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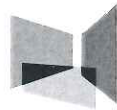
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Operations, Logistics and Quality Management

**Financial Analysis of Selected Companies
from the Watchmaking Industry and the Role
of Inventories
Bachelor Thesis**

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Candidate: **David Strnad**
Study programme: **Economics and Management**
Field of study: **Business Administration and Operations, Logistics and Quality Management**

Thesis title: **Financial analysis of selected companies from the watchmaking industry and the role of inventories**

Aim: The aim of the thesis is to outline basic methods and tools of elementary financial analysis, apply them to selected companies from the watchmaking industry, conduct direct comparison of the companies' financial performance and interpret implications resulting from the comparison. Inventory management and its impact on financial performance is a key area of concern. The conclusion of the analysis is a prediction of the companies' upcoming financial year results.

Content areas:

1. Introduction and goals of the thesis
2. Description of methods and tools of elementary financial analysis
3. Financial analysis and comparison of selected companies from watchmaking industry and interpretation of results
4. Impact of inventory management on financial performance
5. Forecast of the results of the upcoming financial year
6. Summary and conclusion

Length of thesis: 25 – 30 stran

Recommended literature:

1. ČIŽINSKÁ, R. *Základy finančního řízení podniku*. 1st ed. Grada Publishing, 2018. 240 p. Prosperita firmy. ISBN 978-80-271-0194-8.
2. BRIGHAM, E F. – EHRHARDT, M. *Financial Management.: Theory and Practice*. Boston: Cengage Learning, 2015. 1180 p. ISBN 978-1-305-63229-5.
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I want to dedicate this thesis to my grandmother and father, as their continuous encouragement was not in vain and has provided me with a great foundation in all of my academic efforts, a luxury that was not available to them.

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List of abbreviations and symbols

BPS	Basis Points
CCC	Cash Conversion Cycle
CGU	Cash Generating Unit
COGS	Cost of Goods Sold
COMCO	Competition Commission
DIO	Days Inventory Outstanding
DPO	Days Payable Outstanding
DSO	Days Sales Outstanding
EAT	Earnings After Tax
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest and Tax, Depreciation and Amortization
EPS	Earnings per Share
FY	Financial Year
IFRS	International Financial Reporting Standards
JSE	Johannesburg Stock Exchange
P/E	Price to Earnings
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE	Return on Equity
SKU	Stock Keeping Unit
TIE	Times Interest Earned
YNAP	YOOX Net-a-Porter Group

Introduction

It sounds rather paronomastic to say that the passing of time has intrigued humans since time immemorial. Yet the sundials from ancient Egypt, water clocks from ancient Greece, in stone carved calendars recovered from the Aztec ruins and perhaps even orderly in open space placed stones, such as Stonehenge in England, served the purpose of measurement of time and are an inherent part of the story of the human race. With the technological advancement and changes in fashion trends, the world's first wristwatch was created in 1810 by Abraham-Louis Breguet, one of the oldest watch manufacturers (Black, 2014). Although initially a fashion accessory, watches can also become an eternal memento of inconceivable sentimental value or importance. Whether it is a watch found in ashes of Hiroshima stopped at the time 8:15, soldier's watch that was damaged by the bullet he took, or family inheritance. The time accuracy of actions taken by individuals during armed conflicts can very much mean the difference between life and death.

As watches were used more purposefully and influenced by the changes in society, they became available to a wider range of people, which resulted in industrialisation of watchmakers. Nowadays, the majority of renowned watchmaking companies are owned by big corporations. With the ownership in the hand of publicly traded corporations, the question about the company's performance in many different areas can be answered using available and relevant data. Moreover, comparisons can be made throughout the company's historical data or between different companies.

The thesis aims to outline the basic methods for financial analysis, introduce the main theoretical knowledge, apply the methods introduced to The Swatch Group Ltd (hereinafter referred to as Swatch Group) and Compagnie Financière Richemont SA (hereinafter referred to as Richemont) using the publicly available information from the companies' annual reports and other press releases and interpret the results of the analysis.

This thesis is divided into 4 chapters. The first chapter deals with the theoretical background of financial performance evaluation, the second chapter focuses on general information about the watchmaking industry and the application of the methods of the financial analysis to the companies stated above, the third chapter

provides the reader with more detailed information about inventories and possible differences in inventory management and the last chapter provides the estimates of the upcoming fiscal year's results.

1 Theoretical principles

The focus of this chapter is the theoretical background of business analysis, which is later in the thesis used for the assessment of performance and health of selected companies. The first part of the chapter introduces the connection between company and business analysis. The second part of the chapter specifies the concept of financial analysis, such as its the main purpose, users and overall potential benefit for the users. In the third part of the chapter, specific methods and tools, e.g., financial ratios used when conducting financial analysis are described and once again their value in area of financial analysis is detailed. In the last part of the chapter several aspects concerning inventories are explained as the inventories are subjected to greater analysis later in the thesis.

1.1 Company as the Subject of Analysis

While the financial analysis is the core of the theoretical part of the thesis, its plain definition at very beginning would not do justice its undoubted value, which it has in today's data-driven world. The introduction of its subject, in our case a company, is hence far more important for understanding what can be analysed, why it should be done and who can subsequently take the advantage of the implications of the analysis results.

The view on what is the main goal of the company varies. Ability to generate profit and being able to cover company's liabilities when they become due are two main goals the company should follow (Bokšová, 2013). However, success of the business cannot be measured by the reported value of the profit. The reasoning behind this is among other problems the uncertainty of the profit in the future and possibility for the owner or managers to affect profit using various accounting methods within the valid regulation (Čižinská, 2018). This is supported by Graham, Harvey and Rajgopal (2005) survey with the answers from 401 financial executives. 79,9 % of respondents would decrease discretionary spending (e.g., advertising, maintenance, etc.) towards the end of the quarter to meet the goal for quarterly earnings (see Appendix 1).

The long-term ability of the business to generate profits that can be later encashed, liabilities paid off and dividends paid to the owner of the business is the base the

shareholder value conception. Generated cash-flows should cover both taken risk and opportunity costs. (Čižinská, 2018)

It is important to note that companies are not isolated from their surroundings. The very operation of the company is defined and allowed by the law as well as its rights and obligations. The geographical environment might have significant influence on company's access to resources. Political environment influences the company for example in terms of taxes and the political situation in the given area might have variable effect on different areas of entrepreneurship. Bad managerial decisions can even lead to pollution or other examples of unethical behaviour. Ethics are for the company another important aspect for consideration. However, the influence is often mutual. Example of that is social environment with which the company interacts throughout its operation. The prosperity of the company affects the prosperity and well-being of the population in its surroundings and can lead to development of infrastructure in the given area. Governments also influence the opportunities in various segments of the market, e.g., with price regulation or ecological restrictions (Bokšová, 2013). This can be also perceived as the concept of stakeholder value, where other parties besides the owner are interested in the performance and health of the company. With the combination of shareholder and stakeholder values the goal of any business can be perceived as maximalization of the shareholder value with the interest of all stakeholders taken into consideration (Čižinská, 2018).

1.2 Financial Analysis

The company needs to setup other goals, more specific and often quantified, to achieve the general one previously mentioned. To achieve them, financial performance in many different areas of the business needs to be monitored on regular basis.

In its essence the financial analysis serves as a tool that validates the financial situation of the company. It can discover weaknesses and support the management with the specific data to ease their decision-making in order to rectify these weaknesses. Apart from the validation of effectiveness of managerial decision, financial analysis can be also used for estimation of the future prospects of company's operation. (Knápková, et al., 2013)

However, when performing financial analysis, it is important to consider whether the methods used are applicable to selected company. Costs of the analysis, which can be also applied only to certain part of the business, should be lower than the profit resulting from the decisions based on the results of the analysis. The target of the analysis should be always defined in advance. (Sedláček, 2011)

The objectives of the financial analysis Sedláček (2011) defines as follows:

- Influence of internal and external environment of the company.
- Analysis of company's evolution in time.
- Comparison of analysis results.
- Information availability for future decisions.
- Analysis of variants of future development and ability to choose the right one.
- Interpretation of financial planning and management results.

Based on the approach with the respect to the data and methods used, financial analysis can be divided in two parts, fundamental and technical analysis, both intrinsically connected and influenced (Růčková, 2019).

Fundamental Analysis

Often referred to as qualitative analysis, fundamental analysis works with wide range of information from both economical and non-economical environments. The opinion of experienced specialists is considered as valuable source of data for fundamental analysis. Unlike technical analysis, quantitative characteristics are used only for demonstration of results and the methods used are more of a verbal character. The list of these methods includes generally known SWOT analysis or balanced scorecard method. (Sedláček, 2011)

Fundamentals, resulting from the analysis of the economy, given industry and the company itself arguably play a key role in the determination of intrinsic value of the business, which does not have to be automatically the same as the company's market value. The difference between the two is key for the investor's decisions. (Subramanyam, 2014)

Technical Analysis

Technical analysis on the other hand uses mainly mathematical techniques and the techniques from the field of mathematical statistics. The data are processed quantitatively using these methods for the subsequent interpretation (Růčková, 2019). As one of the many inputs of technical analysis Sedláček (2011) mentions the results of fundamental analysis. This further supports the widely accepted opinion that the optimal results require combination of both approaches.

1.2.1 Sources of Data

For the process of financial analysis relevant data are essential for the achievement of optimal results. As the main source of these data serve financial statements, such as the balance sheet, the income statement, the statement of stockholders' equity and the statement of cash flows. (Knápková, et al., 2013)

These statements, that publicly traded companies are obliged to make available to the public, are inherent part of companies' annual report, which also often presents comments from the executives on the past results of the company's operations and developments affecting company in the future alongside the auditor's report. The information on the reason behind the development, on why the things turned out the way they did, is equally important as its quantitative representation. (Brigham and Ehrhardt, 2017)

As already presented in the chapter 1.1 by the Graham et al. (2005) survey, relying on financial reporting figures also presents shortcomings. Changes to different yet acceptable accounting methods can affect earnings reported by the company with limited impact on cash flow. Inflation also plays role in distortion of previously reported accounting figures and managerial intentions to shift revenues and expenses between the periods impair the overall quality the financial statements. Mentioned factors can even preclude overall comparison between multiple companies or single company's yearly results. (Venanzi, 2012)

1.2.2 Users of Financial Analysis

The beginning of this chapter brought the attention to the potential interest in the company from multiple subjects. This is also reflected in the list of users, who can

take the advantage of the results of the analysis. Generally, they can be divided in two groups: internal and external (Grünwald and Holečková, 2007).

Grünwald (2007) further expands these groups into following list of users, which is still far from complete given the interconnections of businesses in the real world, accompanied by the commentary on the reason behind their interest in the financial analysis:

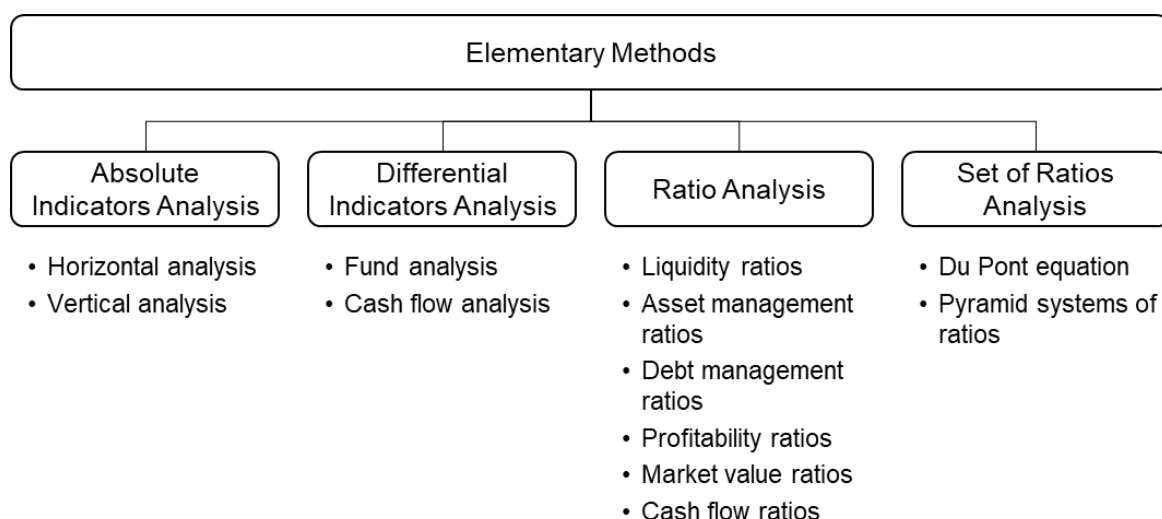
- Managers, who are able to make the right decisions about the company's optimal capital structure and the streams of financial resources by utilizing the knowledge of company's financial situation with much more detailed information than the one available to the external users.
- Investors, who are interested in the degree of the risk and the profitability of their investment and whether are the managers decisions leading towards the company's growth or not.
- Banks and other creditors need to determine creditworthiness of the potential client. The company's financial situation emerging from the financial analysis helps creditor in the discussion over the amount, duration, interest rate, overall purpose and other parameters of the loan.
- Customers and suppliers are interested in the capabilities of their business partner to fulfil his promises. The cornerstone from the supplier's point of view is his business partner's ability to pay the liabilities on time and in full. Customers, whose operation might rely on the supplies from the business partner in question, need to monitor their supplier's financial situation in order not to put their own operations in danger of bankruptcy.
- Employees, who might use the financial results with the help of labour unions in the attempt to influence management of the company.
- Government and regulators can use the data for verification or statistical purposes.
- Competitors, for whom it may serve as a data set for benchmarking in many different areas.

1.3 Methods and Tools for Financial Analysis

The financial analysis uses wide range of indicators, which can be generally divided in the following groups (Růčková, 2019):

- Absolute indicators
- Differential indicators
- Ratio indicators
- Special indicators

Considering the scale of this thesis and methods used in later parts of the thesis, mainly elementary methods are explained in the following chapters. Figure 1 below sums up the content of elementary methods.



Source: Modified from Růčková (2019)

Figure 1 Visual Distribution of Elementary Methods

1.3.1 Horizontal Analysis

While financial statements provide clearly structured information, it can be very difficult for the user to monitor year-to-year changes for example in terms of company's capital structure or sources of financing.

Since each straight line in the financial statements represents one item and the yearly differences are calculated for each item accordingly along the horizontal line, the analysis is hence called horizontal. Even though absolute year-to-year changes

in monetary units are the result of horizontal analysis, it is practical to also use their relative representation in percentage. (Sedláček, 2011)

It is strongly advised to pay attention to both changes in amounts and percentage development. The reason behind this is the base from which are both calculated. High double-digit percentage changes might be the result of insignificant monetary change with small absolute base. On the other hand, big investment raising already significant value might be reflected in horizontal analysis only by couple of percent. (Subramanyam, 2014)

1.3.2 Vertical Analysis

Vertical analysis, with its name derived from the vertical line along which are the items stated in the financial statements one by one from the top to the bottom and subsequently summed up into subgroups and groups, serves as a great tool for revealing proportionate representation of each item in its respective subgroup or group. (Sedláček, 2011)

Great example of this is the ability for the user to see what percentage of total assets of the company represents its land. It might be even more useful to see and monitor changes within subgroups, i.e., share of cash and equivalents in current assets. The vertical analysis of the balance sheet, to which examples above relate, can be used for both analysis of capital structure and financing structure on the other side of the balance sheet. (Subramanyam, 2014; Knápková, et al., 2013)

However, the benefit of vertical analysis can be also obtained from its application to other statements, mainly income statement, where the sales represents the base and other items are subsequently calculated as a share of sales. This results in popular and practical interpretation of each item as number of cents per dollar of sales. (Subramanyam, 2014)

Sedláček (2011) goes on to explain that vertical analysis in time series is absent of the effect of inflation and allows for even more accurate comparison of company's results in different years or intercompany comparison.

