship between two quantities (Weygandt, Kimmel, & Kieso, 2015). Financial ratios are used to give individual absolute amounts on financial statements a clear relationship between them (Pendlebury & Groves, 2004). As competitive companies can be of different size, financial ratios make it easier to compare two different sized firms in an industry.

There are hundreds of financial ratios which help to analyse trends and forecast performance (Krylov, 2018). Ratios can also be used to set targets in the same way as absolute targets are set, like profit or sales (Pendlebury & Groves, 2004). They help to conveniently generalise large amounts of financial data. The ratio itself does not mean much itself – it is needed to understand the ratio's formula or have relevant comparative data to analyse it (Krylov, 2018).

Financial ratios are useful for financial statement users due to their simplicity. The users of financial statements can be divided into two categories – internal and external users (Ross, Westerfield, & Jordan, 2013). Internal users can be the owners, management and employees. External users are creditors, clients, suppliers, jobseekers, media, competitors, lawyers, public sector and local people.

Management is interested in all ratios, as they must evaluate the performance and condition of the business and analyse the data from both creditors' and investors' perspective. Suppliers, customers and creditors use mostly liquidity ratios to be sure that the company can survive in the short term. In addition to liquidity ratios, employees and creditors also use profitability ratios to make sure the firm can continue making regular payments (salaries, interest payments). The owners and investors mainly look for profitability ratios, as they are more interested in the growth of the company and the safety of their investment. The public sector also looks at profitability ratios, as they use profit for basis of taxation or different grants (Siimann, 2020).

2.1. Financial ratio analysis

Financial ratio analysis is usually performed in three ways – time-series, cross-sectional or comparing ratios to a benchmark, which most ratios do not actually have, or differ between industries. The goal is to assess a firm's performance and effectiveness in operating, investment, financing and dividend management (Palepu & Healy, 2013). The analysis of financial ratios also helps to evaluate achievement in the company and use this information for further planning (Husna & Desiyanti, 2016).

The ratios in this paper are from the liquidity, profitability, solvency and efficiency categories. The first three, liquidity, profitability and solvency, are considered as the most important categories in corporate finance, because if these ratios meet the industry norms, the company is able to survive. (Samonas, 2015)

Even though ratios are attractive analysis tools due to their simplicity, there are many limitations regarding ratio analysis. The biggest limitation comes from the consistency and comparability of accounting policies and procedures. This limitation is the most relevant when performing industry comparisons but can also cause issues when doing a time-series analysis on a single company. If the company has changing policies, it is difficult to provide an accurate assessment of its results throughout the years (Kieso, Weygandt, & Warfield, 2011).

2.1.1. Liquidity

Liquidity ratios are used to determine how quickly assets can be turned into cash and whether the company is able to meet its short-term obligations. The liquidity requirements differ in industries, but overall large companies can control their liquidity better than smaller companies, as they have access to more different funding sources. Liquidity also impacts a company's ability to take on additional debt (Henry, Robinson, & Greuning, 2011).

In this paper, current and quick ratios will be used to measure LVMH's liquidity. The disadvantage of using current and quick ratios to analyse liquidity, is that these ratios ignore the timing of cash receipts and payments. Also, if a company only has inventory as a current asset, it does not reflect the firm's ability to survive accurately (Samonas, 2015). Well-established corporations can have low liquidity, as they are not concerned about having cash on hand. These firms believe that if cash is needed, it is possible to acquire it easily (Sherman, 2015).

Current Ratio

The first ratio that will be used in this paper is the current ratio, which is the relationship between current assets and current liabilities. It is used to evaluate a company's liquidity and its ability to pay off short-term loans (Weygandt, Kimmel, & Kieso, 2015). A ratio of 1.0 indicates that the book value of current assets and current liabilities is equal. A higher current ratio refers to a higher liquidity, therefore the company has a greater ability to meet its short-term commitments. A lower ratio shows the dependence on operating cash flows and outside funding for meeting short-term obligations (Henry, Robinson, & Greuning, 2011).

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

Figure 2.1. Current Ratio
Source: (Ross, Westerfield, & Jordan, 2013)

One of the biggest disadvantages of the current ratio is that by considering inventory, the ratio can wrongly represent the company's liquidity health. The ratio can also be manipulated by the methodology that the company uses to evaluate its inventory. For companies with seasonal sales, this ratio can be very unstable and not provide an accurate overview of the firm's liquidity (Borad S. B., 2019).

Quick Ratio

The quick ratio (known also as acid-test ratio) is often referred as a more accurate indicator of liquidity than the current ratio. This is due to it not considering inventory as a liquid asset, as it is considered to be harder to quickly convert into cash. In terms of the ratio's value, its interpretation is similar to the current ratio. The higher the result, the more liquid is the company and lower results indicate struggles to meet short-term commitments (Henry, Robinson, & Greuning, 2011).

$$Quick\ Ratio = \frac{Cash + Short\text{–}Term\ Investments + Accounts\ Receivable}{Current\ Liabilities}$$

Figure 2.2. Quick Ratio
Source: (Weygandt, Kimmel, & Kieso, 2015)

Quick ratio can also be defined as an immediate liquidity ratio, as it only contains assets that can instantly be converted to cash. The ratio alone can be misleading for some business models or industries, where there are higher levels of inventory (Borad S. B., 2020).

2.1.2. Profitability

Profitability ratios show a company's earning power and are often used to assess management's operating quality and effectiveness. A firm's profitability impacts its' growth and capability to acquire debt. (Weygandt, Kimmel, & Kieso, 2015). If a company is profitable, the earnings can be reinvested in the company for increasing solvency or be paid out to shareholders. For each profitability ratio used, a higher ratio indicates a higher profitability (Henry, Robinson, & Greuning, 2011). Profitability ratios can be divided into two groups – margins and returns. Margins represent the company's ability to turn sales into profits and returns show the firm's capability to generate returns for its shareholders (Goel, 2016).

The ratios that will be used to measure LVMH's profitability are return on assets, return on equity and profit margin. All these ratios have net income as their numerator. In this paper, net income is considered to be the net profit line on the income statement. The calculation of LVMH's net profit can be seen in its' income statement in Appendix 2.

Profitability ratios depend on several calculations, done before entering values on financial statements. Errors or attempts of fraud in a line item can severely affect the ratio results and can be detrimental to the company's future and a danger to investors. As profitability is generally considered to be the most important factor in doing business, having desirable results in this area, to lure in investors for example, can cause some higher management individuals to manipulate a firm's financial results (Trussel, 2003).

Return on Assets

The return on assets (ROA) ratio is calculated by dividing net income with average assets. Average assets are calculated by adding up assets from the current and previous year and then dividing it by two. ROA shows how effective a company is in using its assets to generate profits. If ROA is considered to be too high, it might reveal that the company is not purchasing new equipment and avoiding investment in new machinery, which can have damaging effects in the long run and slow down growth (Gallo, 2016).

$$Return\ on\ Assets = \frac{Net\ Income}{Average\ Assets}$$

Figure 2.3. Return on Assets
Source: (Weygandt, Kimmel, & Kieso, 2015)

ROA expresses how much income is generated from each euro in assets (Ross, Westerfield, & Jordan, 2013).

Return on Equity

The Return on Equity (ROE) shows how much profit was generated from every euro in equity, by dividing net income with average equity. Similarly to ROA, the denominator will be computed by adding up current and previous year's equity and dividing it by two. If ROE exceeds ROA, it reflects the useage of financial leverage. ROE can be referred to as the truest measure of performance in accounting terms (Ross, Westerfield, & Jordan, 2013). This is the most important ratio for shareholders, as it shows whether the company is generating enough profits to compensate for the risk of being a shareholder (Samonas, 2015).

$$Return\ on\ Equity = \frac{Net\ Income}{Average\ Equity}$$

Figure 2.4. Return on Equity
Source: (Henry, Robinson, & Greuning, 2011)

ROE, as other ratios, should be viewed with caution, as it can be misleading at times. ROE can be artificially boosted with reductions in shareholders' equity, for example with the buyback of shares (Borad S. B., 2019).

Profit Margin

Profit margin, one of the most commonly used profitability ratios, shows the percentage of how much each euro in sales contributes to the net income (Weygandt, Kimmel, & Kieso, 2015).

$$Profit\ \ Margin = \frac{Net\ Income}{Net\ Sales}$$

Figure 2.5. Profit Margin
Source: (Weygandt, Kimmel, & Kieso, 2015)

A high profit margin is generally desired but having high-priced products can slow down inventory turnover. Whereas lowering sales price can increase a company's selling volume but will lower the profit margin. (Ross, Westerfield, & Jordan, 2013)

2.1.3. Solvency and efficiency

Solvency ratios are used to evaluate a firm's capability to meet its' long-term obligations. They can also be referred as leverage ratios, as they aim to understand a company's use of debt (Henry, Robinson, & Greuning, 2011). The amount of debt in a company's capital structure reveals its risks and provide an insight about the future, as managements' financial decisions can signal beliefs about the company's future prospects (Robinson, Greuning, Broihahn, & Henry, 2008). The ratio used to measure LVMH's solvency is the debt-to-equity ratio.

Debt-to-Equity

If the debt-to-equity ratio is high, it indicates low solvency and can put a company at risk (Henry, Robinson, & Greuning, 2011). But if it is very low, it can mean that the firm is limiting its' growth potential by not taking on any debt and therefore hurting the returns of the shareholders (Samonas, 2015).

$$Debt\text{–}to\text{–}Equity = \frac{Total\ Debt}{Total\ Equity}$$

Figure 2.6. Debt-to-Equity
Source: (White & Ashwinpaul C. Sondhi, 1998)

A ratio of 1.0 indicates an equal amount of debt and equity and all values above or below it indicate high or low risk accordingly (Robinson, Greuning, Broihahn, & Henry, 2008).

Efficiency ratios, known as activity ratios, are used to indicate how well a company is performing in terms of their asset usage. Since both balance sheet and income statement data is used, average balance sheet data is used to provide better consistency. (Henry, Robinson, & Greuning, 2011) These ratios also affect performance indicators such as liquidity and profitability and can be used to forecast long- and short-term capital requirements. A high ratio indicates that the firm is operating efficiently and requires less assets to generate sales (White & Ashwinpaul C. Sondhi, 1998). The efficiency ratios used in this paper are total asset turnover and inventory turnover.

Total Asset Turnover

Total Asset turnover ratio shows how much revenue is being generated from each euro in average assets. A higher ratio indicates better efficiency (Henry, Robinson, & Greuning, 2011). Since the total average assets consists of current and fixed assets, the inefficient working capital management can misrepresent the results. The ratio also reveals managerial decisions, whether the company is more capital- or labour-intensive, causing respectively low and high ratio results (Robinson, Greuning, Broihahn, & Henry, 2008). Low turnover ratio can also indicate high fixed costs or automation in production, for example. Non-operating assets or land and buildings can have a significant influence on the result.

$$Total\ Asset\ Turnover = \frac{Net\ Sales}{Average\ Assets}$$

Figure 2.7. Total Asset Turnover
Source: (Henry, Robinson, & Greuning, 2011)

The ratio can also be expressed in days, by dividing the number of days in a year (365) with the ratio result. The answer will show how many days it takes to bring in the value of total assets (Wulf & Wieland, 2013).

Inventory turnover

The inventory turnover ratio is used to assess a company's inventory management efficiency. It is done by dividing the cost of goods sold by the average inventory of the current and previous year. If inventory turnover is considered to be high, it refers to quickly selling out and not having products spend a lot of time in the warehouse or stores. (White & Ashwinpaul C. Sondhi, 1998)

Therefore, if inventory turnover is low, it can indicate overstocking, outdated inventory or selling issues. It can also indicate a large investment in inventory.

$$Inventory\ Turnover = \frac{Cost\ of\ Goods\ Sold}{Average\ Inventory}$$

Figure 2.8. Inventory Turnover
Source: (Weygandt, Kimmel, & Kieso, 2015)

When dividing the amount of days in a year (365) with the inventory turnover ratio result, the result will indicate how many days the company is able to support its sales with inventory (Sherman, 2015).

In the following chapter, all these mentioned ratios, from Figure 2.1 to Figure 2.8, will be used to perform a horizontal and cross-sectional analysis of LVMH and its' competitors – Kering and Richemont. These ratios were chosen, because they reflect both the financial performance and condition of the enterprises. The cross-sectional analysis will help to validate and give additional context to LVMH's ratio results. Since all three companies are of different size, ratios will help to standardise and compare the firms' financial statements with ease. When performing ratio analysis, it is important to keep in mind to always look behind the numbers and understand what managerial decisions or events happened that have had an impact on the firms' financial statements and ratio results.

3. LOUIS VUITTON MOËT HENNESSY SE ANALYSIS

When analysing LVMH, it is important to know how much each segment actually contributes to its' revenue, as it roughly reflects the actual size of each segment. From the following pie chart in Figure 3.1, based on 2018 financial data, it can be seen that fashion and leather goods (38%) is the largest contributor to LVMH's revenue, followed by the selective retailing segment (28%). These are the top performers due to their popularity and large size of the consumer base. The most well-known brand in LVMH's selective retailing segment is Sephora, which has stores all over the world and is a beauty retailer for 300 brands and the main performance driver for the segment (LVMH, 2018).

Watches and jewelry only contributes 9% to revenues, as it is considered to be more of a niche market with higher price points and LVMH only owns six brands in the segment. As LVMH is finalizing a deal with Tiffany & Co., they will noticeably increase their watches and jewelry segment's revenue, as Tiffany's revenue in 2018 was 4.4 billion dollars. (Tiffany & Co., 2018)

The perfumes and cosmetics segment contributes 13% to LVMH's revenue, but due to the increasing popularity of these products, it is expected to keep growing (LVMH, 2018).

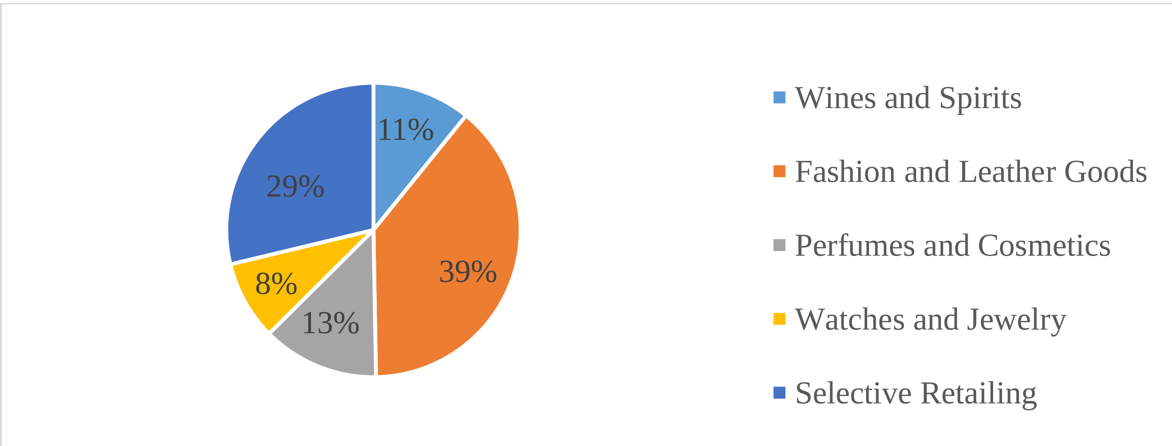


Figure 3.1. LVMH Revenue segments 2018
Source: (LVMH, 2018)

During these 11 years, LVMH's relative contributions to revenues from different geographical regions have changed according to the industry predictions and economic developments.
The biggest change from 2008, as seen in Figure 3.2, has been in the Asia region (+9%), which now accounts almost a third of LVMH's total revenues. The Asia region growth is due to the increasing market size of wealthy Chinese customers, which is predicted to keep increasing in the following years. This increase of course means that there has to be a percentual decrease in other regions, which in this case are Europe (-5%) and France (-4%) whose relative contribution to LVMH's revenues has decreased the most. There is also a notable decrease in Japan (-3%).
The reason Japan is separate from Asia and France separate from Europe, is due to the large size of these individual markets. Other markets and the United States have remained stable with a small growth of 2% and 1% respectively.

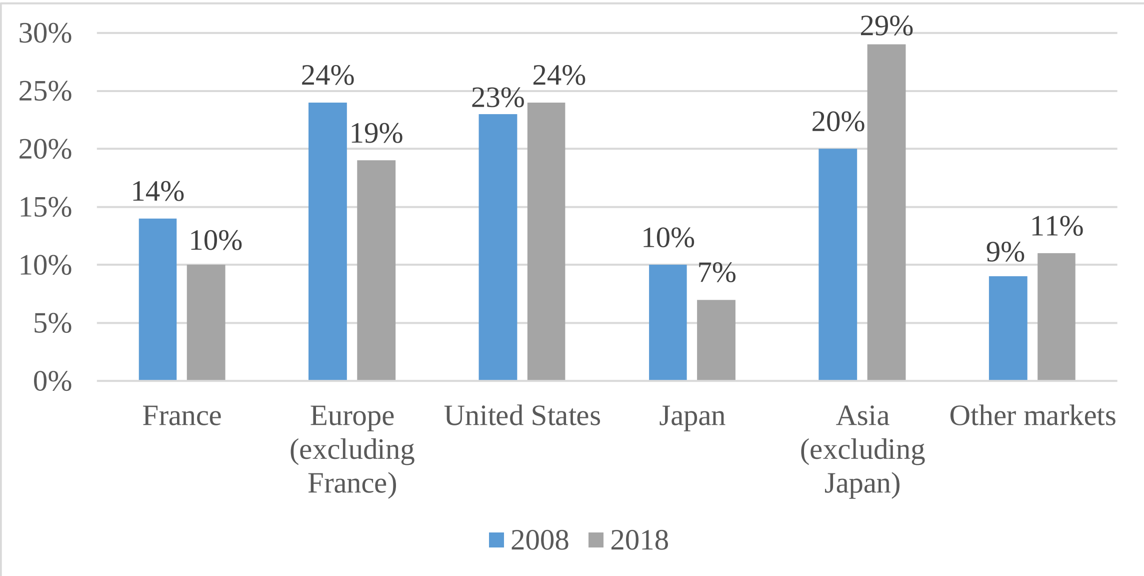


Figure 3.2. LVMH Geographical Revenues, %
Source: (LVMH, 2008), (LVMH, 2018)

3.1. Horizontal analysis

Horizontal analysis, also known as trend analysis, is a financial analysis technique, where series of financial data is evaluated over periods of time. It is used for intracompany comparisons to determine changes in trends and financial relationships (Weygandt, Kimmel, & Kieso, 2015).
In this paper, the horizontal analysis is done for the period of 11 years, from 2008 to 2018, based on LVMH's income statements and statements of financial position. The long period helps to

explain how LVMH reacts to the economic condition of the world and provide a better overview of the company's improvements or the challenges it faces. The financial documents were retrieved from LVMH's official website.

The following chapter aims to analyse liquidity, profitability, solvency and efficiency ratio results. The financial ratio calculations were conducted in Microsoft Excel with the formulas provided in the previous chapter.

Liquidity

When analysing LVMH's liquidity, there is a noticeable difference between the current and quick ratio, as seen in Figure 3.3 and Figure 3.4. The current ratio suggests, that LVMH has been liquid enough to cover its short-term loans during the years 2008-2018, since the value is constantly above 1, with the average value of 1.5. However, both liquidity ratios are the highest in 2009, which is caused by reduction in current liabilities. LVMH decreased their accounts payable and repaid a portion of their short-term borrowings (LVMH, 2009).

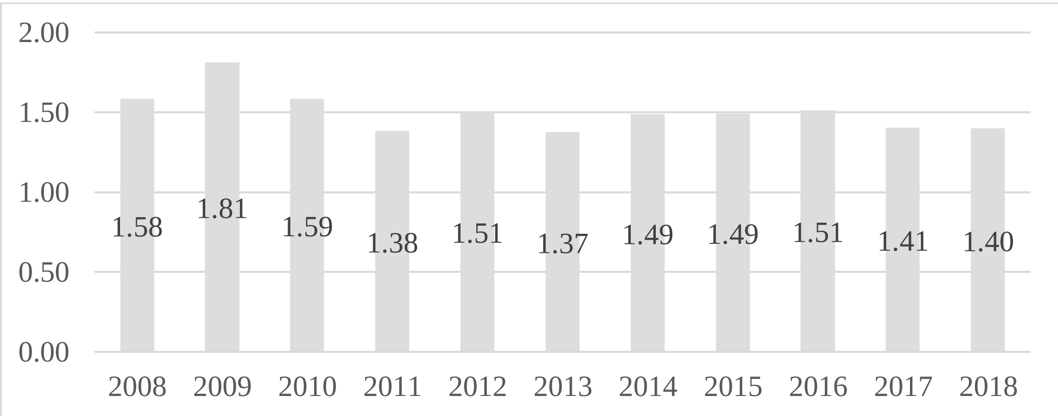


Figure 3.3. Current Ratio for 2008-2018
Source: Based on data from Appendix 3

The quick ratio, however, shows us a different side of things. Due to it not considering inventory as a liquid asset, we can tell that LVMH's ability to stay solvent in the short-term depends a lot on selling its' inventory. The largest segment in inventories is made up by wines and spirits, which have to go through an aging process. Even though the holding period for these assets exceeds one year, they are still classified as current assets due to industry practices. (LVMH, 2018)

The quick ratio during these years has never reached 1 or above, having an average value of only 0.48, which could insinuate that LVMH might have trouble staying liquid in the short-term.

Although, the ratio has stayed somewhat stable, with the exception of 0.65 in 2009 as mentioned before, from which we can assume that they have grown their current assets and liabilities at an equal rate.

These results can seem alarming, but as mentioned before, large corporations can have low liquidity ratios as they are confident in the ability to acquire cash quickly from operations or by selling inventory, if needed.

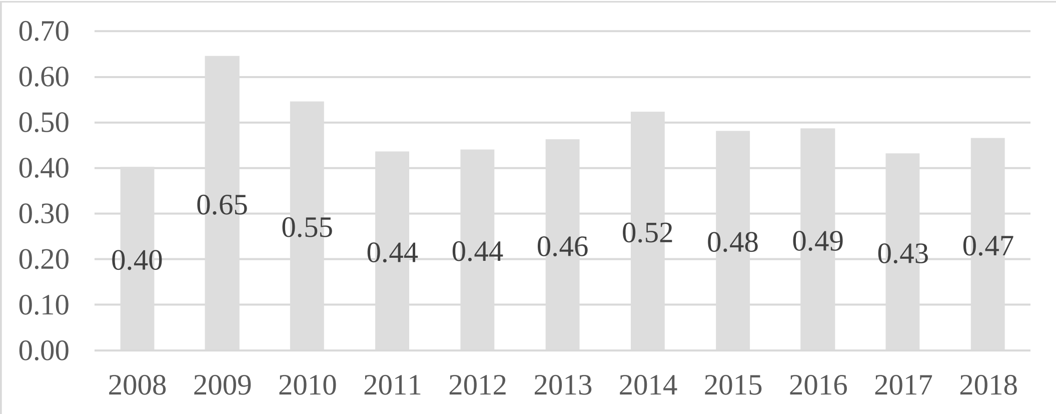


Figure 3.4. Quick ratio for 2008-2018
Source: Based on data from Appendix 3

Profitability

For profitability, it can be seen that all of the profitability ratios during years 2008-2018 move in a similar line, according to Figure 3.5, Figure 3.6 and Figure 3.7. In 2009 there is a drop, which is followed by an increase in the following year. The drop is caused by the unfavourable economic situation during the year. Then for three periods, profitability ratios are all experiencing a decrease until 2014, when there is a significant increase. This increase is due to LVMH distributing Hermès shares to its' shareholders because of a failed acquisition of the firm, resulting with a court settlement. Shareholders received 2 Hermès shares for every 41 LVMH shares owned (LVMH, 2014). Therefore, in profitability ratio analysis, 2014 values can be classified as outliers.