1.3.3 Financial Ratios

Financial ratios generally compare different items from financial statements with one another. The freedom of choice which item divides which is significant. However,

the emphasis lies on the interpretation of such operation and its result. Just like with vertical analysis, the results of financial ratios are evaluated in time series from the company's historical results or compared to results of different companies. (Čížinská, 2018)

The different areas of company's financial health and performance are evaluated by specific groups of ratios, already outlined in Figure 1 at the beginning of chapter 1.3.

Liquidity Ratios

The purpose of liquidity ratios is to evaluate the ability of the company to satisfy its obligations, which it must pay off within the next 12 months. This ability is expressed by dividing current assets by current liabilities. The decision, if all items from the current assets should be included considering their liquidity then provides the user with three liquidity ratios with ascending degree of liquidity of the current assets considered: current, quick and cash ratio. The formulas below show this in detail. (Brigham and Ehrhardt, 2017; Čížinská, 2018)

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (1)$$

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}} \quad (2)$$

$$\text{Cash Ratio} = \frac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}} \quad (3)$$

The result of these divisions is real number usually bigger than 0. It is important to note that value of the cash ratio does not necessarily need to be equal to 1 for the company to be able to pay off its current liabilities. While the reported current liabilities will need to be paid off within the next 12 months, not all of them need to be paid off immediately. Just like with other ratios, it is necessary not to rely merely on the very value of the ratio, but all aspects that might have an impact on it. The external analysts need to rely on the information in company's annual report (Čížinská, 2018)

The example of such aspect might be a long-term loan that results in significant increase in cash. With the current liabilities uninfluenced, the value of all above stated ratios would rise. (Ross, Westerfield and Jordan, 2019)

Asset Management Ratios

Efficiency ratios, as the asset management ratios are also called, focus on measuring effectiveness with which company manages its assets. For this purpose, total sales are divided by either total assets, certain group of assets or individual assets. The commonly used efficiency ratios are total asset turnover, fixed asset turnover, current assets turnover, inventory turnover and trade receivables turnover. (Brigham and Ehrhardt, 2017; Čižinská, 2018)

However, in case of inventory turnover ratio, it is more relevant to use cost of goods sold (COGS) rather than sales, for better correlation with inventories, which are often reported at cost. (Samonas, 2015)

The numeric result of total asset turnover, fixed asset turnover and current assets turnover represents the number of monetary units of sales generated by each monetary unit of the assets in question. With the inventory turnover and trade receivables turnover, the result can be interpreted as how many times in the financial year has the value of inventories or trade receivables been converted into other type of current asset, inventories into trade receivables or cash and trade receivables into cash. (Čižinská, 2018)

The alternative ratios to inventory turnover and trade receivables turnover are days sales outstanding (DSO) and days inventories outstanding (DIO), where receivables in case of DSO are divided by average daily sales, i.e., annual sales divided by 365, and inventories in case of DIO are divided by average daily COGS, i.e., COGS divided by 365. The result of DSO then represents the number of days it takes the company to receive cash for its receivables. The result of DIO on the other hand represents the number of days it takes the company to sell its inventories. (Brigham and Ehrhardt, 2017)

Similarly, as DIO can be calculated days payable outstanding (DPO) for which accounts payable are divided by average daily COGS. Together, DSO, DIO and DPO are important for calculation of cash conversion cycle, which shows the time in days between acquiring raw materials and receiving the cash back into the company. It is calculated as sum of DSO and DIO and subsequent deduction of DPO. (Samonas, 2015)

Debt Management Ratios

Companies are often taking advantage of external sources of financing as it is very unlikely for them, especially for big corporations, to be able to finance all the company's operation from the equity. However, certain amount of debt often leads to increase in profitability. This effect is also known as a financial leverage. Debt management ratios provide information on the structure of sources of financing, what portion of company assets is financed by debt or even on the ability of the company to sustain the interest resulting from acquired debt. (Růčková, 2019)

Total debt divided by total assets is known as debt ratio and reveals the portion of company's assets that is financed by debt. For this purpose, it is often expressed in percentage. The ratio of total debt to total common equity is simply referred to as debt-to-equity ratio and shows the number of monetary units of debt for single monetary unit of equity. It might be important for creditors like banks, which might decide not to grant an additional loan to a company with the debt already exceeding the total common equity. The risk of failing to meet the debt obligations in form of annual interest cost can be evaluated by times-interest-earned ratio (TIE), which can be calculated as earnings before interest and taxes (EBIT) divided by interest expense. The result shows, how many times the company can cover its interest expenses. (Brigham and Ehrhardt, 2017; Knápková, et al., 2013)

Another interesting ratio when considering the company's ability to meet its obligations might be cash flow to debt ratio. Dividing operating cash flow by total debt provides the user with the estimate of time, in which the company would have paid off the entire debt. The higher the cash flow to debt ratio, the stronger position towards covering the total debt company has. (Rist and Pizzica, 2015)

Profitability Ratios

The ability of the company to create new resources and to achieve profit with the investments made is evaluated by various profitability ratios. As the profit can be in the calculations of these ratios taken one of its different variations, for example EBITDA, EBIT, EAT etc., determined by the intention of the analyst. (Čížinská, 2018)

The overall profitability and effectiveness of business is generally represented by the return on assets (ROA) for which total assets divide net profit. Result can be

interpreted as the amount of income that generates single monetary unit of assets. (Růčková, 2019; Samonas, 2015)

Profitability of company's capital can be assessed with return on capital employed (ROCE). For accurate portrayal of the result of company's operation are as profit often used earnings before interest and taxes. Formula below shows the calculation. (Čížinská, 2018)

$$ROCE = \frac{EBIT}{Liabilities + Equity - Current Noninterest Bearing Liabilities} \quad (4)$$

The return on common equity (ROE) is useful ratio from stockholders' perspective since it shows the return on the finances invested by stockholders and owners. The calculation is straightforward, as common equity divides net income available to common stockholders. (Brigham and Ehrhardt, 2017)

Brigham and Ehrhardt (2017) further outline three profit margin ratios: net profit margin, operating profit margin and gross profit margin. The net profit margin reveals the profit per single monetary unit of sales by dividing net income by sales. The other two profit margin ratios might identify the reason for low value of net profit margin, as they take in the numerator different item from the income statement. It is EBIT in case of operating profit margin and sales minus cost of goods sold including depreciation in case of gross profit margin.

Keeping in mind the return on equity ratio and previously mentioned ratios, it is possible to more understandably explain widely used DuPont's ROE breakdown. As shows the equation below, ROE can be broken down into multiplication of profit margin, asset turnover and leverage ratio. The first two multiplied together are essentially ROA, already described earlier. The DuPont's model helps to identify the effect the profit, sales, assets and leverage have on ROE. (Samonas, 2015)

$$ROE = \frac{Net\ profit}{Sales} \times \frac{Sales}{Total\ assets} \times \frac{Total\ assets}{Equity} \quad (5)$$

Market Value Ratios

The fact that the companies examined later in the thesis are publicly traded gives the opportunity to calculate various market value ratios.

Book value per share is calculated as equity divided by number of shares outstanding and might be useful for comparison of book value of share with its market value. The market-to-book ratio serves this purpose as it divides market price per share by book value per share. The result bigger than 1 suggest that the company has bigger market value than what previous and current owners and stockholders have invested in the company. (Sedláček, 2011)

Earnings per share is another widely used ratio, as it shows what the portion of net income can be allocated to one share. However, the value of dividends cannot be deduced from earnings per share, as the income will be likely used in various streams. This ratio is also useful for calculation of price to earnings ratio (P/E), as it divides price per share. The P/E ratio shows, how much in monetary units are the investors willing to pay for single monetary unit, e.g., for 1 dollar, of the company's net income. High P/E ratio might also reflect relatively low risk of potential investment in the company. Low P/E ratio might suggest higher risk or low growth potential of the business. (Rist and Pizzica, 2015; Sedláček, 2011)

2 Watchmaking Industry and Analysis of Selected Companies

It goes without saying that the country of origin of a product very much adds to the possible customer perception of the certain product characteristics. After all, phrases such as “German engineering” or “Italian design” are being used profoundly and marketing aspect of them is often fully exploited. In watchmaking industry, “Swiss Made” label can have similar effect on the customer as the two phrases previously mentioned. The conditions for its use are of course defined by the law described later in the chapter. The state in which Swiss watchmakers find themselves in nowadays is very much different from the one some 60 years ago, when Switzerland was exclusive supplier of highly accurate timepieces in relatively high volumes for the whole world. The neutrality of Switzerland during World War II undoubtedly aided the Swiss monopoly as the Swiss manufacturers supplied army personnel of both parties (Johnson, 2016).

However, watchmaking industry was not spared from the unstoppable force of technological advancement, which resulted in development of battery powered watch challenging the traditional watches with mechanical movements. While the aim of this chapter is not to outline the full history of watchmaking, this event often referred to as “Quartz revolution” or “Quartz crisis”, named after the quartz crystal powering the watch via electric current provided by the battery, defined the future course of Swiss watchmaking and subsequently predestined the change in the ownership of many traditional manufactures. This technological innovation led by Japanese watchmakers, as unfortunate as it was for their Swiss counterparts, ultimately enabled the fulfilment of substantial demand for accurate wristwatches, which were up to that point beyond the grasp of many potential customers. This can be illustrated by higher average annual value of Japanese watch exports between 1981 and 1985 with difference of USD 50 million to the Swiss watch exports. (Donzé, 2014)

Donzé (2014) goes further and describes this in great detail with his in-depth historical analysis of the crisis, which the Swiss watchmaking industry endured, and of the steps it took in order to restore its former glory. His work will most definitely help the reader to better understand the industry as a whole and the current situation discussed later in the thesis.

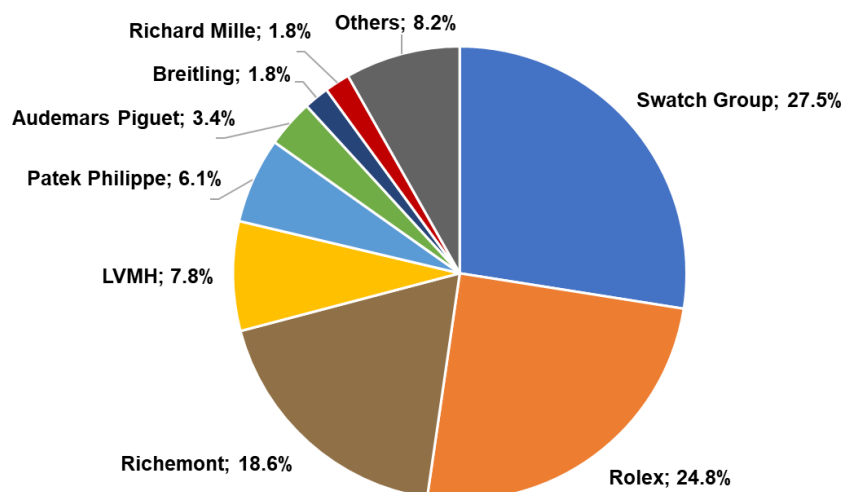
Table 1 below illustrates the biggest competitors within the watchmaking industry in 2012.

Table 1 Main Competitors in Watchmaking Industry

Group	Country	Watch sales [CHF millions]	World watch market share [%]	Watches' share of turnover [%]
Swatch Group	Switzerland	6 955	18.3	89
Richemont	Switzerland	5 960	15.7	49
Rolex	Switzerland	4 500	11.8	100
Fossil	USA	1 970	5.2	75
LVMH	France	1 785	4.7	5
Citizen	Japan	1 490	3.9	51
Seiko	Japan	1 295	3.4	43
Patek Philippe	Switzerland	1 150	3.0	100
Casio	Japan	800	2.1	25

Source: (Donzé, 2014)

From the last column in the Table 1 is apparent that certain companies have other areas of company's operation apart from the production of watches that generate income. For other companies, such as Rolex and Patek Philippe, to this day independent and privately owned watchmakers, watch production is their sole income stream. In order to provide the reader with the most accurate data available, the Figure 2 below shows the latest estimate of market share of Swiss watchmaking companies only.



Source: (Müller, 2020)

Figure 2 Swiss Watchmaking Groups' or Companies' Market Share in 2019

For the decision which companies should be subjected to more detailed analysis using the methods outlined in chapter 1.3 of this thesis, several factors need to be evaluated. Since this thesis only works with publicly available data, Rolex as a private company is not required to publish any financial data and rightfully abstains itself from doing so. Therefore, with the respect to similar geographical aspects, market share and availability and trustworthiness of data available, Swatch Group and Richemont are the two companies introduced and subsequently compared using selected methods in the following chapters of the thesis. The primary sources of data used for the analysis and possible interpretations are both Swatch Group's and Richemont's annual reports and statistics published by Federation of the Swiss watch industry FH, which are available publicly. In order to make the text coherent and fluent, these sources are not overly referenced directly in the text, especially in sections, where it is evident and are as follows: Compagnie Financière Richemont SA (2016, 2017, 2018, 2019, 2020a), The Swatch Group Ltd (2017, 2018, 2019a, 2020a), Federation of the Swiss Watch Industry FH (2020a, 2020b, 2020c, 2020d).

Swiss Made

Since the Swiss watchmaking is the very subject of the thesis and with a few exceptions all brands from both Richemont and Swatch Group are produced in Switzerland and therefore carry in the watchmaking industry well-known label „Swiss made“, it is important to outline conditions under which this label can be used on the watches. The Swiss law defines the watch as Swiss in ordinance 232.119 as follows:

“A watch is considered to be a Swiss watch if:

a. at least the following elements of its technical development are carried out in Switzerland:

1. for exclusively mechanical watches: the mechanical construction and prototyping of the watch as a whole,

2. for watches that are not exclusively mechanical: the mechanical construction and prototyping of the watch as a whole, as well as the design of the printed circuits, the display and the software;

a^{bis}. its movement is Swiss;

b. its movement is cased up in Switzerland;

c. the final inspection of the watch is conducted by the manufacturer in Switzerland; and

d. at least 60 per cent of the manufacturing costs are incurred in Switzerland.”
(The Federal Council, 2019, Art. 1a)

The ordinance further expands on details on what is considered a Swiss movement, for which, similarly as in case of Swiss watch, 60 % of its manufacturing costs must be incurred in Switzerland and in case of the individual components of the movement, the requirement states that individual parts made in Switzerland must represent at least 50 % of all movement parts. (The Federal Council, 2019)

The benevolence of this regulation has been criticized and certain high-end Swiss watch manufactures even decided to no longer use the label on their watches, as it can be in some cases deceptive to the customers (Gretler, 2017).