When looking at the return on assets ratio, in Figure 3.5, it shows signs of improvement for the last four periods, which is positive, as it reflects the improving asset management of the company. The average ROA during years 2008-2018 was 7.47%, with the lowest value of 5.51% in 2009.

The low ROA in 2009 is caused by low net income experienced on that year, caused by low sales and increased expenses. The ROA of 8.91% in 2018 shows that every euro LVMH invests in assets generates 8.91 euros of net income.

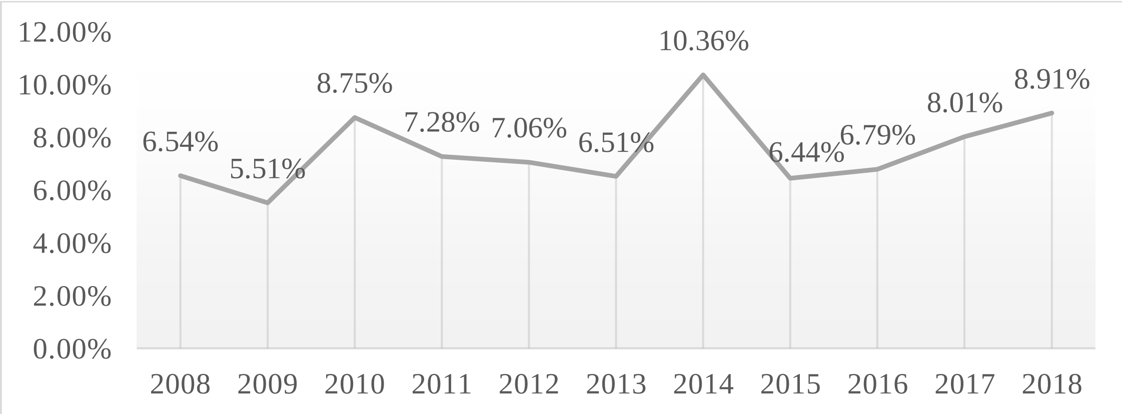


Figure 3.5. Return on assets for 2008-2018
Source: Based on data from Appendix 3

Return on equity, as seen in Figure 3.6, is significantly higher during these years than return on assets, from which can refer that LVMH uses mostly financial leverage to generate its' profits. Similarly to ROA, ROE has also been increasing for the last four years which means that LVMH has been generating more profits from its' equity than before. The big leap from 2009 to 2010 is caused by the increase in profit, which was impacted by the appreciation of currencies against the euro. (LVMH, 2010) Since ROE measures the ability to generate profit from shareholder's investments, the ROE of 19.79% in 2018 shows that every euro invested by shareholders created 19.79 euros of profit.

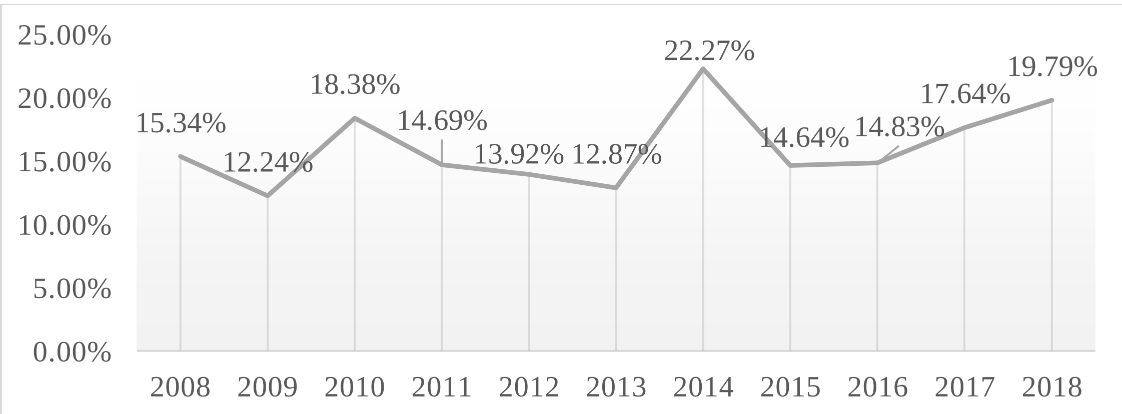


Figure 3.6. Return on equity for 2008-2018
Source: Based on data from Appendix 3

The average profit margin during years 2008-2018 was 12.6%, with the lowest value of 10.29% in 2009, as seen in Figure 3.7. The low value in 2009 can be explained by decreased sales and increased financial expenses during the financial crisis. Due to the profit margin not being extremely large, we can assume that it costs a lot for LVMH to produce its' products and they are not hugely overpricing their products. As the ratio has been increasing for the last 4 period, it can therefore indicate that either they have increased the prices of their products, which results in higher revenues or cut down on production costs or other expenses, to increase profits. The profit margin of 13.57% in 2018 shows that every euro generated by sales created 13.57 euros of profit for LVMH.

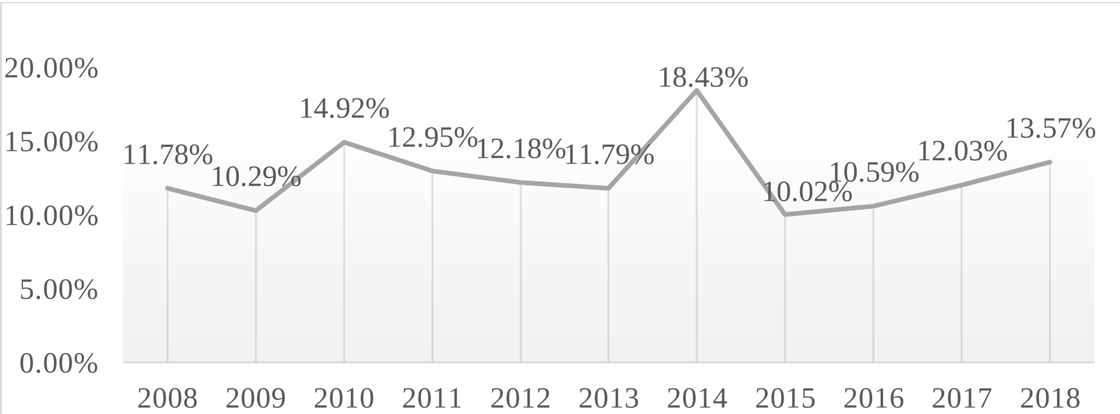


Figure 3.7. Profit margin for 2008-2018
Source: Based on data from Appendix 3

Solvency

The debt-to-equity ratio has constantly remained below 1.0, as seen in Figure 3.8, which means that LVMH isn't a particulary risky investment. The average debt-to-equity ratio during years 2008-2018 was 0.69, with the lowest value of 0.58 in 2012 and highest value of 0.80 in 2008. The lowest value of 0.58 in 2012 was likely caused by the 0.4 billion decrease in debt and a 2.1 billion increase in equity. The large increase in equity is due to the group's outstanding financial results, which were only partly distributed. Since the debt-to-equity ratio is closely connected to risk, we can clearly see that the risk has been decreasing for the last two years. The ratio of 0.69 in 2018 shows that LVMH has 0.69€ of debt for every euro of equity.

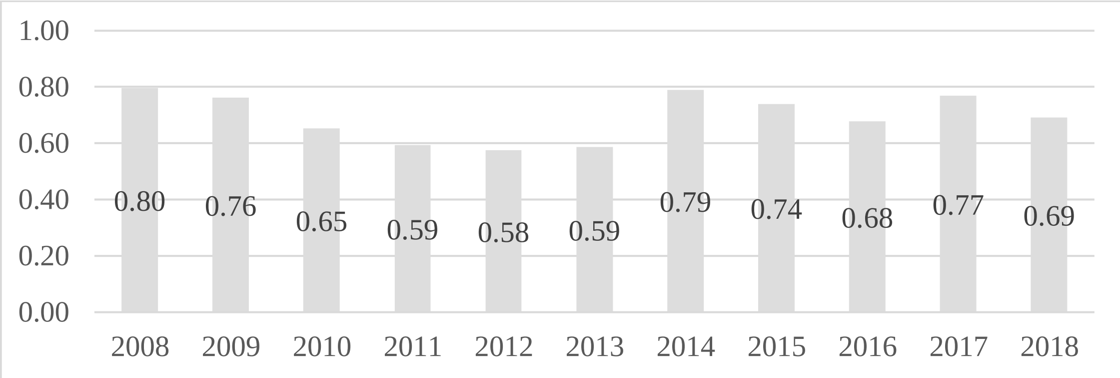


Figure 3.8. Debt-to-equity for 2008-2018
Source: Based on data from Appendix 3

Efficiency

The asset turnover ratio has stayed fairly stable during these 11 periods, as seen in Figure 3.9, but through time it has shown a small improvement. It can be considered as a low ratio, due to every unit of asset generates less than one euro in revenues, an average of 0.59. This can refer to not efficient asset management. Generally, low asset turnover is normal for manufacturing companies, which assures that these results are normal. While it has not been clearly stated, how much LVMH is manufacturing themselves, it is known that most materials and other required resources are outsourced to produce the final goods by their own professionals, or in some cases, subcontractors. On the balance sheet it can be seen that properties, plants and equipment is their second largest non-current asset group, which can insinuate that most of the manufacturing property is owned by LVMH and under their direct command. LVMH could improve its asset turnover by reducing the amount of fixed assets.

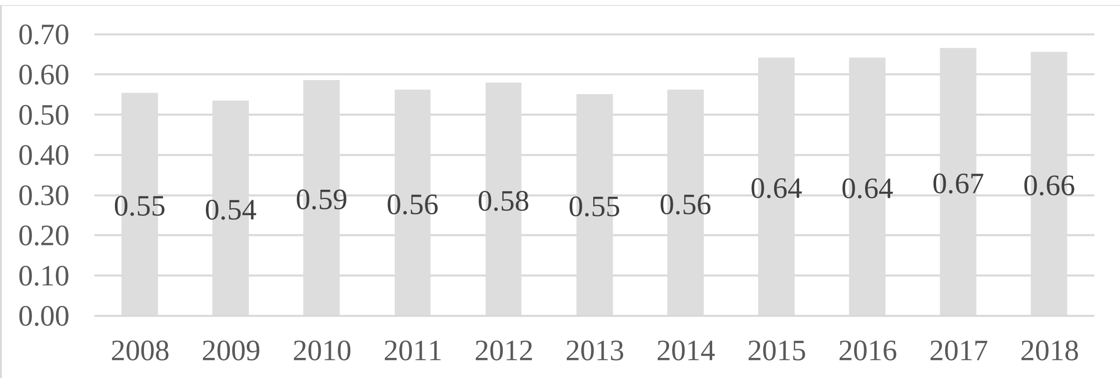


Figure 3.9. Asset turnover for 2008-2018
Source: Based on data from Appendix 3

The inventory turnover ratio shows rather low values, all below 2.0, which can be seen in Figure 3.10. As mentioned before, a lot of LVMH's inventory is made up by the wines and spirits segment, which require a lot of time to be held in inventory, before selling it. This can be regarded as the main reason LVMH's inventory turnover ratio is so low. In addition, it can also suggest that LVMH produces too much stock and then faces difficulties with selling it. However, low inventory turnover is not necessarily a negative issue, as LVMH mostly sells non-perishable items. Even though the fashion industry depends a lot on trends, LVMH's luxury brands aim to produce timeless products while taking inspiration from trends.