On the other hand, with Switzerland at the very top of the list of the most expensive countries based on their cost of living index and with Switzerland's median value of gross monthly salary in sector 2 – production – manufacturing division standing for 2018 at CHF 6 436, once again among highest in the world, the regulation has significant impact on the expenses of the Swiss watch manufacturers through requirement of labour, which must occur in Switzerland and hence also impacts the reported value of the inventories and expenses, if the Swiss watchmakers indeed decide to mention “Swiss made” on their products. (Papadopoulos, 2020; Federal Statistical Office, 2020)

2.1 The Swatch Group Ltd

It is a known fact that watches are one of the main export articles of Switzerland's economy. In 2019 the total value of watches exported accounted for CHF 21,7 billion (Federation of the Swiss Watch Industry FH, 2020d). This represents the highest value in watch exports in the world. But it was in completely different state of Swiss watchmaking industry when the Swatch Group started its operations.

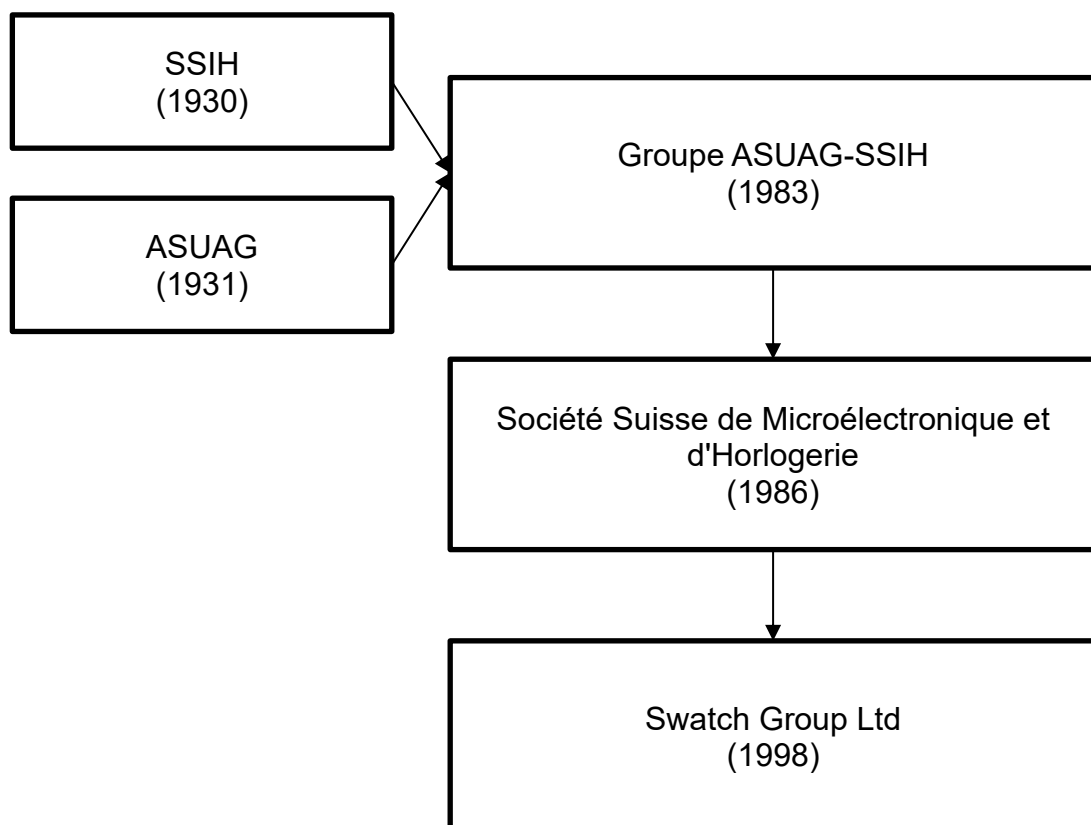
Société Suisse pour l'Industrie Horlogère (SSIH) and Allgemeine Schweizerische Uhrenindustrie AG (ASUAG) were the two biggest Swiss watchmakers operating between 1930s and 1970s. As the affordable and for that time period extremely accurate Japanese battery powered quartz watches started to emerge on all world open markets during 1970s, the Swiss manufacturers were experiencing decreasing

demand for their goods and both SSIH and ASUAG filed for bankruptcy in early 1980s despite support of Swiss banks of more than CHF 550 million. (Thompson, 2017)

Control has been given to Nicolas G. Hayek with the plan of merging two companies into one carrying the name Société Suisse de Microélectronique et d'Horlogerie (SMH) (in English Swiss Corporation for Microelectronics and Watchmaking), which was renamed in 1998 to Swatch Group Ltd and is today publicly traded on SIX Swiss Exchange. (Donzé, 2014)

Hayek family is up to this day involved in the company and according to 2019 Annual report the Hayek family and its related individuals and companies control 42,3% of voting rights. (The Swatch Group Ltd, 2020a)

The evolution of Swatch Group and its naming is well portrait by the Figure 3 below.



Source: (Donzé, 2014)

Figure 3 Evolution of Swatch Group

Ever since the creation of Swatch Group has the number of brands under its ownership significantly increased. While most of the company's income comes from the watch segment, the expertise in electronic systems and brands specialized in production of watch movements and other watch components aids the attempt to diversify its operations. The diversification is also transparent from the Swatch Group's watch segment, as the basic and middle range misses only by 2 the total count of brands in high and luxury ranges combined.

Out of all non-watch brands within the Swatch Group portfolio, the biggest recognition and importance has the ETA, which produces watch movements and provides them also outside the Swatch Group to its competitors, and Nivarox-FAR, manufacturer of one of the most expensive and hardest to produce components of mechanical watch movement – hairspring. The list of main brands of Swatch Group shows the Table 2 below.

Table 2 Swatch Group Main Brands and Companies

WATCHES			
Basic Range	Middle Range	High Range	Luxury Range
Swatch	Tissot	Longines	Breguet
Flik Flak	Balmain	Rado	Harry Winston
	Certina	Union Glashütte	Blancpain
	Mido		Glashütte Original
	Hamilton		Jaquet Droz
	Calvin Klein		Léon Hatot
			Omega
PRODUCTION			
ETA	Comadur	Manufacture Ruedin	Swatch Group Assembly
Meco	Rubattel et Weyermann	Lascor	Dress Your Body (DYB)
CHH Microtechnique	MOM Le Prélet	Simon Et Membrez	
Nivarox-FAR	Universo	Novi	
ELECTRONIC SYSTEMS			
EM Microelectronic	Renata	Micro Crystal	Swiss Timing and ST Sportservice

Source: Author, Based on Swatch Group 2019 Annual Report

It is important to note that Swatch Group is following mainly the Swiss GAAP FER standards for accounting and reporting.

2.1.1 Swatch Group Cash Flow Statement

As the table in Appendix 6 shows and from which derived Table 3 below sums up, the cash flow of Swatch Group from operating activities has been steadily positive with 25% increase in 2017 compared to previous year which was followed by 25% decrease in 2018 compared to 2017. While the cash flow from operations bounced back in 2019 with 29,8% increase, it did not reach the same value as in 2017.

The major decrease in 2018 was clearly caused by the purchase of inventories, even though it was partially cushioned by the change in trade receivables. Both transactions are also visible in Appendix 8. The increase of net sales in 2018 by 15% compared to previous year was not sufficient to cover all the spending, especially the major increase in inventories, but big enough to still reach relatively high cash flow from operations.

The last deviation from trend is decrease in cash flow from investing activities in 2018 caused by the investment in other non-current assets which was bigger than in 2017 by CHF 200 million. These assets were of financial nature, according to Note 19 in 2018 Swatch Group's annual report.

Highest impact on investing activities have investments in property and in terms of financing activities, paid dividends are naturally affecting the cash flow negatively and accounted for over two thirds of cash flow from financing activities.

Table 3 Simplified Cash Flow Statement of Swatch Group

CASH FLOW STATEMENT				
[CHF million]	2016	2017	2018	2019
Net income	593	755	867	748
Cash flow from operating activities	1 010	1 264	943	1 224
Cash flow from investing activities	-484	-435	-651	-344
Cash flow from financing activities	-666	-677	-659	-615
Net impact of foreign exchange rate differences on cash	-4	3	-22	-19
Change in cash and cash equivalents	-144	155	-389	246
– Balance at beginning of year	1 280	1 136	1 291	902
– Balance at end of year	1 136	1 291	902	1 148

Source: Author; Based on Cash Flow Statement in Annual Reports of Swatch Group

2.1.2 Vertical and Horizontal Analysis

According to financial review in 2017 Swatch Group annual report, the growth in net sales visible in Table 4 below was driven by middle-range watches unlike the increase in sales in 2018, when the major contributors were luxury tier products. The latter correspond better to the statistics in Appendix 4, which suggest 7.56% increase in exports of watches in price category over 3 000 CHF in 2018 over the total export value of the same price category in previous year. The increase of aggregated export values in remaining three categories of statistical data by 2% also supports the 5.4% increase of sales in 2017 and the company statement in 2017 annual report.

While net sales of 2019 decreased by CHF 232 million, it was supported by the decrease in material purchases, which got to the lowest amount in the four-year period. In previous years positive changes in inventories were this time around negative and had the negative effect on development of net income, just as the highest personnel expense in the four-year period. As another two contributing factors for lower net sales of 2019 company adds the complicated situation in Hong Kong SAR during 2019 due to massive protests, where its products are available in more than 90 Swatch Group's retail stores, shut down of 60 stores globally and the currency impact of CHF 76 million due to weakening of USD and EUR versus CHF. The impact in Hong Kong SAR is also apparent in Appendix 5, where the decrease in value of imports of Swiss watches compared to 2018 stands at 10.4 %.

Several things are clear and reconfirmed from vertical analysis of the income statement. Personnel expense and other operating expenses are the main drivers of costs for the Swatch Group. The reduction of retail network in 2019 previously mentioned most definitely affected the wages and salaries, which are the most significant part of personnel expense and after 9.4% increase in 2018, the increase in wages and salaries stood only at 0.7 % in 2019. Marketing, sales and administration and maintenance, rents and energy are the two subgroups contributing in 2019 by 46 % and 41 % respectively to what is reported as other operating expenses.

Table 4 Vertical and Horizontal Analysis of Swatch Group's Income Statement

INCOME STATEMENT							
	Vertical analysis				Horizontal analysis		
	2016	2017	2018	2019	17/16	18/17	19/18
Net sales	100%	100%	100%	100%	5.4%	6.5%	-2.7%
Other operating income	3.3%	1.5%	2.1%	1.6%	-53.4%	55.2%	-25.6%
Changes in inventories	1.0%	1.0%	7.5%	-0.2%	7.8%	661.4%	-102.5%
Material purchases	-21.7%	-21.8%	-26.3%	-19.4%	5.7%	28.3%	-28.1%
Personnel expense	-31.0%	-29.4%	-30.2%	-31.3%	-0.1%	9.6%	0.6%
Depr. & impair. on property, plant & equipment	-5.2%	-5.4%	-5.3%	-5.3%	9.9%	4.2%	-3.1%
Amort. & impair. on intangible assets	-0.6%	-0.5%	-0.5%	-0.5%	0.0%	0.0%	0.0%
Other operating expenses	-35.1%	-32.8%	-33.6%	-32.5%	-1.7%	9.3%	-6.0%
Operating result	10.7%	12.6%	13.6%	12.4%	24.5%	15.2%	-11.4%
Other financial income and expense	-0.3%	-0.2%	-0.2%	0.0%	-36.0%	18.8%	-84.2%
Interest expense	0.0%	0.0%	-0.1%	-0.1%	0.0%	66.7%	60.0%
Share of result from associates and joint ventures	-0.1%	0.3%	0.0%	-0.1%	-625.0%	-90.5%	-550.0%
Ordinary result	10.2%	12.6%	13.4%	12.2%	29.9%	12.7%	-11.4%
Non-operating result	0.1%	0.0%	0.0%	0.0%	-25.0%	-66.7%	0.0%
Profit before income taxes	10.3%	12.7%	13.4%	12.2%	29.6%	12.5%	-11.4%
Income taxes	-2.4%	-3.2%	-3.1%	-3.1%	37.0%	5.6%	-3.8%
Net income	7.9%	9.5%	10.2%	9.1%	27.3%	14.8%	-13.7%

Source: Author; Based on Income Statements in Annual Reports of Swatch Group

Derived from Appendix 8 the same analysis can be applied to Swatch Group's balance sheet, which shows the Table 5 below with the insignificant items removed for structural reason and with the attempt to enhance the clarity of both horizontal and vertical analysis for the reader.

Already visible from the cash flow statement in previous part of the chapter is the negative cash flow in year 2018, mainly due to increase of inventories and purchase of other non-current assets of financial nature. We can see all these changes clearly in horizontal analysis of the balance sheet, 26.9% decrease in cash, 9.5% increase in inventories and over 133% increase in other non-current assets. From the vertical analysis it is also clear that inventories and property, plant and equipment account

for most of the total assets (73,3%) with inventories representing half of the value of total assets. From the quick glance on other side of the balance sheet it is apparent that the company is using mainly equity for financing the assets. Furthermore, majority of both current and non-current liabilities are most likely non-interest bearing, such as trade payables, accrued expenses and deferred tax liabilities. This could be also already concluded from minimal interest expense in the income statement analysis in Table 4.

This strategy is in line with historical development of Swatch Group, as Nicolas Hayek intended to purchase brands within the luxury tier of watches, such as IWC, Jaeger-leCoultre or Lange & Söhne, but decided not to, due to significant bank loan, which would be required and subsequently hinder his plan on independence from the financial world (Wegelin, 2010).

The biggest changes have seen retained earnings due to paid dividends and treasury shares due to cancellations related to capital reduction. The Swatch Group decided to terminate the share buy-back program active between 2016 and 2019 and to cancel all the shares repurchased during the program as well as remaining bearer shares from the 2008 share buy-back program.

Table 5 Vertical and Horizontal Analysis of Swatch Group's Balance Sheet

BALANCE SHEET	Vertical analysis				Horizontal analysis		
	2016	2017	2018	2019	17/16	18/17	19/18
Current assets							
Cash and cash equivalents	8.7%	9.6%	6.9%	9.0%	13.6%	-26.9%	31.3%
Trade receivables	6.9%	8.0%	6.5%	6.1%	19.2%	-17.0%	-6.2%
Inventories	47.8%	46.9%	50.6%	50.0%	0.9%	9.5%	-0.9%
Total current assets	69.0%	70.2%	69.2%	69.8%	4.6%	0.0%	1.0%
Non-current assets							
Property, plant and equipment	25.0%	24.3%	23.8%	23.3%	0.2%	-1.1%	-1.7%
Other non-current assets	1.3%	1.1%	2.5%	2.4%	-17.2%	133.3%	-3.3%
Deferred tax assets	3.1%	2.9%	3.1%	3.1%	-4.4%	6.4%	2.6%
Total non-current assets	31.0%	29.8%	30.8%	30.2%	-1.0%	4.5%	-1.6%
Total assets	100%	100%	100%	100%	2.8%	1.4%	0.2%
Current liabilities							
Trade payables	2.4%	2.6%	2.9%	2.3%	12.0%	11.0%	-20.4%
Other liabilities	1.3%	1.6%	1.6%	1.4%	25.9%	6.2%	-16.7%
Accrued expenses	4.0%	5.2%	4.7%	5.0%	35.3%	-9.1%	6.4%
Total current liabilities	9.2%	10.2%	11.3%	9.9%	13.8%	12.8%	-12.1%
Non-current liabilities							
Financial debts	0.2%	0.2%	0.2%	0.1%	-16.1%	-15.4%	-9.1%
Deferred tax liabilities	4.3%	3.9%	4.1%	4.0%	-6.5%	4.9%	-2.2%
Accrued expenses	1.0%	1.1%	1.2%	1.2%	11.4%	10.2%	4.3%
Total non-current liabilities	6.3%	6.1%	6.1%	6.1%	-1.1%	2.6%	0.0%
Total liabilities	15.5%	16.2%	17.5%	16.1%	7.7%	9.0%	-7.9%
Equity							
Capital reserves	-7.6%	-7.2%	-7.0%	-6.9%	-1.4%	-1.6%	-1.4%
Treasury shares	-5.0%	-6.4%	-9.2%	-1.4%	30.8%	45.0%	-84.4%
Goodwill recognized	-10.5%	-10.2%	-10.0%	-10.0%	0.0%	0.0%	0.0%
Translation differences	-1.1%	-0.9%	-1.5%	-2.1%	-19.0%	82.6%	35.7%
Retained earnings	107.0%	106.9%	108.7%	102.9%	2.7%	3.1%	-5.2%
Total equity	84.5%	83.8%	82.5%	83.9%	2.0%	-0.1%	1.9%
Total equity and liabilities	100%	100%	100%	100%	2.8%	1.4%	0.2%

Source: Author; Based on Balance Sheets in Annual Reports of Swatch Group

2.2 Compagnie Financière Richemont SA

Richemont began its involvement in Swiss watchmaking industry with the purchase of Cartier, soon after which it acquired Baume & Mercier and Piaget in 1988. Other big acquisitions occurred in 1997 with acquisition of Vacheron Constantin and Panerai and in 2000 with IWC, Jaeger-LeCoultre and German manufacturer Lange & Söhne. It was followed 7 years later with the Richemont's latest buy-up of watch manufacturer Roger Dubuis. (Donzé, 2014)

Johann Rupert, chairman of Richemont, owns 10% of the equity of the Richemont and controlling 51% of the Richemont's voting rights through Compagnie Financière Rupert. Richemont's 'A' shares are traded on the SIX Swiss Exchange and unlike the Swatch Group's shares, they are also traded in form of depository receipts on the Johannesburg Stock Exchange with 10 depository receipts representing one Richemont's 'A' share.

It is important to note that Richemont's financial year (FY) ends each year on 31st March. This significantly influences any comparison with Swatch Group, whose financial year ends on 31st December. Thus, it is more accurate to compare Richemont's FY 2020 results, which mostly consists of calendar year 2019, with Swatch Groups FY 2019 results. The significance of this issue is addressed towards the closing chapters of the thesis.

2.2.1 Brands of Richemont

Diversification of brands within the Richemont group is also present, although rather by the type of the product than the price point, which was presented in case of Swatch Group. The common factor of brands under Richemont corporation is much higher price range of products. In their nature these are often labelled as purely luxury products and it is very likely that the export values of watches produced by the Richemont's brands are included in the category over CHF 3 000 in Appendix 4. Table 5 shows all brands clustered according to their specialization.

While Cartier is also historically significant watch manufacturer, all its sales are included in jewelry division, which complicates the comparison. Therefore, the figures for the whole group are used for calculations and the records of individual division used for revelation of trends rather than the comparison with watch segment of Swatch Group.

Table 6 Richemont Main Brands and Companies

Type of Business	Year of foundation	Maisons	City of origin
Jewelry Maisons	1919	Buccellati	Milan
	1847	Cartier	Paris
	1906	Van Cleef & Arpels	Paris
Specialist Watchmakers	1845	A. Lange & Söhne	Glashütte
	1830	Baume & Mercier	Geneva
	1868	IWC Schaffhausen	Schaffhausen
	1833	Jaeger-LeCoultre	Le Sentier
	1860	Panerai	Florence
	1874	Piaget	Geneva
	1995	Roger Dubuis	Geneva
	1755	Vacheron Constantin	Geneva
Online Distributors	2002	Watchfinder & Co.	London
	2000	YOOX NET-A-PORTER GROUP	Milan/London
Other	1983	Alaïa	Paris
	1952	Chloé	Paris
	1893	dunhill	London
	1906	Montblanc	Hamburg
	2001	Peter Millar	Raleigh
	1814	Purdey	London
	1945	Serapian	Milan

Source: Author, Based on Richemont Annual Reports

While the specialist watchmakers division has more than tripple the brands compared to jewelry maisons, the situation in the their contributions to total Richemont sales is quite different, as jewelry maisons contribute by more than 50 %. More importantly for the subject of this thesis, the trend of watchmakers share of total sales has been steadily deacresing in Richemont’s last five financial years and the sales of watchmakers division has not yet recovered to the value from FY 2016, which was followed by significant decrease of 11 %, which the company attributed to the impact of buy-backs, production capacity adjustments and primarily to generally lower demand for high-end watches. Since the FY 2017 of Richemont consists mainly of calendar year 2016, the decrease of 11.6% is also apparent from Appendix 4 in the export values in 2016 in category over CHF 3 000. The Table 6 below shows the results of each division. It also provides the possibility to calculate operating margin for each division, which can be later used for better comparison with Swatch Group.

Table 7 Results of Richemont's Divisions

[€ million]		2016	2017	2018	2019	2020
Jewelry Maisons	Sales	6 048	5 927	6 452	7 083	7 217
	Operating profit	1 892	1 682	1 926	2 229	2 077
	% of total sales	55%	56%	59%	51%	51%
Specialist Watchmakers	Sales	3 225	2 879	2 714	2 980	2 859
	Operating profit	520	226	262	378	304
	% of total sales	29%	27%	25%	21%	20%
Online Distributors	Sales	n/a	n/a	n/a	2 105	2 427
	Operating profit	n/a	n/a	n/a	-99	-241
	% of total sales	n/a	n/a	n/a	15%	17%
Other	Sales	1 803	1 841	1 847	1 881	1 788
	Operating profit	-94	110	-65	-95	-141
	% of total sales	16%	17%	17%	13%	13%

Source: Author, Based on Richemont Annual Reports

2.2.2 Richemont Cash Flow Statement

After the significant 21.6% decrease in cash flow generated from operations in FY 2017, to which low performing specialist watchmakers division most certainly contributed, the cash flow generated from operations increased by 44 % in 2018, which was driven by since then ever-increasing sales of jewelry division. Overall, the cash flow from operating activities has been steadily over € 2 000 million since FY 2018. It is important to note that while operating profit in 2017 and 2018 has been similar, € 1 764 million and € 1 844 million respectively, the cash flow from operations of FY 2017 has been also affected by other factors visible in the note 21 of Richemont 2018 annual report, such as decrease in retirement benefit obligations by € 287 million, current liabilities (€ 90 million decrease) and profit on disposal of investment property.

The cash flow from investing activities saw much bigger turbulence. Investments in money market increased in FY 2018 by 63 %, which included the investment in Dufry SA, retail specialist listed on the SIX Swiss Exchange. This had very likely positive effect on proceeds from money market which has been higher than the investments since FY 2019. The cause for the negative investing cash flow of FY 2019 was the € 2 650 million acquisition of subsidiaries, mainly by acquisition of YOOX NET-A-PORTER GROUP (YNAP Group), Italy based online luxury retailer, which accounted for cash outflow of € 2 401 million.

Two deviations from trend in cash flow from financing were the inflow of almost € 4 billion in borrowings in FY 2018, mainly from corporate bonds, which are from March 2018 listed on the Luxembourg Stock Exchange through subsidiary of Richemont, and the FY 2020 lease payments connected to newly added current and non-current lease liabilities in total amount of € 3 314 million (see Appendix 11) due to adaptation of the IFRS standard for the first time – IFRS 16 Leases – which are in case of Richemont mainly connected to boutiques, offices and manufacturing facilities. Table 7 below shows all above described changes and more.

Table 8 Simplified Cash Flow Statement of Richemont

CASH FLOW STATEMENT						
[€ million]	FY	2016	2017	2018	2019	2020
Cash flows generated from operations		2 419	1 896	2 723	2 331	2 797
Interest received		58	78	72	90	109
Interest paid		-68	-69	-68	-139	-181
Taxation paid		-446	-288	-346	-306	-373
Cash flow from operating activities		1 964	1 619	2 384	2 026	2 370
Acquisition of subsidiary undertakings and other businesses, net of cash acquired		-131	-3	-113	-2 650	-245
Acquisition of property, plant and equipment		-630	-536	-444	-657	-570
Investment in money market and externally managed funds		-6 428	-4 183	-6 832	-6 177	-8 422
Proceeds from disposal of money market and externally managed funds		6 007	3 988	4 999	6 892	8 600
Cash flow from investing activities		-1 287	-475	-3 299	-2 838	-826
Proceeds from borrowings		105	101	3 992	11	0
Repayment of borrowings		-205	-131	-82	-323	-365
Dividends paid		-854	-878	-918	-926	-1 017
Payment/Acquisition for treasury shares		-144	-95	-141	-180	0
Lease payments—principal		0	0	0	0	-588
Cash flow from financing activities		-1 201	-958	2 853	-1 456	-1 923
Change in cash and cash equivalents		-524	186	1 938	-2 268	-379
Exchange gains/-losses on cash and cash equivalents		-80	31	-199	111	17
– Balance at beginning of year		3 152	2 548	2 765	4 504	2 347
– Balance at end of year		2 548	2 765	4 504	2 347	1 985

Source: Author, Based on Cash Flow Statement in Annual Reports of Richemont

2.2.3 Vertical and Horizontal Analysis

Derived from Appendix 11, the vertical and trend analysis in Table 8 below will aid the search for components, which had the biggest impact on profit in last 4 FYs of Richemont.

With the sales increase in FY 2019 by 27 %, all connected operating costs naturally increased too, cost of sales disproportionately by 39.6 % accompanied by almost 36% increase in administrative expenses. While EBIT of FY 2019 only has 13,9% share of original sales, it is positively affected by major increase in share of post-tax results of equity-accounted investments € 1 408 million (€ -41 million in 2018) connected with previously mentioned acquisition of YNAP Group. EBT of 2019 is for that reason highest in 5-year period and the taxation has even decreased.

As gross profit remained in FY 2020 roughly the same as in FY 2019, although steadily decreasing in its share of sales, slowly increasing operating expenses has impacted EBIT of FY 2020, which was all time lowest in 5-year period. Fulfillment expenses reported for the first time in Richemont's 2019 annual report are essentially cost of fulfilling online retail orders connected to online distributors, whose results are also reported as separate division since FY 2019 visible from Table 6. The 15% increase in FY 2020 sales of online distributors resulted in increase of fulfillment expenses from € 229 million to € 352 million.

Net foreign exchange losses on monetary items were according to the note 28 of Richemont's 2020 annual report the reason for the increase of finance costs and further decreased profit for the year 2020.

Table 9 Vertical and Horizontal Analysis of Richemont's Income Statement

INCOME STATEMENT								
	Vertical analysis				Horizontal analysis			
FY	2017	2018	2019	2020	18/17	19/18	20/19	
Sales	100%	100%	100%	100%	3.4%	27.0%	1.8%	
Cost of sales	-36.1%	-34.8%	-38.2%	-39.5%	-0.5%	39.6%	5.3%	
Gross profit	63.9%	65.2%	61.8%	60.5%	5.7%	20.3%	-0.4%	
Selling and distribution expenses	-28.6%	-28.1%	-24.5%	-24.7%	1.6%	11.0%	2.3%	
Communication expenses	-10.5%	-10.0%	-9.6%	-9.9%	-1.2%	21.0%	5.8%	
Fulfillment expenses	0.0%	0.0%	-1.6%	-2.5%			53.7%	
Administrative expenses	-9.5%	-9.5%	-10.2%	-11.0%	3.2%	35.8%	9.7%	
Other operating income/-expense	1.3%	-0.8%	-2.0%	-1.8%	-165%	201.1%	-9.3%	
Operating profit	16.6%	16.7%	13.9%	10.7%	4.5%	5.4%	-21.9%	
Finance costs	-2.2%	-3.0%	-2.1%	-3.5%	43.8%	-12.2%	71.4%	
Finance income	0.7%	1.7%	0.8%	1.2%	153.4%	-40.0%	50.5%	
Share of post-tax results of equity-accounted investments	-0.3%	-0.4%	10.1%	0.1%	20.6%	-3534%	-98.8%	
Profit before taxation	14.7%	15.0%	22.6%	8.4%	5.3%	91.7%	-62.2%	
Taxation	-3.4%	-3.9%	-2.7%	-1.9%	20.0%	-11.8%	-29.9%	
Profit for the year	11.4%	11.1%	19.9%	6.5%	0.9%	128.3%	-66.6%	

Source: Author, Based on Income Statement in Annual Reports of Richemont

The same method can be applied to balance sheet, where the changes described during the examination of cash flow and income statements are also reflected.

High revenue of FY 2018 and big increase of cash inflow from borrowings showed earlier in cash flow statement resulted in overall 89% increase of cash. The increase of total assets in FY 2018 was partially cushioned by decrease in inventories in total value of € 359 million. The increase in trade receivables increased by almost 25 % but was mainly caused by technical re-representation in reporting methodology (merger of trade receivables and prepayments from 2018 onwards). From balance sheet is clear that the overall increase in total asset was also contributed by increase of current financial assets. This was solely covered by liabilities as shows the increase in borrowings and bank overdrafts. As mentioned before, the borrowings mainly consist of corporate bonds listed by Richemont International Holding SA, subsidiary of Richemont, on the Luxembourg Stock Exchange in total value of € 3 922 million in structure as follows: 1.00% € 1 500 million bond maturing in 2026

issued at 98.784%; 1.50% € 1 250 million bond maturing in 2030 issued at 98.701%; 2.00% € 1 000 million bond maturing in 2038 issued at 97.805%; 2.00% € 250 million bond maturing in 2038 issued at 98.557%.

In the FY 2019, the big change for Richemont was the acquisition of online retailer YNAP Group for which most of the 40% decrease in cash was used. This acquisition resulted in significant recognition of goodwill in value of a € 2 877 million and intangible assets in value of € 2 434 million. This acquisition also impacted inventories of the Richemont by 25% increase.

From the 1st April 2019 (the beginning of Richemont's 2020 financial year) the company began to comply with IFRS 16 Leases for the first time, which shows the Table 9 below, as well as Appendix 11, and are represented in both parts of the balance sheet. As the lease liabilities listed under non-current liabilities and as the right of use assets under non-current assets.

The vertical analysis of Richemont's balance sheet reveals the structural difference from the one of Swatch Group. Inventories in case of Richemont represent only 22 % of total assets with the value distributed wider in current assets in short-term financial assets and in big portion of cash on hand. The acquisition of YNAP Group diversified the value distribution of non-current assets through noticeable purchased goodwill and intangible assets. The latter also resulted in increase of amortization cost by € 158 million.