In the last two years, 2017 and 2018, the values show improvement from previous nine years, which means they have made enhancements their inventory management. Inventory turnover of 1.34 in 2018 represents that it took one year to sell 134% of inventory.

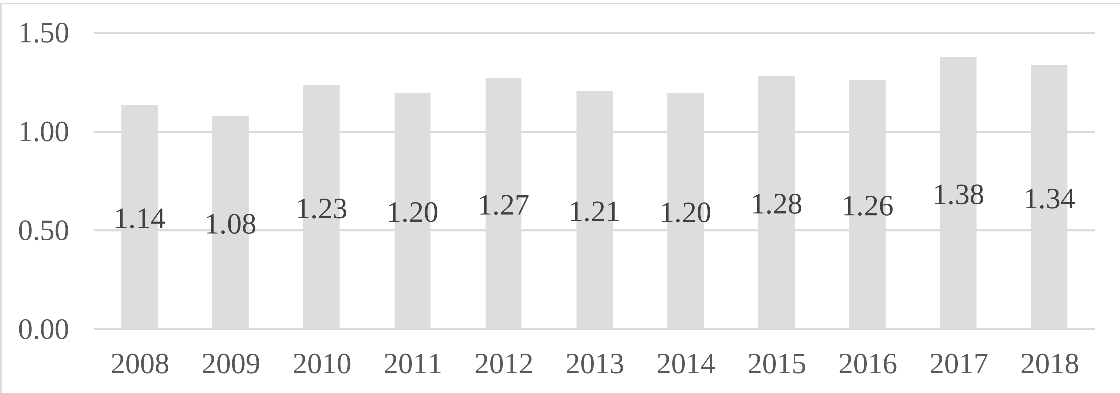


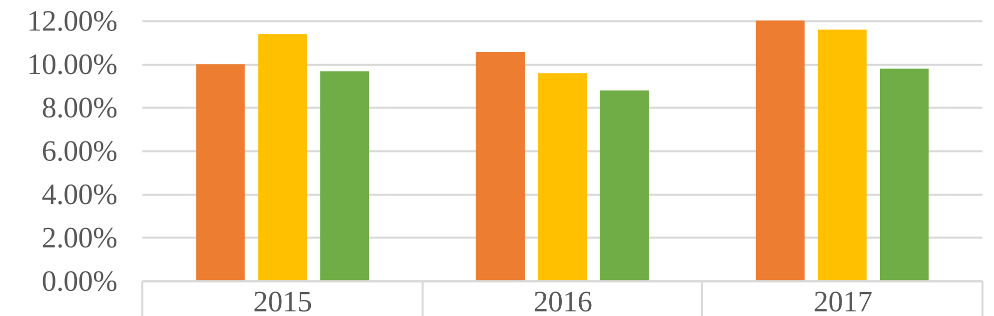
Figure 3.10. Inventory turnover for 2008-2018
Source: Based on data from Appendix 3

3.2. Cross-section analysis

From Deloitte's annual luxury industry reports it was possible to acquire industry averages for two profitability ratios, profit margin and return on assets, as seen in Figure 3.11 and Figure 3.12. The averages are expressed for the top 10 and top 100 performers in the luxury goods industry by sales, from 2015-2017. Throughout these three years, LVMH has had the largest sales numbers and has therefore remained on the first position in the industry. The top 10 companies tend to overperform the top 100 by profitability ratios, but not largely. There is also an exception in 2016, where the top 100 had a larger ROA than the top 10.

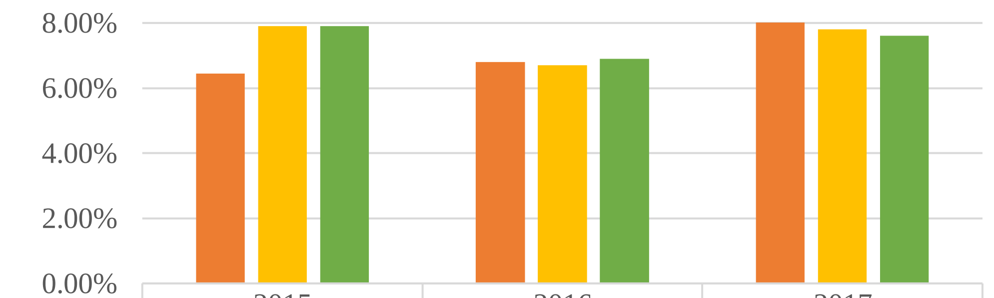
According to the data, the best year for LVMH was 2017, as it outperformed both of the average ratios for both top 10 and top 100. As for the other years, in 2015 LVMH had a lower ROA than the rest of the industry and had an average profit margin, which was lower than the industry's top 10. In 2016 LVMH showed a better profit margin than the averages of the industry but for ROA remained average.

After comparing these ratios, it can be concluded that LVMH's profitability ratios are among the top performers in the industry, although improvements can be made in asset management.



	2015	2016	2017
LVMH	10.02%	10.59%	12.03%
Top 10	11.40%	9.60%	11.60%
Top 100	9.70%	8.80%	9.80%

Figure 2.11. LVMH and industry average profit margins
Source: (Arienti, Global Powers of Luxury Goods 2017, 2017), (Arienti, Global Powers of Luxury Goods 2018, 2018), (Arienti, Global Powers of Luxury Goods 2019, 2019)



	2015	2016	2017
LVMH	6.44%	6.79%	8.01%
Top 10	7.90%	6.70%	7.80%
Top 100	7.90%	6.90%	7.60%

Figure 3.12. LVMH and industry average ROA
Source: (Arienti, Global Powers of Luxury Goods 2017, 2017), (Arienti, Global Powers of Luxury Goods 2018, 2018), (Arienti, Global Powers of Luxury Goods 2019, 2019)

When comparing LVMH's growth rate with the industry, it can be seen in Figure 3.13 that LVMH has been continuously outperforming the industry in terms of growth rate. The industry average during 2009-2018 was 5.2%, whereas LVMH's was 10.7%, which is more than double of the industry's value. LVMH only experienced a negative growth rate of -0.8% in 2009, but it was significantly smaller compared to the industry's drop of -7.5%. In 2016, when the industry experienced another contraction of -0.4%, LVMH was not affected by it and boasted a growth rate of 5.4%.

By adding a moving average trendline to the figure, a clear difference between LVMH and the industry can be seen. It shows a pattern in growth rate fluctuations, where LVMH's growth rate follows the industry's growth rate in a similar manner, but constantly remains at a higher level. In 2013 and 2014 LVMH came the closest to the industry's growth rate, which showed signs of slowing down.

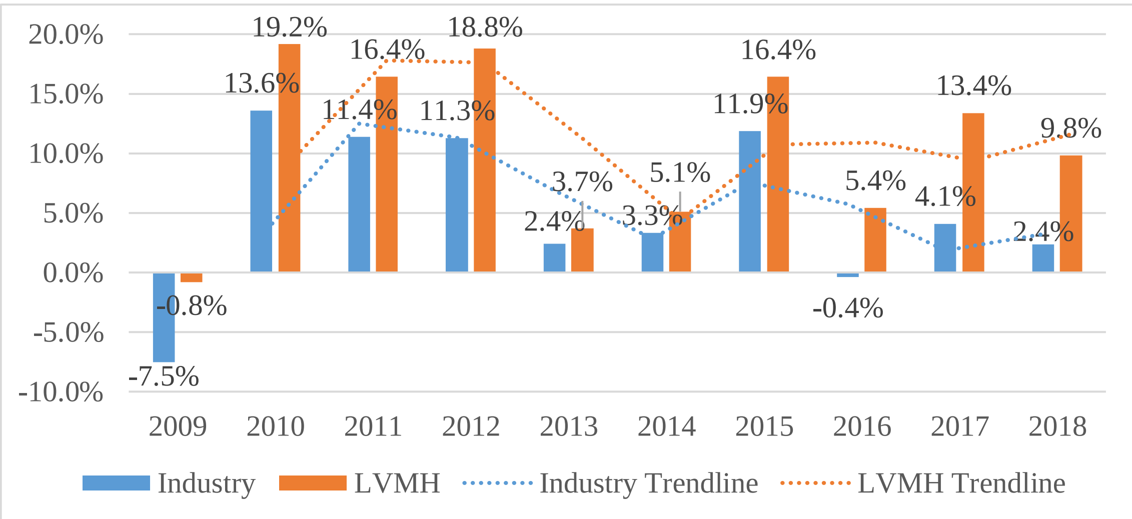


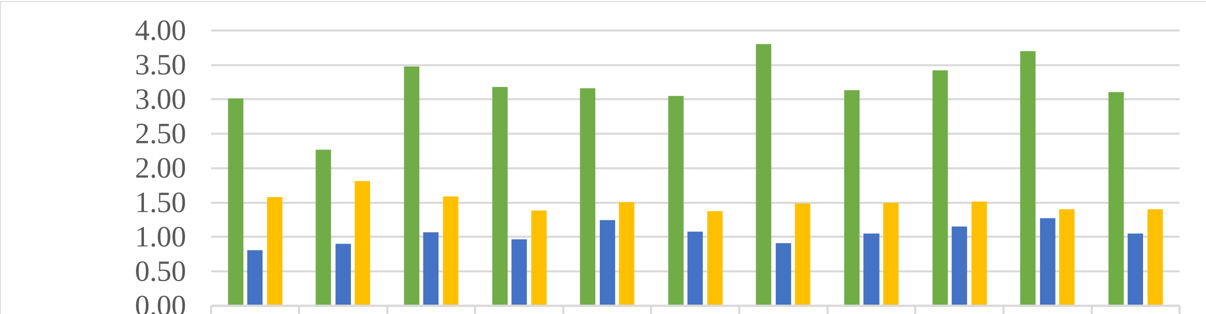
Figure 3.13. LVMH and industry growth rate
Source: Based on Figure 1.2, LVMH revenues 2008-2018

For a more in-depth analysis and understanding of LVMH's ratio results, the best way is to perform a comparison with its' competitors', Richemont's and Kering's, financial ratios.

Liquidity

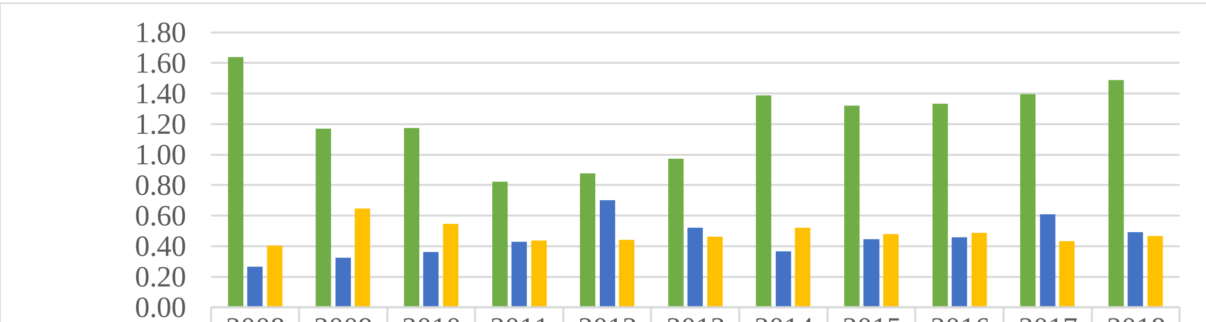
For liquidity, it can be said that Richemont presents the strongest results for both current and quick ratio throughout the 11-year timeframe, as per Figure 3.14 and Figure 3.15. Richemont constantly maintains a fairly low level of current liabilities compared to their current assets, resulting an average value of 3.21 for its' current ratio, being three times higher than its competitors' Kering's (1.05) and LVMH's (1.50). Kering also had the lowest average result for the quick ratio (0.45), being just slightly below LVMH (0.48). Richemont's quick ratio's average value (1.23) is significantly lower than the firm's current ratio's average. This can refer to high reliability on the firm's inventory, to cover their current liabilities.

However, high liquidity gives Richemont the possibility to pay for its' short-term liabilities as soon as they occur, without needing additional financing. It can also mean that the firm is holding too much cash, which could be utilised elsewhere to increase the firm's value or future profits.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	3.01	2.27	3.48	3.18	3.16	3.05	3.80	3.13	3.42	3.70	3.10
Kering	0.81	0.90	1.07	0.96	1.25	1.08	0.91	1.05	1.15	1.27	1.05
LVMH	1.58	1.81	1.59	1.38	1.51	1.37	1.49	1.49	1.51	1.41	1.40

Figure 3.14. Richemont's, Kering's and LVMH's Current ratio 2008-2018
Source: Appendix 3

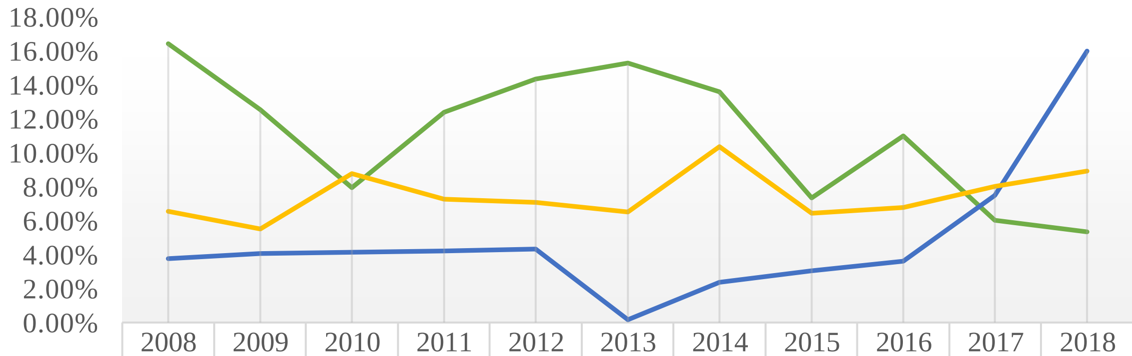


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	1.64	1.17	1.17	0.82	0.88	0.97	1.39	1.32	1.33	1.40	1.49
Kering	0.27	0.32	0.36	0.43	0.70	0.52	0.37	0.45	0.46	0.61	0.49
LVMH	0.40	0.65	0.55	0.44	0.44	0.46	0.52	0.48	0.49	0.43	0.47

Figure 3.15. Richemont's, Kering's and LVMH's Quick ratio 2008-2018
Source: Appendix 3

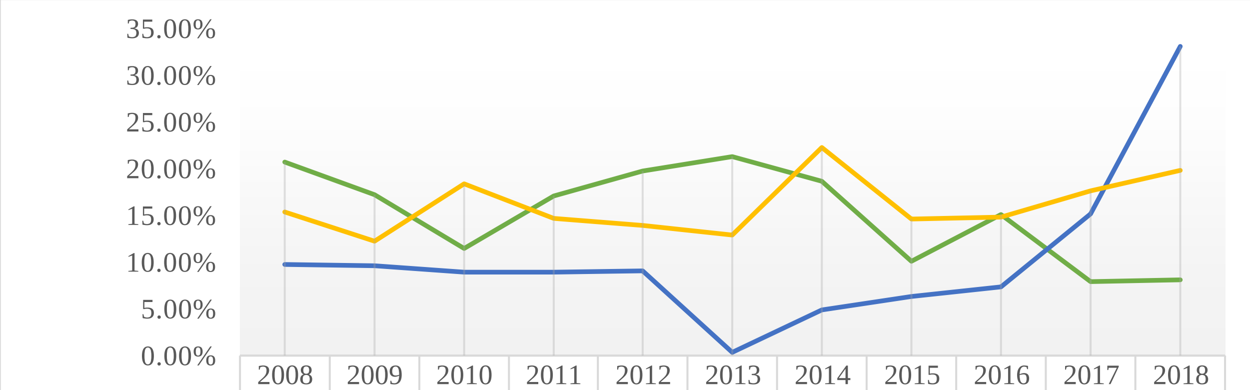
Profitability

When analysing the profitability of these three companies, an interesting pattern emerges from Figure 3.16, Figure 3.17 and Figure 3.18. LVMH has maintained its' profitability at a rather stable and average level, compared to the other two firms, and shows a slight improvement in the last four years. Richemont, however, started off in 2008 as the most profitable firm out of the three, but ended up being the least profitable in 2018. In contrast, the opposite happened to Kering, which was the least profitable until 2013, and since then has skyrocketed past the competitors in terms of all three profitability ratios. Kering's increasing profitability can be explained by the group's several sales of different brands or distribution of shares to shareholders. Kering performed these actions to position itself as a pure luxury firm, eliminating most non-luxury brands from their portfolio. Also, all three companies have higher ROE results than for ROA, which implies that they all rely on financial leverage to generate profits.



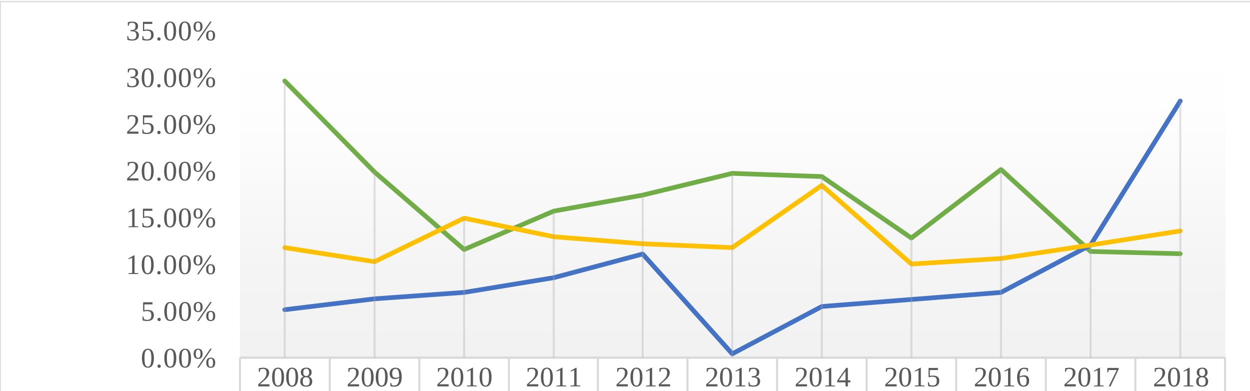
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	16.42%	12.55%	7.93%	12.39%	14.36%	15.28%	13.59%	7.34%	10.98%	6.01%	5.34%
Kering	3.77%	4.05%	4.13%	4.21%	4.31%	0.17%	2.38%	3.06%	3.62%	7.50%	15.99%
LVMH	6.54%	5.51%	8.75%	7.28%	7.06%	6.51%	10.36%	6.44%	6.79%	8.01%	8.91%

Figure 3.16. Richemont's, Kering's and LVMH's ROA 2008-2018
Source: Appendix 3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	20.71%	17.23%	11.43%	17.06%	19.73%	21.29%	18.64%	10.11%	15.12%	7.91%	8.09%
Kering	9.76%	9.60%	8.94%	8.94%	9.07%	0.34%	4.89%	6.30%	7.36%	15.17%	33.09%
LVMH	15.34%	12.24%	18.38%	14.69%	13.92%	12.87%	22.27%	14.64%	14.83%	17.64%	19.79%

Figure 3.17. Richemont's, Kering's and LVMH's ROE 2008-2018
Source: Appendix 3



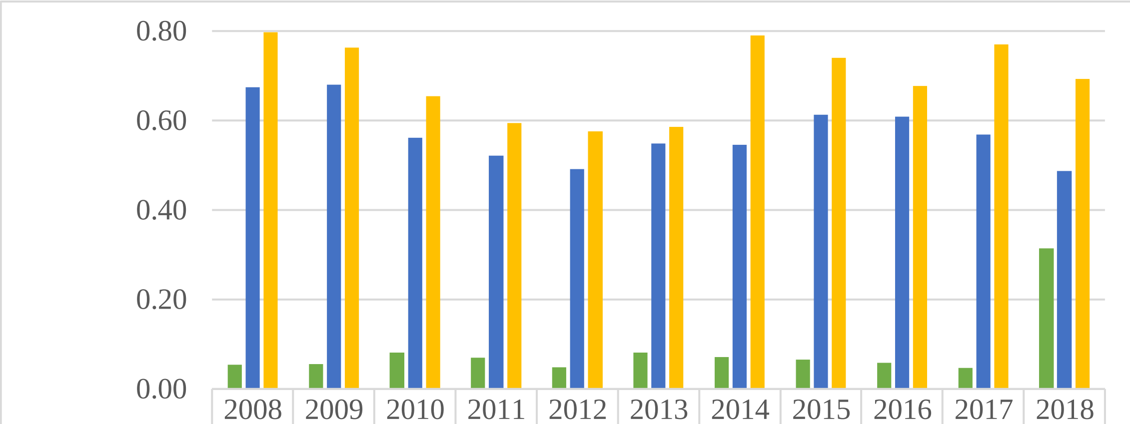
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	29.61%	19.86%	11.59%	15.66%	17.37%	19.75%	19.41%	12.81%	20.11%	11.36%	11.12%
Kering	5.16%	6.32%	6.95%	8.55%	11.12%	0.41%	5.47%	6.23%	7.01%	12.05%	27.47%
LVMH	11.78%	10.29%	14.92%	12.95%	12.18%	11.79%	18.43%	10.02%	10.59%	12.03%	13.57%

Figure 3.18. Richemont's, Kering's and LVMH's Profit Margin 2008-2018
Source: Appendix 3

Solvency

When comparing the debt-to-equity ratios in Figure 3.19, it can be concluded that all companies are not considered to be risky, due to the debt-to-equity ratio results being below 1.0. The least risky investment would be Richemont, with an average result of 0.09, which is a significantly lower result than Kering and LVMH, although there is an unusual surge in 2018, influenced by the issuance of corporate bonds. Kering's average debt-to-equity ratio is 0.57 and LVMH's average is

0.69, which show how much debt there is for every euro in equity. All firms show satisfactory results throughout the 11-year period and can be considered solvent.