Table 10 Vert. and Horiz. Analysis of Richemont's Simplified Balance Sheet

BALANCE SHEET	Vertical analysis				Horizontal analysis		
	FY 2017	2018	2019	2020	18/17	19/18	20/19
<i>Current assets</i>							
Inventories	26%	19%	22%	22%	-7%	25%	8%
Trade receivables and other current assets	5%	5%	5%	4%	24%	19%	-15%
Financial assets held at fair value through profit or loss	17%	20%	16%	14%	45%	-10%	-4%
Cash at bank and on hand	22%	33%	18%	15%	89%	-40%	-12%
Total current assets	72%	77%	62%	55%	36%	-12%	-3%
<i>Non-current assets</i>							
Property, plant and equipment	13%	9%	10%	9%	-9%	17%	2%
Goodwill	1%	1%	12%	11%	0%	1029%	3%
Other intangible assets	2%	1%	10%	9%	-5%	645%	-5%
Right of use assets	0%	0%	0%	10%			
Equity-accounted investments	6%	5%	1%	1%	0%	-86%	-1%
Total non-current assets	28%	23%	38%	45%	4%	80%	27%
Total assets	100%	100%	100%	100%	27%	9%	9%
<i>Current liabilities</i>							
Trade and other payables	7%	6%	8%	7%	8%	43%	-13%
Current income tax liabilities	2%	1%	2%	1%	-2%	43%	-13%
Lease liabilities	0%	0%	0%	2%			
Bank overdrafts	8%	15%	10%	8%	131%	-30%	-9%
Total current liabilities	19%	25%	22%	19%	64%	-2%	-7%
<i>Non-current liabilities</i>							
Borrowings	2%	17%	14%	13%	967%	-7%	-1%
Lease liabilities	0%	0%	0%	9%			
Total non-current liabilities	4%	18%	17%	24%	530%	2%	56%
Total liabilities	23%	43%	39%	43%	138%	0%	20%
<i>Equity</i>							
Share capital	2%	1%	1%	1%	0%	0%	0%
Treasury shares	-2%	-2%	-2%	-2%	20%	8%	-4%
Cumulative translation adjustment reserve	15%	7%	9%	10%	-37%	36%	22%
Retained earnings	61%	49%	51%	45%	3%	13%	-3%
Total equity	77%	57%	61%	57%	-6%	16%	1%
Total equity and liabilities	100%	100%	100%	100%	27%	9%	9%

Source: Author, Based on Balance Sheet in Annual Reports of Richemont

2.3 Ratio Analysis

The previous chapters provided general information about both companies as well as detailed look into their financial statements, examining the trends, key events and characteristics. The focus of this chapter will be direct comparison and development in companies' financial performance using the financial ratios.

The benefit of financial ratios is the comparability, as they abstract from the currency of the data used for their calculation, which is very much applicable in comparison of Swatch Group and Richemont, whose financial data are reported in CHF and EUR, respectively. What the financial ratios cannot abstract from is the 3-month difference in financial years of both companies, as Richemont's FY ends on 31st March and the Swatch Group's on 31st December. This impacts the comparison as the financial results from different time frame do not reflect the same consumer trends or sociopolitical events. In order to achieve utmost transparency, the list of Appendices also includes an overview of calculations of ratios with number of each individual item taken from the financial statements displayed in parathesis in the formula and any additional number displayed normally. The Appendix 12 shows the calculations for ratios of Swatch Group and Appendix 13 the formulas for ratios of Richemont.

2.3.1 Liquidity Ratios

From the liquidity ratios visible in Table 11 is clear that liquidity of both companies is strong and both companies can pay almost all their current debts with their cash on hand, which suggests rather conservative strategy of net working capital and has most likely impact on the cost of companies' capital.

Current ratio shows the influence of inventories that make up to 50 % of Swatch Group's total assets and are primary reason for significantly higher current ratio of Swatch Group compared to Richemont.

With inventories subtracted, the comparison of quick ratio is much more balanced. The main reason behind quick ratio decrease of Swatch Group's FY is the newly opened short-term bank loan of CHF 148 million with interest rate of 2.9 %. Similar decrease can be seen in Richemont's FY 2019 quick ratio, due to already mentioned acquisition of new subsidiary which resulted in significant cash outflow.

This vindicates the development of cash ratio. The decline of cash ratio continued in its 2020 financial year as the lease liabilities have been added to current liabilities and with leases connected lease payments, which negatively affected cash flow and final cash on hand balance, as well as 10% increase in dividends paid.

Table 11 Comparison of Liquidity Ratios

Current ratio				
FY ending March	2017	2018	2019	2020
Richemont	3.70	3.07	2.74	2.86
FY ending December	2016	2017	2018	2019
SWATCH	7.49	6.89	6.11	7.02
Quick ratio				
FY ending March	2017	2018	2019	2020
Richemont	2.34	2.30	1.76	1.73
FY ending December	2016	2017	2018	2019
SWATCH	2.31	2.29	1.64	1.99
Cash ratio				
FY ending March	2017	2018	2019	2020
Richemont	1.15	1.31	0.81	0.77
FY ending December	2016	2017	2018	2019
SWATCH	1.21	1.19	0.80	1.08

Source: Author, Based on Annual Reports of Richemont and Swatch Group

2.3.2 Asset Management Ratios

From asset management ratios, represented in Table 12, we can see similar results in total asset turnover ratio. And while its value might suggest poor effectiveness of using the assets to generate profit/sales, it is important to note that in both companies the values of inventories is exceptionally high, and inventories consists of finished goods of luxury nature. The last 3 fiscal years of both companies reflect similar trend. In Richemont's FY 2020 € 1 of assets generates 47 cents of sales while in Swatch Group's FY 2019 1 Swiss franc generates 60 Rappens.

The receivables turnover has been increasing for both companies and the reason behind the big decrease in Richemont's FY 2018 was disproportional increase of receivables compared to increase in sales. Prepayments have started to be included in trade receivables and if the same principle would be applied to previous year the values would be as 9,19 (FY 2017). Generally, the average collection period shows the ability to continue with sales on credit, as it takes both companies around 40

days to collect their receivables. The number of days it on average takes Swatch Group to pay their accounts payables is also around 40 days with Richemont averaging around 74 days. The result in case of Richemont is higher due to the necessity of using the same approach for both companies also in terms of calculation of net working capital and return on capital employed later in the chapter. It is important to note that Richemont does not have any difficulty to pay its trade payables on time and in full. This insignificant difference also does not suggest any competitive advantage for Swatch Group.

However, inventory turnover had the biggest negative impact on cash conversion cycle. As we could see earlier from vertical and horizontal analysis, the inventory management seems to be the difference between the two companies. While in case of Swatch Group inventories make up to 50 % of total assets in value, in case of Richemont it is around 20 % on average. This is the reason for almost double the value of inventory turnover and more than half the cash conversion cycle in case of Richemont, the latter suggesting it takes almost a whole year to Swatch Group to convert its inventories into cash.

While Richemont separates cost of sales and other expenses in its income statement, it is not possible to determine cost of goods sold of Swatch Group from its annual reports. Therefore, all turnover ratios in Table 12 has been calculated using value of net sales.

Table 12 Comparison of Asset Management Ratios

Total Asset Turnover					Net Working Capital			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	0.53	0.43	0.50	0.47	12 337	17 260	14 135	14 046
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	0.58	0.59	0.62	0.60	8 211	8 403	8 428	8 564
Accounts Receivables Turnover					Days Sales Outstanding			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	10.7	8.9	9.5	11.4	34.1	41.1	38.4	31.9
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	8.4	7.4	9.5	9.8	43.6	49.3	38.5	37.1
Accounts Payables Turnover					Days Payables Outstanding			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	5.1	4.6	4.5	5.2	71.9	80.1	82.0	70.6
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	9.1	7.5	8.2	8.3	40.3	48.4	44.4	43.9
Inventory Turnover					Days Inventories Outstanding			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	2.0	2.2	2.3	2.1	181.8	163.8	161.4	170.7
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	1.2	1.3	1.2	1.2	302.5	289.7	297.9	303.4
Cash Conversion Cycle								
FY ending March	2017	2018	2019	2020				
Richemont	144.1	124.8	117.8	132.0				
FY ending December	2016	2017	2018	2019				
SWATCH	305.8	290.7	292.0	296.6				

Source: Author, Based on Annual Reports of Richemont and Swatch Group

2.3.3 Debt Management Ratios

The Swatch Group is using debt in very low percentage and majority of its assets is financed by equity. This has been previously referenced to historical development and the intentions of founder of Swatch Group. This also confirms the debt-to-assets ratio in Table 13. It is also important to note that most of the liabilities of Swatch Group are not necessarily connected with interest (accounts payables, deferred tax liabilities etc.) and further confirms the times interest ratio with the values representing how many times can each company for the interests on its debts. This differentiating factor can be seen in the remaining ratios, debt to equity ratio showing that in both companies the debt did not reach the same value of equity and cash flow to debt suggesting that Swatch Group would be able to pay its debts from its

cash flow from operations in 2 years and Richemont in around 5 years for the last fiscal year presented, if the cash would not be spent otherwise.

Table 13 Comparison of Debt Management Ratios

Debt-to-Assets					Debt-to-Equity			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	23%	43%	39%	43%	0.30	0.75	0.65	0.76
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	16%	16%	17%	16%	0.18	0.19	0.21	0.19
Times Interest Ratio					Cash Flow to Debt			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	7.6	5.5	6.6	3.0	35%	22%	18%	18%
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	268.3	334.0	230.8	127.9	50%	58%	40%	56%

Source: Author, Based on Annual Reports of Richemont and Swatch Group

2.3.4 Rentability Ratios

The operating profit margin suggests higher profit per € 1 of sales in favor of Richemont in its FYs 2017 and 2018, although reduced by 300 bps in each following year due to disproportionately increasing costs of sales and all expenses (on average 400 bps between increase in expenses and increases in sales. Return on capital employed shows improvement of Swatch Group compared to Richemont, whose ratio has been decreasing since FY 2018 due to increase of liabilities in form of corporate bonds traded on Luxembourg Stock Exchange and newly recognized lease.

Return on equity in Richemont's 2019 financial year has increased by already mentioned acquisition of online retailer YNAP Group, which disproportionately increased sales and subsequently net profit via share of post-tax results of equity-accounted investments (see item 145 in Appendix 10).

However, the issued bonds, the addition of new CGU and recognition of leases came with the cost in form of higher operational expenses, cost of sales and finance cost through interest payments, and resulted in equal return on equity of both companies in their last fiscal year. From other point of view, according to Richemont Annual Report (2020), the leases are connected to weighted average interest rate of 2.3 %. The bonds as described earlier do not carry interest rate bigger than 2%. Swatch Group has only one loan with the interest of 2.9 %. This combined with the

information provided by ROE can be concluded as still acceptable usage of financial leverage, since ROE is higher than the interest rate of both companies. Details are visible in table 12.

Table 14 Comparison of Rentability Ratios

Operating Profit Margin					ROCE (from EBIT)			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	16.6%	16.7%	13.9%	10.7%	9.8%	7.9%	7.8%	5.5%
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	10.7%	12.6%	13.6%	12.4%	6.6%	8.1%	9.1%	8.1%
Net Profit Margin					ROE			
FY ending March	2017	2018	2019	2020	2017	2018	2019	2020
Richemont	11.4%	11.1%	19.9%	6.5%	7.8%	8.3%	16.4%	5.4%
FY ending December	2016	2017	2018	2019	2016	2017	2018	2019
SWATCH	7.9%	9.5%	10.2%	9.1%	5.4%	6.7%	7.8%	6.6%
Equity Multiplier								
FY ending March	2017	2018	2019	2020				
Richemont	1.30	1.75	1.65	1.76				
FY ending December	2016	2017	2018	2019				
SWATCH	1.19	1.20	1.22	1.20				

Source: Author, Based on Annual Reports of Richemont and Swatch Group

The breakdown of companies return on equity provides the Du Pont Equation in Table 15, which reveals the negative effect of Swatch Group's low financial leverage in equity multiplier and the competitive advantage of Richemont. Moreover, the questionably high net profit margin also has significant effect.

Table 15 Comparison of Du Pont Equation

Net Profit Margin				
FY ending March	2017	2018	2019	2020
Richemont	11.4%	11.1%	19.9%	6.5%
FY ending December	2016	2017	2018	2019
SWATCH	7.9%	9.5%	10.2%	9.1%
Equity Multiplier				
FY ending March	2017	2018	2019	2020
Richemont	1.30	1.75	1.65	1.76
FY ending December	2016	2017	2018	2019
SWATCH	1.19	1.20	1.22	1.20
Total Asset Turnover				
FY ending March	2017	2018	2019	2020
Richemont	0.53	0.43	0.50	0.47
FY ending December	2016	2017	2018	2019
SWATCH	0.58	0.59	0.62	0.60

ROE / Du Pont Equation			
2017	2018	2019	2020
7.8%	8.3%	16.4%	5.4%
2016	2017	2018	2019
5.4%	6.7%	7.8%	6.6%

Source: Autor, Based on Annual reports of Richemont and Swatch Group

2.3.5 Market value ratios

One of the key market value ratios is the earnings per share ratio showed in Table 16 together with the dividends of both companies. While the Richemont's weighted average number of shares in issue for calculation of basic EPS stood at the end of FY 2017 at 564 million, the adjustment for share options amounted to 1.1 million and hence resulting in EUR 0.004 difference between basic and diluted EPS. This adjustment increased in FY 2018 to 1.5 million. Once again, the acquisition of YNAP Group and increase of sales significantly impacted earnings per share of Richemont in its FY 2019. However, the headline earnings per 'A' share, which Richemont is required to present in order to comply with JSE listing, only shows increase from € 2.367 to € 2.596 per share. In terms of dividends, it seems that Swatch Group has been taking conservative approach towards the possibility of increasing dividends in its last FY, unlike Richemont, who proposed another increase in line with the trend from the previous years.

Table 16 Overview of EPS and Dividends

Earnings per Share (diluted)				
FY ending March	2017	2018	2019	2020
Richemont per 'A' share [EUR]	2.141	2.158	4.927	1.646
FY ending December	2016	2017	2018	2019
SWATCH per registered share [CHF]	2.14	2.77	3.23	2.84
SWATCH per bearer share [CHF]	10.69	13.86	16.14	14.18
Dividends				
FY ending March	2017	2018	2019	2020
Richemont per 'A' share [CHF]	1.70	1.80	1.90	2.00
FY ending December	2016	2017	2018	2019
SWATCH per registered share [CHF]	1.35	1.50	1.60	1.60
SWATCH per bearer share [CHF]	6.75	7.50	8.00	8.00

Source: Autor, Based on Annual reports of Richemont and Swatch Group

Both companies also recently terminated their share buyback programs. Richemont's final balance of share buy-back program 2017-2020 is 4 200 000 shares bought back. (Compagnie Financière Richemont SA, 2020c, 2020d)

Richemont capital structure: 522 000 000 "A" registered shares, with a par value of CHF 1.00 each, and 522 000 000 "B" registered shares, with a par value of CHF 0.10 each.

Swatch Group share repurchase program 2016-2019 saw the final balance of 1 399 000 bearer shares repurchased with a nominal value of CHF 2.25 each and 7 125 500 registered shares repurchased with a nominal value of CHF 0.45 each. Total value of repurchased share is CHF 959 026 806.70. The Swatch Group intended cancellation of part of repurchased shares for capital reduction.

As the Richemont's financial year ends on 31st March, the 2020 annual report already shown decrease in sales as the consequence of coronavirus outbreak. Both companies acted upon information from markets and proposed the cut down of dividends. In case of Swatch Group, it was proposed as follows: CHF 1,10 per registered share (originally CHF 1,60) and CHF 5.50 per bearer share (originally CHF 8,00) (The Swatch Group Ltd, 2020c).