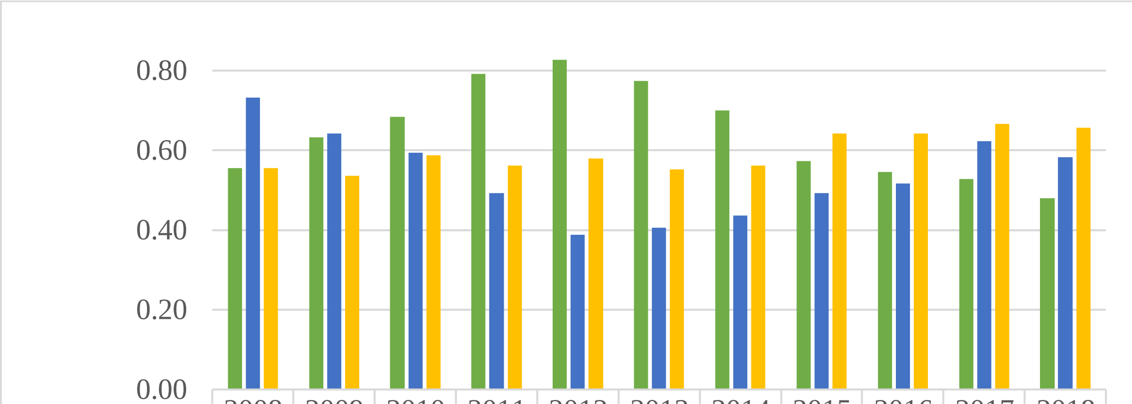
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	0.05	0.06	0.08	0.07	0.05	0.08	0.07	0.07	0.06	0.05	0.31
Kering	0.67	0.68	0.56	0.52	0.49	0.55	0.55	0.61	0.61	0.57	0.49
LVMH	0.80	0.76	0.65	0.59	0.58	0.59	0.79	0.74	0.68	0.77	0.69

Figure 3.19. Richemont's, Kering's and LVMH's D/E ratio 2008-2018
Source: Appendix 3

Efficiency

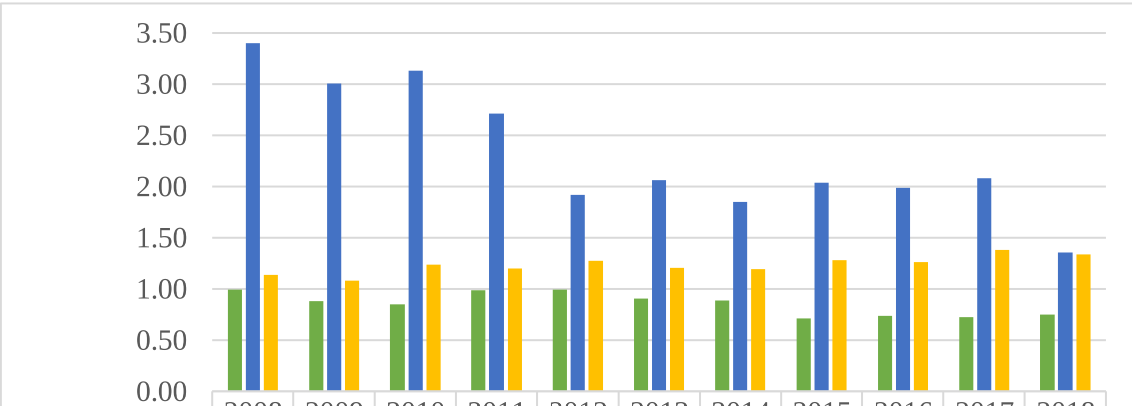
Based on Figure 3.20, it can be seen that Richemont experienced the best total asset turnover during years 2010-2014, but since then has experienced a decrease, due to their total assets increasing more rapidly than their sales levels. The main assets which contibute to this increase are inventories and property, plant and equipment and cash lines. The continuous increase in inventories can indicate overstocking, which seems to be a prevalent issue in the luxury sector, as firms are reluctant to carry out promotions (to get rid of old inventory) in order not to weaken their brand's image. The increase in cash can insinuate that the firm is either preparing for a large purchase or acquisition or is playing it safe by keeping a safety "buffer" to cover any unexpected costs.

Kering shows a strong, yet declining inventory turnover ratio, as seen in Figure 3.21. Kering's inventory levels have been slightly fluctuating, although staying roughly at the same level, but they have reduced their cost of sales by three times throughout the period.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	0.55	0.63	0.68	0.79	0.83	0.77	0.70	0.57	0.55	0.53	0.48
Kering	0.73	0.64	0.59	0.49	0.39	0.41	0.44	0.49	0.52	0.62	0.58
LVMH	0.55	0.54	0.59	0.56	0.58	0.55	0.56	0.64	0.64	0.67	0.66

Figure 3.20. Richemont's, Kering's and LVMH's Total Asset Turnover 2008-2018
Source: Appendix 3



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Richemont	1.00	0.88	0.85	0.99	1.00	0.91	0.89	0.71	0.73	0.72	0.75
Kering	3.40	3.01	3.13	2.71	1.92	2.07	1.85	2.04	1.99	2.08	1.36
LVMH	1.14	1.08	1.23	1.20	1.27	1.21	1.20	1.28	1.26	1.38	1.34

Figure 3. Richemont's, Kering's and LVMH's Inventory Turnover 2008-2018
Source: Appendix 3

In conclusion, after comparing all these figures, it can be said that LVMH's enormous size has given the firm more stable ratios in all areas. The group's well-diversified and thought out portfolio has helped them grow, while maintaining control or even improving their ratios. LVMH has been the most consistent out of the three about their brand selection, and has always kept it luxurious, to maintain the corporation's overall desireability. The same can't be said about Richemont and

Kering, who have removed a lot of brands or other interests, in attempts to become pure luxury groups. Although, comparing LVMH's ratio results to the competitors' results, it might seem that they are not one of the best, rather average. Richemont presents the best values for almost all ratios out of the three firms, except inventory turnover, which is the area where Kering shines with selling an average of 232% of its' inventory per year. Overall, Kering showed the worst results out of the three, but the firm shows a promising future, especially in terms of profitability, despite its' unstable past with several rebrandings.

This cross-sectional analysis revealed that although LVMH is considered to be the leader of the luxury market by it's revenues or number of brands owned, it might not have the best financial performance in terms of its' income statement or balance sheet items' relationships.

CONCLUSION

This paper aimed to evaluate the financial performance of luxury goods group Louis Vuitton Moët Hennessy, which is considered to be a market leader by sales. Eight different liquidity, profitability, solvency and efficiency ratios were used to perform the analysis, which was performed over a time period of 11-years, from 2008 to 2018. The results revealed that LVMH's liquidity ratios were conflicting, as current ratio suggesting the company is liquid enough but quick ratio showing that LVMH can have liquidity troubles, as a lot of their liquidity depends on selling their inventory. The profitabilty ratios revealed that LVMH generates more sales from equity than from assets. Overall they showed satisfactory results and steady a increase in the past four years. The debt-to-equity solvency ratio showed that LVMH is not a risky investment, as throughout the 11 years, the ratio has successfully remained under 1. The efficiency ratios maintained their low levels during all periods due to LVMH manufacturing their products, from which wines and spirits must spend long time in their inventory.

To answer the first question raised in this paper „Why are financial ratios used? Which of the chosen ratios provides the most useful information about the company? Why? "
Financial ratios are used to analyse a firm's different aspects, like profitability, debt or equity usage, management of assets, and many other characteristics. Ratios reflect a company's performance in these areas and can be used to perform a horizontal analysis to determine improvements or problem areas during certain time periods. They are also used because of their simplicity and easiness to understand. It is also necessary to look for meaning and gain understanding of ratios and their components, because ratio results are just numbers, which require interpretation. Ratios themselves can be misleading if there is no knowledge about the company, its' management or the environment it is operating in. Thus, it is needed to know industry averages to validate the ratios and gain an understanding, where a company is positioned. By comparing LVMH's profitability ratios with the industry's top performers' averages, it was revealed that LVMH was up to par with its' main competitors.

The author believes that the usefulness of a ratio depends on who is using it, so it is difficult to determine which ratio used in this paper is the most useful. For management, every ratio is improtant, as their task is to evaluate the company's performance from both creditors' and investors' perspective. Solvency ratios, either long-term or short-term, are mostly used by suppliers, customers and creditors. Profitability ratios are mostly used by the owners and investors as they want the company to earn money and make their investment worth the risk.

In response to the second question "Are financial ratios enough to analyse a company of this size? Why or why not? How have the company's ratios changed throughout the years? What might be the reasons?"

LVMH operates in more than six segments, which makes it complicated to compare its' financial ratios with industry standards. It is difficult to gain a clear and understandable view of the company by only using ratios. Each business segment affects LVMH's books in a unique way and should be carefully considered when analysing ratios. For example, the wines and spirits section products spend a long time in inventory before being ready for sale, which affects the company's ratios, which are related to assets. Therefore, it can be concluded that ratio analysis is more useful in analysing smaller and more specific firms than large corporations like LVMH with diverse portfolios. It is still possible to use financial ratios for large corporations, but it oversimplifies data, which requires the analyst to critically value them based on the additional notes provided in the financial documents.

As an established company, LVMH shows steady financial ratios throughout the 11 periods, with the exception of 2009, due to the unfavourable economic situation. Also, the unusually high profitability ratios in 2014 were caused by the distribution of Hermès shares they had acquired. Overall, LVMH's financial ratios show an improvement trend, especially in the last four years. This is probably due to the luxury goods industry's growth, good state of the economy and increased consumer purchasing power combined with improved management techniques.

To answer the third question raised "How do the different business fields contribute to the company's revenues?"

LVMH earned most of its' revenue in 2018 in their fashion and leather goods segment, followed by selective retailing, where the main performance driver worldwide is the beauty retailer Sephora. These are followed by perfumes and cosmetics and wines and spirits sectors. With the smallest positive contribution comes the jewellery and watches segment, due to its' niche market and small consumer base. But this is likely to change in the future, as LVMH is acquiring Tiffany & Co., a fine jewellery company based in the United States. The other activities, containing headquarters expenses, media division, yacht, hotel and real estate activities, operated at a loss in 2018.

To respond to fourth question “Where geographically LVMH earns most of its revenue and how has it proportionally changed during the years? What has affected it?”
Geographically, LVMH’s revenue sources have changed during this 11-year period drastically, with now generating almost a third of their profits in Asia (excluding Japan), compared to one fifth in 2008. This is mainly due to the increasing customer base of wealthy Chinese individuals. The large increase in Asian markets has left the French and European contribution to their revenues significantly less relevant than before.

To answer the final question “How does LVMH financially perform compared to its’ competitors?”
LVMH’s large size and a diverse portfolio reflects from the ratio results compared to its’ competitors, who are smaller in terms of size and revenues and are more receptive to changes in their financial statements. The comparison with Kering and Richemont revealed, that LVMH has had a more stable financial performance, which resulted in average ratio results, leaving Richemont with the strongest results and Kering with the weakest.

There were several limitations of the study. The biggest limitation is the reliability of the financial ratio results, as the results depend on the accuracy of companies’ financial statements. The second limitation was the time, as this paper was written with keeping a deadline in mind. The third limitation is the timing of the study, which is usual for financial ratio analysis, as the analysis can only be done for past results, but these results can be used to forecast trends in the future.

The author concluded that even if a company, such as LVMH, is considered to be a leader of the industry by sales, it might not have the best financial ratios in the business. Cross-sectional analysis was able to provide the most context for LVMH’s ratio results, which otherwise were only comparable to each other without any background information of the industry. Ratio analysis prompted a lot of questions for the author, because every fluctuation or very low or high results had to have a reason or event behind it. All the answers were found from LVMH’s financial documents, which have additional notes and explanations, due to it being a public company. The author also was surprised by the profit margin results, as they were expected to be a lot higher, due to the premium pricing of luxury goods.

The author suggests utilising the results of this paper to perform further in-depth comparisons with other luxury goods companies or to use them as targets for other companies to achieve, as LVMH is considered to be the market leader, followed by Richemont and Kering. It would be fascinating to further this research with an analysis, how the current pandemic affected the luxury goods industry and how these companies handled the difficult situation.