3 Insight into Inventory Management

The previous chapter has provided an overview of several financial performance indicators with detailed explanation of their development. The clear difference has been identified in inventories, which in case of Swatch Group reached in recent years almost the value of sales. Considering the fact that inventories are reported at cost, it implies several years of sales contained in the value of inventories. They significantly influence the liquidity of Swatch Group shown by the difference between current and quick ratio, only preserved by the available cash, luxury that might not be available to Swatch Group in following years, if it wishes to keep the current structure of its capital. The significance of the impact has been presented in days inventories outstanding averaging around 300 days for Swatch Group, resulting in twice the cash conversion cycle compared to Richemont. The increasing inventories of Swatch Group between FY 2016 and FY 2018 also impacted cash flow, visible in Appendix 6.

This chapter further shows the breakdown of inventories and attempts to provide the reader with more detailed information, especially in the context of the broader spectrum of the industry. For that reason, details on inventories of companies such as Citizen Group and Seiko Group also provided.

The Table 17 below shows the distribution of inventories of Swatch Group in their respective subgroups and also shows that while raw materials, goods in progress and even spare parts for customer service have proportionately increased with respect to increase of net sales, finished goods on the other hand more than tripled between 2010 and 2016 and ever since represent more than 40 % of value of sales. While the finished goods represented only 33 % of all inventories in 2010, nine years later they account for almost 53 % of all inventories reported.

Table 17 Swatch Group Inventories Breakdown

[CHF million]	2000	2010	2016	2017	2018	2019
Net sales	4 131	6 108	7 553	7 960	8 475	8 243
Raw materials, auxiliary material and supplies	377	226	303	427	666	519
Goods in progress	440	383	505	527	534	446
Semi-finished goods	n/a	1 141	1 995	1 745	1 896	1 910
Finished goods	362	950	3 109	3 260	3 476	3 625
Spare parts for customer service	120	169	347	359	345	352
Total inventories	1 299	2 869	6 259	6 318	6 917	6 852
Inventories write-downs	23	24	41	39	45	41

Source: Author, Based on Swatch Group's Annual Reports

Morgan Stanley (2018) estimates the following amounts of SKUs for selected brands in Table 18. This reveals one of the possible reasons for higher inventories of Swatch Group compared to Richemont and other watchmakers. As Swatch Group has in its portfolio 18 watch brands compared to Richemont's 8, it simply requires higher volumes of stock per each SKU across all brands. It also includes brands in lower price range generally associated with mass production. In addition to that, Swatch Group might intend to occupy various segments of the market by offerings from one brand. In case of Omega, it would once again fit its historical development as it is told that it had 1600 different SKUs in the 1980s for this very reason (Donzé, 2014).

Table 18 Estimates of Brands' SKUs

Brand S = Swatch R = Richemont	SKUs	Units Sold [thousands]	Units Sold per SKU	Sales per Brand [CHF million]	Sales per SKU [CHF thousands]
Omega (S)	800	730	913	2 270	2 838
Longines (S)	750	1 900	2 533	1 470	1 960
Cartier Watches (R)	642	472.5	736	1 670	2 601
Rolux	450	770	1 711	3 900	8 667
Jaeger-LeCoultre (R)	184	110	598	600	3 261
IWC (R)	178	190	1 067	845	4 747

Source: (Morgan Stanley, 2018)

Another important aspect to consider for the valuation of inventories is the value of materials used, which impacts the reported value of finished goods. In watchmaking industry and especially in the luxury segment of the watchmaking industry, which

both Swatch Group and Richemont occupy, the usage of precious metals is far from novelty.

According to environmental rating and industry report of The World Wide Fund for Nature (2018) watch and jewelry industry contributed by 53 % to the world's gold demand in 2017. This represents over 2 300 tonnes of gold used in majority by Swiss watch industry. As of 4th December 2020, the market price for 1 gram of gold is USD 59.20 and USD 1 841.33 per ounce (BullionVault Ltd, 2020). Out of the brands within the portfolios of Swatch Group or Richemont, following brands were evaluated by WWF in transparency in various areas related to their environmental management: Breguet (Swatch Group), Cartier (Richemont), IWC (Richemont), Jaeger-LeCoultre (Richemont), Longines (Swatch Group), Omega (Swatch Group), Piaget (Richemont), Swatch (Swatch Group), Tissot (Swatch Group), Vacheron Constantin (Richemont). Out of these brands only IWC came out in category "Ambitious" – 3rd category from the top on the 6 category scale – and was followed by Cartier, Piaget, and Vacheron Constantin in category "Upper Midfield". Jaeger-LeCoultre was placed in "Lower Midfield" and rest of the brands were evaluated as non-transparent (The World Wide Fund for Nature, 2018). While this does not necessarily speak of management of inventories, greenhouse gas emissions most certainly relate to inventories as well as waste management, product packaging, transportation and usage of certified raw materials, which are all areas, where the Swiss watchmakers have space for improvement. Especially for brands like Omega, which advertises on its website 399 models in precious metal (Omega SA, 2020).

The usage of precious metals and materials as the reason behind exceptional high inventories of Swatch Group disproves the value of inventories of Richemont, which is heavily engaged in jewelry industry. As a matter of fact, its jewelry division's sales in FY 2020 amounted to € 7 217 million, which through exchange rate from 31st March 2020 EUR 1 = CHF 1.06 represents CHF 7 650 million in sales and almost 93 % of total sales of Swatch Group. Yet total inventories of Richemont amounted to EUR 6 658 million (CHF 7 057 million) in its latest annual report compared to CHF 6 852 million in value of inventories of Swatch Group. Interestingly enough, the value of inventories is similar in both companies, however not proportional to the scale of both companies and their sales.

Swatch Group as a Movement Manufacturer

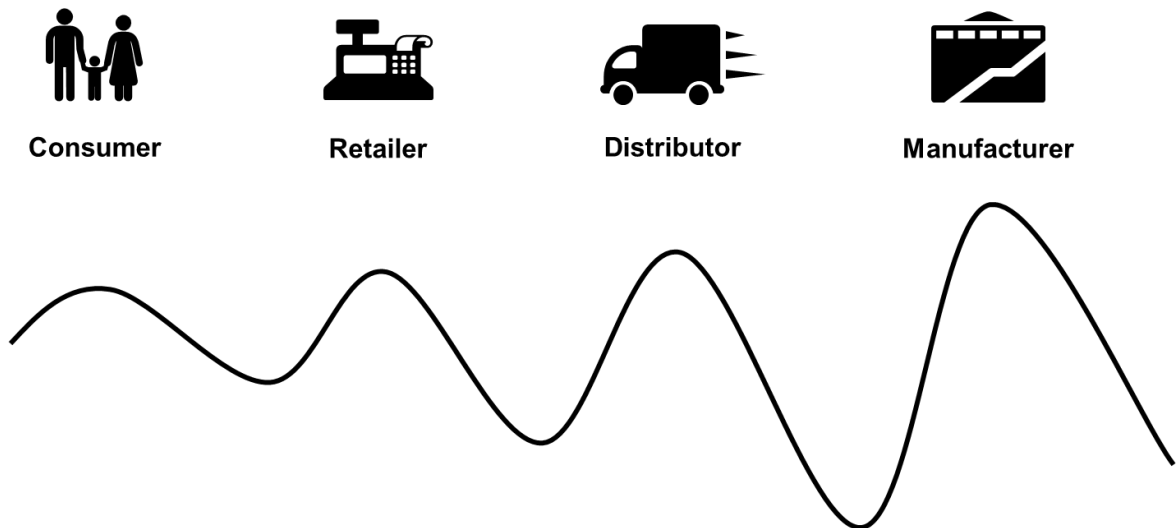
As mentioned previously in the Chapter 2.1, the purpose of one of the Swatch Group's subsidiaries, ETA SA, is the production of mechanical movements, which are used by brands inside and outside of Swatch Group portfolio.

The latter was not viewed as sustainable for the Swiss watchmaking by Nicholas G. Hayek in regards to the lack of inventiveness of watch manufacturers resulting from availability of movements offered by ETA and therefore Mr. Hayek decided to stop offering ETA movements outside of Swatch Group or to have at least to be selective in terms of customers of ETA. This was faced with the challenge by Competition Commission (COMCO), which reached the compromise in 2013 and allowed the Swatch Group gradually to reduce the supplies of ETA movements to brands outside of its group. This decision has been recently amended by COMCO, prohibiting Swatch Group any sales of ETA movements outside its group, which was faced with the outrage of Swatch Group due to involvement on the market, as the ETA's rival Sellita Watch Co SA continually outperformed ETA in terms of movement sales in recent years. (Thompson, 2020; The Swatch Group Ltd, 2019b)

If Swatch indeed scheduled production of movements for upcoming years based on the agreement from 2013, the risk of obsolescence for movements included in the inventories of Swatch Group significantly increases with the COMCO decision.

Bullwhip effect

Another possible explanation for higher inventories of Swatch Group might be the phenomenon known as "Forrester effect" or "Bullwhip effect", which illustrates the Figure 4 below. It is often used to describe the swings in demand created by the consumer and their effect throughout the supply chain and being subsequently amplified at the other end of the supply chain, at the manufacturer side. The list of bullwhip costs also includes the excessive upstream of inventories. (Wang and Disney, 2016)



Source: Author, Adopted from Singh (2018)

Figure 4 Bullwhip Effect

In case of watchmaking industry, these swings in demand can be illustrated by Appendix 5, especially by the swings in high demand region of Hong Kong or rapidly growing markets like China. The increase in value of Swiss watch exports between 2010 and 2015 by 33 % cannot be neglected and might have been the ignition for stockpiling of large volumes of inventories at Swatch Group.

Inventory Write-Downs

While having the highest share of inventories on the total assets and lowest inventory turnover from the four brands shown in Table 19 below, the inventories write-downs compared to reported value of inventories are also surprisingly lower than in case of other brands. One of the contributing factors to this issue is most likely the application of different accounting and reporting standards among the companies in Table 19.

Table 19 Inventory Comparison Through Industry

		2000	2010	2016	2017	2018	2019
Swatch Group	inventories / total assets	28%	33%	48%	47%	51%	50%
	net sales / inventories	3.2	2.1	1.2	1.3	1.2	1.2
	inventories write downs / inventories	1.8%	0.8%	0.7%	0.6%	0.7%	0.6%
Richemont	inventories / total assets	16%	29%	26%	19%	22%	22%
	net sales / inventories	2.6	2.5	2.0	2.2	2.3	2.1
	inventories write downs / inventories	 	2.3%	4.2%	4.5%	4.2%	3.3%
Citizen	inventories / total assets	 	 	21%	22%	24%	27%
	net sales / inventories	 	 	3.7	3.5	3.3	2.8
	inventories write downs / inventories	 	 	4.3%	4.4%	4.4%	5.5%
Seiko	inventories / total assets	 	15%	20%	19%	19%	22%
	net sales / inventories	 	5.1	3.9	4.7	4.2	3.6

Source: Author, Based on Companies' Annual Reports

4 Outlook for 2020

The horizontal analysis of income statements from previous parts of the chapter provides information necessary for calculation of degree of operating leverage and degree of financial leverage, whose multiplication results in degree of combined leverage, which implicates the relationship between changes in sales and subsequent changes in net profit (Čižinská, 2018). The Table 20 below shows the above mentioned for both Swatch Group and Richemont according to their most recent fiscal year's results. As of this moment, both companies have already published their half-year reports, which not only reveal the impact of COVID-19 on the Swiss watch industry, but also certain insight in the fixed costs of both companies.

Table 20 Overview of Degree of Leverage

		17/16	18/17	19/18	HY20/HY19
Richemont	DOL	1.32	0.20	-12.29	2.36
	DFL	0.20	23.89	3.04	1.33
	DCL	0.26	4.75	-37.41	3.15
SWATCH	DOL	4.54	2.34	4.15	3.46
	DFL	1.12	0.98	1.21	1.09
	DCL	5.07	2.29	5.01	3.78

Source: Autor, Based on Annual reports of Richemont and Swatch Group

Acknowledging the degree of combined leverage and taking into consideration the development of all costs listed in the income statements in the half-year reports of both companies, Table 21 and Table 22 have been created in order to present the simplified estimates and hypothetical results of companies' operations at the end of their fiscal years. What is apparent from the half-year income statements is more devastating effect of COVID-19 pandemic on Swatch Group's sales. Given the fact that the certain costs are fixed and not variable enough with the changes of sales, it is very likely that Swatch Group will see the negative net income also in its annual report. Richemont's decision to issue another € 2 billion corporate bonds will most likely come with higher finance cost. They in the tandem with high selling and distribution expenses and most likely partially fixed administrative expenses might contribute to also negative result of Richemont's operations. With the end of Swatch

Group's 2020 fiscal year on 31st December, the accuracy of the hypothetical estimates will be soon assessed.

Due to coronavirus pandemic and measures applied by the governments, Richemont has received significant amount of government grants totalling € 119 million, from which € 56 million is included in cost of sales, € 35 million in selling and distribution expenses and € 28 million in administrative expenses (Compagnie Financière Richemont SA, 2020b). This further confirms the fix costs the wages and salaries represent for both companies.

In case of Swatch Group, 260 stores have been shut down resulting in over 2 300 people being laid off. As of 30th June 2020, the value of inventories stood at CHF 6 781 million. With the decrease in Swatch Group's sales as well as additional closing of stores, the risk of obsolescence for inventories has undoubtedly increased (The Swatch Group Ltd, 2020b)

Table 21 Predicted Income Statement of Swatch Group

INCOME STATEMENT SWATCH GROUP				
[CHF million]	FY19	HY19	HY20	Predicted FY20
Net sales	8 243	4 078	2 197	4 441
Other operating income	134	61	62	136
Changes in inventories	-16	198	0	0
Material purchases	-1 600	-899	-451	-803
Personnel expense	-2 578	-1 330	-1 020	-1 977
Depreciation and impairment on property, plant and equipment	-437	-218	-214	-429
Amortization and impairment on intangible assets	-43	-22	-21	-41
Other operating expenses	-2 680	-1 321	-880	-1 785
Operating result	1 023	547	-327	-458
Other financial income and expense	-3	-2	-12	-18
Interest expense	-8	-5	-1	-2
Share of result from associates and joint ventures	-9	-1	-4	-36
Ordinary result	1 003	539	-344	-514
Non-operating result	1	1	0	0
Profit before income taxes	1 004	540	-344	-514
Income taxes	-256	-125	36	74
Net income	748	415	-308	-440

Source: Author; Based on Income Statements in Annual Reports and Half-Year Reports of Swatch Group

Table 22 Predicted Income Statement of Richemont

INCOME STATEMENT RICHEMONT				
€ million	FY20	HY20	HY21	Predicted FY21
Sales	14 238	7 397	5 478	10 544
Cost of sales	-5 627	-2 787	-2 313	-4 670
Gross profit	8 611	4 610	3 165	5 874
Selling and distribution expenses	-3 512	-1 728	-1 429	-2 904
Communication expenses	-1 415	-678	-342	-714
Fulfilment expenses	-352	-162	-155	-337
Administrative expenses	-1 560	-775	-690	-1 389
Other operating income/-expense	-254	-102	-97	-242
Operating profit	1 518	1 165	452	289
Finance costs	-504	-184	-225	-616
Finance income	167	74	108	244
Share of post-tax results of equity-accounted investments	17	12	9	13
Profit before taxation	1 198	1 067	344	-71
Taxation	-267	-198	-185	0
Profit for the year	931	869	159	-71

Source: Author; Based on Income Statements in Annual Reports and Half-Year Reports of Richemont

Conclusion

The aim of this thesis was to introduce the watchmaking industry and examine financial health and performance of selected companies within the watchmaking industry. The overall state and general trends of the industry have been described and supported by various statistical data sources. The overview of brands within the groups revealed the competitive advantage of Richemont in the area of online distributors with their sales continually increasing.