REFERENCES

Agarwal, P. (2019, August 29). *Income Elasticity of Demand (YED)*. Retrieved from Intelligent Economist: https://www.intelligenteconomist.com/income-elasticity-of-demand/#3-income-elasticity-of-demand-for-a-luxury-good

Arienti, P. (2017). *Global Powers of Luxury Goods 2017.* Deloitte Touche Tohmatsu Limited.

Arienti, P. (2018). *Global Powers of Luxury Goods 2018.* Deloitte Touche Tohmatsu Limited.

Arienti, P. (2019). *Global Powers of Luxury Goods 2019.* Deloitte Touche Tohmatsu Limited. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/ar/Documents/Consumer_and_Industrial_Products/Global-Powers-of-Luxury-Goods-abril-2019.pdf

Borad, S. B. (2019, August 31). *Advantages and Disadvantages of Current Ratio*. Retrieved from eFinanceManagement: https://efinancemanagement.com/financial-analysis/advantages-and-disadvantages-of-current-ratio

Borad, S. B. (2019, May 3). *Return on Equity (ROE)*. Retrieved from eFinanceManagement: https://efinancemanagement.com/financial-analysis/return-on-equity-roe

Borad, S. B. (2020, April 7). *Advantages and Disadvantages of Acid Test Ratio*. Retrieved from eFinanceManagement: https://efinancemanagement.com/financial-analysis/advantages-and-disadvantages-of-acid-test-ratio

Boston Consulting Goods. (2019). *2019 True-Luxury Global Consumer Insight.*

D'Arpizio, C., Levato, F., Prete, F., Fabbro, E. D., & Montgolfier, J. d. (2019). *LUXURY GOODS WORLDWIDE MARKET STUDY FALL-WINTER 2018 The future of luxury: A look into tomorrow to understand today* . Bain & Company, Inc.

Dutt, R. (2016, December 26). *Five events that shook world economy in 2016*. Retrieved from The Economic Times: https://economictimes.indiatimes.com/news/international/business/five-events-that-shook-world-economy-in-2016/articleshow/56182833.cms

Gallo, A. (2016, April 4). A Refresher on Return on Assets and Return on Equity. *Harvard Business Review*, pp. https://hbr.org/2016/04/a-refresher-on-return-on-assets-and-return-on-equity.

Goel, S. (2016). *Financial Ratios* . Business Expert Press.

Henry, E., Robinson, T. R., & Greuning, J. H. (2011). Financial Analysis Techniques. *CFA Institute*.

Husna, N., & Desiyanti, R. (2016). The Analysis of Financial Performance on Net Profit Margin at The Coal Company. *International Journal of Management and Applied Science*, 105-106.

Kenton, W. (2018, April 18). *Luxury Item*. Retrieved from Investopedia: https://www.investopedia.com/terms/l/luxury-item.asp

Kering. (2020). *About Kering & key figures*. Retrieved from Kering: https://www.kering.com/en/finance/about-kering/

Kering. (2020). *Group History*. Retrieved from Kering: https://www.kering.com/en/group/culture-and-heritage/group-history/

Kering. (2020). *Kering Eyewear*. Retrieved from Kering: https://www.kering.com/en/houses/kering-eyewear/

Kering. (2020). *Kering's Luxury Brands*. Retrieved from Kering: https://www.kering.com/en/houses/

Kering SA. (2008-2018). *Financial Publications.* Retrieved from Kering: https://www.kering.com/en/finance/publications/

Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2011). *Intermediate Accounting, Volume 2, IFRS Edition.* John Wiley & Sons, Inc.

Krylov, S. (2018). Target financial forecasting as an instrument to improve company financial health. *Cogent Business & Management*, 8-9.

Lee, J.-W., & McKibbin, W. J. (2004). *Estimating The Global Economic Costs of SARS.* Washington (DC): National Academies Press.

LVMH. (2008). *LVMH.* Retrieved from 2008 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/lvmh-2008-financial-documents.pdf

LVMH. (2009). *LVMH.* Retrieved from 2009 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/pdf_lvmh_documentsfinanciers_2009_uk.pdf

LVMH. (2010). *LVMH.* Retrieved from 2010 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/pdf_lvmh_documents-financiers_2010_gb.pdf

LVMH. (2011). *LVMH.* Retrieved from 2011 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/documents-financiers-2011va.pdf

LVMH. (2012). *LVMH.* Retrieved from 2012 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/documents_financiers_2012_va.pdf

LVMH. (2013). *LVMH*. Retrieved from 2013 Financial Documents: https://r.lvmh-static.com/uploads/2014/10/lvmh_2013_financial_documents_va.pdf

LVMH. (2014). *LVMH*. Retrieved from 2014 Financial Documents: https://r.lvmh-static.com/uploads/2015/02/lvmh-financial-documents-2014.pdf

LVMH. (2015). *LVMH*. Retrieved from 2015 Financial Documents: https://r.lvmh-static.com/uploads/2016/02/documents-financiers-2015-lvmh_va.pdf

LVMH. (2016). *LVMH*. Retrieved from 2016 Financial Documents: https://r.lvmh-static.com/uploads/2017/01/lvmh_financial-documents-_va.pdf

LVMH. (2017). *LVMH*. Retrieved from 2017 Financial Documents: https://r.lvmh-static.com/uploads/2017/11/2017-financial-documents.pdf

LVMH. (2018, December 31). *FINANCIAL STATEMENTS, CONSOLIDATED FINANCIAL STATEMENTS*. Retrieved from https://r.lvmh-static.com/uploads/2019/02/comptes-consolides_lvmh_va.pdf

LVMH. (2018). *LVMH*. Retrieved from 2018 Financial Documents: https://r.lvmh-static.com/uploads/2019/01/2018-financial-documents.pdf

LVMH. (2020, February 16). *Bernard Arnault, Chairman and Chief Excecutive Officer of LVMH*. Retrieved from https://www.lvmh.com/group/about-lvmh/governance/executive-committee/bernard-arnault/

LVMH. (2020). *Environment*. Retrieved February 23, 2020, from LVMH Commitments: https://www.lvmh.com/group/lvmh-commitments/social-environmental-responsibility/

LVMH. (2020). *LVMH Company*. Retrieved 02 23, 2020, from An Operational and Functional model: https://www.lvmh.com/group/about-lvmh/the-lvmh-model/

LVMH. (2020, February 16). *Maisons LVMH*. Retrieved from High-end ready-to-wear, fine products: https://www.lvmh.com/houses/

LVMH. (2020, February 11). *Milestones - LVMH*. Retrieved from LVMH: https://www.lvmh.com/group/milestones-lvmh/1593-to-the-present/

My Accounting Course. (2020). *What are Luxury Goods?* Retrieved from MyAccountingCourse: https://www.myaccountingcourse.com/accounting-dictionary/luxury-goods

O'Connell, L. (2020, February 3). *Value of the personal luxury goods market worldwide from 1996 to 2019*. Retrieved from Statista: https://www.statista.com/statistics/266503/value-of-the-personal-luxury-goods-market-worldwide/

Palepu, K. G., & Healy, P. M. (2013). *Business Analysis and Valuation - Using Financial Statements (Fifth Edition)*. Cengage Learning.

Pendlebury, M., & Groves, R. (2004). *Company Accounts - Analysis, Interpretation and Understanding (Sixth Edition)*. Thomson Learning.

Richemont. (2020). *History, including Significant Investments and Divestments*. Retrieved from Richemont: https://www.richemont.com/group/history-including-significant-investments-and-divestments.html

Richemont. (2020). *Our Businesses*. Retrieved from Richemont: https://www.richemont.com/our-businesses.html

Richemont SA. (2008-2018). *Reports Archive.* Retrieved from Richemont: https://www.richemont.com/investor-relations/reports/report-archive.html

Robinson, T. R., Greuning, H. v., Broihahn, M. A., & Henry, E. (2008). *International Financial Statement Analysis.* John Wiley & Sons, Inc.

Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2013). *Fundamentals of Corporate Finance.* New York: McGraw-Hill/Irwin.

Samonas, M. (2015). *Financial Forecasting, Analysis and Modelling: A Framework for Long-Term Forecasting.* John Wiley & Sons, Inc.

Sherman, E. H. (2015). *A Manager's Guide to Financial Analysis.* American Management Association.

Siimann, P. (2020, January 28). INTRODUCTION TO FINANCIAL ANALYSIS 1/8 (TAK2060). Tallinn, Harjumaa, Estonia.

Silverstein, M. J., & Fiske, N. (2003). Luxury for the Masses. *Harvard Business Review*.

Tiffany & Co. (2018). *Annual Report 2018.* Retrieved from https://investor.tiffany.com/static-files/09e06d06-4bdc-409b-9952-3a233728a1af

Trussel, J. (2003, December 1). Assessing Potential Accounting Manipulation: the Financial Characteristics of Charitable Organizations with Higher than Expected Program-Spending Ratios. *Nonprofit and Voluntary Sector Quarterly*, pp. 616-634.

Warren, K., & Rogers, T. N. (2020, January 31). *Business Insider*. Retrieved February 16, 2020, from French billionare Bernard Arnault is the world's 3rd-richest person: https://www.businessinsider.com/who-is-bernard-arnault-richest-person-in-europe-lvmh-life-photos-2019-1

Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2015). *Financial Accounting 3e IFRS Edition.* Hoboken, NJ: John Wiley & Sons, Inc.

White, G. I., & Ashwinpaul C. Sondhi, D. F. (1998). *The Analysis and Use of Financial Statements.* New York: John Wiley & Sons.

Wulf, I., & Wieland, J. (2013). *Kennzahlen IFRS-Abschluss - Ratios IFRS-Financial Statements.* Weinheim: WILEY-VCH Verlag GmbH & Co.

APPENDICES

Appendix 1. Louis Vuitton Moët Hennessy brands

WINES & SPIRITS	FASHION & LEATHER GOODS	PERFUMES & COSMETICS
Ao Yun	Berluti	Acqua di Parma
Ardbeg	Celine	Benefit Cosmetics
Belvedere	Christian Dior	Cha Ling
Bodega Numanthia	Emilio Pucci	Fenty Beauty by Rihanna
Cape Mentelle	Fendi	Fresh
Chandon	FENTY	Givenchy Parfums
Chandon Argentina	Givenchy	Guerlain
Chandon Australia	Kenzo	Kenzo Parfums
Chandon Brazil	Loewe	KVD Vegan Beauty
Chandon California	Loro Piana	Maison Francis Kurkdjian
Chandon China	Louis Vuitton	Make Up For Ever
Chandon India	Marc Jacobs	Marc Jacobs Beauty
Château Cheval Blanc	Moynat	Parfums Christian Dior
Château d'Yquem	Nicholas Kirkwood	Perfumes Loewe
Cheval des Andes	Patou	
Clos des Lambrays	Pink Shirtmaker	**SELECTIVE RETAILING**
Clos19	RIMOWA	DFS
Cloudy Bay		La Grande Epicerie de Paris
Dom Pérignon	**OTHER ACTIVITIES**	Le Bon Marché Rive Gauche
Glenmorangie	Belmond	Sephora
Hennessy	Cheval Blanc	Starboard Cruise Services
Krug	Connaissance des Arts	
Mercier	Cova	**WATCHES & JEWELRY**
Moët & Chandon	Investir	Bvlgari
Newton Vineyard	Jardin d'Acclimatation	Chaumet
Ruinart	La Samaritaine	Fred
Terrazas de los Andes	Le Parisien	Hublot
Veuve Clicquot	Les Echos	TAG Heuer
Volcan de mi Tierra	Radio Classique	Zenith
Woodinville	Royal Van Lent	

Source: (LVMH, 2020)

Appendix 2. Louis Vuitton Moët Hennessy Income statement and Balance sheet 2008-2018

INCOME STATEMENT											
€, millions	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Revenue	46,826	42,636	37,600	35,664	30,638	29,149	28,103	23,659	20,320	17,053	17,193
Cost of sales	-15,625	-14,783	-13,039	-12,553	-10,801	-10,055	-9,917	-8,092	-7,184	-6,164	-6,012
Gross margin	31,201	27,853	24,561	23,111	19,837	19,094	18,186	15,567	13,136	10,889	11,181
Marketing and selling expenses	-17,755	-16,395	-14,607	-13,830	-11,744	-10,849	-10,101	-8,360	-7,098	-6,051	-6,104
General and administrative expenses	-3,466	-3,162	-2,931	-2,663	-2,373	-2,224	-2,164	-1,944	-1,717	-1,486	-1,449
Profit from recurring operations	9,980	8,296	7,023	6,618	5,720	6,021	5,921	5,263	4,321	3,352	3,628
Other operating income and expenses	-126	-180	-122	-221	-284	-127	-182	-109	-152	-191	-143
Operating profit	9,854	8,116	6,901	6,397	5,436	5,894	5,739	5,154	4,169	3,161	3,485
Cost of net financial debt	-117	-62	-83	-78	-115	-103	-140	-151	-151	-187	-257
Other financial income and expenses	-271	-117	-349	-336	3,062	-96	126	-91	763	-155	-24
Net financial income (expense)	-388	-179	-432	-414	2,947	-199	-14	-242	612	-342	-281
Income taxes	-2,499	-2,318	-2,109	-1,969	-2,273	-1,755	-1,820	-1,453	-1,469	-849	-893
Income from investments in associates	23	-3	3	-13	-5	7	4	6	7	3	7
Net profit before minority interests	6,990	5,616	4,363	4,001	6,105	3,947	3,909	3,465	3,319	1,973	2,318
Minority interests	-636	-487	-382	-428	-457	-511	-485	-400	-287	-218	-292
Net profit - group share	6,354	5,129	3,981	3,573	5,648	3,436	3,424	3,065	3,032	1,755	2,026

Source: LVMH financial statements (2008-2018)

Appendix 2 continuation

BALANCE SHEET											
€, millions	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
ASSETS											
Brands and other intangible assets - net	17,254	13,714	13,335	13,572	13,031	11,458	11,510	11,482	9,104	8,697	8,536
Goodwill - net	13,727	16,514	10,401	10,122	8,810	9,959	7,806	6,957	5,027	4,270	4,417
Property, plant and equipment - net	15,112	13,206	12,139	11,157	10,387	9,602	8,769	8,017	6,733	6,140	6,088
Investments in associates	638	639	770	729	519	152	163	170	223	213	216
Non-current available for sale financial assets	1,100	789	744	574	580	7,080	6,004	5,982	3,891	540	375
Other non-current assets	986	686	777	552	489	432	524	478	319	750	841
Deferred tax	1,932	1,738	2,058	1,945	1,436	909	881	716	668	521	630
Non-current assets	50,749	47,286	40,224	38,651	35,252	39,592	35,657	33,802	25,965	21,131	21,103
Inventories and work in progress	12,485	10,908	10,546	10,096	9,475	8,586	8,080	7,510	5,991	5,644	5,767
Trade accounts receivable	3,222	2,737	2,685	2,521	2,274	2,189	1,985	1,878	1,565	1,455	1,650
Income taxes	366	780	280	384	354	235	201	121	96	217	229
Other current assets	2,868	2,919	2,343	2,355	1,916	1,851	1,811	1,455	1,255	1,213	1,815
Cash and cash equivalents	4,610	3,738	3,544	3,594	4,091	3,221	2,196	2,303	2,292	2,446	1,013
Current assets	23,551	21,082	19,398	18,950	18,110	16,082	14,273	13,267	11,199	10,975	10,474
Total assets	74,300	68,368	59,622	57,601	53,362	55,674	49,930	47,069	37,164	32,106	31,577

Source: LVMH financial documents (2008-2018)

Appendix 2 continuation

LIABILITIES AND EQUITY											
Share capital	152	152	152	152	152	152	152	152	147	147	147
Share premium account	2,298	2,614	2,601	2,579	2,655	3,849	3,848	3,801	1,782	1,763	1,737
Treasury shares and LVMH-share settles derivatives	-421	-530	-520	-240	-374	-451	-414	-485	-607	-929	-983
Revaluation reserves	875	1,472	1,049	949	1,019	3,900	2,819	2,689	1,244	871	818
Other reserves	22,462	19,658	17,965	16,189	12,171	15,817	14,393	12,798	11,370	10,684	9,523
Cumulative translation adjustment	573	357	1,165	1,137	492	-8	342	431	230	-495	-371
Group share of net profit	6,354	5,129	3,981	3,573	5,648	3,436	3,424	3,065	3,032	1,755	2,026
Equity - group share	32,293	28,852	26,393	24,339	21,763	26,695	24,564	22,451	17,198	13,796	12,897
Minority interest	1,664	1,408	1,510	1,460	1,240	1,028	1,102	1,061	1,006	989	990
Total equity	33,957	30,260	27,903	25,799	23,003	27,723	25,666	23,512	18,204	14,785	13,887
Long term borrowings	6,005	7,046	3,932	4,511	5,054	4,159	3,836	4,132	3,432	4,077	3,738
Provisions	2,430	2,474	2,342	1,950	2,291	1,755	1,530	1,400	1,167	990	971
Deferred tax	5,036	3,910	4,137	4,685	4,392	3,934	3,960	3,925	3,354	3,117	3,113
Other non-current liabilities	10,039	9,857	8,498	7,957	6,447	6,403	5,456	4,506	3,947	3,089	3,253
Non-current liabilities	23,510	23,287	18,909	19,103	18,184	16,251	14,782	13,963	11,900	11,273	11,075
Short term borrowings	5,027	4,530	3,447	3,769	4,189	4,688	2,976	3,134	1,834	1,708	1,847
Trade accounts payable	5,314	4,540	4,184	3,960	3,606	3,308	3,134	2,952	2,298	1,911	2,292
Income taxes	538	763	428	640	549	382	442	443	446	221	304
Provisions	369	404	352	421	332	322	335	349	339	334	306
Other current liabilities	5,585	4,766	4,399	3,909	3,499	3,000	2,595	2,716	2,143	1,874	1,866
Current liabilities	16,833	15,003	12,810	12,699	12,175	11,700	9,482	9,594	7,060	6,048	6,615
Total liabilities and equity	74,300	68,550	59,622	57,601	53,362	55,674	49,930	47,069	37,164	32,106	31,577

Source: LVMH financial documents 2008-2018

Appendix 3. Financial Ratio Results of LVMH, Richemont and Kering 2008-2018

LVMH RATIOS											
LIQUIDITY RATIOS											
Years	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**
Current ratio	1.40	1.41	1.51	1.49	1.49	1.37	1.51	1.38	1.59	1.81	1.58
Quick ratio	0.47	0.43	0.49	0.48	0.52	0.46	0.44	0.44	0.55	0.65	0.40
PROFITABILITY RATIOS											
Return on Assets (%)	8.91	8.01	6.79	6.44	10.36	6.51	7.06	7.28	8.75	5.51	6.54
Return on Equity (%)	19.79	17.64	14.83	14.64	22.27	12.87	13.92	14.69	18.38	12.24	15.34
Profit margin	13.57	12.03	10.59	10.02	18.43	11.79	12.18	12.95	14.92	10.29	11.78
SOLVENCY RATIO											
Debt-to-equity	0.69	0.77	0.68	0.74	0.79	0.59	0.58	0.59	0.65	0.76	0.80
EFFICIENCY RATIOS											
Asset turnover	0.66	0.67	0.64	0.64	0.56	0.55	0.58	0.56	0.59	0.54	0.55
Inventory Turnover	1.34	1.38	1.26	1.28	1.20	1.21	1.27	1.20	1.23	1.08	1.14

Source: Based on author’s calculations from Appendix 2 data

Appendix 3 continuation

RICHEMONT RATIOS											
LIQUIDITY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Current ratio	3.01	2.27	3.48	3.18	3.16	3.05	3.80	3.13	3.42	3.70	3.10
Quick ratio	1.64	1.17	1.17	0.82	0.88	0.97	1.39	1.32	1.33	1.40	1.49
PROFITABILITY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Return on Assets (%)	16.42	12.55	7.93	12.39	14.36	15.28	13.59	7.34	10.98	6.01	5.34
Return on Equity (%)	20.71	17.23	11.43	17.06	19.73	21.29	18.64	10.11	15.12	7.91	8.09
Profit margin (%)	29.61	19.86	11.59	15.66	17.37	19.75	19.41	12.81	20.11	11.36	11.12
SOLVENCY RATIO											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Debt-to-Equity	0.05	0.06	0.08	0.07	0.05	0.08	0.07	0.07	0.06	0.05	0.31
EFFICIENCY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total Asset Turnover	0.55	0.63	0.68	0.79	0.83	0.77	0.70	0.57	0.55	0.53	0.48
Inventory turnover	1.00	0.88	0.85	0.99	1.00	0.91	0.89	0.71	0.73	0.72	0.75

Source: Based on author’s calculations from Richemont’s financial statements (2008-2018)

Appendix 3 continuation

KERING RATIOS											
LIQUIDITY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Current ratio	0.81	0.90	1.07	0.96	1.25	1.08	0.91	1.05	1.15	1.27	1.05
Quick ratio	0.27	0.32	0.36	0.43	0.70	0.52	0.37	0.45	0.46	0.61	0.49
PROFITABILITY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Return on assets (%)	3.77	4.05	4.13	4.21	4.31	0.17	2.38	3.06	3.62	7.50	15.99
Return on Equity (%)	9.76	9.60	8.94	8.94	9.07	0.34	4.89	6.30	7.36	15.17	33.09
Profit margin (%)	5.16	6.32	6.95	8.55	11.12	0.41	5.47	6.23	7.01	12.05	27.47
SOLVENCY RATIO											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Debt-to-equity	0.67	0.68	0.56	0.52	0.49	0.55	0.55	0.61	0.61	0.57	0.49
EFFICIENCY RATIOS											
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Asset turnover	0.73	0.64	0.59	0.49	0.39	0.41	0.44	0.49	0.52	0.62	0.58
Inventory turnover	3.40	3.01	3.13	2.71	1.92	2.07	1.85	2.04	1.99	2.08	1.36

Source: Based on author's calculations from Kering's financial statements (2008-2018)

Appendix 4. Non-exclusive licence

A non-exclusive licence for reproduction and for granting public access to the graduation thesis[1]

I, *Helina Meier*

1. Give Tallinn University of Technology a permission (non-exclusive licence) to use free of charge my creation

A GLANCE INTO THE WORLD OF LUXURY: FINANCIAL RATIO ANALYSIS OF LVMH 2008-2018,

supervised by Vaiva Kiaupaite-Grušniene,

1.1. to reproduce with the purpose of keeping and publishing electronically, including for the purpose of supplementing the digital collection of TalTech library until the copyright expires;

1.2. to make available to the public through the web environment of Tallinn University of Technology, including through the digital collection of TalTech library until the copyright expires.

2. I am aware that the author will also retain the rights provided in Section 1.

3. I confirm that by granting the non-exclusive licence no infringement is committed to the third persons' intellectual property rights or to the rights arising from the personal data protection act and other legislation.

[1] *The non-exclusive licence is not valid during the access restriction period with the exception of the right of the university to reproduce the graduation thesis only for the purposes of preservation.*