The financial analysis revealed through examining the companies' cash flow statements and applying the vertical and horizontal analysis on companies' income statements and balance sheets different approaches between Richemont and Swatch Group towards the willingness of using external sources of financing and taking advantage of financial leverage, as Richemont continues to obtain bank loans and issue corporate bonds on Luxembourg Stock Exchange unlike Swatch Group, which relies on financing its asset by equity.

The ratio analysis revealed strong liquidity of both companies, despite the amount of Richemont's debt due to its ability to generate cash flow and having large cash on hand available. The asset management ratios showed biggest difference. As the main differentiating factor of Swatch Group to the rest of the industry has been identified its inventory management as its reported inventories with the company's sales and value of total assets taken into consideration shows poor profitability in comparison to the situation in both segments: luxury segment represented by Richemont and mass produced segment represented by Citizen Group and Seiko Group. As possible explanation has been outlined bullwhip effect, uncertainty in the swiss movements production and larger number of SKUs among the brands of Swatch Group.

The comparison of the last two fiscal year have been significantly affected by Richemont's acquisition of YNAP Group and adaptation of IFRS standard for leases. In addition, comparison is also affected by difference in the time frame of the fiscal years of both companies.

From the half-year reports estimated results of the full fiscal year show bigger decrease of sales and bigger impact of fixed expenses on the potential result of Swatch Group in its FY 2020.

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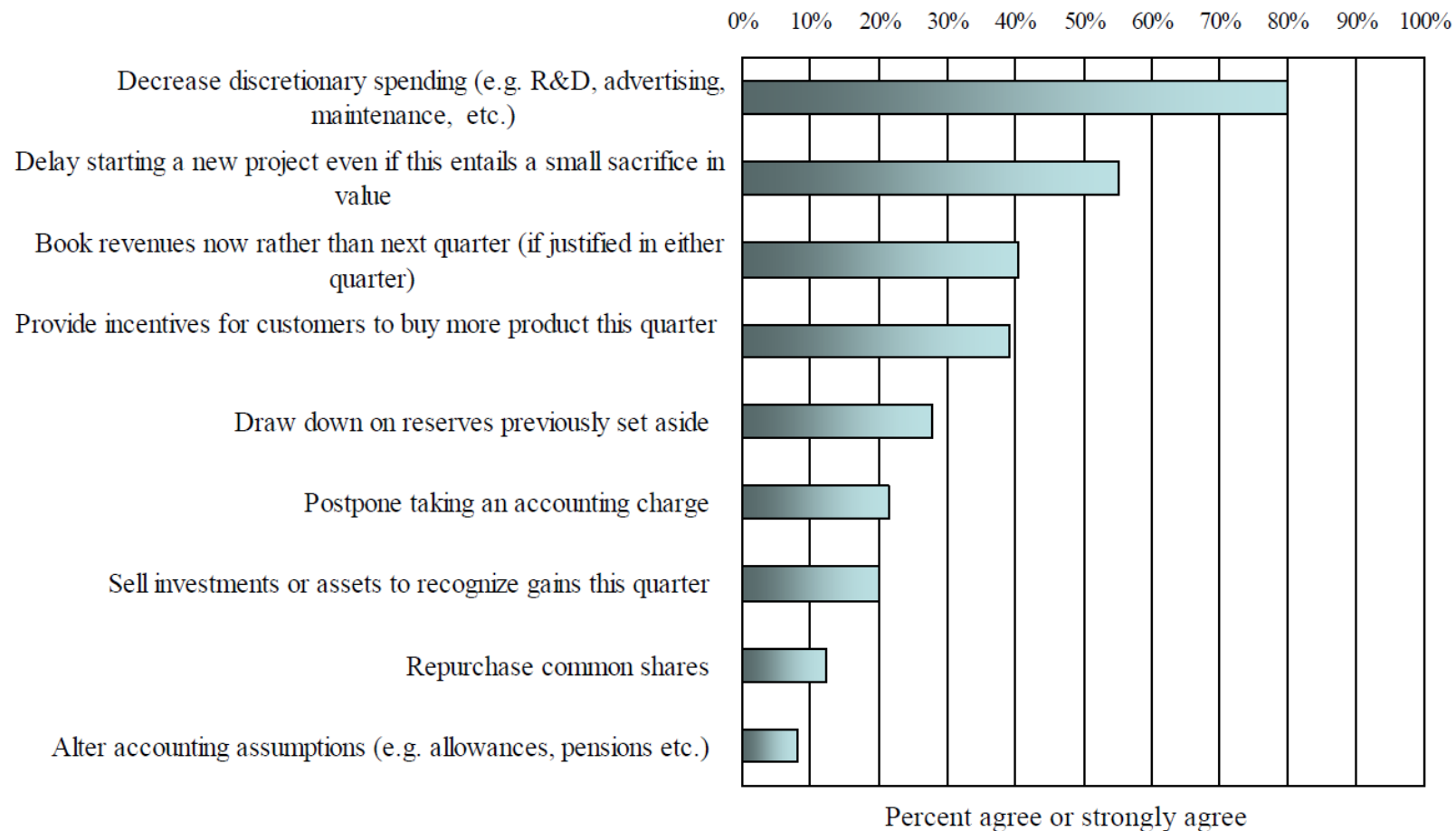
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Appendix 1 Graham's, Harvey's and Rajgopal's Survey Answers Distribution

Responses to the question: "Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might your company make?"



Source: (Graham, Harvey and Rajgopal, 2005)

Appendix 2 Exports of Swiss Wrist Watches and Movements

Products	Period	Mechanical		Electronic		Total		Variation on total	
		Units	Mil. of CHF	Units	Mil. of CHF	Units	Mil. of CHF	Units	Value
Wrist watches	2014	8,130,679	16,572.6	20,454,971	4,415.7	28,585,650	20,988.3		
	2015	7,812,378	16,259.1	20,325,149	3,978.9	28,137,527	20,237.9	-1.6%	-3.6%
	2016	6,963,027	14,665.6	18,433,223	3,591.5	25,396,250	18,257.0	-9.7%	-9.8%
	2017	7,237,670	15,332.4	17,067,602	3,456.8	24,305,272	18,789.2	-4.3%	+2.9%
	2018	7,525,380	16,344.0	16,215,202	3,604.2	23,740,582	19,948.1	-2.3%	+6.2%
	2019	7,238,509	17,119.6	13,407,161	3,383.1	20,645,670	20,502.7	-13.0%	+2.8%
	Jan-Oct 19	5,981,298	14,109.9	11,118,262	2,816.1	17,099,560	16,926.0		
	Jan-Oct 20	4,247,292	10,893.0	6,489,181	1,748.5	10,736,473	12,641.5	-37.2%	-25.3%
Movements	2014	1,225,238	147.4	5,134,840	105.4	6,360,078	252.8		
	2015	1,023,331	137.8	4,830,038	97.9	5,853,369	235.7	-8.0%	-6.8%
	2016	922,154	122.4	3,788,597	83.2	4,710,751	205.6	-19.5%	-12.8%
	2017	936,237	116.2	3,835,218	74.5	4,771,455	190.7	+1.3%	-7.3%
	2018	955,687	124.6	3,993,344	82.9	4,949,031	207.5	+3.7%	+8.8%
	2019	762,846	111.3	3,681,374	78.9	4,444,220	190.2	-10.2%	-8.3%
	Jan-Oct 19	637,501	93.3	3,008,400	64.5	3,645,901	157.8		
	Jan-Oct 20	478,203	77.8	1,791,333	46.8	2,269,536	124.6	-37.8%	-21.0%
Total export value	2014						22,257.7		
	2015						21,534.5		-3.2%
	2016						19,406.6		-9.9%
	2017						19,921.0		+2.7%
	2018						21,180.2		+6.3%
	2019						21,717.7		+2.5%
	Jan-Oct 19						17,956.2		
	Jan-Oct 20						13,327.1		-25.8%

Source: (Federation of the Swiss Watch Industry FH, 2020a)

Appendix 3 Exports of Swiss Watches by Material

	Total		Precious		Steel		Bimetallic		Other metals		Other	
	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF
2000	29 656	9 276.5	600	2 642.0	12 188	3 991.0	867	1 478.2	7 850	851.1	8 151	314.1
2005	24 364	11 417.7	580	3 677.1	13 105	4 954.5	812	1 842.1	4 594	662.5	5 273	281.4
2010	26 148	15 154.4	460	5 314.0	13 630	6 137.1	953	2 523.6	4 418	831.6	6 686	348.2
2015	28 138	20 237.9	490	7 615.3	14 814	7 686.2	1 297	3 204.0	3 464	1 220.7	8 073	511.7
2016	25 396	18 257.0	391	6 207.1	13 662	7 431.0	1 165	3 033.1	2 864	1 092.9	7 315	492.9
2017	24 305	18 789.2	386	6 316.5	13 507	7 816.3	1 118	3 076.0	2 666	1 033.2	6 629	547.2
2018	23 741	19 948.1	414	6 597.3	14 092	8 292.9	1 288	3 429.6	2 326	1 042.9	5 620	585.5
2019	20 646	20 502.7	433	6 965.6	12 373	8 170.4	1 309	3 715.0	1 921	1 046.8	4 610	605.0
Jan-Oct 19	17 098	16 926.1	358	5 742.9	10 225	6 733.5	1 090	3 116.0	1 550	842.5	3 876	491.1
Jan-Oct 20	10 736	12 641.5	255	4 268.8	6 521	5 047.8	829	2 384.8	1 004	598.6	2 122	341.6
Variation	-37.2%	-25.3%	-28.8%	-25.7%	-36.2%	-25.0%	-23.9%	-23.5%	-35.2%	-28.9%	-45.3%	-30.4%

Source: (Federation of the Swiss Watch Industry FH, 2020b)

Appendix 4 Exports of Swiss Watches by Price Category

	Total		CHF <200		CHF 200-500		CHF 500-3,000		CHF >3,000	
	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF	1,000 units	Mil. of CHF
2000	29 656	9 276.5	22 795	1 231.2	3 144	1 035.8	3 229	3 856.2	488	3 153.2
2005	24 364	11 417.7	17 769	1 072.2	2 574	841.3	3 291	4 285.5	731	5 218.8
2010	26 148	15 154.4	18 853	1 160.0	3 215	1 042.5	2 920	3 858.0	1 161	9 093.8
2015	28 138	20 237.9	18 644	1 236.8	4 506	1 424.9	3 414	4 161.0	1 574	13 415.3
2016	25 396	18 257.0	16 551	1 112.4	4 115	1 288.7	3 292	3 998.2	1 438	11 857.8
2017	24 305	18 789.2	15 135	982.7	4 301	1 343.4	3 408	4 203.5	1 461	12 259.6
2018	23 741	19 948.1	14 286	945.9	4 189	1 298.6	3 689	4 516.7	1 577	13 187.0
2019	20 646	20 502.7	11 627	818.1	3 967	1 227.3	3 383	4 277.9	1 668	14 179.4
Jan-Oct 19	17 098	16 926.1	9 613	669.2	3 290	1 017.9	2 804	3 537.6	1 392	11 701.1
Jan-Oct 20	10 736	12 641.5	5 665	420.3	1 999	625.2	2 013	2 600.7	1 059	8 995.5
Variation	-37.2%	-25.3%	-41.1%	-37.2%	-39.2%	-38.6%	-28.2%	-26.5%	-23.9%	-23.1%

Source: (Federation of the Swiss Watch Industry FH, 2020c)

Appendix 5 Exports of Swiss Watches by Main Markets

	World	Hong Kong	USA	China	Japan	Italy	Germany	Singapore	France	UAE	United Kingdom
	Mil. of CHF										
2000	10 297.2	1 423.2	1 847.0	45.0	928.4	883.3	716.2	422.5	652.9	180.5	429.4
2005	12 390.3	1 786.2	2 156.1	351.6	1 147.2	854.7	635.2	480.4	670.7	347.3	583.7
2010	16 166.8	3 185.5	1 676.6	1 100.1	807.1	923.6	768.6	899.3	1 169.2	579.1	596.7
2015	21 534.5	3 179.0	2 359.1	1 336.8	1 305.5	1 315.9	1 233.0	1 130.9	1 225.7	950.9	1 163.0
2016	19 406.6	2 382.6	2 145.3	1 293.4	1 261.9	1 180.8	1 101.6	1 012.9	985.8	923.6	1 206.4
2017	19 921.0	2 520.6	2 049.1	1 536.7	1 229.4	1 181.2	1 077.8	1 099.5	981.5	895.4	1 290.0
2018	21 180.2	3 002.5	2 218.0	1 717.9	1 341.7	1 011.9	1 124.4	1 106.8	1 071.4	911.8	1 232.8
2019	21 717.7	2 691.0	2 409.4	1 994.2	1 608.6	970.8	1 127.3	1 269.0	1 073.7	935.3	1 366.2
Jan-Oct 19	17 956.2	2 261.9	1 970.4	1 605.5	1 361.7	806.3	935.9	1 019.7	888.8	771.7	1 173.4
Jan-Oct 20	13 327.2	1 338.7	1 559.5	1 786.2	939.9	514.9	707.0	737.1	542.3	606.0	831.6
Variation	-25.8%	-40.8%	-20.9%	11.3%	-31.0%	-36.1%	-24.5%	-27.7%	-39.0%	-21.5%	-29.1%

Source: (Federation of the Swiss Watch Industry FH, 2020d)

Appendix 6 Swatch Group Cash Flow Statements Grouped

	[CHF million]	2016	2017	2018	2019
	Operating activities				
1	Net income	593	755	867	748
2	Share of result from associated companies and joint ventures	4	-21	-2	9
3	Income tax	184	252	266	256
4	Depreciation on non-current assets	437	476	481	481
5	Impairment	0	0	13	-1
6	Changes in provisions and retirement benefit obligations	4	14	-10	-2
7	Gains/losses on sale of non-current assets	-12	-2	-5	-9
8	Other non-cash items	28	-27	29	3
	Changes in net working capital:				
10	– Trade receivables	79	-151	147	42
11	– Inventories	-78	-83	-633	21
12	– Other current assets, prepayments and accrued income	64	18	27	16
13	– Trade payables	-47	15	57	-91
14	– Other liabilities and accrued expenses	23	179	-11	-7
15	Dividends received from associated companies and joint ventures	2	18	0	4
16	Income tax paid	-277	-185	-283	-246
17	Interest received	9	9	0	0
18	Interest paid	-3	-3	0	0
19	Cash flow from operating activities	1 010	1 264	943	1 224
	Investing activities				
20	Investments in property, plant and equipment	-504	-396	-437	-399
21	Proceeds from sale of property, plant and equipment	21	6	5	26
22	Investments in intangible assets	-35	-46	-44	-47
23	Proceeds from sale of intangible assets	1	0	5	0
24	Investments in other non-current assets	-24	-22	-222	-13
25	Proceeds from sale of other non-current assets	8	12	14	11
26	Acquisition of subsidiaries - net of cash	0			
27	Divestments of businesses	3	3		
28	Purchase of marketable securities	-76	-112	-77	-60
29	Sale of marketable securities	122	120	105	138
30	Cash flow from investing activities	-484	-435	-651	-344
	Financing activities				
31	Dividends paid to shareholders	-403	-357	-394	-413
32	Dividends paid to non-controlling interests	-36	-17	-19	-17
33	Repurchase of treasury shares	-332	-204	-389	-34
34	Sale of treasury shares	1	1	1	1
35	Change in non-current financial debts	-5	0	0	2
36	Change in current financial debts	108	-100	144	-153
37	Repurchase/Sale of non-controlling interests	1	0	-2	-1
38	Cash flow from financing activities	-666	-677	-659	-615
39	Net impact of foreign exchange rate differences on cash	-4	3	-22	-19
40	Change in cash and cash equivalents	-144	155	-389	246
41	– Balance at beginning of year	1 280	1 136	1 291	902
42	– Balance at end of year	1 136	1 291	902	1 148

Source: Author, Based on Swatch Group Annual Reports

Appendix 7 Swatch Group Income Statements Grouped

INCOME STATEMENT [CHF million]		2016	2017	2018	2019
43	Net sales	7 553	7 960	8 475	8 243
44	Other operating income	249	116	180	134
45	Changes in inventories	77	83	632	-16
46	Material purchases	-1 642	-1 735	-2 226	-1 600
47	Personnel expense	-2 342	-2 339	-2 563	-2 578
48	Depreciation and impairment on property, plant and equipment	-394	-433	-451	-437
49	Amortization and impairment on intangible assets	-43	-43	-43	-43
50	Other operating expenses	-2 653	-2 607	-2 850	-2 680
51	Operating result	805	1 002	1 154	1 023
52	Other financial income and expense	-25	-16	-19	-3
53	Interest expense	-3	-3	-5	-8
54	Share of result from associates and joint ventures	-4	21	2	-9
55	Ordinary result	773	1 004	1 132	1 003
56	Non-operating result	4	3	1	1
57	Profit before income taxes	777	1 007	1 133	1 004
58	Income taxes	-184	-252	-266	-256
59	Net income	593	755	867	748
60	Attributable to shareholders of The Swatch Group Ltd	574	733	845	730
61	Attributable to non-controlling interests	19	22	22	18

Source: Author, Based on Swatch Group Annual Reports

Appendix 8 Swatch Group Balance Sheets Grouped

BALANCE SHEET [CHF million]		2016	2017	2018	2019
	Current assets				
62	Cash and cash equivalents	1 136	1 291	944	1 239
63	Marketable securities and derivative financial instruments	326	340	296	230
64	Trade receivables	903	1 076	893	838
65	Other current assets;	141	178	159	132
66	Inventories	6 259	6 318	6 917	6 852
67	Prepayments and accrued income	280	255	249	264
68	Total current assets	9 045	9 458	9 458	9 555
	Non-current assets				
69	Property, plant and equipment	3 276	3 281	3 245	3 189
70	Intangible assets	142	147	146	150
71	Investments in associates and joint ventures	59	57	59	45
72	Other non-current assets	174	144	336	325
73	Deferred tax assets	410	392	417	428
74	Total non-current assets	4 061	4 021	4 203	4 137
75	Total assets	13 106	13 479	13 661	13 692
	Current liabilities				
76	Financial debts and derivative financial instruments	124	16	203	101
77	Trade payables	316	354	393	313
78	Other liabilities	166	209	222	185
79	Provisions	83	93	94	84
80	Accrued expenses	518	701	637	678
81	Total current liabilities	1 207	1 373	1 549	1 361
	Non-current liabilities				
82	Financial debts	31	26	22	20
83	Deferred tax liabilities	569	532	558	546
84	Retirement benefit obligations	39	43	43	46
85	Provisions	55	69	53	57
86	Accrued expenses	132	147	162	169
87	Total non-current liabilities	826	817	838	838
88	Total liabilities	2 033	2 190	2 387	2 199
	Equity				
89	Share capital	125	125	125	118
90	Capital reserves	-991	-977	-961	-948
91	Treasury shares	-660	-863	-1 251	-195
92	Goodwill recognized	-1 372	-1 372	-1 372	-1 372
93	Translation differences	-142	-115	-210	-285
94	Retained earnings	14 027	14 403	14 854	14 087
95	Equity of The Swatch Group Ltd shareholders	10 987	11 201	11 185	11 405
96	Non-controlling interests	86	88	89	88
97	Total equity	11 073	11 289	11 274	11 493
98	Total equity and liabilities	13 106	13 479	13 661	13 692

Source: Author, Based on Swatch Group Annual Reports

Appendix 9 Richemont Cash Flow Statements Grouped

	[€ million]	2017	2018	2019	2020
	Operating activities				
99	Cash flows generated from operations	1 896	2 723	2 331	2 797
100	Interest received	78	72	90	109
101	Interest paid	-69	-68	-139	-181
102	Dividends from equity-accounted investments	2	3	37	3
103	Dividends from other investments	0	0	13	15
104	Taxation paid	-288	-346	-306	-373
105	Cash flow from operating activities	1 619	2 384	2 026	2 370
	Investing activities				
106	Acquisition of subsidiary undertakings and other businesses, net of cash acquired	-3	-113	-2 650	-245
107	Proceeds from disposal of subsidiary undertakings, net of cash	370	-14	-44	0
108	Acquisition of equity-accounted investments	-55	-64	0	-1
109	Proceeds from disposal of, and capital distributions from, equity-accounted investments	0	19	21	0
110	Acquisition of property, plant and equipment	-536	-444	-657	-570
111	Proceeds from disposal of property, plant and equipment	15	8	24	2
112	Payments capitalised as right of use assets	0	0	0	-2
113	Acquisition of intangible assets	-63	-43	-169	-165
114	Proceeds from disposal of intangible assets	14	9	4	0
115	Acquisition of investment property	0	-213	-63	-4
116	Investment in money market and externally managed funds	-4 183	-6 832	-6 177	-8 422
117	Proceeds from disposal of money market and externally managed funds	3 988	4 999	6 892	8 600
118	Acquisition of other non-current assets and investments	-36	-631	-44	-30
119	Proceeds from disposal of other non-current assets and investments	14	20	25	11
120	Cash flow from investing activities	-475	-3 299	-2 838	-826
	Financing activities				
121	Proceeds from borrowings	101	3 992	11	0
122	Corporate bond issue transaction costs	0	-17	0	0
123	Settlement of cash flow hedging derivative instrument	0	-55	0	0
124	Repayment of borrowings	-131	-82	-323	-365
125	Dividends paid	-878	-918	-926	-1 017
126	Payment/Acquisition for treasury shares	-95	-141	-180	0
127	Proceeds from sale of treasury shares	47	70	106	13
128	Contributions received from non-controlling interests	0	6	57	34
129	Acquisition of non-controlling interest in subsidiaries	0	0	-195	0
130	Lease payments—principal	0	0	0	-588
131	Capital element of finance lease payments	-2	-2	-6	0
132	Cash flow from financing activities	-958	2 853	-1 456	-1 923
133	Change in cash and cash equivalents	186	1 938	-2 268	-379

Source: Author, Based on Richemont Annual Reports

Appendix 10 Richemont Income Statements Grouped

INCOME STATEMENT		2017	2018	2019	2020
€ million					
134	Sales	10 647	11 013	13 989	14 238
135	Cost of sales	-3 848	-3 829	-5 344	-5 627
136	Gross profit	6 799	7 184	8 645	8 611
137	Selling and distribution expenses	-3 044	-3 094	-3 433	-3 512
138	Communication expenses	-1 119	-1 106	-1 338	-1 415
139	Fulfilment expenses	0	0	-229	-352
140	Administrative expenses	-1 015	-1 047	-1 422	-1 560
141	Other operating income/-expense	143	-93	-280	-254
142	Operating profit	1 764	1 844	1 943	1 518
143	Finance costs	-233	-335	-294	-504
144	Finance income	73	185	111	167
145	Share of post-tax results of equity-accounted investments	-34	-41	1 408	17
146	Profit before taxation	1 570	1 653	3 168	1 198
147	Taxation	-360	-432	-381	-267
148	Profit for the year from continuing operations	1 210	1 221	2 787	931
149	Profit for the year from discontinued operations	0	0	0	0
150	Profit for the year	1 210	1 221	2 787	931

Source: Author, Based on Richemont Annual Reports

Appendix 11 Richemont Balance Sheets Grouped

BALANCE SHEET		2017	2018	2019	2020
[€ million]					
	Current assets				
151	Inventories	5 302	4 943	6 186	6 658
152	Trade receivables and other current assets	996	1 240	1 470	1 246
153	Derivative financial instruments	20	18	15	44
154	Prepayments	163	0	0	0
155	Fin. assets held at fair value through profit or loss	3 481	5 057	4 528	4 362
156	Cash at bank and on hand	4 450	8 401	5 060	4 462
157	Assets of disposal group held for sale	21	19	19	29
158	Total current assets	14 433	19 678	17 278	16 801
	Non-current assets				
159	Property, plant and equipment	2 558	2 325	2 728	2 774
160	Goodwill	298	297	3 354	3 465
161	Other intangible assets	391	370	2 757	2 623
162	Right of use assets	0	0	0	3 164
163	Investment property	12	222	282	282
164	Equity-accounted investments	1 307	1 308	182	180
165	Deferred income tax assets	724	604	594	600
166	Fin. assets held at fair value through profit or loss	7	447	10	10
167	Fin. assets held at fair value through other comprehensive income	0	0	378	115
168	Other non-current assets	430	401	476	447
169	Total non-current assets	5 727	5 974	10 761	13 660
170	Total assets	20 160	25 652	28 039	30 461
	Current liabilities				
171	Trade and other payables	1 508	1 634	2 341	2 047
172	Current income tax liabilities	365	359	515	446
173	Borrowings	53	4	363	1
174	Lease liabilities	0	0	0	612
175	Derivative financial instruments	67	90	84	30
176	Provisions	215	406	287	262
177	Bank overdrafts	1 685	3 897	2 713	2 477
178	Liabilities of disposal group held for sale	8	19	0	0
179	Total current liabilities	3 900	6 409	6 303	5 875
	Non-current liabilities				
180	Borrowings	402	4 288	3 984	3 951
181	Lease liabilities	0	0	0	2 702
182	Deferred income tax liabilities	8	8	358	351
183	Employee benefits obligation	98	68	66	168
184	Provisions	91	73	65	56
185	Other long-term financial liabilities	132	168	224	99
186	Total non-current liabilities	731	4 605	4 697	7 327
187	Total liabilities	4 631	11 014	11 000	13 202
	Equity				
188	Share capital	334	334	334	334
189	Treasury shares	-432	-520	-560	-539
190	Hedge and share option reserve	327	302	324	368
191	Cumulative translation adjustment reserve	3 004	1 892	2 564	3 133
192	Retained earnings	12 296	12 623	14 289	13 840
193	Non-controlling interests	0	7	88	123
194	Total equity	15 529	14 638	17 039	17 259
195	Total equity and liabilities	20 160	25 652	28 039	30 461

Source: Author, Based on Richemont Annual Reports

Appendix 12 Swatch Group Ratios Calculations

$Current\ Ratio = \frac{(68)}{(81)}$	$ROCE = \frac{(51)}{(98) - (77) - (80)}$
$Quick\ Ratio = \frac{(68) - (66)}{(81)}$	$ROE = \frac{(59)}{(95)}$
$Cash\ Ratio = \frac{(62) + (63)}{(81)}$	$Debt\ to\ Assets = \frac{(88)}{(75)}$
$Total\ Asset\ Turnover = \frac{(43)}{(75)}$	$Debt\ to\ Equity = \frac{(88)}{(97)}$
$A/R\ Turnover = \frac{(43)}{(64)}$	$Times\ Interest\ Ratio = \frac{(51)}{-(53)}$
$DSO = \frac{365}{A/R\ Turnover}$	$Cash\ Flow\ to\ Debt = \frac{(19)}{(98)}$
$A/P\ Turnover = \frac{(43)}{(77) + (80)}$	$Equity\ Multiplier = \frac{(98)}{(95)}$
$DPO = \frac{365}{A/P\ Turnover}$	
$Inventory\ Turnover = \frac{(43)}{(66)}$	
$DIO = \frac{365}{Inventory\ Turnover}$	
$CCC = DSO + DIO - DPO$	
$Net\ Working\ Capital = (68) - (77) - (80)$	
$Operating\ Profit\ Margin = \frac{(51)}{(43)}$	
$Net\ Profit\ Margin = \frac{(59)}{(43)}$	

Appendix 13 Richeмонт Ratios Calculations

$\text{Current Ratio} = \frac{(158)}{(179)}$	$\text{ROCE} = \frac{(142)}{(195) - \sum(171; 172; 176; 178)}$
$\text{Quick Ratio} = \frac{(158) - (151)}{(179)}$	$\text{ROE} = \frac{(150)}{(194)}$
$\text{Cash Ratio} = \frac{(156) + (153)}{(179)}$	$\text{Debt to Assets} = \frac{(187)}{(170)}$
$\text{Total Asset Turnover} = \frac{(134)}{(170)}$	$\text{Debt to Equity} = \frac{(187)}{(194)}$
$\text{A/R Turnover} = \frac{(134)}{(152)}$	$\text{Times Interest Ratio} = \frac{(142)}{-(143)}$
$\text{DSO} = \frac{365}{\text{A/R Turnover}}$	$\text{Cash Flow to Debt} = \frac{(105)}{(187)}$
$\text{A/P Turnover} = \frac{(134)}{\sum(171; 172; 176; 178)}$	$\text{Equity Multiplier} = \frac{(195)}{(194)}$
$\text{DPO} = \frac{365}{\text{A/P Turnover}}$	
$\text{Inventory Turnover} = \frac{(134)}{(151)}$	
$\text{DIO} = \frac{365}{\text{Inventory Turnover}}$	
$\text{CCC} = \text{DSO} + \text{DIO} - \text{DPO}$	
$\text{Net Working Capital} = (158) - \sum(171; 172; 176; 178)$	
$\text{Operating Profit Margin} = \frac{(142)}{(134)}$	
$\text{Net Profit Margin} = \frac{(150)}{(134)}$	

ANNOTATION

AUTHOR	David Strnad		
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THESIS TITLE	Financial Analysis of Selected Companies from the Watchmaking Industry and the Role of Inventories		
SUPERVISOR	doc. Ing. Romana Čížinská, Ph.D		
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NUMBER OF PAGES	79		
NUMBER OF PICTURES	4		
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SUMMARY	<p>In this thesis, the elementary methods of financial analysis are applied to selected companies from the Swiss watchmaking industry, and the influence of inventories is examined. As the companies in question have been selected The Swatch Group Ltd and Compagnie Financière Richemont SA due to the similar market share as of 2019 and place of origin of their watches. The financial analysis revealed a more aggressive approach of Richemont towards debt compared to Swatch Group with its minimal involvement of debt connected with interest.</p> <p>The analysis further uncovered low performance of Swatch Group's assets due to significantly higher value of inventories, for which bullwhip effect offers possible explanation, together with the broader spectrum of products within brands of Swatch Group.</p> <p>Based on the available data, the results of the upcoming fiscal year of both companies are estimated.</p>		
KEY WORDS	Financial analysis, watchmaking industry, ratio analysis, vertical analysis, horizontal analysis, inventories, The Swatch Group Ltd, Compagnie Financière Richemont SA		